

---

# USDA, RURAL DEVELOPMENT

## Environmental Compliance Library

### Identification and Listing of Hazardous Waste

---

TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

PART 261--IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

#### **Subpart A--General**

Sec.

261.1 Purpose and scope.

261.2 Definition of solid waste.

261.3 Definition of hazardous waste.

261.4 Exclusions.

261.5 Special requirements for hazardous waste generated by conditionally exempt small quantity generators.

261.6 Requirements for recyclable materials.

261.7 Residues of hazardous waste in empty containers.

261.8 PCB wastes regulated under Toxic Substance Control Act.

261.9 Requirements for Universal Waste.

#### **Subpart B--Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Wastes**

261.10 Criteria for identifying the characteristics of hazardous waste.

261.11 Criteria for listing hazardous waste.

#### **Subpart C--Characteristics of Hazardous Waste**

261.20 General.

261.21 Characteristic of ignitability.

261.22 Characteristic of corrosivity.

261.23 Characteristic of reactivity.

261.24 Toxicity characteristic.

#### **Subpart D--Lists of Hazardous Wastes**

261.30 General.

261.31 Hazardous wastes from non-specific sources.

261.32 Hazardous wastes from specific sources.

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

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

Appendix I to Part 261--Representative Sampling Methods

Appendix II to Part 261--Method 1311 Toxicity Characteristic Leaching Procedure (TCLP)

Appendix III to Part 261--Chemical Analysis Test Methods  
Appendix IV to Part 261--[Reserved for Radioactive Waste Test Methods]  
Appendix V to Part 261--[Reserved for Infectious Waste Treatment Specifications]  
Appendix VI to Part 261--[Reserved for Etiologic Agents]  
Appendix VII to Part 261--Basis for Listing Hazardous Waste  
Appendix VIII to Part 261--Hazardous Constituents  
Appendix IX to Part 261--Wastes Excluded Under Secs. 260.20 and 260.22

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**

### **Sec. 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 and establishes special management requirements for hazardous waste produced by conditionally exempt small quantity generators and 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 Secs. 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 Sec. 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.
- (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. 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 Sec. 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 (Sec. 261.4(a)(13)).

(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]

Effective Date Note: At 62 FR 26018, May 12, 1997, Sec. 261.1 was amended by adding paragraphs (c)(9)-(12), effective Aug. 11, 1997.

### **Sec. 261.2 Definition of solid waste.**

(a)

(1) A solid waste is any discarded material that is not excluded by Sec. 261.4(a) or that is not excluded by variance granted under Secs. 260.30 and 260.31.

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

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

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

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

(iv) A military munition identified as a solid waste in 40 CFR 266.202.

(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.

(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 I 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 Sec. 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 Sec. 261.33 are not solid wastes if they are themselves fuels.

(3) Reclaimed. Materials noted with a "\*" in column 3 of Table 1 are solid wastes when reclaimed.

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

**Table 1**

	Use constituting disposal (Sec. 261.2(c)(1)) (1)	Energy recovery/ fuel (Sec. 261.2(c)(2)) (2)	Reclamation (Sec. 261.2(c)(3)) (3)	Speculative accumulation (Sec. 261.2(c)(4)) (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 other than excluded scrap metal (see 261.1(c)(9)).....	(*)	(*)	(*)	(*)

Note: The terms "spent materials", "sludges", "by-products", and "scrap metal" and "processed scrap metal" are defined in Sec. 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.

(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.

[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]

Effective Date Notes:

1. At 62 FR 6651, Feb. 12, 1997, Sec. 261.2 was amended by removing the period at the end of paragraph (a)(2)(iii) and adding a semicolon followed by "or"; and by adding a new paragraph (a)(2)(iv), effective Aug. 12, 1997.

2. At 62 FR 26018, May 12, 1997, Sec. 261.2(c) was amended by revising table 1, effective Aug. 11, 1997. For the convenience of the user, the superseded text is set forth as follows:

(c) \* \* \*

**Table 1**

	Use constituting disposal (Sec. 261.2(c)(1))	Energy recovery/ fuel (Sec. 261.2(c)(2))	Reclamation (Sec. 261.2(c)(3))	Speculative accumulation (Sec. 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 part 261.31 or 261.32).	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste.....	(*)	(*)	.....	(*)
Commercial chemical products listed in 40 CFR 261.33....	(*)	(*)	.....	.....
Scrap metal.....	(*)	(*)	(*)	(*)

Note: The terms "spent materials," "sludges," "by-products," and "scrap metal" are defined in Sec. 261.1.

**Sec. 261.3 Definition of hazardous waste.**

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

- (1) It is not excluded from regulation as a hazardous waste under Sec. 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 except that any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under Sec. 261.4(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste under subpart C of this part 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 I to Sec. 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 Secs. 260.20 and 260.22 of this chapter.
  - (iii) It is a mixture of a solid waste and a hazardous waste that is listed in subpart D of this part solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C of this part, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in subpart C of this part, or unless the solid waste is excluded from regulation under Sec. 261.4(b)(7) and the resultant 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. (However, nonwastewater mixtures are still subject to the requirements of part 268 of this chapter, even if they no longer exhibit a characteristic at the point of land disposal).
  - (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 Secs. 260.20 and 260.22 of this chapter; 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 solvents listed in Sec. 261.31-- carbon tetrachloride, tetrachloroethylene, trichloroethylene--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
    - (B) One or more of the following spent solvents listed in Sec. 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--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

- (C) One of the following wastes listed in Sec. 261.32--heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050); or
- (D) A discarded commercial chemical product, or chemical intermediate listed in Sec. 261.33, arising from de minimis losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process.

For purposes of this paragraph (a)(2)(iv)(D), "de minimis" losses include 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 rinsewater from empty containers or from containers that are rendered empty by that rinsing; 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 Sec. 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 can not 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 dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 parts per million by weight; or
  - (G) Wastewaters derived from the treatment of one or more of the following wastes listed in Sec. 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.
- (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, by using an analytical method from SW-

846, Third Edition, 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). EPA Publication SW-846, Third Edition, is available for the cost of \$110.00 from the Government Printing Office, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954. 202-512-1800 (document number 955-001-00000-1).

(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) 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 Sec. 261.6(a)(3)(iv) through (vi).

(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
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 Sec. 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).

(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 Secs. 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 Sec. 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.

[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]

#### **Sec. 261.4 Exclusions.**

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

- (1)
  - (i) Domestic sewage; and
  - (ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment. ``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 Sec. 261.1(c) of this chapter.
- (7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in Sec. 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.
- (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) Recovered oil from petroleum refining, exploration and production, and from transportation incident thereto, which is to be inserted into the petroleum refining process (SIC Code 2911) at or before a point (other than direct insertion into a coker) where contaminants are removed. This exclusion applies to recovered oil stored or transported prior to insertion, except that the oil must not be stored in a manner involving placement on the land, and must not be accumulated speculatively, before being so recycled. Recovered oil is oil that has been reclaimed from secondary materials (such as wastewater) generated from normal petroleum refining, exploration and production, and transportation practices. Recovered oil includes oil that is recovered from refinery wastewater collection and treatment systems, oil recovered from oil and gas drilling operations, and oil recovered from wastes removed from crude oil storage tanks. Recovered oil does not include (among other things) oil-bearing hazardous waste listed in 40 CFR part 261 D (e.g., K048-K052, F037, F038). However, oil recovered from such wastes may be considered recovered oil. Recovered oil also 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.
- (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) 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 Sec. 266.112 of this chapter for facilities that burn or process hazardous waste.
  - (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 waste which meet the standard in paragraphs (b)(6)(i) (A), (B), and (C) (so long as they do not fail the test for the toxicity characteristic for any other constituent, and do not exhibit any other characteristic) are:
- (A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
  - (B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
  - (C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.
  - (D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
  - (E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
  - (F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrometan/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  $\text{TiO}_2$  pigment using chromium-bearing ores by the chloride process.
- (7) Solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock and overburden from the mining of uranium ore), except as provided by Sec. 266.112 of this chapter for facilities that burn or process hazardous waste. For purposes of Sec. 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. For the purpose of Sec. 261.4(b)(7), solid waste from the processing of ores and minerals includes only the following wastes:

- (i) Slag from primary copper processing;
  - (ii) Slag from primary lead processing;
  - (iii) Red and brown muds from bauxite refining;
  - (iv) Phosphogypsum from phosphoric acid production;
  - (v) Slag from elemental phosphorus production;
  - (vi) Gasifier ash from coal gasification;
  - (vii) Process wastewater from coal gasification;
  - (viii) Calcium sulfate wastewater treatment plant sludge from primary copper processing;
  - (ix) Slag tailings from primary copper processing;
  - (x) Fluorogypsum from hydrofluoric acid production;
  - (xi) Process wastewater from hydrofluoric acid production;
  - (xii) Air pollution control dust/sludge from iron blast furnaces;
  - (xiii) Iron blast furnace slag;
  - (xiv) Treated residue from roasting/leaching of chrome ore;
  - (xv) Process wastewater from primary magnesium processing by the anhydrous process;
  - (xvi) Process wastewater from phosphoric acid production;
  - (xvii) Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production;
  - (xviii) Basic oxygen furnace and open hearth furnace slag from carbon steel production;
  - (xix) Chloride process waste solids from titanium tetrachloride production;
  - (xx) Slag from primary zinc processing.
- (8) Cement kiln dust waste, except as provided by Sec. 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 product for these materials' intended end use.

- (10) Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of Sec. 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 Sec. 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: Characteristics Section (OS-333), U.S. Environmental Protection Agency, 401 M Street, SW., 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.
- (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 paragraph (d)(2) 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.

(e) Treatability Study Samples.

- (1) Except as provided in paragraph (e)(2) of this section, persons who generate or collect samples for the purpose of conducting treatability studies as defined in section 260.10, are not subject to any requirement of parts 261 through 263 of this chapter or to the notification requirements of Section 3010 of RCRA, nor are such samples included in the quantity determinations of Sec. 261.5 and Sec. 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 Sec. 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)(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.
- (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 estimates the number of studies and the amount of waste expected to be used in treatability studies during the current year, and 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 Sec. 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 Sec. 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.

[45 FR 33119, May 19, 1980]

Editorial Note: For Federal Register citations affecting Sec. 261.4, see the List of CFR Sections Affected in the Finding Aids section of this volume.

Effective Date Note: At 62 FR 26019, May 12, 1997, Sec. 261.4(a) was amended by adding paragraphs (a)(13) and (14), effective Aug. 11, 1997.

**Sec. 261.5 Special requirements for hazardous waste generated by conditionally exempt small quantity generators.**

- (a) A generator is a conditionally exempt small quantity generator in a calendar month if he generates no more than 100 kilograms of hazardous waste in that month.
- (b) Except for those wastes identified in paragraphs (e), (f), (g), and (j) of this section, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under parts 262 through 266, 268, and parts 270 and 124 of this chapter, and the notification requirements of section 3010 of RCRA, provided the generator complies with the requirements of paragraphs (f), (g), and (j) of this section.
- (c) When making the quantity determinations of this part and 40 CFR part 262, the generator must include all hazardous waste that it generates, except hazardous waste that:
  - (1) Is exempt from regulation under 40 CFR 261.4(c) through (f), 261.6(a)(3), 261.7(a)(1), or 261.8; or
  - (2) Is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in 40 CFR 260.10; or
  - (3) Is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under 40 CFR 261.6(c)(2); or
  - (4) Is used oil managed under the requirements of 40 CFR 261.6(a)(4) and 40 CFR part 279; or
  - (5) Is spent lead-acid batteries managed under the requirements of 40 CFR part 266, subpart G; or
  - (6) Is universal waste managed under 40 CFR 261.9 and 40 CFR part 273.
- (d) In determining the quantity of hazardous waste generated, a generator need not include:
  - (1) Hazardous waste when it is removed from on-site storage; or

- (2) Hazardous waste produced by on-site treatment (including reclamation) of his hazardous waste, so long as the hazardous waste that is treated was counted once; or
  - (3) Spent materials that are generated, reclaimed, and subsequently reused on-site, so long as such spent materials have been counted once.
- (e) If a generator generates acute hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acute hazardous waste are subject to full regulation under parts 262 through 266, 268, and parts 270 and 124 of this chapter, and the notification requirements of section 3010 of RCRA:
- (1) A total of one kilogram of acute hazardous wastes listed in Secs. 261.31, 261.32, or 261.33(e).
  - (2) A total of 100 kilograms of any residue or contaminated soil, waste, or other debris resulting from the clean-up of a spill, into or on any land or water, of any acute hazardous wastes listed in Secs. 261.31, 261.32, or 261.33(e).

[Comment: ``Full regulation" means those regulations applicable to generators of greater than 1,000 kg of non-acutely hazardous waste in a calendar month.]

- (f) In order for acute hazardous wastes generated by a generator of acute hazardous wastes in quantities equal to or less than those set forth in paragraph (e)(1) or (2) of this section to be excluded from full regulation under this section, the generator must comply with the following requirements:
- (1) Section 262.11 of this chapter;
  - (2) The generator may accumulate acute hazardous waste on-site. If he accumulates at any time acute hazardous wastes in quantities greater than those set forth in paragraph (e)(1) or (e)(2) of this section, all of those accumulated wastes are subject to regulation under parts 262 through 266, 268, and parts 270 and 124 of this chapter, and the applicable notification requirements of section 3010 of RCRA. The time period of Sec. 262.34(a) of this chapter, for accumulation of wastes on-site, begins when the accumulated wastes exceed the applicable exclusion limit;
  - (3) A conditionally exempt small quantity generator may either treat or dispose of his acute hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage, or disposal facility, either of which, if located in the U.S., is:
    - (i) Permitted under part 270 of this chapter;
    - (ii) In interim status under parts 270 and 265 of this chapter;
    - (iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under part 271 of this chapter;
    - (iv) Permitted, licensed, or registered by a State to manage municipal solid waste and, if managed in a municipal solid waste landfill is subject to Part 258 of this chapter;
    - (v) Permitted, licensed, or registered by a State to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit after January 1, 1998, is subject to the requirements in Secs. 257.5 through 257.30 of this chapter; or

- (vi) A facility which:
    - (A) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or
    - (B) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or
  - (vii) For universal waste managed under part 273 of this chapter, a universal waste handler or destination facility subject to the requirements of part 273 of this chapter.
- (g) In order for hazardous waste generated by a conditionally exempt small quantity generator in quantities of less than 100 kilograms of hazardous waste during a calendar month to be excluded from full regulation under this section, the generator must comply with the following requirements:
- (1) Section 262.11 of this chapter;
  - (2) The conditionally exempt small quantity generator may accumulate hazardous waste on-site. If he accumulates at any time more than a total of 1000 kilograms of his hazardous wastes, all of those accumulated wastes are subject to regulation under the special provisions of part 262 applicable to generators of between 100 kg and 1000 kg of hazardous waste in a calendar month as well as the requirements of parts 263 through 266, 268, and parts 270 and 124 of this chapter, and the applicable notification requirements of section 3010 of RCRA. The time period of Sec. 262.34(d) for accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes exceed 1000 kilograms;
  - (3) A conditionally exempt small quantity generator may either treat or dispose of his hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage or disposal facility, either of which, if located in the U.S., is:
    - (i) Permitted under part 270 of this chapter;
    - (ii) In interim status under parts 270 and 265 of this chapter;
    - (iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under part 271 of this chapter;
    - (iv) Permitted, licensed, or registered by a State to manage municipal solid waste and, if managed in a municipal solid waste landfill is subject to Part 258 of this chapter;
    - (v) Permitted, licensed, or registered by a State to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit after January 1, 1998, is subject to the requirements in Secs. 257.5 through 257.30 of this chapter; or
  - (vi) A facility which:
    - (A) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or
    - (B) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

- (vii) For universal waste managed under part 273 of this chapter, a universal waste handler or destination facility subject to the requirements of part 273 of this chapter.
- (h) Hazardous waste subject to the reduced requirements of this section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous waste identified in subpart C.
- (i) If any person mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this section, the mixture is subject to full regulation.
- (j) If a conditionally exempt small quantity generator's wastes are mixed with used oil, the mixture is subject to part 279 of this chapter if it is destined to be burned for energy recovery. Any material produced from such a mixture by processing, blending, or other treatment is also so regulated if it is destined to be burned for energy recovery.

[51 FR 10174, Mar. 24, 1986, as amended at 51 FR 28682, Aug. 8, 1986; 51 FR 40637, Nov. 7, 1986; 53 FR 27163, July 19, 1988; 58 FR 26424, May 3, 1993; 60 FR 25541, May 11, 1995; 61 FR 34278, July 1, 1996]

#### **Sec. 261.6 Requirements for recyclable materials.**

- (a)
  - (1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of paragraphs (b) and (c) of this section, except for the materials listed in paragraphs (a)(2) and (a)(3) of this section. Hazardous wastes that are recycled will be known as "recyclable materials."
  - (2) The following recyclable materials are not subject to the requirements of this section but are regulated under subparts C through H of part 266 of this chapter and all applicable provisions in parts 270 and 124 of this chapter:
    - (i) Recyclable materials used in a manner constituting disposal (subpart C);
    - (ii) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under subpart O of part 264 or 265 of this chapter (subpart H);
    - (iii) Recyclable materials from which precious metals are reclaimed (subpart F);
    - (iv) Spent lead-acid batteries that are being reclaimed (subpart G).
  - (3) The following recyclable materials are not subject to regulation under parts 262 through 266 or 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, unless provided otherwise in an international agreement as specified in Sec. 262.58:
      - (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 Secs. 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 shipper 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 Sec. 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 Sec. 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 Sec. 266.40(e) 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 Sec. 266.40(e) 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 Sec. 266.40(e) of this chapter; and

(v) Petroleum coke produced from petroleum refinery hazardous wastes containing oil by the same person who generated the waste, unless the resulting coke product exceeds one or more of the characteristics of hazardous waste in part 261, subpart C.

(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 to or imported from designated member countries of the Organization for Economic Cooperation and Development (OECD) (as defined in Sec. 262.58(a)(1)) for purpose of recovery is subject to the requirements of 40 CFR part 262, subpart H, if it is subject to either the Federal manifesting requirements of 40 CFR Part 262, to the universal waste management standards of 40 CFR Part 273, or to State requirements analogous to 40 CFR Part 273.
- (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, AA, BB, and CC of parts 264 and 265, and under parts 124, 266, 268, and 270 of this chapter 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 Sec. 261.6(d).)
- (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.
- (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 or 265 of this chapter.

[50 FR 49203, Nov. 29, 1985, as amended at 51 FR 28682, Aug. 8, 1986; 51 FR 40637, Nov. 7, 1986; 52 FR 11821, Apr. 13, 1987; 55 FR 25493, June 21, 1990; 56 FR 7207, Feb. 21, 1991; 56 FR 32692, July 17, 1991; 57 FR 41612, Sept. 10, 1992; 59 FR 38545, July 28, 1994; 60 FR 25541, May 11, 1995; 61 FR 16309, Apr. 12, 1996; 61 FR 59950, Nov. 25, 1996; 62 FR 26019, May 12, 1997]

Effective Date Note: At 62 FR 26019, May 12, 1997, Sec. 261.6(a)(3)(ii) was revised, effective Aug. 11, 1997. For the convenience of the user, the superseded text is set forth as follows:

(a) \* \* \*

(3) \* \* \*

(ii) Scrap metal;

#### **Sec. 261.7 Residues of hazardous waste in empty containers.**

(a)

(1) Any hazardous waste remaining in either

- (i) an empty container or
- (ii) 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 265, or part 268, 270 or 124 of this chapter or to the notification requirements of section 3010 of RCRA.

(2) Any hazardous waste in either

- (i) a container that is not empty or
- (ii) 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 265, and parts 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 Secs. 261.31, 261.32, 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 110 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 110 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 Secs. 261.31, 261.32, 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.

[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]

#### **Sec. 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]

#### **Sec. 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 40 CFR 273.3; and
- (c) Thermostats as described in 40 CFR 273.4.

[60 FR 25541, May 11, 1995]

### **Subpart B--Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Waste**

#### **Sec. 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].

**Sec. 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.

(c) The Administrator will use the criteria for listing specified in this section to establish the exclusion limits referred to in Sec. 261.5(c).

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

### **Subpart C--Characteristics of Hazardous Waste**

#### **Sec. 261.20 General.**

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

[Comment: Sec. 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 Secs. 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]

#### **Sec. 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 an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60 deg.C (140 deg.F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (incorporated by reference, see Sec. 260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see Sec. 260.11), or as determined by an equivalent test method approved by the Administrator under procedures set forth in Secs. 260.20 and 260.21.
- (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 as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the Administrator under Secs. 260.20 and 260.21.
- (4) It is an oxidizer as defined in 49 CFR 173.151.

(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]

#### **Sec. 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 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in Sec. 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 deg.C (130 deg.F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in Sec. 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]

#### **Sec. 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 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88.
- (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]

**Sec. 261.24 Toxicity characteristic.**

- (a) A solid 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 Sec. 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 I 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	Regulatory CAS No. <sup>2</sup>	Level (mg/ L)
D004	Arsenic.....	7440-38-2	5.0
D005	Barium.....	7440-39-3	100.0
D018	Benzene.....	71-43-2	0.5
D006	Cadmium.....	7440-43-9	1.0
D019	Carbon tetrachloride.....	56-23-5	0.5
D020	Chlordane.....	57-74-9	0.03
D021	Chlorobenzene.....	108-90-7	100.0
D022	Chloroform.....	67-66-3	6.0

D007	Chromium.....	7440-47-3	5.0
D023	o-Cresol.....	95-48-7	<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.....	439-97-6	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
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]

## Subpart D--Lists of Hazardous Wastes

### Sec. 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 Secs. 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 Secs. 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, 268, and part 270 of this chapter.

(d) The following hazardous wastes listed in Sec. 261.31 or Sec. 261.32 are subject to the exclusion limits for acutely hazardous wastes established in Sec. 261.5: EPA Hazardous Wastes Nos. FO20, FO21, FO22, FO23, FO26, and FO27.

[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]

**Sec. 261.31 Hazardous wastes from non-specific sources.**

---

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	(T)
------	--	-----

F002

the recovery of these spent solvents and spent solvent mixtures.

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.

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.

(T)  
(I)\*

F004	<p>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.</p>	(T)
F005	<p>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.</p>	(I,T)
F006	<p>Wastewater treatment sludges from electroplating operations except from the following processes:</p> <ol style="list-style-type: none"> <li>(1) Sulfuric acid anodizing of aluminum;</li> <li>(2) tin plating on carbon steel;</li> <li>(3) zinc plating (segregated basis) on carbon steel;</li> <li>(4) aluminum or zinc-aluminum plating on carbon steel;</li> <li>(5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel;</li> </ol>	(T)

F007	and (6) chemical etching and milling of aluminum. 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.	(T)
F020	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 tri- or	(H)

F021	<p>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.).</p> <p>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.</p>	(H)
F022	<p>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.</p>	(H)
F023	<p>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.).</p>	(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 Sec. 261.31 or Sec. 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

(H)

F027	<p>hexachlorobenzene under alkaline conditions. Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols.</p>	(H)
F028	<p>(This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.). Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.</p>	(T)
F032	<p>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 Sec. 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</p>	(T)

F034	<p>sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.</p> <p>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.</p>	(T)
F035	<p>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.</p>	(T)
F037	<p>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</p>	(T)

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 Sec. 261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.

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

F038

(T)

F039	<p>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 Sec. 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. 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)
------	---	-----

[46 FR 4617, Jan. 16, 1981, as amended at 60 FR 33913, June 29, 1995]

Editorial Note: For Federal Register citations affecting Sec. 261.31, see the List of CFR Sections Affected in the Finding Aids section of this volume.

**Sec. 261.32 Hazardous wastes from specific sources.**

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. (T)

K015	purification column in the production of acrylonitrile. 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)
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	(T)

K029	hydrochlorinator reactor in the production of 1,1,1-trichloroethane. 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-dimethyl-hydrazine (UDMH) from carboxylic acid hydrazines.	(C,T)
K108	Condensed column overheads from product separation and condensed	(I,T)

	reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	
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	(T)

K117	toluenediamine. 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,	(T)

K156	<p>ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.</p> <p>Organic waste (including heavy ends, still bottoms, light ends, spent 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.).</p>	(T)
K157	<p>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.).</p>	(T)
K158	<p>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.).</p>	(T)
K159	<p>Organics from the treatment of thiocarbamate wastes.</p>	(T)
K161	<p>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.).</p>	(R,T)

**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)

**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 in the production of chlordane.	(T)
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)
<b>Explosives:</b> K044	Wastewater treatment	(R)

K045	sludges from the manufacturing and processing of explosives. 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)
<b>Petroleum refining:</b>		
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)
<b>Iron and steel:</b>		
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)
<b>Primary copper:</b>		
K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.	(T)
<b>Primary lead:</b>		
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.	(T)
<b>Primary zinc:</b>		
K066	Sludge from treatment of	(T)

	process wastewater and/ or acid plant blowdown from primary zinc production.	
<b>Primary aluminum:</b>		
K088	Spent potliners from primary aluminum reduction.	(T)
<b>Ferroalloys:</b>		
K090	Emission control dust or sludge from ferrochromiumsilicon production.	(T)
K091	Emission control dust or sludge from ferrochromium production.	(T)
<b>Secondary lead:</b>		
K069	Emission control dust/ sludge from secondary lead smelting. (Note: 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 Federal Register.	(T)
K100	Waste leaching solution from acid leaching of emission control dust/ sludge from secondary lead smelting.	(T)
<b>Veterinary pharmaceuticals:</b>		
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 arsenic or organo- arsenic compounds.	(T)
K102	Residue from the use of activated carbon for	(T)

	decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	
<b>Ink formulation:</b>		
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)
<b>Coking:</b>		
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)

---

[46 FR 4618, Jan. 16, 1981]

Editorial Note: For Federal Register citations affecting Sec. 261.32, see the List of CFR Sections Affected in the Finding Aids section of this volume.

**Sec. 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 Sec. 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 Sec. 261.7(b) 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 Sec. 261.31 or Sec. 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) and are subject to be the small quantity exclusion defined in Sec. 261.5(e).

[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.]

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)-
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	181-81-2	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-[(dimethylamino)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
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,8a beta)-
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,6a alpha,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,6 abeta,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	Diphosphoramidate, 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
P194	23135-22-0	Ethanimidothioc 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')- Manganese dimethyldithiocarbamate.
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]-
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
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	Octamethylpyrophosphoramide
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
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-
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
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
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(dimethylcarbomodithioato-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.

<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 and are subject to the small quantity generator exclusion defined in Sec. 261.5 (a) and (g).

[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.]

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)]-Barban.
U280	101-27-9	Bendiocarb.
U278	22781-23-3	Bendiocarb phenol.
U364	22961-82-6	Benomyl.
U271	17804-35-2	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U157	56-49-5	Benz[c]acridine
U016	225-51-4	Benzal chloride
U017	98-87-3	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U192	23950-58-5	Benz[a]anthracene
U018	56-55-3	Benz[a]anthracene, 7,12-dimethyl-
U094	57-97-6	Benzenamine (I,T)
U012	62-53-3	Benzenamine, 4,4-carbonimidoylbis[N,N-dimethyl-
U014	492-80-8	Benzenamine, 4-chloro-2-methyl-,hydrochloride
U049	3165-93-3	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U093	60-11-7	Benzenamine, 2-methyl-
U328	95-53-4	Benzenamine, 4-methyl-
U353	106-49-0	Benzenamine, 4,4-methylenebis[2-chloro-
U158	101-14-4	Benzenamine, 2-methyl-, hydrochloride
U222	636-21-5	Benzenamine, 2-methyl-5-nitro-
U181	99-55-8	Benzene (I,T)
U019	71-43-2	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U038	510-15-6	Benzene, 1-bromo-4-phenoxy-
U030	101-55-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U035	305-03-3	Benzene, chloro-
U037	108-90-7	Benzenediamine, ar-methyl-
U221	25376-45-8	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U028	117-81-7	1,2-Benzenedicarboxylic acid, dibutyl ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, diethyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, dimethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dioctyl ester
U107	117-84-0	Benzene, 1,2-dichloro-
U070	95-50-1	Benzene, 1,3-dichloro-
U071	541-73-1	Benzene, 1,4-dichloro-
U072	106-46-7	Benzene, 1,1-(2,2-dichloroethylidene)bis[4-chloro-
U060	72-54-8	

U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I,T)
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-
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
U202	<sup>1</sup> 81-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts
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[rs]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[a]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-21-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-ethanediybis-
U062	2303-16-4	salts & esters 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
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
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	Dimethylcarbamoil 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)-
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-(I)
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 (I)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether (I)
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 (I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
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]-glycidyl]aldehyde
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
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)
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-lyxohexopyranosyl]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
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)-
2	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]-
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-
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
U202	<sup>1</sup> 81-07-2	Saccharin, & salts
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
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
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

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

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

Editorial Note: For Federal Register citations affecting Sec. 261.33, see the List of CFR Sections Affected in the Finding Aids section of this volume.

**Sec. 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 in accordance with SW-846, Method 8290.

(B) ``Not detected" means at or below the lower method calibration limit (MCL) in Method 8290, Table 1.

(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]

Appendices to Part 261

### **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 wastes--  
"COLIWASA" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods,"<sup>1a</sup>

U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC 20460. [Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair St., Cincinnati, Ohio 45268]

---

<sup>1a</sup> These methods are also described in "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA 600/2-80-018, January 1980.

---

Liquid waste in pits, ponds, lagoons, and similar reservoirs.-- "Pond Sampler" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods."<sup>1a</sup>

This manual also contains additional information on application of these protocols.

### **Appendix II to Part 261--Method 1311 Toxicity Characteristic Leaching Procedure (TCLP)**

Note: The TCLP (Method 1311) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW- 846, as incorporated by reference in Sec. 260.11 of this chapter.

[58 FR 46049, Aug. 31, 1993]

### **Appendix III to Part 261--Chemical Analysis Test Methods**

Note: Appropriate analytical procedures to determine whether a sample contains a given toxic constituent are specified in Chapter Two, "Choosing the Correct Procedure" found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW- 846, as incorporated by reference in Sec. 260.11 of this chapter. Prior to final sampling and analysis method selection, the individual should consult the specific section or method described in SW- 846 for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.

**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-trichloroethane, 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-p-dioxins; tetra and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F021.....	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans;pentachlorophenol and its derivatives.
F022.....	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F023.....	Tetra-, and pentachlorodibenzo-p-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, ,1,2- 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.
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-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F027.....	Tetra-, penta-, and hexachlorodibenzo-p-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- p-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-p-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(a), Table CCW.
K001.....	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, cresosote, 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.
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.
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.
K064.....	Lead, cadmium.

K065..... Do.  
 K066..... Do.  
 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).  
 K090..... Chromium.  
 K091..... Do.  
 K093..... Phthalic anhydride, maleic anhydride.  
 K094..... Phthalic anhydride.  
 K095..... 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-trichloroethane.  
 K096..... 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.  
 K097..... Chlordane, heptachlor.  
 K098..... Toxaphene.  
 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,

K145.....	benzo(k)fluoranthene, dibenz(a,h)anthracene. Benzene, benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, naphthalene.
K147.....	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, 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.

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 in the Finding Aids section of this volume.

### Appendix VIII to Part 261--Hazardous Constituents

Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste No.
A2213.....	Ethanimidothioic acid, 2-..... (dimethylamino) -N-hydroxy-2-oxo-,methyl ester.	30558-43-1.....	U394
Acetonitrile.....	Same.....	75-05-8.....	U003
Acetophenone.....	Ethanone, 1-phenyl.....	98-86-2.....	U004
2-Acetylaminofluorene.....	Acetamide, N-9H-fluorene-2-yl.....	53-96-3.....	U005
Acetyl chloride.....	Same.....	75-36-5.....	U006
1-Acetyl-2-thiourea.....	Acetamide, N-(aminothioxomethyl).....	591-08-2.....	P002
Acrolein.....	2-Propenal.....	107-02-8.....	P003
Acrylamide.....	2-Propenamide.....	79-06-1.....	U007
Acrylonitrile.....	2-Propenenitrile.....	107-13-1.....	U009
Aflatoxins.....	Same.....	1402-68-2.....	
Aldicarb.....	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime.	116-06-3.....	P070

Aldicarb sulfone.....	Propanal, 2-methyl-2- (methylsulfonyl) -, O- [(methylamino) carbonyl] oxime.	1646-88-4	P203
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	P004
Allyl alcohol.....	2-Propen-1-ol.....	107-18-6	P005
Allyl chloride.....	1-Propane, 3-chloro.....	107-18-6	
Aluminum phosphide.....	Same.....	20859-73-8	P006
4-Aminobiphenyl.....	[1,1'-Biphenyl]-4-amine.....	92-67-1	
5-(Aminomethyl)-3-isoxazolol.....	3(2H)-Isoxazolone, 5-(aminomethyl)-	2763-96-4	P007
4-Aminopyridine.....	4-Pyridinamine.....	504-24-5	P008
Amitrole.....	1H-1,2,4-Triazol-3-amine.....	61-82-5	U011
Ammonium vanadate.....	Vanadic acid, ammonium salt.....	7803-55-6	P119
Aniline.....	Benzenamine.....	62-53-3	U012
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	P010
Arsenic pentoxide.....	Arsenic oxide As <sub>2</sub> O <sub>5</sub> .....	1303-28-2	P011
Arsenic trioxide.....	Arsenic oxide As <sub>2</sub> O <sub>3</sub> .....	1327-53-3	P012
Auramine.....	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl.	492-80-8	U014
Azaserine.....	L-Serine, diazoacetate (ester).....	115-02-6	U015
Barban.....	Carbamic acid, (3-chlorophenyl) -, 4-chloro-2-butynyl ester.	101-27-9	U280
Barium.....	Same.....	7440-39-3	
Barium compounds, N.O.S. <sup>1</sup>			
Barium cyanide.....	Same.....	542-62-1	P013
Bendiocarb.....	1,3-Benzodioxol-4-ol, 2,2-dimethyl, methyl carbamate.	22781-23-3	U278
Bendiocarb phenol.....	1,3-Benzodioxol-4-ol, 2,2-dimethyl-22961-82-6		U364
Benomyl.....	Carbamic acid, [1- [(butylamino) carbonyl]- 1H-benzimidazol-2-yl] -,methyl ester.	17804-35-2	U271
Benz[c]acridine.....	Same.....	225-51-4	U016
Benz[a]anthracene.....	Same.....	56-55-3	U018
Benzal chloride.....	Benzene, (dichloromethyl)-.....	98-87-3	U017
Benzene.....	Same.....	71-43-2	U019
Benzeneearsonic acid.....	Arsonic acid, phenyl-.....	98-05-5	
Benzidine.....	[1,1'-Biphenyl]-4,4'-diamine.....	92-87-5	U021
Benzo[b]fluoranthene.....	Benz[e]acephenanthrylene.....	205-99-2	
Benzo[j]fluoranthene.....	Same.....	205-82-3	
Benzo(k)fluoranthene.....	Same.....	207-08-9	
Benzo[a]pyrene.....	Same.....	50-32-8	U022
p-Benzoquinone.....	2,5-Cyclohexadiene-1,4-dione....	106-51-4	U197
Benzotrichloride.....	Benzene, (trichloromethyl)-.....	98-07-7	U023
Benzyl chloride.....	Benzene, (chloromethyl)-.....	100-44-7	P028
Beryllium powder.....	Same.....	7440-41-7	P015
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	P017
Bromoform.....	Methane, tribromo-.....	75-25-2	U225

4-Bromophenyl phenyl ether.....	Benzene, 1-bromo-4-phenoxy-.....	101-55-3	.....	U030
Brucine.....	Strychnidin-10-one, 2,3-dimethoxy-	357-57-3	.....	P018
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	.....	U136
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	..	U032
Calcium cyanide.....	Calcium cyanide Ca(CN) <sub>2</sub> .....	592-01-8	.....	P021
Carbaryl.....	1-Naphthalenol, methylcarbamate..	63-25-2	.....	U279
Carbendazim.....	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester.	10605-21-7	..	U372
Carbofuran.....	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.	1563-66-2	.....	P127
Carbofuran phenol.....	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-	1563-38-8	.....	U367
Carbon disulfide.....	Same.....	75-15-0	.....	P022
Carbon oxyfluoride.....	Carbonic difluoride.....	353-50-4	.....	U033
Carbon tetrachloride.....	Methane, tetrachloro-.....	56-23-5	.....	U211
Carbosulfan.....	Carbamic acid, [(dibutylamino)thio] methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester.	55285-14-8	.....	P189
Chloral.....	Acetaldehyde, trichloro-.....	75-87-6	.....	U034
Chlorambucil.....	Benzenebutanoic acid, 4-[bis(2 chloroethyl)amino]-.	305-03-3	.....	U035
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	.....	U036
Chlordane (alpha and gamma isomers).....				U036
Chlorinated benzenes, N.O.S. <sup>1</sup> .....				
Chlorinated ethane, N.O.S. <sup>1</sup> .....				
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	.....	U026
Chloroacetaldehyde.....	Acetaldehyde, chloro-.....	107-20-0	.....	P023
Chloroalkyl ethers, N.O.S. <sup>1</sup> .....				
p-Chloroaniline.....	Benzenamine, 4-chloro-.....	106-47-8	.....	P024
Chlorobenzene.....	Benzene, chloro-.....	108-90-7	.....	U037
Chlorobenzilate.....	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester.	510-15-6	.....	U038
p-Chloro-m-cresol.....	Phenol, 4-chloro-3-methyl-.....	59-50-7	.....	U039
2-Chloroethyl vinyl ether.....	Ethene, (2-chloroethoxy)-.....	110-75-8	.....	U042
Chloroform.....	Methane, trichloro-.....	67-66-3	.....	U044
Chloromethyl methyl ether.....	Methane, chloromethoxy-.....	107-30-2	.....	U046
beta-Chloronaphthalene.....	Naphthalene, 2-chloro-.....	91-58-7	.....	U047
o-Chlorophenol.....	Phenol, 2-chloro-.....	95-57-8	.....	U048
1-(o-Chlorophenyl)thiourea.....	Thiourea, (2-chlorophenyl)-.....	5344-82-1	.....	P026
Chloroprene.....	1,3-Butadiene, 2-chloro-.....	126-99-8	.....	
3-Chloropropionitrile.....	Propanenitrile, 3-chloro-.....	542-76-7	.....	P027
Chromium.....	Same.....	7440-47-3	.....	
Chromium compounds, N.O.S. <sup>1</sup> .....				
Chrysene.....	Same.....	218-01-9	.....	U050
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.....	P029
Copper dimethyldithiocarbamate.....	Copper, bis(dimethylcarbamodithioato-S,S')-, ..	137-29-1 .....	
Creosote.....	Same.....		U051
Cresol (Cresylic acid).....	Phenol, methyl-.....	1319-77-3 .....	U052
Crotonaldehyde.....	2-Butenal.....	4170-30-3 .....	U053
m-Cumenyl methylcarbamate.....	Phenol, 3-(methylethyl)-, methyl carbamate.	64-00-6 .....	P202
Cyanides (soluble salts and complexes) N.O.S. <sup>1</sup> .....			P030
Cyanogen.....	Ethanedinitrile.....	460-19-5 .....	P031
Cyanogen bromide.....	Cyanogen bromide (CN)Br.....	506-68-3 .....	U246
Cyanogen chloride.....	Cyanogen chloride (CN)Cl.....	506-77-4 .....	P033
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 .....	P034
Cyclophosphamide.....	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-,2-oxide.	50-18-0 .....	U058
2,4-D.....	Acetic acid, (2,4-dichlorophenoxy)-	94-75-7 .....	U240
2,4-D, salts, esters.....	**.....		U240
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 .....	U059
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 .....	U060
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 .....	U061
Diallate.....	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester.	2303-16-4 .....	U062
Dibenz[a,h]acridine.....	Same.....	226-36-8 .....	
Dibenz[a,j]acridine.....	Same.....	224-42-0 .....	
Dibenz[a,h]anthracene.....	Same.....	53-70-3 .....	U063
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 .....	U064
1,2-Dibromo-3-chloropropane.....	Propane, 1,2-dibromo-3-chloro-..	96-12-8 .....	U066
Dibutyl phthalate.....	1,2-Benzenedicarboxylic acid, dibutyl ester.	84-74-2 .....	U069
o-Dichlorobenzene.....	Benzene, 1,2-dichloro-.....	95-50-1 .....	U070
m-Dichlorobenzene.....	Benzene, 1,3-dichloro-.....	541-73-1 .....	U071
p-Dichlorobenzene.....	Benzene, 1,4-dichloro-.....	106-46-7 .....	U072
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 .....	U073
1,4-Dichloro-2-butene.....	2-Butene, 1,4-dichloro-.....	764-41-0 .....	U074
Dichlorodifluoromethane.....	Methane, dichlorodifluoro-.....	75-71-8 .....	U075
Dichloroethylene, N.O.S. <sup>1</sup> .....	Dichloroethylene.....	25323-30-2 .....	

1,1-Dichloroethylene.....	Ethene, 1,1-dichloro-.....	75-35-4	.....	U078
1,2-Dichloroethylene.....	Ethene, 1,2-dichloro-, (E)-.....	156-60-5	.....	U079
Dichloroethyl ether.....	Ethane, 1,1'-oxybis[2-chloro-.....	111-44-4	.....	U025
Dichloroisopropyl ether.....	Propane, 2,2'-oxybis[2-chloro-.....	108-60-1	.....	U027
Dichloromethoxy ethane.....	Ethane, 1,1'-.....	111-91-1	.....	U024
	[methylenebis(oxy)]bis[2-chloro-.....			
Dichloromethyl ether.....	Methane, oxybis[chloro-.....	542-88-1	.....	P016
2,4-Dichlorophenol.....	Phenol, 2,4-dichloro-.....	120-83-2	.....	U081
2,6-Dichlorophenol.....	Phenol, 2,6-dichloro-.....	87-65-0	.....	U082
Dichlorophenylarsine.....	Arsonous dichloride, phenyl-.....	696-28-6	.....	P036
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	.....	U084
Dieldrin.....	2,7:3,6-Dimethanonaphth[2,3-b].....	60-57-1	.....	P037
	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)-.....			
1,2:3,4-Diepoxybutane.....	2,2-Bioxirane.....	1464-53-5	.....	U085
Diethylarsine.....	Arsine, diethyl-.....	692-42-2	.....	P038
Diethylene glycol, dicarbamate.....	Ethanol, 2,2'-oxybis-, dicarbamate.....	5952-26-1	.....	U395
1,4-Diethyleneoxide.....	1,4-Dioxane.....	123-91-1	.....	U108
Diethylhexyl phthalate.....	1,2-Benzenedicarboxylic acid, bis (2-ethylhexyl) ester.....	117-81-7	.....	U028
N,N'-Diethylhydrazine.....	Hydrazine, 1,2-diethyl-.....	1615-80-1	.....	U086
O,O-Diethyl S-methyl dithiophosphate.....	Phosphorodithioic acid, .3288-58-2 O,O-diethyl S-methyl ester.....			U087
Diethyl-p-nitrophenyl phosphate.....	Phosphoric acid, diethyl 4- nitrophenyl ester.....	311-45-5	.....	P041
Diethyl phthalate.....	1,2-Benzenedicarboxylic acid, .....	84-66-2	.....	U088
	diethyl ester.....			
O,O-Diethyl O-pyrazinyl phosphoro-thioate.....	Phosphorothioic acid, .297-97-2 O,O-diethyl O- pyrazinyl ester.....			P040
Diethylstilbesterol.....	Phenol, 4,4'-(1,2-diethyl-1,2- ethenediyl)bis-, (E)-.....	56-53-1	.....	U089
Dihydrosafrole.....	1,3-Benzodioxole, 5-propyl-.....	94-58-6	.....	U090
Diisopropylfluorophosphate (DFP).....	Phosphorofluoridic acid, bis(1- methylethyl) ester.....	55-91-4	.....	P043
Dimethoate.....	Phosphorodithioic acid, O,O- dimethyl S-[2-(methylamino)-2-oxoethyl] ester.....	60-51-5	.....	P044
3,3'-Dimethoxybenzidine.....	[1,1'-Biphenyl]-4,4'-diamine, 3,3'- dimethoxy-.....	119-90-4	.....	U091
p-Dimethylaminoazobenzene.....	Benzenamine, N,N-dimethyl-4- (phenylazo)-.....	60-11-7	.....	U093
7,12-Dimethylbenz[a]anthracene.....	Benz[a]anthracene, 7,12-dimethyl-.....	57-97-6	.....	U094
3,3'-Dimethylbenzidine.....	[1,1'-Biphenyl]-4,4'-diamine, 3,3'- dimethyl-.....	19-93-7	.....	U095
Dimethylcarbamoyl chloride.....	Carbamic chloride, dimethyl-.....	79-44-7	.....	U097
1,1-Dimethylhydrazine.....	Hydrazine, 1,1-dimethyl-.....	57-14-7	.....	U098
1,2-Dimethylhydrazine.....	Hydrazine, 1,2-dimethyl-.....	540-73-8	.....	U099
alpha,alpha-Dimethylphenethylamine.....	Benzenethanamine, alpha,alpha- dimethyl-.....	122-09-8	.....	P046
2,4-Dimethylphenol.....	Phenol, 2,4-dimethyl-.....	105-67-9	.....	U101
Dimethyl phthalate.....	1,2-Benzenedicarboxylic acid..... dimethyl ester.....	131-11-3	.....	U102
Dimethyl sulfate.....	Sulfuric acid, dimethyl ester.....	77-78-1	.....	U103

Dimetilan.....	Carbamic acid, dimethyl-, 1- [(dimethylamino) carbonyl]-5- methyl-1H-pyrazol-3-yl ester.	.....644-64-4 .....	P191
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.....	P047
4,6-Dinitro-o-cresol salts.....	** .....		P047
2,4-Dinitrophenol.....	Phenol, 2,4-dinitro-.....	51-28-5 .....	P048
2,4-Dinitrotoluene.....	Benzene, 1-methyl-2,4-dinitro-.....	121-14-2 .....	U105
2,6-Dinitrotoluene.....	Benzene, 2-methyl-1,3-dinitro-.....	606-20-2 .....	U106
Dinoseb.....	Phenol, 2-(1-methylpropyl)-4,6- dinitro-.	.....88-85-7.....	P020
Di-n-octyl phthalate.....	1,2-Benzenedicarboxylic acid, ..... dioctyl ester.	17-84-0.....	U017
Diphenylamine.....	Benzenamine, N-phenyl-.....	22-39-4 .....	
1,2-Diphenylhydrazine.....	Hydrazine, 1,2-diphenyl-.....	122-66-7 .....	U109
Di-n-propylnitrosamine.....	1-Propanamine, N-nitroso-N-propyl-..	621-64-7.....	U111
Disulfiram.....	Thioperoxydicarbonic diamide, ..... tetraethyl.	.....97-77-8 .....	
Disulfoton.....	Phosphorodithioic acid, O,O-diethyl.. S-[2-(ethylthio)ethyl] ester.	298-04-4 ...	P039
Dithiobiuret.....	Thioimidodicarbonic diamide..... [(H <sub>2</sub> N)C(S)] <sub>2</sub> NH.	.....541-53-7.....	P049
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.....	P050
Endothall.....	7-Oxabicyclo[2.2.1]heptane-2,3-...	.....145-73-3.....	P088
dicarboxylic acid.			
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-, (1alpha,2beta,2alpha,3alpha,6alpha, 6beta,7beta,7alpha)-.	.....72-20-8 .....	P051
Endrin metabolites.....			P051
Epichlorohydrin.....	Oxirane, (chloromethyl)-.....	106-89-8 .....	U041
Epinephrine.....	1,2-Benzenediol, 4-[1-hydroxy-2- (methylamino)ethyl]-, (R)-.	.....51-43-4 .....	P042
EPTC.....	Carbamothioic acid, dipropyl-, S- ethyl ester.	.....759-94-4 .....	
Ethyl carbamate (urethane).....	Carbamic acid, ethyl ester.....	51-79-6 .....	U238
Ethyl cyanide.....	Propanenitrile.....	.....107-12-0 .....	P101
Ethyl Ziram.....	Zinc, bis(diethylcarbamodithioato- S,S')-.	.....14324-55-1 .....	
Ethylenebisdithiocarbamic acid.....	Carbamodithioic acid, 1,2- ethanediybis-.	.....111-54-6 .....	U114
Ethylenebisdithiocarbamic acid, salts and esters..			U114
Ethylene dibromide.....	Ethane, 1,2-dibromo-.....	106-93-4 .....	U067
Ethylene dichloride.....	Ethane, 1,2-dichloro-.....	.....107-06-2 .....	U077
Ethylene glycol monoethyl ether..	Ethanol, 2-ethoxy-.....	110-80-5 .....	U359
Ethyleneimine.....	Aziridine.....	.....151-56-4 .....	P054
Ethylene oxide.....	Oxirane.....	.....75-21-8 .....	U115
Ethylenethiourea.....	2-Imidazolidinethione.....	.....96-45-7 .....	U116
Ethylidene dichloride.....	Ethane, 1,1-dichloro-.....	.....75-34-3.....	U076
Ethyl methacrylate.....	2-Propenoic acid, 2-methyl-, ethyl.. ester.	.....97-63-2 .....	U118
Ethyl methanesulfonate.....	Methanesulfonic acid, ethyl ester....	.....62-50-0.....	U119

Famphur.....	Phosphorothioic acid, O-[4- .....52-85-7.....P097 [(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester.
Ferbam.....	Iron, tris(dimethylcarbamo-dithioato- 14484-64-1 ..... S,S')-,.
Fluoranthene.....	Same.....206-44-0.....U120
Fluorine.....	Same.....7782-41-4.....P056
Fluoroacetamide.....	Acetamide, 2-fluoro-.....640-19-7.....P057
Fluoroacetic acid, sodium salt...	Acetic acid, fluoro-, sodium salt.....62-74-8.....P058
Formaldehyde.....	Same.....50-00-0 .....U122
Formetanate hydrochloride.....	Methanimidamide, N,N-dimethyl-N'- 23422-53-9...P198 [3-[[[(methylamino) carbonyl]oxy]phenyl]-,monohydrochloride.
Formic acid.....	Same.....64-18-6 .....U123
Formparanate.....	Methanimidamide, N,N-dimethyl-N'- 17702-57-7 .P197 [2-methyl-4-[[[(methylamino) carbonyl]oxy]phenyl]-.
Glycidylaldehyde.....	Oxiranecarboxyaldehyde.....765-34-4 .....U126
Halomethanes, N.O.S. <sup>1</sup> .....	
Heptachlor.....	4,7-Methano-1H-indene,.....76-44-8 .....P059 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-
Heptachlor epoxide.....	2,5-Methano-2H-indeno[1,2- b] ...1024-57-3 ..... oxirene, 2,3,4,5,6,7,7- heptachloro-1a,1b,5,5a,6,6a-hexa- hydro-, (1aalpha,1bbeta,2alpha,5alpha, beta,6beta,6aalpha)-.
Heptachlor epoxide (alpha, beta, and gamma .....	.....isomers).
Heptachlorodibenzofurans.....	
Heptachlorodibenzo-p-dioxins.....	
Hexachlorobenzene.....	Benzene, hexachloro-.....118-74-1.....U127
Hexachlorobutadiene.....	1,3-Butadiene, 1,1,2,3,4,4- .....87-68-3 .....U128 hexachloro-
Hexachlorocyclopentadiene.....	1,3-Cyclopentadiene, 1,2,3,4,5,5- .77-47-4 .....U130 hexachloro-
Hexachlorodibenzo-p-dioxins.....	
Hexachlorodibenzofurans.....	
Hexachloroethane.....	Ethane, hexachloro-.....67-72-1 .....U131
Hexachlorophene.....	Phenol, 2,2'-methylenebis[3,4,6-...70-30-4 .....U132 trichloro-
Hexachloropropene.....	1-Propene, 1,1,2,3,3,3-hexachloro-..1888-71-7....U243
Hexaethyl tetraphosphate.....	Tetraphosphoric acid, hexaethyl ... 757-58-4 .....P062 ester.
Hydrazine.....	Same.....302-01-2.....U133
Hydrogen cyanide.....	Hydrocyanic acid.....74-90-8 .....P063
Hydrogen fluoride.....	Hydrofluoric acid.....7664-39-3 .....U134
Hydrogen sulfide.....	Hydrogen sulfide H <sub>2</sub> S.....7783-06-4.....U135
Indeno[1,2,3-cd]pyrene.....	Same.....193-39-5.....U137
3-Iodo-2-propynyl n-butylcarbamate.....	Carbamic acid, butyl-,.....55406-53-6 3-iodo-2-propynyl ester.
Isobutyl alcohol.....	1-Propanol, 2-methyl-.....78-83-1.....U140
Isodrin.....	1,4,5,8-Dimethanonaphthalene,...465-73-6 .....P060 1,2,3,4,10,10-hexachloro- 1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta, 8beta,8abeta)-.
Isolan.....	Carbamic acid, dimethyl-, 3-methyl- 119-38-0 ....P192 1-(1-methylethyl)-1H-pyrazol-5-yl ester.
Isosafrole.....	1,3-Benzodioxole, 5-(1-propenyl)-...120-58-1.....U141
Kepone.....	1,3,4-Metheno-2H- .....143-50-0 .....U142 cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6- decachlorooctahydro-
Lasiocarpine.....	2-Butenoic acid, 2-methyl-,7-[[2,3-...303-34-1.....U4143 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]]-		
Lead.....	Same.....	7439-92-1	.....
Lead compounds, N.O.S. <sup>1</sup> .....	<SUP>.....		
Lead acetate.....	Acetic acid, lead(2+) salt.....	301-04-2	.....U144
Lead phosphate.....	Phosphoric acid, lead(2+) salt (2:3).....	7446-27-7	.....U145
Lead subacetate.....	Lead, bis(acetato-O)tetrahydroxytri-..	1335-32-6	.....U146
Lindane.....	Cyclohexane, 1,2,3,4,5,6-hexachloro- (1alpha,2alpha,3beta,4alpha, 5alpha,6beta)-..	58-89-9	.....U129
Maleic anhydride.....	2,5-Furandione.....	108-31-6	.....U147
Maleic hydrazide.....	3,6-Pyridazinedione, 1,2-dihydro-...	123-33-1	.....U148
Malononitrile.....	Propanedinitrile.....	109-77-3	.....U149
Manganese dimethyldithiocarbamate.....	Manganese, bis(dimethylcarbamodithioato-S,S')-..	15339-36-3	.....P196
Melphalan.....	L-Phenylalanine, 4-[bis(2-chloroethyl)aminol]-.	148-82-3	.....U150
Mercury.....	Same.....	7439-97-6	.....U151
Mercury compounds, N.O.S. <sup>1</sup> .....	<SUP>.....		
Mercury fulminate.....	Fulminic acid, mercury(2+) salt....	628-86-4	.....P065
Metam Sodium.....	Carbamodithioic acid, methyl-, monosodium salt.	137-42-8	
Methacrylonitrile.....	2-Propenenitrile, 2-methyl-.....	126-98-7	.....U152
Methapyrilene.....	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-.	91-80-5	.....U155
Methiocarb.....	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate.	2032-65-7	.....P199
Methomyl.....	Ethanimidothioic acid, N-[[ (methylamino)carbonyl]oxy]-, methyl ester.	16752-77-5	.....P066
Methoxychlor.....	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-.	72-43-5	.....U247
Methyl bromide.....	Methane, bromo-.....	74-83-9	.....U029
Methyl chloride.....	Methane, chloro-.....	74-87-3	.....U045
Methyl chlorocarbonate.....	Carbonochloridic acid, methyl ester....	79-22-1	.....U156
Methyl chloroform.....	Ethane, 1,1,1-trichloro-.....	71-55-6	.....U226
3-Methylcholanthrene.....	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-.	56-49-5	.....U157
4,4'-Methylenebis(2-chloroaniline).....	Benzenamine, 4,4'-methylenebis[2-chloro-.	101-14-4	.....U158
Methylene bromide.....	Methane, dibromo-.....	74-95-3	.....U068
Methylene chloride.....	Methane, dichloro-.....	75-09-2	.....U080
Methyl ethyl ketone (MEK).....	2-Butanone.....	78-93-3	.....U159
Methyl ethyl ketone peroxide.....	2-Butanone, peroxide.....	1338-23-4	.....U160
Methyl hydrazine.....	Hydrazine, methyl-.....	60-34-4	.....P068
Methyl iodide.....	Methane, iodo-.....	74-88-4	.....U138
Methyl isocyanate.....	Methane, isocyanato-.....	624-83-9	.....P064
2-Methylactonitrile.....	Propanenitrile, 2-hydroxy-2-methyl-...	75-86-5	.....P069
Methyl methacrylate.....	2-Propenoic acid, 2-methyl-, methyl ester.	80-62-6	.....U162
Methyl methanesulfonate.....	Methanesulfonic acid, methyl ester....	66-27-3	.....
Methyl parathion.....	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester.	298-00-0	.....P071
Methylthiouracil.....	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-.	56-04-2	.....U164
Metolcarb.....	Carbamic acid, methyl-, 3-methylphenyl ester.	1129-41-5	.....P190

Mexacarbate.....	Phenol, 4-(dimethylamino)-3,5-.....	315-18-4 .....	P128
	dimethyl-, methylcarbamate (ester).		
Mitomycin C.....	Azirino[2',3':3,4]pyrrolo[1,2- .....	50-07-7 .....	U010
	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)]-.		
MNNG.....	Guanidine, N-methyl-N'-nitro-N-	70-25-7.....	U163
	nitroso-.		
Molinate.....	1H-Azepine-1-carbothioic acid, ..	2212-67-1 .....	
	hexahydro-, S-ethyl ester.		
Mustard gas.....	Ethane, 1,1'-thiobis[2-chloro-.....	505-60-2 .....	
Naphthalene.....	Same.....	91-20-3 .....	U165
1,4-Naphthoquinone.....	1,4-Naphthalenedione.....	130-15-4.....	U166
alpha-Naphthylamine.....	1-Naphthalenamine.....	134-32-7.....	U167
beta-Naphthylamine.....	2-Naphthalenamine.....	91-59-8 .....	U168
alpha-Naphthylthiourea.....	Thiourea, 1-naphthalenyl-.....	86-88-4 .....	P072
Nickel.....	Same.....	7440-02-0 .....	
Nickel compounds, N.O.S. <sup>1</sup> .....	<SUP>		
Nickel carbonyl.....	Nickel carbonyl Ni(CO) <sub>4</sub> , (T-4)-....	13463-39-3 .....	P073
Nickel cyanide.....	Nickel cyanide Ni(CN) <sub>2</sub> .....	557-19-7 .....	P074
Nicotine.....	Pyridine, 3-(1-methyl-2- .....	54-11-5.....	P075
	pyrrolidiny)-, (S)-.		
Nicotine salts.....			P075
Nitric oxide.....	Nitrogen oxide NO.....	10102-43-9.....	P076
p-Nitroaniline.....	Benzenamine, 4-nitro-.....	100-01-6 .....	P077
Nitrobenzene.....	Benzene, nitro-.....	98-95-3 .....	U169
Nitrogen dioxide.....	Nitrogen oxide NO <sub>2</sub> .....	10102-44-0.....	P078
Nitrogen mustard.....	Ethanamine, 2-chloro-N-(2- .....	51-75-2 .....	
	chloroethyl)-N-methyl-.		
Nitrogen mustard, hydrochloride salt.....			
Nitrogen mustard N-oxide.....	Ethanamine, 2-chloro-N-(2-.....	126-85-2 .....	
	chloroethyl)-N-methyl-, N-oxide.		
Nitrogen mustard, N-oxide, hydro- chloride salt.....			
Nitroglycerin.....	1,2,3-Propanetriol, trinitrate.....	55-63-0 .....	P081
p-Nitrophenol.....	Phenol, 4-nitro-.....	100-02-7.....	U170
2-Nitropropane.....	Propane, 2-nitro-.....	79-46-9.....	U171
Nitrosamines, N.O.S. <sup>1</sup> .....		35576-91-1D .....	
N-Nitrosodi-n-butylamine.....	1-Butanamine, N-butyl-N-nitroso-.	924-16-3 .....	U172
N-Nitrosodiethanolamine.....	Ethanol, 2,2'-(nitrosoimino)bis-....	1116-54-7.....	U173
N-Nitrosodiethylamine.....	Ethanamine, N-ethyl-N-nitroso-...	55-18-5 .....	U174
N-Nitrosodimethylamine.....	Methanamine, N-methyl-N-nitroso-...	62-75-9.....	P082
N-Nitroso-N-ethylurea.....	Urea, N-ethyl-N-nitroso-.....	759-73-9 .....	U176
N-Nitrosomethylethylamine.....	Ethanamine, N-methyl-N-nitroso-..	10595-95-6 .....	
N-Nitroso-N-methylurea.....	Urea, N-methyl-N-nitroso-.....	684-93-5 .....	U177
N-Nitroso-N-methylurethane.....	Carbamic acid, methylnitroso-, ..	615-53-2.....	U178
	ethyl ester.		
N-Nitrosomethylvinylamine.....	Vinylamine, N-methyl-N-nitroso-..	4549-40-0 .....	P084
N-Nitrosomorpholine.....	Morpholine, 4-nitroso-.....	59-89-2 .....	
N-Nitrosornicotine.....	Pyridine, 3-(1-nitroso-2- .....	16543-55-8 ..	
	pyrrolidiny)-, (S)-.		
N-Nitrosopiperidine.....	Piperidine, 1-nitroso-.....	100-75-4.....	U179
N-Nitrosopyrrolidine.....	Pyrrolidine, 1-nitroso-.....	930-55-2.....	U180
N-Nitrososarcosine.....	Glycine, N-methyl-N-nitroso-.....	13256-22-9 .....	
5-Nitro-o-toluidine.....	Benzenamine, 2-methyl-5-nitro-...	99-55-8 .....	U181
Octamethylpyrophosphoramide..	Diphosphoramide, octamethyl-...	152-16-9 .....	P085
Osmium tetroxide.....	Osmium oxide OsO <sub>4</sub> , (T-4)-.....	20816-12-0 .....	P087

Oxamyl.....	Ethanimidothioic acid, 2-..... 23135-22-0.....P194 (dimethylamino)-N-[[[(methylamino)carbonyl]oxy]-2-oxo- , methyl ester.
Paraldehyde.....	1,3,5-Trioxane, 2,4,6-trimethyl-..... 123-63-7.....U182
Parathion.....	Phosphorothioic acid, O,O-diethyl O-... 56-38-2...P089 (4-nitrophenyl) ester.
Pebulate.....	Carbamothioic acid, butylethyl-, S-....1114-71-2 ..... propyl ester.
Pentachlorobenzene.....	Benzene, pentachloro-.....608-93-5.....U183
Pentachlorodibenzo-p-dioxins.....	.....
Pentachlorodibenzofurans.....	.....
Pentachloroethane.....	Ethane, pentachloro-.....76-01-7..... U184
Pentachloronitrobenzene (PCNB).....	Benzene, pentachloronitro-.....82-68-8 .....U185
Pentachlorophenol.....	Phenol, pentachloro-.....87-86-5 See F027
Phenacetin.....	Acetamide, N-(4-ethoxyphenyl)-..62-44-2.....U187
Phenol.....	Same.....108-95-2 .....U188
Phenylenediamine.....	Benzenediamine.....25265-76-3 .....
Phenylmercury acetate.....	Mercury, (acetato-O)phenyl-.....62-38-4.....P092
Phenylthiourea.....	Thiourea, phenyl-.....103-85-5.....P093
Phosgene.....	Carbonic dichloride.....75-44-5.....P095
Phosphine.....	Same.....7803-51-2 .....P096
Phorate.....	Phosphorodithioic acid, O,O-diethyl ..298-02-2 ..P094 S-[(ethylthio)methyl] ester.
Phthalic acid esters, N.O.S. <sup>1</sup> .....	.....
Phthalic anhydride.....	1,3-Isobenzofurandione.....85-44-9 .....U190
Physostigmine.....	Pyrrolo[2,3-b]indol-5-01,.....57-47-6 .....P204 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-.
Physostigmine salicylate.....	Benzoic acid, 2-hydroxy-, compd...57-64-7.....P188 with (3aS-cis) -1,2,3,3a,8,8a-hexahydro-1,3a,8- trimethylpyrrolo [2,3-b]indol-5-yl methylcarbamate ester (1:1).
2-Picoline.....	Pyridine, 2-methyl-.....109-06-8 .....U191
Polychlorinated biphenyls, N.O.S. <sup>1</sup> .....	.....
Potassium cyanide.....	Potassium cyanide K(CN).....151-50-8.....P098
Potassium dimethyldithiocarbamate... potassium salt.	Carbamodithioic acid, dimethyl, ..128-03-0 ..... potassium salt.
Potassium n-hydroxymethyl-n- methyl- dithiocarbamate.	Carbamodithioic acid, .....51026-28-9 ..... (hydroxymethyl)methyl-, monopotassium salt.
Potassium n-methyldithiocarbamate... monopotassium salt.	Carbamodithioic acid, methyl- ...137-41-7 ..... monopotassium salt.
Potassium pentachlorophenate... Potassium silver cyanide.....	Pentachlorophenol, potassium salt.. 7778736.....None Argentate(1-), bis(cyano-C)-, .....506-61-6 .....P099 potassium.
Promecarb.....	Phenol, 3-methyl-5-(1-methylethyl)- 2631-37-0.....P201 , methyl carbamate.
Pronamide.....	Benzamide, 3,5-dichloro-N-(1,1-.. 23950-58-5.....U192 dimethyl-2-propynyl)-.
1,3-Propane sultone.....	1,2-Oxathiolane, 2,2-dioxide..... 1120-71-4.....U193
n-Propylamine.....	1-Propanamine..... 107-10-8.....U194
Propargyl alcohol.....	2-Propyn-1-ol..... 107-19-7.....P102
Propham.....	Carbamic acid, phenyl-, 1-.....122-42-9.....U373 methylethyl ester.
Propoxur.....	Phenol, 2-(1-methylethoxy)-, .....114-26-1.....U411 methylcarbamate.
Propylene dichloride.....	Propane, 1,2-dichloro-..... 78-87-5.....U083

1,2-Propylenimine.....	Aziridine, 2-methyl.....	75-55-8	.....P067
Propylthiouracil.....	4(1H)-Pyrimidinone, 2,3-dihydro-6-..	51-52-5	.....
	propyl-2-thioxo-		
Prosulfocarb.....	Carbamothioic acid, dipropyl-, S-..	52888-80-9.....	U387
	(phenylmethyl) ester.		
Pyridine.....	Same.....	110-86-1	.....U196
Reserpine.....	Yohimban-16-carboxylic acid, 11,17-...	50-55-5.....	U200
	dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-smethyl		
	ester, (3beta,16beta,17alpha,18beta,20alpha)-.		
Resorcinol.....	1,3-Benzenediol.....	108-46-3	.....U201
Saccharin.....	1,2-Benzisothiazol-3(2H)-one, 1,1-	81-07-2	.....U202
	dioxide.		
Saccharin salts.....			U202
Safrole.....	1,3-Benzodioxole, 5-(2-propenyl)-	94-59-7.....	U203
Selenium.....	Same.....	7782-49-2	.....
Selenium compounds, N.O.S. <sup>1</sup> .....			
Selenium dioxide.....	Selenious acid.....	7783-00-8.....	U204
Selenium sulfide.....	Selenium sulfide SeS <sub>2</sub> .....	7488-56-4.....	U205
Selenium, tetrakis(dimethyl- dithiocarbamate).	Carbamodithioic acid, dimethyl-,...	144-34-3	.....
	tetraanhydrosulfide with orthothioselenious acid.		
Selenourea.....	Same.....	630-10-4	.....P103
Silver.....	Same.....	7440-22-4	.....
Silver compounds, N.O.S. <sup>1</sup> .....			
Silver cyanide.....	Silver cyanide Ag(CN).....	506-64-9	.....P104
Silvex (2,4,5-TP).....	Propanoic acid, 2-(2,4,5-	93-72-1.....	See F027
	trichlorophenoxy)-.		
Sodium cyanide.....	Sodium cyanide Na(CN).....	143-33-9	.....P106
Sodium dibutyldithiocarbamate...	Carbamodithioic acid, dibutyl, .....	136-30-1	.....
	sodium salt.		
Sodium diethyldithiocarbamate...	Carbamodithioic acid, diethyl-, ....	148-18-5	.....
	sodium salt.		
Sodium dimethyldithiocarbamate...	Carbamodithioic acid, dimethyl-,...	128-04-1	.....
	sodium salt.		
Sodium pentachlorophenate.....	Pentachlorophenol, sodium salt.....	131522	.....None
Streptozotocin.....	D-Glucose, 2-deoxy-2-	18883-66-4.....	U206
	[(methylnitrosoamino)carbonyl]amino]-.		
Strychnine.....	Strychnidin-10-one.....	57-24-9	.....P108
Strychnine salts.....			P108
Sulfallate.....	Carbamodithioic acid, diethyl-, 2-	95-06-7.....	
	chloro-2-propenyl ester.		
TCDD.....	Dibenzo[b,e][1,4]dioxin,.....	1746-01-6.....	
	2,3,7,8-tetrachloro-		
Tetrabutylthiuram disulfide.....	Thioperoxydicarbonic diamide, .....	1634-02-2.....	
	tetrabutyl.		
1,2,4,5-Tetrachlorobenzene.....	Benzene, 1,2,4,5-tetrachloro-.....	95-94-3.....	U207
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	.....U208
1,1,2,2-Tetrachloroethane.....	Ethane, 1,1,2,2-tetrachloro-.....	79-34-5.....	U209
Tetrachloroethylene.....	Ethene, tetrachloro-.....	27-18-4	.....U210
2,3,4,6-Tetrachlorophenol.....	Phenol, 2,3,4,6-tetrachloro-.....	58-90-2.....	See F027
2,3,4,6-tetrachlorophenol, potassium salt..	same.....	53535276.....	None
2,3,4,6-tetrachlorophenol, sodium salt.....	same.....	25567559	.....None
Tetraethyldithiopyrophosphate....	Thiodiphosphoric acid, tetraethyl ..	3689-24-5	.....P109
	ester.		

Tetraethyl lead.....	Plumbane, tetraethyl-.....	78-00-2	P110
Tetraethyl pyrophosphate.....	Diphosphoric acid, tetraethyl ester.....	107-49-3	P111
Tetramethylthiuram monosulfide.....	Bis(dimethylthiocarbamoyl) sulfide.....	97-74-5	
Tetranitromethane.....	Methane, tetranitro-.....	509-14-8	P112
Thallium.....	Same.....	7440-28-0	
Thallium compounds, N.O.S. <sup>1</sup> .....			
Thallic oxide.....	Thallium oxide Tl <sub>2</sub> O <sub>3</sub> .....	1314-32-5	P113
Thallium(I) acetate.....	Acetic acid, thallium(1+) salt.....	563-68-8	U214
Thallium(I) carbonate.....	Carbonic acid, dithallium(1+) salt.....	6533-73-9	U215
Thallium(I) chloride.....	Thallium chloride TlCl.....	7791-12-0	U216
Thallium(I) nitrate.....	Nitric acid, thallium(1+) salt.....	10102-45-1	U217
Thallium selenite.....	Selenious acid, dithallium(1+) salt.....	12039-52-0	P114
Thallium(I) sulfate.....	Sulfuric acid, dithallium(1+) salt.....	7446-18-6	P115
Thioacetamide.....	Ethanethioamide.....	62-55-5	U218
Thiodicarb.....	Ethanimidothioic acid, N,N'-.....	59669-26-0	U410
Thiofanox.....	[thiobis [(methylimino) carbonyloxy]] bis-, dimethyl ester. 2-Butanone, 3,3-dimethyl-1-.....	39196-18-4	P045
Thiomethanol.....	Methanethiol.....	74-93-1	U153
Thiophanate-methyl.....	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)] bis-, dimethyl ester.	23564-05-8	U409
Thiophenol.....	Benzenethiol.....	108-98-5	P014
Thiosemicarbazide.....	Hydrazinecarbothioamide.....	79-19-6	P116
Thiourea.....	Same.....	62-56-6	U219
Thiram.....	Thioperoxydicarbonic diamide.....	137-26-8	U244
Tirpate.....	[(H <sub>2</sub> N)C(S)] <sub>2</sub> S <sub>2</sub> , tetramethyl- 1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino) carbonyl] oxime.	26419-73-8	P185
Toluene.....	Benzene, methyl-.....	108-88-3	U220
Toluenediamine.....	Benzenediamine, ar-methyl-.....	25376-45-8	U221
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	U223
o-Toluidine.....	Benzenamine, 2-methyl-.....	95-53-4	U328
o-Toluidine hydrochloride.....	Benzenamine, 2-methyl-, hydrochloride.	636-21-5	U222
p-Toluidine.....	Benzenamine, 4-methyl-.....	106-49-0	U353
Toxaphene.....	Same.....	8001-35-2	P123
Triallate.....	Carbamothioic acid, bis(1- methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester.	2303-17-5	U389
1,2,4-Trichlorobenzene.....	Benzene, 1,2,4-trichloro-.....	120-82-1	
1,1,2-Trichloroethane.....	Ethane, 1,1,2-trichloro-.....	79-00-5	U227
Trichloroethylene.....	Ethene, trichloro-.....	79-01-6	U228
Trichloromethanethiol.....	Methanethiol, trichloro-.....	75-70-7	P118
Trichloromonofluoromethane.....	Methane, trichlorofluoro-.....	75-69-4	U121
2,4,5-Trichlorophenol.....	Phenol, 2,4,5-trichloro-.....	95-95-4	See F027
2,4,6-Trichlorophenol.....	Phenol, 2,4,6-trichloro-.....	88-06-2	See F027
2,4,5-T.....	Acetic acid, (2,4,5- trichlorophenoxy)-.	93-76-5	See F027
Trichloropropane, N.O.S.\1\.....		25735-29-9	
1,2,3-Trichloropropane.....	Propane, 1,2,3-trichloro-.....	96-18-4	
Triethylamine.....	Ethanamine, N,N-diethyl-.....	121-44-8	U404
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	U234

Tris(1-aziridinyl)phosphine sulfide....Aziridine, 1,1',1''- .....	52-24-4 .....	
	phosphinothiolidynetris-	
Tris(2,3-dibromopropyl) phosphate...1-Propanol, 2,3-dibromo-, ....	126-72-7.....	U235
	phosphate (3:1).	
Trypan blue.....	2,7-Naphthalenedisulfonic acid, ..72-57-1 .....	U236
	3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]-	
	bis[5-amino-4-hydroxy-, tetrasodium salt.	
Uracil mustard.....	2,4-(1H,3H)-Pyrimidinedione, 5- ....66-75-1 .....	U237
	[bis(2-chloroethyl)amino]-.	
Vanadium pentoxide.....	Vanadium oxide V <sub>2</sub> O <sub>5</sub> .....	1314-62-1.....P120
Vernolate.....	Carbamothioic acid, dipropyl-,S-....1929-77-7 .....	
	propyl ester.	
Vinyl chloride.....	Ethene, chloro-.....	75-01-4.....U043
Warfarin.....	2H-1-Benzopyran-2-one, 4-hydroxy-3- 81-81-2....	U248
	(3-oxo-1-phenylbutyl)-, when present at	
	concentrations less than 0.3%.	
Warfarin.....	2H-1-Benzopyran-2-one, 4-hydroxy-3- 81-81-2	P001
	(3-oxo-1-phenylbutyl)-, when present	
	at concentrations greater than 0.3%.	
Warfarin salts, when present at .....	concentrations less than 0.3%.	U248
Warfarin salts, when present at .....	concentrations greater than 0.3%.	P001
Zinc cyanide.....	Zinc cyanide Zn(CN) <sub>2</sub> .....	557-21-1.....P121
Zinc phosphide.....	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when .....	1314-84-7.....P122
	present at concentrations greater than 10%.	
Zinc phosphide.....	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present	1314-84-7 ..U249
	at concentrations of 10% or less.	
Ziram.....	Zinc, bis(dimethyl)-.....	137-30-4.....P205
	Carbamodithioato-S,S')-, (T-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]

## Appendix IX to Part 261--Wastes Excluded Under Secs. 260.20 and 260.22

**Table 1--Wastes Excluded From Non-Specific Sources**

Facility	Address	Waste description
Alumnitec, Inc. (formerly Profile Extrusion Co., formerly United Technologies Automotive,	Jeffersonville, IN.	Dewatered wastewater treatment sludge (EPA Hazardous Waste No. F019) generated from the chemical conversion of aluminum after April 29, 1986.

Inc.).

Ampex Recording  
pellet  
Media  
Corporation.

Opelika, Alabama.

Solvent recovery residues in the powder or form (EPA Hazardous Waste Nos. F003 and F005) generated from the recovery of spent solvents from the manufacture of tape recording media (generated at a maximum annual rate of 1,000 cubic yards in the powder or pellet form) after August 9, 1993. In order to confirm that the characteristics of the wastes do not change significantly, the facility must, on an annual basis, analyze a representative composite sample of the waste (in its final form) 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 any employee or representative of EPA or the State of Alabama. 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.

Aptus, Inc.

Coffeyville,  
Kansas.

Kiln residue and spray dryer/ baghouse residue (EPA Hazardous Waste No. F027) generated during the treatment of cancelled pesticides containing 2,4,5-T and Silvex and related materials by Aptus' incinerator at Coffeyville, Kansas after December 27, 1991, so long as:

(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, Aptus must test the residues generated during the run when the failure occurred according to the requirements of Conditions (2) through (4), regardless of whether or not the demonstration in Condition (5) has been made.

(2) A minimum of four grab samples must be taken from each hopper (or other container) of residue generated during each 24 hour run; all grabs collected during a given 24 hour run must then be composited to form composite sample. A minimum of four grab samples must also be taken from each hopper (or other container) of spray dryer/baghouse residue generated during each 24 hour run; all grabs collected during a given 24 hour run must then be composited to form one composite sample. Prior to the disposal of the residues from each 24 hour run,

a TCLP leachate test must be performed on these composite samples and the leachate analyzed for the TC toxic metals, nickel, and cyanide. If arsenic, chromium, lead or silver TC leachate test results exceed 1.6 ppm, barium levels exceed 32 ppm, cadmium or selenium levels exceed 0.3 ppm, mercury levels exceed 0.07 ppm, nickel levels exceed 10 ppm, or cyanide levels exceed 6.5 ppm, the wastes must be retreated to achieve these levels or must be disposed in accordance with subtitle C of RCRA. Analyses must be performed according to SW-846 methodologies.

(3) Aptus must generate, prior to the disposal of the residues, verification data from each 24 hour run for each treatment residue (i.e., kiln residue, spray dryer/baghouse residue) to demonstrate that the maximum allowable treatment residue concentrations listed below are not exceeded. Samples must be collected as specified in Condition (2). Analyses must be performed according to SW-846 methodologies. Any residues which exceed any of the levels listed below must be retreated or must be disposed of as hazardous. Kiln residue and spray dryer/baghouse residue must not exceed the following levels:

Aldrin--0.015 ppm  
Benzene--9.7 ppm  
Benzo(a)pyrene--0.43 ppm  
Benzo(b)fluoranthene--1.8 ppm  
Chlordane--0.37 ppm  
Chloroform--5.4 ppm  
Chrysene--170 ppm  
Dibenz(a,h)anthracene--0.083 ppm  
1,2-Dichloroethane--4.1 ppm  
Dichloromethane--2.4 ppm  
2,4-Dichlorophenol--480 ppm  
Dichlorvos--260 ppm  
Disulfaton--23 ppm  
Endosulfan I--310 ppm  
Fluorene--120 ppm  
Indeno(1,2,3,cd)-pyrene--330 ppm  
Methyl parathion--210 ppm  
Nitrosodiphenylamine--130 ppm  
Phenanthrene--150 ppm  
Polychlorinated biphenyls--0.31 ppm  
Tetrachloroethylene--59 ppm  
2,4,5-TP (silvex)--110 ppm  
2,4,6-Trichlorophenol--3.9 ppm

(4) Aptus must generate, prior to disposal of residues, verification data from each 24 hour run for each treatment residue (i.e., kiln residue, spray dryer/baghouse residue) 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 Condition (2). The TCDD equivalent levels for the solid residues must be less than 5 ppt. Any residues with detected dioxins or furans in excess of this level must be retreated or must be disposed of as acutely hazardous. SW-846 Method 8290, a high resolution gas chromatography and high resolution mass spectroscopy (HRGC/HRMS) analytical method must be used. For tetra- and penta-chlorinated dioxin and furan homologs, the maximum practical quantitation limit must not exceed 15 ppt for the solid residues. For hexachlorinated dioxin and furan homologs, the maximum practical quantitation limit must not exceed 37 ppt for the solid residues.

(5) The test data from Conditions (1), (2), (3), and (4) must be kept on file by Aptus for inspection purposes and must be compiled, summarized, and submitted to the Director for the Characterization and Assessment Division, Office of Solid Waste, by certified mail on a monthly basis and when the treatment of the cancelled pesticides and related materials is concluded. The testing requirements for Conditions (2), (3), and (4) will continue until Aptus provides the Director with the results of four consecutive batch analyses for the petitioned wastes, none of which exceed the maximum allowable levels listed in these conditions and the director notifies Aptus that the conditions have been lifted. All data submitted will be placed in the RCRA public docket.

(6) Aptus 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) 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."

Arco Building  
Products.

Sugarcreek, Ohio.

Dewatered wastewater treatment sludge (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after August 15, 1986.

Arco Chemical  
Co.

Miami, FL

Dewatered wastewater treatment sludge (EPA Hazardous Waste No.

Arkansas  
Department of  
Pollution  
Control and  
Ecology.

Vertac Superfund  
site,  
Jacksonville,  
Arkansas.

FO19) generated from the chemical conversion coating of aluminum after April 29, 1986. Kiln ash, cyclone ash, and calcium chloride salts from incineration of residues (EPA Hazardous Waste No. F020 and F023) generated from the primary production of 2,4,5-T and 2,4-D after August 24, 1990. This one-time exclusion applies only to the incineration of the waste materials described in the petition, and it is conditional upon the data obtained from ADPC&E's full-scale incineration facility. To ensure that hazardous constituents are not present in the waste at levels regulatory concern once the full-scale treatment facility is in operation, ADPC&E must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid:

(1) Testing: Sample collection and analyses (including quality control (QC) procedures) must be performed according to SW-846 methodologies.

(A) Initial testing: Representative grab samples must be taken from each drum and kiln ash and cyclone ash generated from each 24 hours of operation, and the grab samples composited to form one composite sample of ash for each 24-hour period. Representative grab samples must also be taken from each drum of calcium chloride salts generated from each 24 hours of operation and composited to form one composite sample of calcium chloride salts for each 24-hour period. The initial testing requirements must be fulfilled for the following wastes: (i) Incineration by-products generated prior to and during the incinerator's trial burn; (ii) incineration by-products from the treatment of 2,4-D wastes for one week (or 7 days if incineration is not on consecutive days) after completion of the trial burn; (iii) incineration by-products from the treatment of blended 2,4-D and 2,4, 5-T wastes for two weeks (or 14 days if incineration is not on consecutive days) after completion of the trial burn; and (iv) incineration by-products from the treatment of blended 2,4-D and 2,4,5-T wastes for one week (or 7 days if incineration is not on consecutive days) when the percentage of 2, 4, 5-T wastes exceeds the maximum percentage treated under Condition (1)(A)(iii). Prior to disposal of the residues from each 24-hour sampling period, the daily composite must be analyzed for all the constituents listed in Condition (3). ADPC&E must report the analytical test data, including quality control information, obtained during this

initial period no later than 90 days after the start of the operation.

(B) Subsequent testing:

Representative grab samples of each drum of kiln and cyclone ash generated from each week of operation must be composited to form one composite sample of ash for each weekly period. Representative grab samples of each drum of calcium chloride salts generated from each week of operation must also be composited to form one composite sample of calcium chloride salts for each weekly period. Prior to disposal of the residues from each weekly sampling period, the weekly composites must be analyzed for all of the constituents listed in Condition (3). 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.

(2) Waste holding: The incineration residues that are generated must be stored as hazardous until the initial verification analyses or subsequent analyses are completed. If the composite incineration residue samples (from either Condition (1)(A) or Condition (1)(B)) do not exceed any of the delisting levels set in Condition (3), the incineration residues corresponding to these samples may be managed and disposed of in accordance with all applicable solid waste regulations. If any composite incineration residue sample exceeds any of the delisting levels set in Condition (3), the incineration residues generated during the time period corresponding to this sample must be retreated until they meet these levels (analyses must be repeated) or managed and disposed of in accordance with subtitle C of RCRA. Incineration residues which are generated but for which analysis is not complete or valid must be managed and disposed of in accordance with subtitle C of RCRA, until valid analyses demonstrate that the wastes meet the delisting levels.

(3) Delisting levels: If concentrations in one or more of the incineration residues for any of the hazardous constituents listed below exceed their respective maximum allowable concentrations also listed below, the batch of failing waste must either be re-treated until it meets these levels or managed and disposed of in accordance with subtitle C of RCRA.

(A) Inorganics (Leachable):

Arsenic, 0.32 ppm; Barium, 6.3 ppm;  
Cadmium, 0.06 ppm; Chromium, 0.32 ppm;

Cyanide, 4.4 ppm; Lead, 0.32 ppm; Mercury, 0.01 ppm; Nickel, 4.4 ppm; Selenium, 0.06 ppm; Silver, 0.32 ppm. Metal concentrations must be measured in the waste leachate as per 40 CFR 261.24. Cyanide extractions must be conducted using distilled water.

(B) Organics: Benzene, 0.87 ppm; Benzo(a)anthracene, 0.10 ppm; Benzo(a)pyrene, 0.04 ppm; Benzo(b)fluoranthene, 0.16 ppm; Chlorobenzene, 152 ppm; o- Chlorophenol, 44 ppm; Chrysene, 15 ppm; 2, 4-D, 107 ppm; DDE, 1.0 ppm; Dibenz(a,h)anthracene, 0.007 ppm; 1, 4-Dichlorobenzene, 265 ppm; 1, 1-Dichloroethylene, 1.3 ppm; trans-1,2-Dichloroethylene, 37 ppm; Dichloromethane, 0.23 ppm; 2,4-Dichlorophenol, 43 ppm; Hexachlorobenzene, 0.26 ppm; Indeno (1,2,3-cd) pyrene, 30 ppm; Polychlorinated biphenyls, 12 ppm; 2,4,5-T,  $1 \times 10^{-6}$  ppm; 1,2,4,5-Tetrachlorobenzene, 56 ppm; Tetrachloroethylene, 3.4 ppm; Trichloroethylene, 1.1 ppm; 2,4,5-Trichlorophenol, 21,000 ppm; 2,4,6-Trichlorophenol, 0.35 ppm.

(C) Chlorinated dioxins and furans: 2,3,7,8-Tetrachlorodibenzo-p-dioxin equivalents,  $4 \times 10^{-7}$  ppm. The petitioned by-product must be analyzed for the tetra-, penta-, hexa-, and heptachlorodibenzo-p-dioxins, and the tetra-, penta-, hexa-, and heptachlorodibenzofurans to determine the 2, 3, 7, 8-tetra- chlorodibenzo-p-dioxin equivalent concentration. The analysis must be conducted using Method 8290, a high resolution gas chromatography/high resolution mass spectrometry method, and must achieve practical quantitation limits of 15 parts per trillion (ppt) for the tetra- and penta- homologs, and 37 ppt for the hexa- and hepta-homologs.

(4) Termination of testing: Due to the possible variability of the incinerator feeds, the testing requirements of Condition (1)(B) will continue indefinitely.

(5) Data submittals: Within one week of system start-up, ADPC&E must notify the Section Chief, Variances Section (see address below) when the full-scale incineration system is on-line and waste treatment has begun. The data obtained through Condition (1)(A) must be submitted to the Section Chief, Variances Section, PSPD/OSW (OS-343), U.S. EPA, 401 M Street SW., Washington, DC 20460, within the time period specified. At the Section Chief's request, ADPC&E must submit analytical obtained through Condition (1)(B) within the time period specified by the Section Chief.

Failure to submit the required data obtained from Condition (1)(A) within the specified time period or to maintain the required records for the time specified in Condition (1)(B) (or to submit data within the time specified by the Section Chief) will be considered by the Agency, at its discretion, sufficient basis to revoke ADPC&E'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 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. In the event that any of this information is determined by EPA in 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."

BBC Brown Boveri, Inc.	Sanford, FL	Dewatered Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after October 17, 1986.
Bethlehem Steel Corporation.	Lackawanna, New York.	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.
Bethlehem Steel Corporation.	Sparrows Point, Maryland.	Stabilized filter cake (at a maximum annual rate of 1100 cubic yards) from the treatment of wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after [insert date of publication in Federal Register]. Bethlehem Steel (BSC) must implement a testing program that meets the

following conditions for the exclusion to be valid:

(1) Testing: Sample collection and analyses (including quality control (QC) procedures) must be performed according to SW-846 methodologies. If EPA judges the stabilization process to be effective under the conditions used during the initial verification testing, BSC may replace the testing required in Condition (1)(A) with the testing required in Condition (1)(B). BSC must continue to test as specified in Condition (1)(A) until and unless notified by EPA in writing that testing in Condition (1)(A) may be replaced by Condition (1)(B) (to the extent directed by EPA).

(A) Initial Verification Testing: During at least the first eight weeks of operation of the full-scale treatment system, BSC must collect and analyze weekly composites representative of the stabilized waste. Weekly composites must be composed of representative grab samples collected from every batch during each week of stabilization. The composite samples must be collected and analyzed, prior to the disposal of the stabilized filter cake, for all constituents listed in Condition (3). BSC must report the analytical test data, including a record of the ratios of lime kiln dust and fly ash used and quality control information, obtained during this initial period no later than 60 days after the collection of the last composite of stabilized filter cake.

(B) Subsequent Verification Testing: Following written notification by EPA, BSC may substitute the testing condition in (1)(B) for (1)(A). BSC must collect and analyze at least one composite representative of the stabilized filter cake generated each month. Monthly composites must be comprised of representative samples collected from all batches that are stabilized in a one-month period. The monthly samples must be analyzed prior to the disposal of the stabilized filter cake for chromium, lead and nickel. BSC may, at its discretion, analyze composite samples more frequently to demonstrate that smaller batches of waste are non-hazardous.

(C) Annual Verification Testing: In order to confirm that the characteristics of the treated waste do not change significantly, BSC must, on an annual basis, analyze a representative composite sample of stabilized filter cake for all TC constituents listed in 40 CFR Sec. 261.24 using the method specified therein. This composite sample must represent the stabilized filter cake generated over one week.

(2) Waste Holding and Handling: BSC must store, as hazardous, all stabilized filter cake generated until verification testing (as specified in Conditions (1)(A) and (1)(B)) is completed and valid analyses demonstrate that the delisting levels set forth in Condition (3) are met. If the levels of hazardous constituents measured in the samples of stabilized filter cake generated are below all the levels set forth in Condition (3), then the stabilized filter cake is non-hazardous and may be managed and disposed of in accordance with all applicable solid waste regulations. If hazardous constituent levels in any weekly or monthly composite sample equal or exceed any of the delisting levels set in Condition (3), the stabilized filter cake generated during the time period corresponding to this sample must be retreated until it is below these levels or managed and disposed of in accordance with Subtitle C of RCRA.

(3) Delisting Levels: All concentrations must be measured in the waste leachate by the method specified in 40 CFR Sec. 261.24. The leachable concentrations for the constituents must be below the following levels (ppm): arsenic-- 4.8; barium--100; cadmium--0.48; chromium--5.0; lead--1.4; mercury--0.19; nickel--9.6; selenium--1.0; silver--5.0.

(4) Changes in Operating Conditions: After completing the initial verification test period in Condition (1)(A), if BSC decides to significantly change the stabilization process (e.g., stabilization reagents) developed under Condition (1), then BSC must notify EPA in writing prior to instituting the change. After written approval by EPA, BSC may manage waste generated from the changed process as non-hazardous under this exclusion, provided the other conditions of this exclusion are fulfilled.

(5) Data Submittals: Two weeks prior to system start-up, BSC must notify in writing the Section Chief, Delisting Section (see address below) when stabilization of the dewatered filter cake will begin. The data obtained through Condition (1)(A) must be submitted to the Section Chief, Delisting Section, OSW (5304), U.S. EPA, 401 M Street, SW, Washington, DC 20460 within the time period specified. The analytical data, including quality control information and records of ratios of lime kiln dust and fly ash used, must be compiled and maintained on site for a minimum of five years. These data must be furnished upon request and made available for inspection by EPA or the

State Maryland. 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 the Agency, 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:

“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 Sec. 1001 and 42 U.S.C Sec. 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 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.”

Boeing Commercial Airplane Co.	Auburn, Washington.	Residually contaminated soils in an inactive sludge pile containment area on March 27, 1990, previously used to store wastewater treatment sludges generated from electroplating operations (EPA Hazardous Waste No. F006).
Bommer Industries Inc.	Landrum, SC.	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from their electroplating operations and contained in evaporation ponds #1 and #2 on August 12, 1987.
Capitol Products Corp.	Harrisburg, PA...	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. FO19) generated from the chemical conversion coating of aluminum after September 12, 1986.
Capitol Products Corporation.	Kentland, IN.....	Dewatered wastewater treatment sludges (EPA Hazardous Waste No F019) generated from the chemical conversion coating of aluminum after November 17, 1986.
Care Free Aluminum	Charlotte, Michigan.	Wastewater treatment sludge (EPA Hazardous Waste No. F019) generated

Products, Inc.		from the chemical conversion coating of aluminum (generated at a maximum annual rate of 100 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, analyze a representative composite sample for the constituents listed in Sec. 261.24 using the method specified therein. The annual analytical results, including quality control information, must be compiled, certified according to Sec. 260.22(l)(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 Michigan. 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.
Chamberlian-Featherlite, Inc.	Hot Springs, AR..	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum after July 16, 1986.
Cincinnati Metropolitan Sewer District.	Cincinnati, OH...	Sluiced bottom ash (approximately 25,000 cubic yards) contained in the South Lagoon, on September 13, 1985 which contains EPA Hazardous Waste Nos. F001, F002, F003, F004, and F005.
Clay Equipment Corporation.	Cedar Falls, Iowa	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) and spent cyanide bath solutions (EPA Hazardous Waste No. F009) generated from electroplating operations and disposed of in an on-site surface impoundment. This is a onetime exclusion. This exclusion was published on August 1, 1989.
Continental Can Co.	Olympia, WA..	Dewatered wastewater treatment sludges (DPA Hazardous Waste No. FO19) generated from the chemical conversion coating of aluminum after September 12, 1986.
Dover Corp., Norris Div.	Tulsa, OK.	Dewatered wastewater treatment sludge (EPA Hazardous Waste No. FO06) generated from their electroplating operations after April 29, 1986.
Eli Lilly and Company.	Clinton, Indiana.	Incinerator scrubber liquids, entering and contained in their onsite surface impoundment, and solids settling from these liquids originating from the burning of spent solvents (EPA Hazardous Waste Nos. F002, F003, and F005) contained in their onsite surface impoundment and solids retention area on August 18, 1988 and any new incinerator scrubber liquids and settled solids generated in the surface impoundment and disposed of in the retention are after August 12, 1988.
Envirite of Illinois	Harvey, Illinois.	See waste description under Envirite of Pennsylvania.

(formerly  
Envirite  
Corporation).  
Envirite of Ohio  
(formerly  
Envirite  
Corporation).  
Envirite of  
Pennsylvania  
(formerly  
Envirite  
Corporation).

Canton, Ohio.....

See waste description under  
Envirite of Pennsylvania.

York,  
Pennsylvania.

Dewatered wastewater sludges (EPA Hazardous Waste No .F006) generated from electroplating solutions (EPA Hazardous Waste No. F007) generated from electroplating operations; plating bath residues from the bottom of plating baths (EPA Hazardous Waste No. F008) generated from electroplating operations where cyanides are used in the process; spent stripping and cleaning bath solutions (EPA Hazardous Waste No. F009) generated from electroplating operations where cyanides are used in the process; spent cyanide solutions from salt bath pot cleaning (EPA Hazardous Waste No. F011) generated from metal heat treating operations; quenching wastewater treatment sludges (EPA Hazardous Waste No. F012) generated from metal heat treating where cyanides are used in the process; wastewater treatment sludges (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum 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 waste. 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 exceeds 0.0126 ppm; or nickel levels exceed 2.205 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.

(2) Each batch of treatment residue must be tested for reactive and leachable cyanide. If the reactive cyanide levels exceed 250 ppm or leachable cyanide levels (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.

(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.

(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.)

(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, are 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.

EPA's Mobile Incineration System.

Denney Farm Site; McDowell, MO.

Process wastewater, rotary kiln ash, CHEAF media, and other solids (except spent activated carbon) (EPA Hazardous Waste Nos. F020, F022, F023, F026, F027, and F028) generated during the field demonstration of EPA's Mobile Incinerator at the Denney Farm Site in McDowell, Missouri, after July 25, 1985, so long as:

- (1) The incinerator is functioning properly;
- (2) a grab sample is taken from each tank of wastewater generated and the EP leachate values do not exceed 0.03 ppm for mercury,

		0.14 ppm for selenium, and 0.68 ppm for chromium; and (3) a grab sample is taken from each drum of soil or ash generated and a core sample is collected from each CHEAF roll generated and the EP leachate values of daily composites do not exceed 0.044 ppm in ash or CHEAF media for mercury or 0.22 ppm in ash or CHEAF media for selenium.
Falconer Glass Indust., Inc.	Falconer, NY.....	Wastewater treatment sludges from the filter press and magnetic drum separator (EPA Hazardous Waste No. F006) generated from electroplating operations after July 16, 1986.
Florida Production Engineering Company.	Daytona Beach, Florida.	This is a one-time exclusion. Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations and contained in four on-site trenches on January 23, 1987.
General Electric Company.	Shreveport Louisiana.	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations and contained in four on-site treatment ponds on August 12, 1987.
General Motors Corp., Fisher Body Division.	Elyria, OH.	The residue generated from the use of the Chemfix® treatment process on sludge (EPA Hazardous Waste No. F006) generated from electroplating operations and contained in three on-site surface impoundments on November 14, 1986. To assure that stabilization occurs, the following conditions apply to this exclusion: (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 to the holding area (cell) from each trailer unit. At the end of each production day, the grab samples from the individual trailer units will be composited and the EP toxicity test will be run on each composite sample. If lead or total chromium concentrations exceed 0.315 ppm or if nickel exceeds 2.17 ppm, in the EP extract, the waste will be removed and retreated or disposed of as a hazardous waste. (3) The treated waste shall be pumped into bermed cells which are constructed to assure that the treated waste is identifiable and retrievable (i.e., the material can be removed and either disposed of as a hazardous waste or retreated if conditions 1 or 2 are not met). Failure to satisfy any of these conditions would render the exclusion void. This is a one-time exclusion, applicable only to the residue generated from the use of the Chemfix® treatment process on the sludge currently

Geological  
Reclamation  
Operations and  
Systems, Inc.

Morrisville, PA..

contained in the three on-site surface impoundments.

Wastewater treatment sludge filter cake from the treatment of EPA Hazardous Waste No. F039, generated at a maximum annual rate of 1,000 cubic yards. This exclusion was published on August 20, 1991. This exclusion covers the filter cake resulting from the treatment of hazardous leachate derived from only "old" GROWS and non-hazardous leachate derived from only non-hazardous sources. This exclusion does not address the wastes disposed of in the "old" GROWS Landfill or the grit generated during the removal of heavy solids from the landfill leachate. To ensure that hazardous constituents are not present in the filter cake at levels of regulatory concern, GROWS must implement a testing program for the petitioned waste. This testing program must meet the conditions listed below in order for the exclusion to be valid:

(1) Testing: Sample collection and analyses, including quality control (QC) procedures, must be performed according to SW-846 methodologies.

(A) Sample Collection: Each batch of waste generated over a four-week period must be collected in containers with a maximum capacity of 20-cubic yards. At the end of the four-week period, each container must be divided into four quadrants and a single, full-depth core sample shall be collected from each quadrant. All of the full-depth core samples then must be composited under laboratory conditions to produce one representative composite sample for the four-week period.

(B) Sample Analysis: Each four-week composite sample must be analyzed for all of the constituents listed in Condition (3). 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 by any employee or representative of EPA or state of Pennsylvania.

(2) Waste Holding: The dewatered filter cake waste must be stored as hazardous until the verification analyses are completed. If the four-week composite sample does not exceed any of the delisting levels set in Condition

(3), the filter cake waste corresponding to this sample may be managed and disposed of in accordance with all applicable solid waste regulations. If the four-week composite sample exceeds any of the delisting levels set in Condition (3), the filter cake waste generated

during the time period corresponding to the four-week composite sample must be retreated until it meets these levels (analyses must be repeated) or managed and disposed of in accordance with subtitle C of RCRA. Filter cake waste which is generated but for which analyses are not complete or valid must be managed and disposed of in accordance with subtitle C of RCRA, until valid analyses demonstrate that the waste meets the delisting levels.

(3) Delisting Levels: If the concentrations in the four-week composite sample of the filter cake waste for any of the hazardous constituents listed below exceed their respective maximum allowable concentrations (ppm) also listed below, the four-week batch of failing filter cake waste must either be retreated until it meets these levels or managed and disposed of in accordance with subtitle C of RCRA.

(A) Inorganics (Leachable):

Arsenic--0.79  
Barium--15.9  
Cadmium--0.16  
Chromium--0.79  
Cyanide--11.1  
Lead--0.79  
Mercury--0.032  
Selenium--0.16  
Silver--0.79  
Nickel--11.1

Leachable metal concentrations must be measured in the filter cake leachate as per 40 CFR Sec. 261.24. Cyanide extractions must be conducted using distilled water in place of the leaching media per 40 CFR Sec. 261.24.

(B) Organics:

Acetone--2.02E+03  
Acetophenone--3.53E+04  
Acetonitrile; Methyl cyanide-- 2.43E+01  
Acrolein--1.38E+02  
Acrylonitrile--6.26E-04  
Aldrin--5.27E-03  
Aniline--8.72E-01  
Anthracene--3.01E+02  
Benzene--3.47E+00  
Benzo[a]anthracene--5.78E-01  
Benzo(b)fluoranthene--6.41E-01  
Benzo(k)fluoranthene--3.04E+03  
Benzo[a]pyrene--1.51E-01  
gamma-BHC; Lindane--5.90E-01  
Bis(2-chloroethyl) ether--6.94E-04  
Bis(2-ethylhexyl) phthalate--1.64E+02  
Bromodichloromethane--2.94E+03  
Bromoform; Tribromomethane--3.76E+03  
Butyl benzyl phthalate--2.49E+05  
Carbon disulfide--4.98E+04

Carbon tetrachloride--5.49E+00  
Chlordane--7.51E+01  
p-Chloroaniline--1.85E+02  
Chlorobenzene--5.95E+02  
Chlorobenzilate--1.68E+03  
p-Chloro-m-cresol--5.18E+02  
Chloroform--1.94E+00  
2-Chlorophenol--1.72E+02  
Chrysene--5.92E+01  
Cresol--4.91E+03  
2,4-D; 2,4-Dichlorophenoxyacetic acid--  
4.17E+02  
4,4'-DDD; DDD--2.33E+00  
4,4'-DDE; DDE--3.86E+00  
4,4'-DDT; DDT--1.21E+01  
Dibenz[a,h]anthracene--2.86E-02  
Dibromochloromethane;  
Chlorodibromomethane--3.05E+03  
1,2-Dibromo-3-chloropropane--4.09E-02  
1,2-Dibromoethane; Ethylene dibromide--  
2.37E-03  
Di-n-butyl phthalate--9.84E+05  
o-Dichlorobenzene; 1,2-Dichlorobenzene--  
1.95E+04  
m-Dichlorobenzene; 1,3- Dichlorobenzene--  
1.87E+05  
p-Dichlorobenzene; 1,4-Dichlorobenzene--  
1.03E+03  
3,3'-Dichlorobenzidine--2.21E-01  
Dichlorodifluoromethane--4.15E+05  
1,1-Dichloroethane--4.45E-02  
1,2-Dichloroethane; Ethylene dichloride--  
1.45E+00  
1,1-Dichloroethylene--4.96E+00  
trans-1,2-Dichloroethylene--1.42E+02  
2,4-Dichlorophenol--1.69E+02  
1,2-Dichloropropane--2.73E+00  
1,3-Dichloropropene (total cis and trans  
isomers)--2.32E-02  
Dieldrin--5.04E-03  
Diethyl phthalate--1.00E+06  
Dimethoate--1.32E+00  
7,12-Dimethylbenz[a]anthracene--1.46E-02  
2,4-Dimethylphenol--4.87E+01  
Dimethyl phthalate--1.00E+06  
m-Dinitrobenzene--5.14E+00  
4,6-Dinitro-o-cresol--2.00E+02  
2,4-Dinitrophenol--8.96E+01  
Dinitrotoluene (total of-2,4- and 2,6- isomers)--  
4.54E-03  
Dinoseb; DNBP--5.26E+02  
Di-n-octyl phthalate--1.34E+05  
1,4-Dioxane--7.89E-02  
Diphenylamine--4.81E+04  
Disulfoton--3.34E+00  
Endosulfan I and Endosulfan II (total)--7.74E+01

Endrin--3.92E+00  
Ethylbenzene--1.94E+04  
Fluoranthene--1.16E+05  
Fluorene--4.09E+01  
Heptachlor--1.31E+01  
Heptachlor epoxide--3.26E+00  
Hexachlorobenzene--1.02E+00  
Hexachlorobutadiene--2.01E+01  
Hexachlorocyclopentadiene--3.23E+04  
Hexachloroethane--1.15E+01  
Hexachlorophene;--1.22E+04  
Indeno (1,2,3-cd) pyrene--1.16E+02  
Isobutyl alcohol; Isobutanol--3.22E+04  
Isophorone--2.86E+00  
Methacrylonitrile; 2-methyl-2-Propenenitrile--  
5.77E-01  
Methoxychlor--1.03E+05  
Methylbromide; Bromomethane--1.41E+02  
Methyl chloride; Chloromethane--3.22E+04  
Methylene chloride; Dichloromethane--9.07E-01  
Methyl ethyl ketone; 2-Butanone--1.50E+03  
Methyl methacrylate--5.08E+05  
Methyl parathion; Phosphorothioic acid--  
5.27E+01  
4-Methyl-2-pentanone; Methyl isobutyl ketone--  
6.40E+03  
Naphthalene--1.00E+06  
Nitrobenzene--2.56E+01  
N-Nitroso-di-n-butylamine--8.15E-05  
N-Nitrosodiethylamine--2.00E-07  
N-Nitrosodimethylamine--2.19E-05  
N-Nitrosodiphenylamine--4.55E+01  
N-Nitrosodipropylamine; Di-n-propylNitrosamine;  
N-Nitrosodi-n-propylamine--5.02E-05  
Nitrosopyrrolidine; N-Nitrosopyrrolidine;  
I-nitroso-Pyrrolidine--3.06E-05  
Polychlorinated biphenyls;--4.77E+01  
Pentachlorobenzene--8.91E+03  
Pentachloronitrobenzene--2.82E+00  
Pentachlorophenol--1.14E+04  
Phenanthrene--5.46E+01  
Phenol--8.00E+04  
Pronamide--2.13E+05  
Pyrene--1.00E+06  
Pyridine--1.31E+01  
Silvex; 2,4,5-TP; 2-(2,4,5-trichlorophenoxy)-  
Propanoic acid--3.87E+01  
Styrene--9.14E+00  
2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid--  
6.63E+03  
1,2,4,5-Tetrachlorobenzene--2.19E+02  
1,1,2,2-Tetrachloroethane--2.28E-02  
Tetrachloroethene; Tetrachloroethylene--  
1.34E+01  
2,3,4,6-Tetrachlorophenol--1.17E+04  
Tetraethyl dithiopyrophosphate--2.51E+02

		Toluene--4.58E+04
		Toxaphene--3.09E+02
		1,2,4-Trichlorobenzene--4.75E+04
		1,1,1-Trichloroethane--8.70E+02
		1,1,2-Trichloroethane--9.03E-02
		Trichloroethylene; Trichloroethene--4.47E+00
		Trichlorofluoromethane--3.31E+05
		2,4,5-Trichlorophenol--8.20E+04
		2,4,6-Trichlorophenol--1.38E+00
		1,2,3-Trichloropropane--5.46E+02
		sym-Trinitrobenzene--2.17E+00
		Vinyl chloride--7.11E-01
		Xylene (total)--8.49E+05
Goodyear Tire and Rubber Co.	Randleman, NC....	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations.
Gould, Inc..	McConnelsville, OH.	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after November 27, 1985.
Hoechst Celanese Corporation.	Bucks, Alabama.	Distillation bottoms generated (at a maximum annual rate of 31,500 a maximum 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.
Hanover Wire Cloth Division.	Hanover, Pennsylvania.	Dewatered filter cake (EPA Hazardous Waste No. F006) generated from electroplating operations after August 15, 1986.
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.).	Munci, 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.

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.
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, 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.
Lincoln Plating Company.	Lincoln, NE.	Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after November 17, 1986.
Loxcreen Company, Inc.	Hayti, MO.....	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

Marquette Electronics Incorporated.	Milwaukee, Wisconsin.	discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. 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.
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.
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.
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.
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.
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

Company.	Missouri.	(EPA 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 Sec. 261.24 using the method specified therein. The annual analytical results, including quality control information, must be compiled, certified according to Sec. 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.
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.
Siegel-Robert, Inc.	St. Louis, MO	Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after November 27, 1985.
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.	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: (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 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.

(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 according to SW-846 methodologies.

(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 according to SW-846 methodologies. 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

Maximum Allowable Solids  
Treatment Residue EP Leachate Concentrations  
(mg/L)

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

(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 according to SW-846 methodologies. 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).)

(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 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 according to SW-846 methodologies. 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.

**Maximum Allowable Wastewater**

**Concentrations (ppm):**

Benz(a)anthracene-- $1 \times 10^{-4}$   
Benzo(a)pyrene-- $4 \times 10^{-5}$   
Benzo(b)fluoranthene-- $2 \times 10^{-4}$   
Chloroform--0.07  
Chrysene--0.002  
Dibenz(a,h)anthracene-- $9 \times 10^{-6}$   
1,2-Dichloroethane--0.06  
Dichloromethane--0.06  
Indeno(1,2,3-cd)pyrene--0.002  
Polychlorinated biphenyls-- $1 \times 10^{-4}$   
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 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

(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 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. Method 8290, a high resolution gas chromatography and high resolution mass spectroscopy (HRGC/HRMS) analytical method, must be used. 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.

(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, 401 M Street, S.W., 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.

(B) The testing requirements 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.

(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.”

SR of Tennessee. Ripley, TN.

Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from the copper, nickel, and chromium electroplating of plastic parts after November 17, 1986.

Tennessee Electroplating. Ripley, Tennessee

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.

Tennessee Electroplating Ripley, TN.

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.

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. D001, D003, D018, D019, D021, D022, D027, D028, D029, D030, D032, D033, D034, D035, 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:

1. Delisting Levels: 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 Sec. 261.24.

(A) Inorganic Constituents

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

(B) Organic Constituents

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-butylphthalate--180.0; Di-n-octylphthalate--35.0; 1,4 Dioxane--0.36; Ethyl Acetate--1350.0; Ethyl Ether--315.0; Ethylbenzene--180.0; Fluoranthene--45.0; Fluorene--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

2. Waste Holding and Handling:

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 accordance with all applicable solid waste regulations.

3. Verification Testing Requirements: Sample collection and analyses, including quality control procedures, must be performed according to SW-846 methodologies. If EPA judges the incineration process to be effective under the operating conditions used during the initial verification testing described in Paragraph 4 below, Texas Eastman may replace the testing required in Paragraph 4 with the testing required

in Paragraph 5 below. Texas Eastman must, however, continue to test as specified in Paragraph 4 until notified by EPA in writing that testing in Paragraph 4 may be replaced by the testing described in Paragraph 5.

4. Initial Verification Testing:

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.

5. Subsequent Verification Testing: 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.

6. Termination of Organic Testing:

Texas Eastman must continue testing as required under Paragraph 5 for 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.

7. Annual Testing: 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).

8. Changes in Operating Conditions: 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.

9. Data Submittals: 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: 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. 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 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.

Universal Oil Products.	Decatur, Alabama.	<p>10. Notification Requirements: 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 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.</p>
U.S. EPA Combustion Research Facility.	Jefferson, Arkansas.	<p>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.</p>
U.S. Nameplate Company, Inc.	Mount Vernon, Iowa.	<p>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.</p>
VAW of America Incorporated.	St. Augustine, Florida.	<p>Wastewater treatment sludge filter cake (EPA Hazardous Waste No. F019) generated from the chemical conversion coating of aluminum. This exclusion was published on February 1, 1989.</p>
Vermont American, Corp.	Newark, OH..	<p>Wastewater treatment sludge (EPA Hazardous Waste No. F006) generated from electroplating operations after November 27, 1985.</p>
Waterloo Industries.	Pocahontas, AR.	<p>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.</p>
Watervliet Arsenal.	Watervliet, NY.	<p>Wastewater treatment sludges (EPA Hazardous Waste No. F006) generated from electroplating operations after January 10, 1986.</p>
William L. Bonnell Co.	Newnan, Georgia.	<p>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.</p>
Windsor Plastics, Inc.	Evansville, IN...	<p>Spent non-halogenated solvents and still bottoms (EPA Hazardous Waste No. F003) generated from the recovery of acetone after November 17, 1986.</p>

**Table 2--Wastes Excluded From Specific Sources**

Facility	Address	Waste description
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.
Bekaert Steel Corporation.	Rogers, Arkansas.	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 Sec. 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 Sec. 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

Bethlehem Steel  
Corp.

Steelton, PA.....

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.

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:

(1) Testing:

(A) Initial Testing: 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), and the total constituent concentrations of reactive sulfide and reactive cyanide. Analyses must be performed according to SW-846 methodologies. 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.

(B) Subsequent Testing: 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 according to SW-846 methodologies. 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.

(2) Delisting Levels: 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, or total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be re-treated or managed and disposed in accordance with subtitle C of RCRA.

(3) Data submittals: 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, 401 M Street, S.W., 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:

``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."

Bethlehem Steel  
Corp.

Johnstown, PA.

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:

(1) Testing:

(A) Initial Testing: 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), and the total constituent concentrations of reactive sulfide and reactive cyanide. Analyses must be performed according to SW-846 methodologies. 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.

(B) Subsequent Testing: 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 according to SW-846 methodologies. 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.

(2) Delisting Levels: 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, or total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be re-treated or managed and disposed in accordance with subtitle C of RCRA.

(3) Data submittals: 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, 401M Street, SW., 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 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 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." 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-

BF Goodrich  
Intermediates  
Company, Inc.

Calvert City,  
Kentucky.

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 according to SW-846 procedures. 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 operation, BFG must do the following:

(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.

(B) 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 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), and the total constituent concentrations of reactive sulfide and reactive cyanide. 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.

(2) Subsequent Testing: After the first four weeks of full-scale operation, BFG must do the following:

(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.

(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 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.

(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; for cyanide exceeds 4.42 mg/l; or for total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be retreated until it meets these levels or managed and disposed of in accordance with subtitle C of RCRA.

(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 the Section Chief, Variances Section, PSPD/OSW (OS-343), U.S. EPA, 401 M Street, SW., 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: ``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. Sec. 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

CF&I Steel  
Corporation.

Pueblo, Colorado.

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." 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&I's full-scale CSEAFD treatment facility because CF&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&I must implement a testing program for the petitioned waste. This testing program must meet the following conditions for the exclusion to be valid:

(1) Testing:

(A) Initial Testing: During the first four weeks of operation of the full-scale treatment system, CF&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), and the total constituent concentrations of reactive sulfide and reactive cyanide. Analyses must be performed according to SW-846 methodologies. CF&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.

(B) Subsequent Testing: CF&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&I then must analyze each weekly composite sample for the EP leachate concentrations of all of the EP toxic

metals and nickel. Analyses must be performed according to SW-846 methodologies. 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.

(2) Delisting levels: 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, or total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be re-treated or managed and disposed in accordance with Subtitle C of RCRA.

(3) Data submittals: Within one week of system start-up, CF&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, 401 M Street, SW., Washington, DC 20460 within the time period specified in condition (1)(A). At the Section Chief's request, CF&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&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 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

Conversion  
Systems, Inc.

Horsham,  
Pennsylvania.

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." 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: Northwestern Steel, Sterling, Illinois after June 13, 1995. CSI must implement a testing program for each site that meets the following conditions for the exclusion to be valid:

(1) Verification Testing Requirements: Sample collection and analyses, including quality control procedures, must be performed according to SW-846 methodologies.

(A) Initial Verification Testing: 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.

(B) Addition of New Super Detox™ Treatment Facilities to Exclusion: 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.

(C) Subsequent Verification Testing: 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.

(2) Waste Holding and Handling: 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.

(3) Delisting Levels: 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.

(4) Changes in Operating Conditions: 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).

(5) Data Submittals: 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, 401 M Street, SW, 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 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: 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. 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. Effluents (EPA Hazardous Waste Nos. F001, F002, F003, F004, F005, and F039 derived

DOE-RL

Richland,  
Washington.

from F001 through F005) generated from the 200 Area Effluent Treatment Facility (ETF) located at the Hanford site (at a maximum generation rate of 19 million gallons per year) after June 13, 1995. To ensure that hazardous constituents are not present in the wastes at levels of regulatory concern while the treatment facility is in operation, DOE must implement a testing program. This testing program must meet the following conditions for the exclusion to be valid:

(1) Testing: Sample collection and analyses (including quality control (QC) procedures) must be performed according to SW-846 (or other EPA-approved) methodologies. If EPA judges the treatment process to be effective under the operating conditions used during the initial verification testing, DOE may replace the testing required in Condition (1)(A) with the testing required in Condition (1)(B). DOE must continue to test as specified in Condition (1)(A) until notified by EPA in writing that testing in Condition (1) (A) may be replaced by Condition (1)(B).

(A) Initial Verification Testing: During the period required to fill the first three verification tanks (each designed to hold approximately 650,000 gallons) with effluents generated from an on-line, full-scale Effluent Treatment Facility (ETF), DOE must monitor the range of typical operating conditions for the ETF. DOE must collect a representative sample from each of the first three verification tanks filled with ETF effluents. The samples must be analyzed, prior to disposal of ETF effluents, for all constituents listed in Condition (3). DOE must report the operational and analytical test data, including quality control information, obtained during this initial period no later than 90 days after the first verification tank is filled with ETF effluents.

(B) Subsequent Verification Testing: Following notification by EPA, DOE may substitute the testing conditions in this condition for (1)(A). DOE must continue to monitor operating conditions, and collect and analyze representative samples from every tenth verification tank filled with ETF effluents. These representative samples must be analyzed, prior to disposal of ETF effluents, for all constituents listed in Condition (3). If all constituent levels in a sample do not meet the delisting levels specified in Condition (3), DOE must analyze representative samples from the following two verification tanks generated prior to disposal. DOE may also collect and analyze representative samples more frequently.

(2) Waste Holding and Handling: DOE must store as hazardous all ETF effluents generated during verification testing (as specified in Conditions (1)(A) and (1)(B)), that is until valid analyses demonstrate that Condition (3) is satisfied. If the levels of hazardous constituents in the samples of ETF effluents are equal to or below all of the levels set forth in Condition (3), then the ETF effluents are not hazardous and may be managed and disposed of in accordance with all applicable solid waste regulations. If hazardous constituent levels in any representative sample collected from a verification tank exceed any of the delisting levels set in Condition (3), the ETF effluents in that verification tank must be re-treated until the ETF effluents meet these levels. Following re-treatment, DOE must repeat analyses in Condition (3) prior to disposal.

(3) Delisting Levels: All total constituent concentrations in the waste samples must be measured using the appropriate methods specified in "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods," U.S. EPA Publication SW-846 (or other EPA-approved methods). All total constituent concentrations must be equal to or less than the following levels (ppm):

### **Inorganic Constituents**

Ammonium--10.0  
Antimony--0.06  
Arsenic--0.5  
Barium--20.0  
Beryllium--0.04  
Cadmium--0.05  
Chromium--1.0  
Cyanide--2.0  
Fluoride--40.0  
Lead--0.15  
Mercury--0.02  
Nickel--1.0  
Selenium--0.5  
Silver--2.0  
Vanadium--2.0  
Zinc--100.0

### **Organic Constituents**

Acetone--40.0  
Benzene--0.05  
Benzyl alcohol--100.0  
1-Butyl alcohol--40.0  
Carbon tetrachloride--0.05  
Chlorobenzene--1.0

Chloroform--0.1  
Cresol--20.0  
1,4-Dichlorobenzene--0.75  
1,2-Dichloroethane--0.05  
1,1-Dichloroethylene--0.07  
Di-n-octyl phthalate--7.0  
Hexachloroethane--0.06  
Methyl ethyl ketone--200.0  
Methyl isobutyl ketone--30.0  
Naphthalene--10.0  
Tetrachloroethylene--0.05  
Toluene--10.0  
Tributyl phosphate--0.2  
1,1,1-Trichloroethane--2.0  
1,1,2-Trichloroethane--0.05  
Trichloroethylene--0.05  
Vinyl Chloride--0.02

(4) Changes in Operating Conditions: After completing the initial verification testing in Condition (1)(A), if DOE significantly changes the operating conditions established in Condition (1), DOE must notify the Agency in writing. After written approval by EPA, DOE must re-institute the testing required in Condition (1)(A). DOE 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, DOE may replace testing Condition (1)(A) with (1)(B). DOE must fulfill all other requirements in Condition (1), as appropriate.

(5) Data Submittals: At least two weeks prior to system start-up, DOE must notify, in writing, the Chief of the Waste Identification Branch (see address below) when the Effluent Treatment Process will be on-line and waste treatment will begin. The data obtained through Condition (1)(A) must be submitted to the Branch Chief, Waste Identification Branch, OSW (Mail Code 5304), U.S. EPA, 401 M Street, S.W., 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 three years. These records and data must be furnished upon request by EPA or the State of Washington and made available for inspection. Failure to submit the required data within the specified time period or to 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: 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. 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 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 DOE, 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 DOE will be liable for any actions taken in contravention of its RCRA and CERCLA obligations premised upon DOE's reliance on the void exclusion.

<p>Envirite of Illinois (formerly Envirite Corporation).</p>	<p>Harvey, Illinois.</p>	<p>See waste description under Envirite of Pennsylvania.</p>
<p>Envirite of Ohio (formerly Envirite Corporation).</p>	<p>Canton, Ohio.....</p>	<p>See waste description under Envirite of Pennsylvania.</p>
<p>Envirite of Pennsylvania (formerly Envirite Corporation).</p>	<p>York, Pennsylvania.</p>	<p>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 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)</p>

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 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.

(2) Each batch of treatment residue must be tested for reactive and leachable cyanide. If the reactive cyanide levels exceed 250 ppm; or leachable cyanide levels (using the EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be re-treated or managed and disposed as hazardous waste under 40 CFR Parts 262 to 265 and the permitting standards of 40 CFR 270.

(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.

(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.)

(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

Giant Refining Company, Inc.	Bloomfield, New Mexico.	<p>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> <p>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.</p>
LCP Chemical.....	Orrington, ME....	<p>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 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>
Marathon Oil Co..	Texas City, Texas	<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) Testing: Sample collection and analyses (including quality control (QC) procedures) must</p>

be performed according to SW-846 methodologies. 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).

(A) Initial Verification Testing: 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 batch.

(B) Subsequent Verification Testing: 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.

(C) Termination of Organic Testing: 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).

(2) Waste Holding and Handling: Marathon must store as hazardous 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 residual solids meet these levels, or managed and disposed of in accordance with Subtitle C of RCRA. 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.

(3) Delisting Levels: 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):

(A) Inorganic Constituents:

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.

(B) Organic Constituents:

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.  
(C) Indicator Parameters: 1-methyl naphthalene-3; benzo(a)pyrene-3.

(4) Changes in Operating Conditions: 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.

(5) Data Submittals: 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 desorption and stabilization units will be on-line and waste treatment will begin. The data obtained through Condition (1)(A) must be submitted to the Section Chief, Delisting Section, OSW (OS-333), U.S. EPA, 401 M Street, SW., 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: ``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 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. 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."

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 Chemicals Company. Sauget, Illinois.

Brine purification muds (EPA Hazardous Waste No. K071) generated from the mercury cell process in chlorine production, where separately prepurified brine is not used after August 15, 1986.

Occidental Chemical Corp. Muscle Shoals Plant. Sheffield, Alabama.

Retorted wastewater treatment sludge from the mercury cell process in chlorine production (EPA Hazardous 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 according to SW-846 procedures. 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), and the total constituent concentrations of reactive sulfide and reactive

cyanide. Occidental 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.

(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.

(2) Subsequent Testing--After the first four weeks of full-scale retort operation, Occidental must do the following:

(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.

(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 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).

(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 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.

(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; for cyanide exceeds 22.61 mg/l; or for total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be retreated until it meets these levels or managed and disposed of in accordance with subtitle C of RCRA.

(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 the Section Chief, Variances Section, PSPD/OSW (OS-343), U.S. EPA, 401 M Street SW., 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:

``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

Occidental  
Chemical  
Corporation.

Delaware City,  
Delaware.

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." 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 procedures) must be performed according to SW-846 methodologies. 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 treatment system operation, Occidental must do the following:

(A) Collect representative grab samples from each batch of the three treated waste streams (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 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 deionized water in the cyanide extractions), and the total constituent concentrations of reactive sulfide and reactive cyanide. 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.

(B) Collect representative grab samples of each batch of the three treated wastestreams (NaCl-

SC, NACI-TM and KCI-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.

(2) Subsequent Testing: 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 according to SW-846 procedures):

(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 condition (3) are not exceeded and the Section Chief, Variances Section, notifies Occidental that the requirements of this condition have been lifted.

(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).

(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.

(3) If under conditions (1) or (2), the EP leachate concentration for chromium, lead, arsenic, or silver exceeds 0.77 mg/L; for barium exceeds 15.5 mg/L; for cadmium or selenium exceeds 0.16 mg/L; for mercury exceeds 0.031 mg/L; for nickel or total cyanide exceeds 10.9 mg/L; or the total reactive cyanide or total reactive sulfide levels exceeds 250 mg/kg and 500 mg/kg, the waste must either be retreated or managed and disposed of in accordance with all applicable hazardous waste regulations.

(4) Within one week of system start-up, Occidental 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 the Section Chief, Variances Section, PSPD/OSW, (OS-333), U.S. EPA, 401 M Street, SW., 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:

``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. As to the (those) identified section(s) of this

Perox, Incorporated.	Sharon, Pennsylvania.	<p>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." 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 annual basis, analyze a representative composite sample for the constituents listed in Sec. 261.24 using the method specified therein. The annual analytical results, including quality control information, must be compiled, certified according to Sec. 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</p>

Reynolds Metals  
Company.

Gum Springs,  
Arkansas.

EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by EPA. Kiln residue (generated at a maximum annual volume of 300,000 cubic yards per year) from rotary kiln treatment of spent potliners (EPA Hazardous Waste No. K088). This exclusion was published on December 30, 1991. This exclusion does not apply to electrostatic precipitator dust generated by the rotary kiln. This exclusion initially applies only to the treatment by one rotary kiln of potliners generated by Reynolds Metals' four primary aluminum facilities (Massena, New York; Longview, Washington; Troutdale, Oregon; and Baie Comeau, Quebec) described in the petition. Reynolds may only accept spent potliners from other sources, or modify its treatment rotary process, or add an additional rotary kiln in accordance with Condition (5). This exclusion is conditional upon the submission of data obtained from each rotary kiln after it is established at the R.P. Patterson facility in Gum Springs, Arkansas. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern while the treatment facility is in operation, Reynolds must implement a testing program. This testing program must meet the following conditions for the exclusion to be valid:

(1) Operating Conditions:

(A) Initial Verification Testing: During the first 20 days of full-scale operation of the rotary kiln, at typical operating conditions, Reynolds must monitor and submit to EPA the rotary kiln operating conditions (including, but not limited to: Temperature range of the kiln (hot and cold end), kiln residue exit temperature, spent potliner feed rate, brown sand feed rate, limestone feed rate, natural gas feed rate, oxygen/air feed rate, and rotary kiln residence time of the raw materials). The ratio of the spent potliner feed rate to the combined feed rates of the spent potliner, brown sand, and limestone must be no more than 0.35. Information on all other operating conditions should encompass all conditions used for preliminary testing runs and those anticipated for subsequent waste processing. During initial verification testing, the petitioner must also demonstrate to EPA how the range of operating conditions could affect the process (i.e., submit analyses of representative grab samples, as specified under Condition (2), of the kiln residue generated under the expected range of operating conditions). The source of the brown sand must be from Reynolds' dry lake beds at the Bauxite,

Arkansas facility. Reynolds must submit the information specified in this condition and obtained during this initial period no later than 90 days after the treatment of the first full-scale batch of spent potliner.

(B) Subsequent Verification Testing: During subsequent verification testing, Reynolds must monitor the performance of the rotary kiln at all times to ensure that it falls within the range of operating conditions demonstrated during initial verification testing, to be adequate to maintain the levels of hazardous constituents below the delisting levels specified in Condition (4). The feed rates of spent potliner, lime and brown sand are to be as that described in Condition (1)(A). Records of the operating conditions of the rotary kiln (including, but not limited to: Temperature range of the kiln, kiln residue exit temperature, spent potliner feed rate, brown sand feed rate, limestone feed rate, natural gas feed rate, oxygen/air feed rate, and rotary kiln residence time of the raw materials) should be maintained on site for a minimum of five years. This information must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Arkansas.

(2) Testing: Sample collection and analyses (including quality control (QC) procedures) must be performed according to SW-846 methodologies. For fluoride, samples must be analyzed using Method 340.2 from "Methods for Chemical Analysis of Water and Waste". If the EPA judges the treatment process to be effective under the operating conditions used during the initial verification testing, Reynolds may replace the testing required in Condition (2)(A) with the testing required in Condition (2)(B). Reynolds must continue to test daily composites of kiln residue generated beyond the time period specified in Condition (2)(A) until and unless notified by EPA in writing that testing in Condition (2)(A) may be replaced by Condition (2)(B) (to the extent directed by EPA).

(A) Initial Verification Testing: During the first 20 operating days of full-scale operation of the new on-line rotary kiln, Reynolds must collect and analyze daily composites of kiln residue. Daily composites must be composed of representative grab samples collected every 6 hours during each 24-hour kiln operating cycle. The kiln residue samples must be analyzed, prior to the disposal of the kiln residue, for all constituents listed in Condition (4). Reynolds 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 of untreated spent potliner.

(B) Subsequent Verification Testing: Following notification by EPA, Reynolds may substitute the testing conditions in (2)(B) for (2)(A). Reynolds must collect and analyze both daily and weekly composites of kiln residue. Daily composites must be composed of representative grab samples collected every 6 hours during a 24-hour kiln operating cycle and these samples must be analyzed, prior to the disposal of the kiln residue, for leachable concentrations of cyanide and fluoride. Weekly composites must be composed of representative grab samples collected every 6 hours during a 24-hour kiln operating cycle for each day in the week that the kiln is operating. The weekly samples must be analyzed, prior to the disposal of the kiln residue, for the leachable concentrations of the inorganics listed in Condition (4)(A) and leachable levels of the semi-volatile organic compounds listed in Condition (4)(B). Analyses of both daily and weekly samples must be completed prior to the disposal of waste generated during that week as set forth in Condition (3). The analytical data, including quality control information, must be compiled, summarized, and maintained on site for a minimum of five years. These data must be furnished upon request and made available for inspection by any employee or representative of EPA or the State of Arkansas.

(3) Waste Holding and Handling: Reynolds must store, as hazardous, all kiln residue generated until verification testing (as specified in Condition (2)(A) and (2)(B)) is completed and compared, by the petitioner, with the delisting levels set forth in Condition (4). If the levels of hazardous constituents measured in the samples of kiln residue generated do not exceed any of the set forth in Condition (4), then the kiln residue is non-hazardous and may be managed and disposed of in accordance with all applicable solid waste regulations. If hazardous constituent levels in any daily or weekly sample exceed any of the delisting levels set in Condition (4), the kiln residue generated during the time period corresponding to this sample must be retreated until it meets these levels (analyses must be repeated) or managed and disposed of in accordance with Subtitle C of RCRA. Kiln residue which is generated but for which the required analysis is not complete or valid must be managed and disposed of in accordance with Subtitle C of RCRA, until valid

analysis demonstrates that Condition (4) is satisfied.

(4) Delisting Levels: All concentrations must be measured in the waste leachate by the method specified in 40 CFR 261.24.

(A) The leachable concentrations for metals may not exceed the following levels (ppm): arsenic, selenium, or silver--0.60; barium--12.0; antimony--0.12; lead--0.18; cadmium--0.06, chromium or nickel--1.2; mercury-- 0.024; beryllium--0.012; fluoride--48.0; and cyanide--2.4 (cyanide extraction must be conducted using deionized water).

(B) The leachable constituent concentrations for organics may not exceed the levels listed below (ppm):

Acenaphthene--24

Benz(a)anthracene-- $1.2 \times 10^{-4}$

Benzo(b)fluoranthene-- $2.4 \times 10^{-4}$

Benzo(a)pyrene-- $2.4 \times 10^{-3}$

Chrysene-- $2.4 \times 10^{-3}$

Fluoranthene--12

Indeno (1,2,3-cd)pyrene-- $2.4 \times 10^{-3}$

Pyrene--12

(5) Changes in Operating Conditions and Waste Sources: If after completing the initial verification test period in Conditions (1)(A) and (2)(A), Reynolds decides to treat spent potliner from any other primary aluminum reduction facility; or use a new source for brown sand; or otherwise significantly change the operating conditions developed under Condition (1); then Reynolds must notify EPA in writing prior to instituting the change. Reynolds must also reinstitute the testing and reporting required in Conditions (1)(A) and (2)(A) for a minimum period of four operating days and fulfill all other requirements in Conditions (1) and (2), as appropriate. Reynolds may also add one additional kiln at its R.P. Patterson facility in Gum Springs, Arkansas if it can demonstrate that the new kiln can successfully treat spent potliners. Reynolds must fulfill all requirements contained in Conditions (1) and (2) for the second kiln. Reynolds must continue to test any kiln residue generated beyond the time period specified in Condition (2)(A) until and unless notified in writing by EPA that testing Condition (2)(A) may be replaced by (2)(B) to the extent directed by EPA.

(6) Data Submittals: Reynolds must notify in writing the Section Chief, Delisting Section (see address below) when the rotary kiln is on-line and two weeks prior to when waste treatment will begin. The data obtained through Conditions (1)(A) and (2)(A) must be submitted to the

Section Chief, Delisting Section, OSW (OS-333), U.S. EPA, 401 M Street, SW., Washington, DC 20460 within the time period specified. At the Section Chief's request, Reynolds must submit any other analytical data obtained through Conditions (1)(B) and (2)(B) within the time period specified by the Section Chief. 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 the Agency, 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: ``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 Sec. 1001 and 42 USC Sec. 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." 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. This

Roanoke Electric  
Steel Corp.

Roanoke, VA.....

testing program must meet the following conditions for the exclusion to be valid:

(1) Testing:

(A) Initial testing: 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), and the total constituent concentrations of reactive sulfide and reactive cyanide. Analyses must be performed according to SW-846 methodologies. 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.

(B) Subsequent testing: 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 according to SW-846 methodologies. 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 Virginia.

(2) Delisting levels: 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, or total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be re-treated or managed and disposed in accordance with Subtitle C of RCRA.

(3) Data submittals: 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/OSW, (OS-343), U.S. EPA, 401 M Street, SW., 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.

Tricil Environmental Systems, Inc. Hilliard, Ohio.

Spent pickle liquor (EPA Hazardous Waste No. K062) generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) after November 17, 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 total oil and grease test and the EP Toxicity test (or the Oily Waste EP test, if the oil and grease content of the waste exceeds one percent) for

arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver and nickel. If the extract concentrations for chromium, lead, arsenic, barium, and silver exceed 6.3 ppm; cadmium and selenium exceed 0.063 ppm; mercury levels exceed 0.013 ppm; or nickel levels exceed 2.2 ppm, the waste will be retreated or managed and disposed as a hazardous waste under 40 CFR parts 262 to 265 and the permitting standards of 40 CFR 270.

(2) Each batch of treatment residue must be tested for reactive and leachable cyanide. If the reactive cyanide levels exceed 250 ppm; or leachable cyanide levels (using the EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be retreated or managed and disposed as hazardous waste under 40 CFR parts 262 to 265 and the permitting standards of 40 CFR Part 270.

(3) Each batch of waste must be tested for the total content of the following organic toxicants. If the total content of any of the constituents exceeds the maximum levels shown, the waste must be managed and disposed as a hazardous waste under 40 CFR parts 262 and 265 and the permitting standards of 40 CFR Part 270.

Compound and Maximum Acceptable Levels (ppm);

Acrolein, 56.8

Anthracene, 76.8

Benzene, 0.106

p-Chloro-m-cresol, 133

1,1-Dichloroethane, 0.01

Fluorene, 10.4

Methylenechloride, 8.2

Methyl ethyl ketone, 326

n-Nitrosodiphenylamine, 11.9

Phenanthrene, 14

Tetrachloroethylene, 0.188

Trichloroethylene, 0.59

Chloroform, 0.013

1,2-Dichloroethane, 0.0083

1,2-trans-Dichloroethylene, 231

2,4-Dimethylphenol, 12.5

Vinyl chloride, 0.18

1,2-Diphenyl hydrazine, 0.001

(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 organic compounds shown above, as well as the remaining organics on the priority pollutant list (see 47 FR 52309, November 19, 1982, Appendix A-126 Priority Pollutants).

(5) The test data from conditions 1-4 must be kept on file at the facility for inspection purposes and must be compiled, summarized, and

Tricil  
Environmental  
System, Inc.

Muskegon,  
Michigan.

submitted to the Administrator by certified mail on a semiannual basis. 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 May 18, 1987. The Agency's decision to conditionally exclude the treatment residue generated from the wastewater treatment system at this facility applies only to the wastewater treatment residue described in this petition.

Spent pickle liquor (EPA Hazardous Waste No. K062) generated by facilities within the iron and steel industry (SIC Codes 331 and 332); after November 17, 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 exclusion to be valid:

(1) Each batch of treatment residue must be representatively sampled and tested using the total oil and grease test and the EP Toxicity test (or the Oily Waste EP test, if the oil and grease content of the waste exceeds one percent) for arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver and nickel. If the extract concentrations for chromium, lead, arsenic, barium, and silver exceed 6.3 ppm, cadmium and selenium exceed 0.063 ppm; mercury levels exceed 0.013 ppm; or nickel levels exceed 2.2 ppm, the waste will be retreated or managed and disposed as a hazardous waste under 40 CFR parts 262 to 265 and the permitting standards of 40 CFR 270.

(2) Each batch of treatment residue must be tested for reactive and leachable cyanide. If the reactive cyanide levels exceed 250 ppm; or leachable cyanide levels (using the EP Toxicity test without acetic acid adjustment) exceed 1.26 ppm, the waste must be retreated or managed and disposed as hazardous waste under 40 CFR parts 262 to 265 and the permitting standards of 40 CFR Part 270.

(3) Each batch of waste must be tested for the total content of the following organic toxicants. If the total content of any of the constituents exceeds the maximum levels shown, the waste must be managed and disposed as a hazardous waste under 40 CFR parts 262 and 265 and the permitting standards of 40 CFR Part 270:

Compound and Maximum Acceptable Levels (ppm);

Acrolein, 56.8

Anthracene, 76.8  
Benzene, 0.106  
p-Chloro-m-cresol, 133  
1,1-Dichloroethane, 0.01  
Fluorene, 10.4  
Methylenechloride, 8.2  
Methyl ethyl ketone, 326  
n-Nitrosodiphenylamine, 11.9  
Phenanthrene, 14  
Tetrachloroethylene, 0.188  
Trichloroethylene, 0.59  
Chloroform, 0.013  
1,2-Dichloroethane, 0.0083  
1,2-trans-Dichloroethylene, 231  
2,4-Dimethylphenol, 12.5  
Vinyl chloride, 0.18  
1,2-Diphenyl hydrazine, 0.001

(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 organic compounds shown above, as well as the remaining organics on the priority pollutant list (see 47 FR 52309, November 19, 1982, Appendix A-126 Priority Pollutants).

(5) The test 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 on a semiannual basis. 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 May 18, 1987. The Agency's decision to conditionally exclude the treatment residue generated from the wastewater treatment system at this facility applies only to the wastewater treatment residue described in this petition.

USX Steel  
Corporation, USS  
Division,  
Southworks  
Plant, Gary  
Works.

Chicago, Illinois

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 SEAFD 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:

(1) Testing: Sample collection and analyses (including quality control (QC) procedures) must

be performed according to SW-846 methodologies.

(A) Initial Testing: 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 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), and the total concentrations of reactive sulfide and reactive cyanide. 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.

(B) Subsequent Testing: 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.

(2) Delisting levels: 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, total reactive cyanide or total reactive sulfide levels exceed 250 mg/kg and 500 mg/kg, respectively, the waste must either be re-treated until it meets these levels or managed and disposed of in accordance with Subtitle C of RCRA.

(3) Data submittals: 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, 401 M Street, S.W., 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: ``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. Sec. 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." Brine purification muds (EPA Hazardous Waste No. K071) generated from the mercury cell process in chlorine production, where separately prepurified 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.

Vulcan Materials Company.

Port Edwards, WI.

---

**Table 3--Wastes Excluded From Commercial Chemical Products, Off- Specification Species, Container Residues, and Soil Residues Thereof**

---

Facility	Address	Waste description
----------	---------	-------------------

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. 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.
Union Carbide Corp.	Taft, LA.	Contaminated soil (approximately 11,000 cubic yards), which contains acrolein in concentrations of less than 9 ppm.

[49 FR 37070, Sept. 21, 1984]

Editorial Note: For Federal Register citations affecting appendix IX of part 261, see the List of CFR Sections Affected in the Finding Aids section of this volume.