

HAWAII ADMINISTRATIVE RULES

TITLE 11

DEPARTMENT OF HEALTH

CHAPTER 261

HAZARDOUS WASTE MANAGEMENT

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SUBCHAPTER A -- GENERAL

§11-261-1 Purpose and scope. (a) This chapter identifies those solid wastes which are subject to regulation as hazardous wastes under chapters 11-262 through 11-280 and which are subject to the notification requirements of HRS section 342J-6.5. The definitions in chapter 11-260 apply to this chapter. In this chapter:

- (1) Subchapter A defines the terms ``solid waste'' and ``hazardous waste'', identifies those wastes which are excluded from regulation under chapters 11-262 through 11-280 and establishes special management requirements for hazardous waste produced by conditionally exempt small quantity generators and hazardous waste which is recycled.
  - (2) Subchapter B sets forth the criteria used by the department to identify characteristics of hazardous waste and to list particular hazardous wastes.
  - (3) Subchapter C identifies characteristics of hazardous waste.
  - (4) Subchapter D lists particular hazardous wastes.
  - (5) Subchapter E adopts by reference Appendices I, II, III, VII, VIII, and X to 40 CFR Part 261.
- (b)(1) The definition of solid waste contained in this chapter applies only to wastes that also are hazardous for purposes of the rules implementing HRS chapter 342J. 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 chapter identifies only some of the materials which are solid wastes and hazardous wastes under HRS

chapter 342J. A material which is not defined as a solid waste in this chapter, or is not a hazardous waste identified or listed in this chapter, is still a solid waste and a hazardous waste for purposes of HRS sections 342J-6, 342J-7, 342J-8, 342J-9(a), 342J-9(b), 342J-10, and 342J-11 if:

- (i) In the case of HRS sections 342J-6, 342J-7, 342J-9(a), 342J-9(b), 342J-10, and 342J-11, the department has reason to believe that the material may be a solid waste as the term is defined in HRS section 342J-2, and a hazardous waste as the term is defined in HRS section 342J-2; or
  - (ii) In the case of HRS section 342J-8, the statutory elements are established.
- (c) For the purposes of sections 11-261-2 and 11-261-6:
- (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 section 11-260-10;
  - (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 seventy-five 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 seventy-five 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 subsection 11-261-4(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 (section 11-261-4(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.

(d) All references in tables and appendices to provisions of the Code of Federal Regulations shall be construed to mean the State rule analogue of the referenced federal regulation (for example, 40 CFR 260.1 shall be construed to mean section 11-260-1 of the Hawaii Administrative Rules). [Eff 6/18/94, am 3/13/99; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.1)

§11-261-2 Definition of solid waste.

(a)(1) A "solid waste" is any discarded material that is not excluded by subsection 11-261-4(a).

(2) A "discarded material" is any material which is:  
 (i) "Abandoned," as explained in subsection (b); or  
 (ii) "Recycled," as explained in subsection (c); or  
 (iii) Considered "inherently waste-like," as explained in subsection (d); or  
 (iv) A "military munition" identified as a solid waste in section 11-266-202.

(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 (c)(4).

(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 section 11-261-33 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 section 11-261-33 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 (§11-261-2(c)(1)) (1)	Energy recovery/fuel (§11-261-2(c)(2)) (2)	Reclamation (§11-261-2(c)(3)) (3)	Speculative accumulation (§11-261-2(c)(4)) (4)
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in section 11-261-31 or 11-261-32)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	.....	(*)
By-products (listed in section 11-261-31 or 11-261-32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	.....	(*)
Commercial chemical products listed in section 11-261-33	(*)	(*)	.....	.....
Scrap metal other than excluded scrap metal (see section 11-261-1(c)(9))	(*)	(*)	(*)	(*)

Note: The terms 'spent materials', 'sludges', 'by-products,' and 'scrap metal' and "processed scrap metal" are defined in section 11-261-1.

- (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 subchapter C or D, except for brominated material that meets the following criteria:
  - (i) The material must contain a bromine concentration of at least forty-five percent; and
  - (ii) The material must contain less than a total of one percent of toxic organic compounds listed in appendix VIII; and
  - (iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).
- (3) The director will use the following criteria to add wastes to that list:
  - (i) (A) The materials are ordinarily disposed of, burned, or incinerated; or
    - (B) The materials contain toxic constituents listed in Appendix VIII of chapter 11-261 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 subparagraphs (e)(1)(i) through (e)(1)(iii)):
  - (i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

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- (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 HRS chapter 342J 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. [Eff 3/18/94; am 3/13/99; comp \_\_\_\_\_] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.2)

§11-261-3 Definition of hazardous waste. (a) A solid waste, as defined in section 11-261-2, is a hazardous waste if:

- (1) It is not excluded from regulation as a hazardous waste under subsection 11-261-4(b); and
- (2) It meets any of the following criteria:
  - (i) It exhibits any of the characteristics of hazardous waste identified in subchapter C except that any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under subsection 11-261-4(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste under subchapter C 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 section 11-261-24 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 subchapter D.



- (iii) It is a mixture of a solid waste and a hazardous waste that is listed in subchapter D solely because it exhibits one or more of the characteristics of hazardous waste identified in subchapter C, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in subchapter C, or unless the solid waste is excluded from regulation under paragraph 11-261-4(b)(7) and the resultant mixture no longer exhibits any characteristic of hazardous waste identified in subchapter C for which the hazardous waste listed in subchapter D was listed. (However, nonwastewater mixtures are still subject to the requirements of chapter 11-268, 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 subchapter D; however, the following mixtures of solid wastes and hazardous wastes listed in subchapter D are not hazardous wastes (except by application of subparagraphs (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 Federal 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 section 11-261-31 -- 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 pre-treatment system does not exceed 1 part per million; or
- (B) One or more of the following spent solvents listed in section 11-261-31 -- 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 pre-treatment system does not exceed 25 parts per million; or
- (C) One of the following wastes listed in section 11-261-32 -- 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 section 11-261-33, 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 clause (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 rinsate 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 subchapter D, 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 section 11-261-32--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 section 11-261-32--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 subchapter D of chapter 11-261. 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 chapter 11-261). 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. [202-783-3238] 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 oil/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) becomes a hazardous waste when any of the following events occur:

- (1) In the case of a waste listed in subchapter D, when the waste first meets the listing description set forth in subchapter D.
- (2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in subchapter 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 subchapter C.
- (c) Unless and until it meets the criteria of subsection

(d):

- (1) A hazardous waste will remain a hazardous waste.
- (2) (i) Except as otherwise provided in subparagraph (c)(2)(ii), 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 (Standard Industrial Codes (SIC) 331 and 332).
    - (B) Waste from burning any of the materials exempted from regulation by subparagraphs 11-261-6(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 section 11-260-10), that are disposed in solid waste management units under chapter 342H, HRS, provided that these residues meet the generic exclusion levels identified in the tables in this paragraph for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

Constituent	Maximum for any single composite sample-TCLP (mg/l)
Generic exclusion levels for K061 and K062 nonwastewater HTMR residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0

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Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

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Generic exclusion levels for F006 nonwastewater  
HTMR residues

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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

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- (2) A one-time notification and certification must be placed in the facility's files and sent to the department for K061, K062 or F006 HTMR residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to solid waste management units under chapter 342H, HRS. The notification and certification that is placed in the generators or treaters files must be updated if the process or operation generating the waste changes and/or if chapter 342H, HRS solid waste management unit receiving the waste changes. However, the generator or treater need only notify the department on an annual basis if such changes occur. Such notification and certification should be sent to the department 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 chapter 342H, HRS solid waste management 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 section 11-261-32--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 subsection (c) 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 subchapter C. (However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of chapter 11-268, even if they no longer exhibit a characteristic at the point of land disposal.)

(2) [Reserved]

(e) [Reserved]

(f) Notwithstanding subsections (a) through (d) of this section and provided the debris as defined in chapter 11-268 does not exhibit a characteristic identified at subchapter C of this chapter, the following materials are not subject to regulation under chapters 11-260, 11-261 to 11-266, 11-268, or 11-270:

- (1) Hazardous debris as defined in chapter 11-268 that has been treated using one of the required extraction or destruction technologies specified in Table 1 of section 11-268-45; 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 chapter 11-268 that the director, considering the extent of contamination, has determined is no longer contaminated with hazardous waste. [Eff 6/18/94; am 3/13/99; comp \_\_\_\_\_] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.3)

§11-261-4 Exclusions. (a) Materials which are not solid wastes. The following materials are not solid wastes for the purpose of this chapter:

- (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 Federal Clean Water Act, as amended. 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 Federal 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 subsection 11-261-1(c).
- (7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in subsection 11-261-1(c).
- (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 11-261-24 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 subchapter D of chapter 11-261 (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 section 11-279-1.

- (13) Excluded scrap metal (processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled.
- (14) Shredded circuit boards being recycled provided that they are:
  - (i) Stored in containers sufficient to prevent a release to the environment prior to recovery; and
  - (ii) Free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.
- (15) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with 40 CFR 63.446(e). The exemption applies only to combustion at the mill generating condensates.

(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 chapters 11-260 through 11-280, 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 section 11-266-112 for facilities that burn or process hazardous waste.
- (5) [Reserved]
- (6) (i) Wastes which fail the test for the Toxicity Characteristic because chromium is present or are listed in subchapter D due to the presence of chromium, which do not fail the test for the Toxicity Characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:
  - (A) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and
  - (B) The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and
  - (C) The waste is typically and frequently managed in non-oxidizing environments.
- (ii) Specific wastes which meet the standard in clauses (b)(6)(i)(A), (B), and (C) (so long as they do not fail the test for the toxicity characteristic for any other constituent, and do not exhibit any other characteristic) are:
  - (A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
  - (B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
  - (C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no

- beamhouse; through-the-blue.
- (D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
  - (E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.
  - (F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retain/wet finish; and through-the-blue.
  - (G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.
  - (H) Wastewater treatment sludges from the production of  $TiO_2$  pigment using chromium-bearing ores by the chloride process.
- (7) Solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock and overburden from the mining of uranium ore), except as provided by section 11-266-112 for facilities that burn or process hazardous waste. For purposes of paragraph 11-261-4(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 paragraph 11-261-4(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 section 11-266-112 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 section 11-261-24 (Hazardous Waste Codes D018 through D043 only) and are subject to the corrective action regulations under 40 CFR Part 280 or rules promulgated pursuant to the State's underground storage tank program, or the corrective action requirements of chapter 342L, HRS or the corrective action rules adopted under chapter 342L, HRS.

- (11) [Reserved]
- (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 subchapter D of this chapter 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 chapters 11-262 through 11-280 or to the notification requirements of HRS section 342J-6.5 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 ninety 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), 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 chapter or chapters 11-262 through 11-280 or to the notification requirements of HRS section 342J-6.5, 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 subparagraphs (d)(1)(i) and (ii), 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).
- (e) Treatability Study Samples.
- (1) Except as provided in paragraph (e)(2), persons who generate or collect samples for the purpose of conducting treatability studies as defined in section 11-260-10, are not subject to any requirement of chapters 11-261 through 11-263 or to the notification requirements of section 342J-6.5, HRS, nor are such samples included in the quantity determinations of section 11-261-5 and subsection 11-262-34(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) 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, or 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 clause (e)(2)(iii)(A) or (B) 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 subsection 11-261-4(f) or 40 CFR 261.4(f) or has an appropriate hazardous waste management permit issued by any state, a RCRA permit or interim status.
- (v) The generator or sample collector maintains the following records for a period ending three 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 clause (e)(2)(v)(C) in its biennial report.
- (3) The director may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The director may grant requests on a case-by-case basis for quantity limits in excess of those specified in subparagraphs (e)(2)(i) and (ii) and paragraph (f)(4), 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 subparagraphs (e)(3)(i) and (ii) are subject to all the provisions in paragraph (e)(1) and subparagraph (e)(2) (iii) through (vi). The generator or sample collector must apply to the director and provide in writing the following information:

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

(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 chapter 342J, HRS requirements) are not subject to any requirement of this chapter, or chapters 11-262 through 11-280, or to the notification requirements of section 342J-6.5, HRS provided that the conditions of paragraphs (f)(1) through (11) of this section are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to paragraphs (f)(1) through (11) of this section. Where a group of MTUs are located at the same site, the limitations specified in paragraphs (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 forty-five days before conducting

treatability studies, the facility notifies the director, in writing that it intends to conduct treatability studies under this paragraph.

- (2) The laboratory or testing facility conducting the treatability study has an EPA identification number.
- (3) No more than a total of 10,000 kg of "as received" media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste or 250 kg of other "as received" hazardous waste is subject to initiation of treatment in all treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.
- (4) The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials (including nonhazardous solid waste) added to "as received" hazardous waste.
- (5) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year (two years for treatability studies involving bioremediation) have elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.
- (6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.
- (7) The facility maintains records for three 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 three years from the completion date of each treatability study.
- (9) The facility prepares and submits a report to the director, by March 15 of each year that 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 section 11-261-3 and, if so, are subject to chapters 11-261 through 11-268, and 11-270, unless the residues and unused samples are returned to the sample originator under the subsection 11-261-4(e) exemption.
- (11) The facility notifies the director, by letter when the facility is no longer planning to conduct any treatability studies at the site. [Eff 6/18/94; am 3/13/99; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.4)

§11-261-5 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 one-hundred kilograms of hazardous waste in that month.

(b) Except for those wastes identified in paragraphs (e), (f), (g), and (j), a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under chapters 11-262 through 11-266, 11-268, and 11-270 and 11-271, and the notification requirements of HRS section 342J-6.5, provided the generator complies with the requirements of paragraphs (f), (g), and (j).

(c) When making the quantity determinations of this chapter and chapter 11-262, the generator must include all hazardous waste that it generates, except hazardous waste that:

- (1) Is exempt from regulation under subsections 11-261-4(c) through (f), paragraph 11-261-6(a)(3), paragraph 11-261-7(a)(1), or section 11-261-8; 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 section 11-260-10; or
- (3) Is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under paragraph 11-261-6(c)(2); or
- (4) Is used oil managed under the requirements of paragraph 11-261-6(a)(4) and chapter 11-279; or
- (5) Is spent lead-acid batteries managed under the requirements of subchapter G of chapter 11-266; or
- (6) Is universal waste managed under section 11-261-9 and chapter 11-273.

(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 chapters 11-262 through 11-266, 11-268, and 11-270 and 11-271, and the notification requirements of HRS section 342J-6.5:

- (1) A total of one kilogram of acute hazardous wastes listed in sections 11-261-31, 11-261-32, or subsection 11-261-33(e).
- (2) A total of one-hundred 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 sections 11-261-31, 11-261-32, or subsection 11-261-33(e).

[Comment: ``Full regulation'' means those regulations applicable to generators of greater than one-thousand kilograms 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) to be excluded from full regulation under this section, the generator must comply with the following requirements:

- (1) Section 11-262-11;
- (2) The generator may accumulate acute hazardous waste on-site. If he or she accumulates at any time acute hazardous wastes in quantities greater than those set forth in paragraph (e)(1) or (e)(2), all of those accumulated wastes are subject to regulation under chapters 11-262 through 11-266, 11-268, and 11-270 and 11-271, and the applicable notification requirements of section 342J-6.5, HRS. The time period of subsection 11-262-34(a), 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 or her 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 chapter 11-270 or subtitle C of RCRA;
  - (ii) In interim status under chapters 11-270 and 11-265 or subtitle C of RCRA;
  - (iii) Authorized to manage hazardous waste by a state with a hazardous waste management program approved under 40 CFR Part 271;
  - (iv) Permitted, licensed, or registered by the State or any state to manage municipal solid waste and, if managed in a municipal solid waste landfill is subject to 40 CFR Part 258 or state rules that are the equivalent of 40 CFR Part 258;
  - (v) Permitted, licensed, or registered by the State or any 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 40 CFR sections 257.5 through 257.30 or state rules that are the equivalent of 40 CFR sections 257.5 through 257.30; 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 chapter 11-273, a universal waste handler or destination facility subject to the requirements of chapter 11-273.

(g) In order for hazardous waste generated by a conditionally exempt small quantity generator in quantities of less than one-hundred 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 11-262-11;

(2) The conditionally exempt small quantity generator may accumulate hazardous waste on-site. If he or she accumulates at any time more than a total of one-thousand kilograms of his or her hazardous wastes, all of those accumulated wastes are subject to regulation under the special provisions of chapter 11-262 applicable to generators of between one-hundred kilograms and one-thousand kilograms of hazardous waste in a calendar month as well as the requirements of chapters 11-263 through 11-266, 11-268, 11-270 and 11-271, and the applicable notification requirements of section 342J-6.5, HRS. The time period of subsection 11-262-34(d) for accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes exceed one-thousand kilograms;

(3) A conditionally exempt small quantity generator may either treat or dispose of his or her 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 chapter 11-270 or subtitle C of RCRA;

(ii) In interim status under chapters 11-270 and 11-265 or subtitle C of RCRA;

(iii) Authorized to manage hazardous waste by a state with a hazardous waste management program approved under 40 CFR Part 271;

(iv) Permitted, licensed, or registered by the State or any state to manage municipal solid waste and, if managed in a municipal solid waste landfill is subject to 40 CFR Part 258 or state rules that are the equivalent of 40 CFR Part 258;

(v) Permitted, licensed, or registered by the State or any 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 40 CFR sections 257.5 through 257.30 or state rules that are the equivalent of 40 CFR sections 257.5 through 257.30; 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 chapter 11-273, a universal waste handler or destination facility subject to the requirements of chapter 11-273.

(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 subchapter 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 chapter 11-279 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. [Eff 6/18/94; am 3/13/99; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.5)

§11-261-6 Requirements for recyclable materials.

- (a)(1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of subsections (b) and (c), except for the materials listed in paragraphs (a)(2) and (a)(3). 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 subchapters C through H of chapter 11-266 and all applicable provisions in chapters 11-270 and 11-271:
  - (i) Recyclable materials used in a manner constituting disposal (subchapter C);
  - (ii) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under subchapter O of chapter 11-264 or



- 11-265 (subchapter H);
  - (iii) Recyclable materials from which precious metals are reclaimed (subchapter F);
  - (iv) Spent lead-acid batteries that are being reclaimed (subchapter G).
- (3) The following recyclable materials are not subject to regulation under chapters 11-262 through 11-266 or 11-268, 11-270 or 11-271, and are not subject to the notification requirements of section 342J-6.5, HRS:
- (i) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in section 11-262-58:
    - (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 40 CFR 262.53 or section 11-262-53, 40 CFR 262.56 (a)(1)-(4), (6), and (b), or section 11-262-56 (a)(1)-(4), (6), and (b), and 40 CFR 262.57 or section 11-262-57, 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 40 CFR Part 262 or subchapter E of chapter 11-262, and provide to the department and to the transporter transporting the shipment for export a copy of the EPA Acknowledgment of Consent to the shipment;
    - (B) Transporters transporting a shipment for export may not accept a shipment if he or she 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 section 11-261-4(a)(13);
  - (iii) Fuels produced from the refining of oil-bearing hazardous wastes 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 paragraph 11-261-4(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 subsection 11-279-11 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 subsection 11-279-11; 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 subsection 11-279-11; 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 chapter 11-261, subchapter 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 chapters 11-260 through 11-268, but is regulated under chapter 11-279. 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 40 CFR section 262.58(a)(1)) for purpose of recovery is subject to the requirements of subchapter H of chapter 11-262, 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 chapter 11-273.

(b) Generators and transporters of recyclable materials are subject to the applicable requirements of chapters 11-262 and 11-263 and the notification requirements under HRS section 342J-6.5, except as provided in subsection (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 subchapters A through L, AA, BB, and CC of chapters 11-264 and 11-265, and under chapters 11-271, 11-266, 11-268, and 11-270 and the notification requirements under section 342J-6.5, HRS, except as provided in subsection (a) of this section. (The recycling process itself is exempt from regulation except as provided in subsection 11-261-6(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 subsection (a):

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

(ii) Sections 11-265-71 and 11-265-72 (dealing with the use of the manifest and manifest discrepancies).

(iii) Section 11-261-6(d).

(d) Owners or operators of facilities subject to hazardous waste management permitting requirements with hazardous waste management units that recycle hazardous wastes are subject to the requirements of subchapters AA and BB of chapter 11-264 or 11-265. [Eff 6/18/94; am 3/13/99; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.6)

§11-261-7 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 subsection (b), is not subject to regulation under chapters 11-261 through 11-265, or chapter 11-268, 11-270 or 11-271 or to the notification requirements of HRS section 342J-6.5.

(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), is subject to regulation under chapters 11-261 through 11-265, and chapters 11-268, 11-270 and 11-271 and to the notification requirements of HRS section

342J-6.5.

- (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 sections 11-261-31, 11-261-32, or subsection 11-261-33(e) 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 three 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 one-hundred and ten 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 one-hundred and ten 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 sections 11-261-31, 11-261-32, or subsection 11-261-33(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. [Eff 6/18/94; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.7)

§11-261-8 PCB wastes regulated under federal Toxic Substance Control Act. The disposal of PCB-containing dielectric fluid and electric equipment containing such fluid authorized for use and regulated under 40 CFR Part 761 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 chapters 11-261 through 11-265, and chapters 11-268, 11-270, and 11-271, and the notification requirements of HRS section 342J-6.5. [Eff 6/18/94; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.8)

§11-261-9 Requirements for universal waste. The wastes listed in this section are exempt from regulation under chapters 11-262 through 11-270 except as specified in chapter 11-273 and, therefore are not fully regulated as hazardous waste. The wastes listed in this section are subject to regulation under chapter 11-273:

- (a) Batteries as described in section 11-273-2;
- (b) Pesticides as described in section 11-273-3; and
- (c) Thermostats as described in section 11-273-4.  
[Eff 3/13/99; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.9)

#### SUBCHAPTER B

#### CRITERIA FOR IDENTIFYING THE CHARACTERISTICS OF HAZARDOUS WASTE AND FOR LISTING HAZARDOUS WASTE

§11-261-10 Criteria for identifying the characteristics of hazardous waste. (a) The director shall identify and define a characteristic of hazardous waste in subchapter 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. [Eff 6/18/94; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.10)

§11-261-11 Criteria for listing hazardous waste. (a) The director shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

- (1) It exhibits any of the characteristics of hazardous waste identified in subchapter 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 director concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed:
  - (i) The nature of the toxicity presented by the constituent.
  - (ii) The concentration of the constituent in the waste.
  - (iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in subparagraph (a)(3)(vii).
  - (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 director may list classes or types of solid waste as hazardous waste if he has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in section 342J-2, Hawaii Revised Statutes.

(c) The director will use the criteria for listing specified in this section to establish the exclusion limits referred to in subsection 11-261-5(c). [Eff 6/18/94; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.11)

## SUBCHAPTER C

### CHARACTERISTICS OF HAZARDOUS WASTE

§11-261-20 General. (a) A solid waste, as defined in section 11-261-2, which is not excluded from regulation as a hazardous waste under subsection 11-261-4(b), is a hazardous waste if it exhibits any of the characteristics identified in this subchapter.

[Comment: Section 11-262-11 sets forth the generator's responsibility to determine whether his waste exhibits one or more of the characteristics identified in this subchapter.]

(b) A hazardous waste which is identified by a characteristic in this subchapter is assigned every EPA Hazardous Waste Number that is applicable as set forth in this subchapter. This number must be used in complying with the notification requirements of HRS section 342J-6.5 and all applicable recordkeeping and reporting requirements under chapters 11-262 through 11-265, 11-268, and 11-270.

(c) For purposes of this subchapter, the director will consider a sample obtained using any of the applicable sampling methods specified in Appendix I to be a representative sample within the meaning of chapter 11-260. [Eff 6/18/94; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.20)

§11-261-21 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°C (140°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 section 11-260-11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see section 11-260-11).
- (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.
- (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. [Eff 6/18/94; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.21)

§11-261-22 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 section 11-260-11.
- (2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by 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 section 11-260-11.

(b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002. [Eff 6/18/94; am 3/13/99; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.22)



§11-261-23 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. [Eff 6/18/94; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.24)

§11-261-24 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 section 11-260-11, 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	CAS No. <sup>2</sup>	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	<sup>4</sup> 200.0
D024	m-Cresol	108-39-4	<sup>4</sup> 200.0
D025	p-Cresol	106-44-5	<sup>4</sup> 200.0
D026	Cresol	.....	<sup>4</sup> 200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	<sup>3</sup> 0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	<sup>3</sup> 0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	<sup>3</sup> 5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
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. [Eff 6/18/94; am 3/13/99; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.24)

SUBCHAPTER D

LISTS OF HAZARDOUS WASTES

§11-261-30 General. (a) A solid waste is a hazardous waste if it is listed in this subchapter.

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

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

Appendix VII identifies the constituent which caused the director to list the waste as a Toxicity Characteristic Waste (E) or Toxic Waste (T) in sections 11-261-31 and 11-261-32.

(c) Each hazardous waste listed in this subchapter 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 HRS section 342J-6.5 and certain recordkeeping and reporting requirements under chapters 11-262 through 11-265, 11-268, and chapter 11-270.

(d) The following hazardous wastes listed in sections 11-261-31 or 11-261-32 are subject to the exclusion limits for acutely hazardous wastes established in section 11-261-5: EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026, and F027. [Eff 6/18/94; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.30)

§11-261-31 Hazardous wastes from non-specific sources. (a) The following solid wastes are listed hazardous wastes from non-specific sources.

Industry and EPA hazard-	Hazardous waste	Hazard code
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ous waste  
No.

Generic:

F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F003	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I)*
F004	The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F005	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I,T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations	(R,T)
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process	(R,T)

F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	(R,T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process	(R,T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations	(R,T)
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process	(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 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.)	(H)
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in section 11-261-31 or section 11-261-32.)	(T)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution	(T)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions	(H)

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F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027	(T)
F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with section 11-261-35 or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
F034	Wastewater (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
F035	Wastewater (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
F037	Petroleum refinery primary oil/water/solids separation sludge - any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling water, sludges generated in aggressive biological treatment units as defined in paragraph 11-261-31(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.	(T)
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge - Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling	(T)

waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in paragraph 11-261-31(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.

F039 Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subchapter D of this chapter. (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.) (T).

FOOTNOTE: \*(I,T) should be used to specify mixtures containing ignitable and toxic constituents.

- (b) Listing specific definitions:
  - (1) For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and/or solids.
  - (2) (i) For the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following four treatment methods: activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and
    - (A) the unit employs a minimum of 6 hp per million gallons of treatment volume; and either
    - (B) the hydraulic retention time of the unit is no longer than 5 days; or
    - (C) the hydraulic retention time is no longer than thirty days and the unit does not generate a sludge that is a hazardous waste by the Toxicity Characteristic.
  - (ii) Generators and treatment, storage and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage and disposal facilities must maintain, in their operating or other onsite records, documents and data sufficient to prove that:
    - (A) the unit is an aggressive biological treatment unit as defined in this section; and

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- (B) the sludges sought to be exempted from the definitions of F037 and/or F038 were actually generated in the aggressive biological treatment unit.
- (3) (i) For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.
- (ii) For the purposes of the F038 listing,
- (A) sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement and
- (B) floats are considered to be generated at the moment they are formed in the top of the unit. [Eff 6/18/94; am 3/13/99; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.31)

§11-261-32 Hazardous wastes from specific sources. The following solid wastes are listed 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 K003 K004 K005 K006 K007 K008	Wastewater treatment sludge from the production of chrome yellow and orange pigments. Wastewater treatment sludge from the production of molybdate orange pigments. Wastewater treatment sludge from the production of zinc yellow pigments. Wastewater treatment sludge from the production of chrome green pigments. Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated). Wastewater treatment sludge from the production of iron blue pigments. Oven residue from the production of chrome oxide green pigments.	(T) (T) (T) (T) (T) (T) (T)



Organic chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	(R, T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	(T)
K015	Still bottoms from the distillation of benzyl chloride.	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production.	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene.	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)
K026	Stripping still tails from the production of methy ethyl pyridines.	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production.	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production.	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)

K103	Process residues from aniline extraction from the production of aniline.	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazines.	(C,T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(I,T)
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K140	loor sweepings, off-specification product and spent filter media from the production of 2,4,6-tribromophenol.	(T)
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups, (This waste does not include still bottoms from the distillation of benzyl chloride.).	(T)
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)

K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K156	Organic waste (including heavy ends, still bottoms, light ends, spent 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.)	(T)
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K159	Organics from the treatment of thiocarbamate wastes	(T)
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.)	(R,T)
<b>Inorganic chemicals:</b>		
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)
<b>Pesticides:</b>		
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)

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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 sludges from the manufacturing and processing of explosives.	(R)
K045	Spent carbon from the treatment of wastewater containing explosives.	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations.	(R)
<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)

Primary copper: K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.	(T)
Primary lead: K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.	(T)
Primary zinc: K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.	(T)
Primary aluminum: K088	Spent potliners from primary aluminum reduction.	(T)
Ferroalloys: K090 K091	Emission control dust or sludge from ferrochromiumsilicon production. Emission control dust or sludge from ferrochromium production	(T) (T)
Secondary lead: K069 K100	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). Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T) (T)
Veterinary pharmaceuticals: K084 K101 K102	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T) (T) (T)
Ink formulation: K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	(T)
Coking: K060 K087	Ammonia still lime sludge from coking operations. Decanter tank tar sludge from coking operations.	(T) (T)

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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)

[Eff 6/18/94; am 3/13/99; comp ] (Auth: HRS  
 §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.32)

§11-261-33 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 subparagraph 11-261-2(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 subsection (e) or (f).

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

(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 subsection (e) or (f), unless the container is empty as defined in subsection 11-261-7(b).

[Comment: Unless the residue is being beneficially used or

reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, the department 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 subsection (e) or (f), 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 subsection (e) or (f).

[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 subsection (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in subsection (e) or (f), such waste will be listed in either section 11-261-31 or section 11-261-32 or will be identified as a hazardous waste by the characteristics set forth in subchapter C of this chapter.]

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in subsections (a) through (d), are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in section 11-261-5(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 $H_3AsO_4$
P012	1327-53-3	Arsenic oxide $As_2O_3$
P011	1303-28-2	Arsenic oxide $As_2O_5$
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 (3a <i>S</i> - <i>cis</i> )-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3- <i>b</i> ]indol-5-yl methylcarbamate ester (1:1).
P001	<sup>1</sup> 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[methylamino]carbonyl oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide Ca(CN) <sub>2</sub>
P189	55285-14-8	Carbamic acid, [(dibutylamino)- thio]methyl-, 2,3-dihydro-2,2-dimethyl- 7-benzofuranyl ester.
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]- 5-methyl-1H- pyrazol-3-yl ester.
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H- pyrazol-5-yl ester.
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester.
P127	1563-66-2	Carbofuran.
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan.
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P202	64-00-6	m-Cumenyl methylcarbamate.
P030	----	Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl

P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1alpha,2beta,2alpha,3beta,6beta,6alpha,7beta, 7alpha)-
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-, (1alpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7alpha)-, & 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(dimethylcarbomodithioato-S,S')-,
P196	15339-36-3	Manganese dimethyldithiocarbamate.
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis[chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3-[[[(methylamino)-carbonyl]oxy]phenyl]-, monohydrochloride.
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[[(methylamino)carbonyl]oxy]phenyl]-

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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 cynaide 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)

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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 $Tl_2O_3$
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 $[(H_2N)C(S)]_2NH$
P014	108-98-5	Thiophenol

P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P185	26419-73-8	Tirpate.
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V <sub>2</sub> O <sub>5</sub>
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	<sup>1</sup> 81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide Zn(CN) <sub>2</sub>
P122	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram.

FOOTNOTE: <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 subsections (a) through (d), are identified as toxic wastes (T), unless otherwise designated and are subject to the small quantity generator exclusion defined in subsections 11-261-5(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	194-75-7	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- [[aminocarbonyloxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balph)]-
U280	101-27-9	Barban.
U278	22781-23-3	Bendiocarb.
U364	22961-82-6	Bendiocarb phenol.
U271	17804-35-2	Benomyl.
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-



U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I,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- 2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]- 2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7alpha]]-
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-ethanediyllbis-, salts & esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U279	63-25-2	Carbaryl.
U372	10605-21-7	Carbendazim.
U367	1563-38-8	Carbofuran phenol.
U215	6533-73-9	Carbonic acid, dithallium(1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers

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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	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate

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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 (l)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (l)
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-(l)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U410	59669-26-0	Ethanimidothioic acid, N,N'- [thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester.
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate.
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-

U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (l)
U113	140-88-5	Ethyl acrylate (l)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether (l)
U114	<sup>1</sup> 111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (l,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
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 (l)
U125	98-01-1	2-Furancarboxaldehyde (l)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro-(l)
U125	98-01-1	Furfural (l)
U124	110-00-9	Furfuran (l)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoareido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[[(methylnitrosoamino)- carbonyl]amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene

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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)

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U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl]oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'- dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate.
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1+) salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U115	75-21-8	Oxirane (I,T)

U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate.
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
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

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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
U408	118-79-6	2,4,6-Tribromophenol.
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 (l)
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

FOOTNOTE: <sup>1</sup>CAS Number given for parent compound only.  
 [Eff 6/18/94; am 3/13/99; comp ] (Auth: HRS  
 §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.33)

§11-261-34 [Reserved]

§11-261-35 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). 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 section 11-261-35 of the Hawaii Administrative Rules 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." [Eff 6/18/94; comp ] (Auth: HRS §§342J-4, 342J-31, 342J-35) (Imp: 40 C.F.R. §261.35)

SUBCHAPTER E

APPENDICES



§11-261-40 Appendices. Appendices I, II, III, VII and VIII to 40 CFR Part 261, revised as of May 25, 1998, are made a part of this chapter. These Appendices are entitled:

Appendix I - Representative Sampling Methods

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

Appendix III - Chemical Analysis Test Methods

Appendix VII - Basis for Listing Hazardous Waste

Appendix VIII - Hazardous Constituents

[Eff 6/18/94; am 3/13/99; comp ] (Auth: HRS

§§342J-4, 342J-31, 342J-35) (Imp: None)