USER'S GUIDE FOR WYOMING HAZARDOUS WASTE INVENTORY SYSTEM

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Submitted to

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INTRODUCTION

The Wyoming Hazardous Waste Inventory System was proposed for the exclusive use of staff members of the Solid Waste Management Program, Wyoming Department of Environmental Quality. The overall purpose of the database system is to compile and process all available information on location, types, quantities, and disposition of hazardous or potentially hazardous wastes in Wyoming.

This database was designed for use on an IBM PC personal computer using MS-DOS (Microsoft, Inc.) and dBaseII (Ashton-Tate, Inc.) software programs. We assume that the person using this hazardous waste database is familiar with the general operation of an IBM PC. Further specific information concerning file construction, editing and reporting (formatting, cross-listing, etc.) in dBaseII can be obtained in the user's manual supplied with the dBaseII software program.

FILE CONSTRUCTION

Information compiled for each facility is organized into files on 5-1/4" computer disks using a dBaseII software program on an IBM PC. Facilities in Wyoming which potentially manage hazardous wastes are listed alphabetically in two files: MASTER and WASTE. All facilities in Wyoming about which information has been collected and compiled (see Boelter, et al. 1984) are included in the MASTER file; the WASTE file contains only those companies for which at least some specific information on the waste types it manages is known.

MASTER File Construction

The MASTER file contains company addresses, contact persons for each facility, USEPA RCRA (Resource Conservation and Recovery Act) status, etc., as well as a list of waste types, if known. There are 20 categories of information in the MASTER file, and each of the 20 categories is referred to as a "field". The MASTER file can be sorted and cross-indexed on field names, with the desired information subsequently listed in a print-out (see Examples of use, page 12). The 20 field names used in the MASTER file are:

- 1) COMPANY = The name of the company.
- 2) <u>FACILITY</u> = The name of the facility (some companies have several facilities).
- 3) <u>EPAIDNBR</u> = The 12-digit USEPA RCRA identification number.
- 4) <u>ADDRESS</u> = Street address or legal description of facility location.

- 5) <u>CITY</u> = Where the facility is located.
- 6) ZIPCODE = Where the facility is located.
- 7) COUNTY . = Where the facility is located.
- 8) <u>CONTACTTEL</u> = Name and telephone number of contact person.
- 9) <u>SICNBR</u> = Standard Industrial Classification code number.
- = The USEPA classification of the facility, either Generator, Transporter, TSD (treatment storage, or disposal) facility, Non-notifier (facilities that have not responded to an USEPA RCRA survey), or Unknown.
- 11) TOTGALHAND = Total gallons of waste handled per year, from estimates on RCRA permits. This is a numeric field and can be totaled. If the total amount handled is unknown, this field will contain zeros.
- 12) <u>TOTTONHAND</u> = Total tons of waste handled per year, as above.
- 13) TOTWASTCAP = Total capacity for storage of wastes (the potential, not actual amount stored).

 Abbreviations used in the TOTWASTCAP field are those used on RCRA permits, as follows:

Amount: -

Disposition:

G = gallons	SO1 = storage container
Y = cubic yards	SO2 = storage tank
U = gallons per day	SO3 = storage waste pile
E = gallons per hour	SO4 = storage surface impoundment
A = acre-feet	D79 = disposal by injection well
B = acres	D80 = disposal by landfill
P = pounds	D81 = disposal by land application
T = tons	D83 = disposal by surface impoundment
	TO1 = treatment tank
	TO2 = treatment surface impoundment
	TO3 = treatment incinerator

14) SOURCEINFO = A comment field which lists the sources of information for this facility, including the date. If more than one source was used, the most important are listed here.

Abbreviations used in the SOURCEINFO field include:

"Engr-Science Survey 1980", for the report prepared for DEQ by the consulting firm of Engineering-Science.

"EPA Region 8 Notif list", for USEPA Region 8 Hazardous Waste Notification Figures.

15) CURRCRASTA = The current status of the company under RCRA regulations, as listed in the USEPA Region 8 RCRA records as one of the following:

NON-REG: NON-H = Non-regulated, non-handler (facility has been contacted and does not handle any hazardous wastes).

NON-REG: EXEMPT = Non-regulated due to federal exemption (such as mining overburden, oil and gas production waters, etc.).

NON-REG: RECYCLER = Non-regulated because wastes are recycled.

NON-REG: CLOSED = Non-regulated because facility is no longer in operation.

UNKNOWN: = No information about its status is presently known.

NOTIFIER: GEN = Hazardous waste generator.
NOTIFIER: TRANS = Hazardous waste transporter.

NOTIFIER: TSD = Hazardous waste treatment, storage, and/or

disposal facility.

NOTIFIER: UIC = Hazardous waste underground injection.

Facilities in the NOTIFIER category have notified the USEPA that they handle hazardous wastes, and are listed, as indicated above, as generators, transporters, TSD or UIC facilities, or any combination of these, such as NOTIFIER: GEN, TRANS.

16) OTHERREGS = Other regulations under which the facility operates, for instance NPDES permits, land disposal permits, etc., which are abbreviated as follows:

W-QUAL = Water quality permits.
A-QUAL = Air quality permits.
SOL-WASTE = Solid waste regulations.

- 17) $\underline{\text{EPAACTION}}$ = Any enforcement action or violations noted by the USEPA.
- 18) DECACTION = Any enforcement action or violations noted by DEQ.
- 19) <u>COMMENT</u> = Additional information or explanation concerning the facility.
- 20) WASTETYPES = A list of wastes, if known, using 4-digit USEPA RCRA waste codes as listed in the Federal Register 1980 or the Federal Code Hazardous Waste List (both attached) or written out, if the code is unknown.

 Some special abbreviation codes for hazardous wastes are used only in this Wyoming Hazardous Waste Inventory System:

WOIL = Waste oil.
WSOL = Waste solvents.

OTHER = More wastes are managed at this facility than can be listed in this file. Further information on unlisted wastes can be found on the RCRA permit or USEPA notifier's lists.

UNKNOWN = There is no information available on the waste types handled. This facility is not included in the WASTE file.

WASTE File Construction

The second file, WASTE, contains the names of the companies listed in the MASTER file and lists of waste types, with information on amount and disposition for each waste, if known, up to a total of seven waste types for each company. As in the MASTER file described above, this file can be sorted and cross-indexed on field names with the desired information listed in a print-out. There are at least eight field names depending on the number of waste types at a given facility as follows:

- = Company name plus all or part of the facility name or location of facility. When one company has several facilities, each facility can be located using a string search ("string" is defined in the Specific Instructions section, below).

 For instance, the AT&T facility named Church Buttes could be located by typing in: LOCATE FOR 'CHURCH' \$ COMPANY (See Examples of Use section).
- 2) WASTES = The list of wastes (there can be as many as seven wastes) using the same codes as were used in the MASTER file. If there are more wastes than can be listed here, "OTHER" appears at the end of the list. Further information on the unlisted wastes can be found in the company file in the DEQ Cheyenne Office or on the USEPA notifier's lists. The WASTE file can be sorted on this field using a string search for the desired waste code.
- 3) <u>WASTE1</u> = The first waste type listed in the WASTES field above.
- 4) ESTANAMDP1 = The estimated annual amount handled and the disposition of waste number 1 using codes from RCRA permits as follows:

Amount:

Disposition:

<pre>G = gallons Y = cubic yards U = gallons per day E = gallons per hour A = acre-feet B = acres P = pounds T = tons</pre>	SO1 = storage container SO2 = storage tank SO3 = storage waste pile SO4 = storage surface impoundment D79 = disposal by injection well D80 = disposal by landfill D81 = disposal by land application D83 = disposal by surface impoundment
P = pounds T = tons	D81 = disposal by land application D83 = disposal by surface impoundment T01 = treatment tank T02 = treatment surface impoundment T03 = treatment incinerator

5) ACTANAMDP1 = The actual amount handled and disposition of waste number 1 from an Annual Hazardous Waste Report filed with the USEPA. The codes used are as above in ESTANAMDP1.

Solid Waste

SEPA

Identification and Listing of Hazardous Waste

This package is a complete reprint of the EPA regulations identifying and listing hazardous waste that were promulgated under Section 3001 of the Resource Conservation and Recovery Act (RCRA) on May 19, 1980. If you need a copy of the preamble discussion to this regulation or a copy of other regulations for hazardous waste management that were promulgated under Subtitle C of RCRA please contact:

Mr. Ed Cox U.S. Environmental Protection Agency P.O. Bldg. B Dalton and Liberty Streets Dock 14 Cincinnati, Ohio 45214 (513) 684—5362

SPECIFIC INSTRUCTIONS FOR ACCESSING THE WYOMING HAZARDOUS WASTE INVENTORY SYSTEM

The dBaseII software program is a powerful and extensive database management system. To use it efficiently will require some knowledge of the dBaseII control language. The complete list of dBaseII commands and definitions is too extensive to repeat here; the reader is advised to consult a dBaseII user's manual to learn the array of available commands. The following instructions will enable the reader to use both the MASTER and WASTE files for the purposes of obtaining information on the Wyoming Hazardous Waste Inventory System.

The dBaseII program was used to build both the MASTER and WASTE files. For ease of access to each file and to ensure adequate personal computer memory storage, each file is stored separately on formatted 5-1/4" disks. Since dBaseII was used to construct the files, the reader can easily use dBaseII to modify the format of any field within either file, should it be found necessary to do so. Further, new information gathered on either existing hazardous waste facilities or on newly developed hazardous waste facilities can easily be incorporated into the appropriate fields within the MASTER and WASTE files.

To begin to use the dBaseII program, one needs to initially load MS-DOS onto the IBM PC personal computer. With the MS-DOS prompt showing, insert the dBaseII system disk into disk drive A and type in 'dBase', followed by a carriage return. The dBaseII program will now be loaded from disk drive A of the IBM PC to the screen. With the dBaseII system disk on disk drive A, the hazardous waste file disk (either MASTER or WASTE) is put into disk drive B of the personal computer. The dBaseII

system prompt is a period (.) in the first screen column. Once the dBaseII prompt shows on the screen, any dBaseII system command is available by typing it in, followed by a carriage return.

Access to the hazardous waste file on disk drive B is then simply accomplished by typing: 'USE B:filename', where "filename" is either MASTER or WASTE. For instance, if access to the MASTER file (on disk drive B) is desired, the user would type: 'USE B:MASTER'. The "B:" directs the dBaseII program to "look for" filename "MASTER" on disk drive B. The directions are the same to access the WASTE file (= 'USE B:WASTE').

The dBaseII program can link together and/or sort fields (such as FACILITY, CONTACTTEL, TOTTONHAND, etc.) within each hazardous waste file by using logical operators. Logical operators generate logical results (expressed as "true" or "false"). Explaining logical operators is beyond the scope of this user's guide; the reader is advised to consult an elementary FORTRAN or BASIC text for review. Logical operators used in the dBaseII program are: .NOT., .AND., and .OR. Further, if the user desires to search for a particular value (or values) or to search for a specific word (or words) within a field, the user must use a "string" search. A string is defined as one character or a series of characters (such as "G", "Laramie", "16", "Natrona", "123-1234") which are used to locate any record within a file which possesses that particular string. A string is designated as a "\$" within dBaseII. For example, if one were interested in locating all hazardous waste facilities in the MASTER file disks which are classified by the USEPA as hazardous waste transporters or generators

(under fieldname EPACLASS), one would use a string search as follows:

.USE B:MASTER
.DISPLAY ALL FOR 'TRANS' .OR. 'GEN' \$ EPACLASS

This command will generate a list of all hazardous waste facilities on the MASTER file which are categorized as hazardous waste transporters or generators under fieldname EPACLASS. Further examples of dBaseII commands and their use is demonstrated below.

SPECIFIC EXAMPLES

1) If one is interested in combining into one list all the generators in Natrona County under SIC code 1389 that are current USEPA notifiers, the commands would be:

.USE B:MASTER
.LIST FOR (COUNTY = 'NATRONA' .AND. '1389' \$ SICNBR .AND. 'NOTIFIER: GEN' \$ CURRCRASTA)

The computer would then search the files and list on the screen the facilities that met these conditions.

2) If one is interested in only a count of certain facilities, such as the number of facilities in Laramie County that handle waste KOO1, the commands would be:

.USE B:MASTER
.COUNT FOR (COUNTY = 'LARAMIE' .AND. 'KOO1' \$ WASTETYPES)

The computer would then search the files and indicate the number of facilities that met these conditions.

3) If one is interested in the contents of one or several fields, within which there are certain groupings (say, all USEPA-RCRA regulated facilities which are both hazardous waste generators and transporters), then one could type:

.USE B:MASTER
.DISPLAY ALL FOR 'NOTIFIER: GEN, TRANS' \$ CURRCRASTA

4) Once the session using either WASTE or MASTER is finished, upon typing 'QUIT', the dBaseII program reverts once again to MS-DOS.

REFERENCES CITED

- Boelter, A., A. Reeve, M. Crossey, T.W. La Point, and H. Bergman.

 1984. Available Information on Hazardous Waste Production,

 Transport and Disposal in Wyoming. Final Report; Submitted to
 Wyoming DEQ, Cheyenne.
- United States Environmental Protection Agency. 1980. Identification and listing of Hazardous Waste. EPA 8700-12(FR).
- _____. Unlisted (Characteristic) Hazardous Wastes. 40 CFR Part 261,
 Subpart C. A1-A21.

ATTACHMENTS

- A. United States Environmental Protection Agency. 1980. Identification and listing of Hazardous Waste. EPA 8700-12(FR).
- B. United States Environmental Protection Agency. Unlisted (Characteristic) Hazardous Wastes. 40 CFR Part 261, Subpart C. Al-A21.

ATTACHMENT A

Solid Waste

SEPA

Identification and Listing of Hazardous Waste

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PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

Subpart A-General

Sec.

- 261.1 Purpose and scope.
- Definition of solid waste. 261.2
- Definition of hazardous waste. 261.3
- 261.4 Exclusions.
- 261.5 Special requirements for hazardous waste produced by small quantity generators.
- 261.6 Special requirements for hazardous waste which is used, re-used, recycled or reclaimed.

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

261.10 Criteria for identifying the characteristics of hazardous wastes. 261.11 Criteria for listing hazardous waste.

Subpart C-Characteristics of Hazardous Waste

- 261.20 General.
- Characteristic of ignitability. 261.21
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261.30 General.

- 261.31 Hazardous wastes from non-specific sources.
- 261.32 Hazardous wastes from specific sources.
- 261.33 Discarded commercial chemical products and associated off-specification materials, containers and spill residues.

Appendices

Appendix I-Representative Sampling Methods

Appendix II—EP Toxicity Test Procedures Appendix III—Chemical Analysis Test Methods

Appendix IV-Reserved for Radioactive Waste Test Methods

Appendix V-[Reserved for Infectious Waste Treatment Specifications

Appendix VI-(Reserved for Etiologic Agentsi

Appendix VII—Basis for Listing Appendix VIII-Hazardous Constituents

Authority: Secs. 1006. 2002(a), 3001, and 3002 of the Solid Waste Disposal Act. as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905. 6912, 6921 and 6922).

Subpart A-General

§ 261.1 Purpose and scope.

(a) This Part identifies those solid wastes which are subject to regulation as hazardous wastes under Parts 262 ेर विकास मुध्या हुए होने हुए हुए हुई सी

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- through 265 and Parts 122 through 124 of this Chapter and which are subject to the notification requirements of Section 3010 of RCRA. In this Part:
- (1) Subpart A defines the terms "solid waste" and "hazardous waste," identifies those wastes which are excluded from regulation under Parts 262 through 265 and 122 through 124 and establishes special management requirements for hazardous waste produced by small quantity generators and hazardous waste which is used, reused, recycled or reclaimed.
- (2) Subpart B sets forth the criteria used by EPA to identify characteristics of hazardous waste and to list particular hazardous wastes.
- (3) Subpart C identifies characteristics of hazardous waste.
- (4) Subpart D lists particular hazardous wastes.
- (b) This Part identifies only some of the materials which are hazardous wastes under Sections 3007 and 7003 of RCRA. A material which is not a hazardous waste identified in this part is still a hazardous waste for purposes of those sections if:
- (1) In the case of Section 3007, EPA has reason to believe that the material may be a hazardous waste within the meaning of Section 1004(5) of RCRA.
- (2) In the case of Section 7003, the statutory elements are established.

§ 261.2 Definition of solid waste.

- (a) A solid waste is any garbage. refuse, sludge or any other waste material which is not excluded under § 261.4(a).
- (b) An "other waste material" is any solid. liquid. semi-solid or contained gaseous material, resulting from industrial, commercial, mining or agricultural operations, or from community activities which:
- (1) Is discarded or is being accumulated, stored or physically, chemically or biologically treated prior to being discarded: or
- (2) Has served its original intended use and sometimes is discarded: or
- (3) Is a manufacuring or mining byproduct and sometimes is discarded.
- (c) A material is "discarded" if it is abandoned (and not used, re-used, reclaimed or recycled) by being:
 - (1) Disposed of; or
 - (2) Burned or incinerated. except

- where the material is being burned as a fuel for the purpose of recovering usable energy; or
- (3) Physically, chemically, or biologically treated (other than burned or incinerated) in lieu of or prior to being disposed of.
- (d) A material is "disposed of" if it is discharged, deposited, injected, dumped, spilled, leaked or placed into or on any land or water so that such material or any constituent thereof may enter the environment or be emitted into the air or discharged into ground or surface waters.
- (e) A "manufacturing or mining byproduct" is a material that is not one of the primary products of a particular manufacturing or mining operation, is a secondary and incidental product of the particular operation and would not be solely and separately manufactured or mined by the particular manufacturing or mining operation. The term does not include an intermediate manufacturing or mining product which results from one of the steps in a manufacturing or mining process and is typically processed through the next step of the process within a short time.

§ 261.3 Definition of hazardous waste.

- (a) A solid waste, as defined in § 261.2. is a hazardous waste if:
- (1) It is not excluded from regulation as a hazardous waste under § 261.4(b): and
- (2) It meets any of the following criteria:
- (i) It is listed in Subpart D and has not been excluded from the lists in Subpart D under §§ 260.20 and 260.22 of this Chapter.
- (ii) It is a mixture of solid waste and one or more hazardous wastes listed in Subpart D and has not been excluded from this paragraph under §§ 260.20 and 260.22 of this Chapter.
- (iii) It exhibits any of the characteristics of hazardous waste identified in Subpart C.
- (b) A solid waste which is not excluded from regulation under paragraph (a)(1) of this section becomes a hazardous waste when any of the following events occur:
- (1) In the case of a waste listed in Subpart D, when the waste first meets the listing description set forth-in. Subpart D. A. Balletin
- (2) In the case of a mixture of solid .: waste and one or more listed hazardous wastes, when a hazardous waste listed

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in Subpart D is first added to the solid waste.

- (3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in Subpart C.
- . (c) Unless and until it meets the criteria of paragraph (d):
- (1) A hazardous waste will remain a hazardous waste.
- (2) 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.
- (d) Any solid waste described in paragraph (c) of this section is not a hazardous waste if it meets the following criteria:
- (1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in Subpart C.
- (2) In the case of a waste which is a listed waste under Subpart D, contains a waste listed under Subpart D or is derived from a waste listed in Subpart D, it also has been excluded from paragraph (c) under §§ 260.20 and 260.22 of this Chapter.

§ 261.4 Exclusions.

- (a) Materials which are not solid wastes. The following materials are not solid wastes for the purpose of this Part:
 - (1) (i) Domestic sewage; and
- (ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.
- (2) Industrial wastewater discharges that are point source discharges subject to regulation under Section 402 of the Clean Water Act. as amended.

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

- (3) Irrigation return flows.
- (4) Source, special nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.
- (5) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.
- (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 waste material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels.)
- (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.
- (5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

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

- (a) Except as otherwise provided in this section, if a person generates, in a calendar month, a total of less than 1000 kilograms of hazardous wastes, those wastes are not subject to regulation under Parts 262 through 265 and Parts 122 through 124 of this Chapter, and the notification requirements of Section 3010 of RCRA.
- (b) If a person whose waste has been excluded from regulation under paragraph (a) of this Section accumulates hazardous wastes in quantities greater than 1000 kilograms. those accumulated wastes are subject to regulation under Parts 262 through 265 and Parts 122 through 124 of this Chapter, and the notification requirements of Section 3010 of RCRA.
- (c) If a person generates in a calendar month or accumulates at any time any of the following hazardous wastes in quantities greater than set forth below, those wastes are subject to regulation under Parts 262 through 265 and Parts 122 through 124 of this Chapter, and the notification requirements of Section 3010 of RCRA:
- (1) One kilogram of any commercial product or manufacturing chemical intermediate having the generic name listed in § 261.33(e).
- (2) One kilogram of any offspecification commercial chemical product or manufacturing chemical intermediate which, if it met

- specifications, would have the generic name listed in § 261.33(e).
- (3) Any containers identified in § 261.33(c) that are larger than 20 liters in capacity;
- (4) 10 kilograms of inner liners from containers identified under § 261.33(c);
- (5) 100 kilograms of 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 § 261.33(e).
- (d) In order for hazardous waste to be excluded from regulation under this section, the generator must comply with § 262.11 of this Chapter. He must also either treat or dispose of the waste in an on-site facility, or ensure delivery to an off-site treatment, storage or disposal facility, either of which is:
- (1) Permitted by EPA under Part 122 of this Chapter, or by a State with a hazardous waste management program authorized under Part 123 of this Chapter:
- (2) In interim status under Parts 122 and 265 of this Chapter; or,
- (3) Permitted, licensed, or registered by a State to manage municipal or industrial solid waste.
- (e) Hazardous waste subject to the reduced requirements of this section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous waste identified in Subpart C.

§ 261.6 Special requirements for hazardous waste which is used, re-used, recycled or reclaimed.

- (a) Except as otherwise provided in paragraph (b) of this section. a hazardous waste which meets either of the following criteria is not subject to regulation under Parts 262 through 265 or Parts 122 through 124 of this Chapter and is not subject to the notification requirements of Section 3010 of RCRA until such time as the Administrator promulgates regulations to the contrary:
- (1) It is being beneficially used or reused or legitimately recycled or reclaimed.
- (2) It is being accumulated, stored or physically, chemically or biologically treated prior to beneficial use or re-use or legitimate recycling or reclamation.
- (b) A hazardous waste which is a sludge, or which is listed in Subpart D, or which contains one or more hazardous wastes listed in Subpart D; and which is transported or stored prior

(1) Notification requirements under Section 3010 RCRA.

(2) Part 262 of this Chapter.

(3) Part 263 of this Chapter.

(4) Subparts A. B. C. D and E of Part 264 of this Chapter.

(5) Subparts A, B, C, D. E, G, H, I, J and L of Part 265 of this Chapter.

(6) Parts 122 and 124 of this Chapter, with respect to storage facilities.

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

§ 261.10 Criteria for identifying the characteristics of hazardous waste.

- (a) The Administrator shall identify and define a characteristic of hazardous waste in Subpart C only upon determining that:
- (1) A solid waste that exhibits the characteristic may:
- (i) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
- (ii) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed: and

(2) The characteristic can be:

(i) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or

(ii) Reasonably detected by generators of solid waste through their knowledge

of their waste.

§ 261.11 Criteria for listing hazardous waste.

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

(1) It exhibits any of the characteristics of hazardous waste identified in Subpart C.

(2) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams perkilogram 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

- (3) It contains any of the toxic constituents listed in Appendix VIII unless, after considering any of the following factors, the Administrator concludes that the waste is not capable of posing a substantial present or potential hazard to human health or the environment when improperly treated. stored, transported or disposed of, or otherwise managed:
- (i) The nature of the toxicity presented by the constituent.
- (ii) The concentration of the constituent in the waste.
- (iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in paragraph (a)(3)(vii) of this section.

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

constituent.

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

- (vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.
- (vii) The plausible types of improper management to which the waste could be subjected.

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

- (ix) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent.
- (x) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent.
- (xi) Such other factors as may be appropriate.

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

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

(b) The Administrator may list classes or types of solid waste as hazardous waste if he has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in Section 1004(5) of the Act.

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

Subpart C-Characteristics of Hazardous Waste

§ 261.20 General.

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

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

- (b) A hazardous waste which is identified by a characteristic in this subpart, but is not listed as a hazardous. waste in Subpart D. is assigned the EPA Hazardous Waste Number set forth in the respective characteristic in this Subpart. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under Parts 262 through 265 and Part 122 of this Chapter.
- (c) For purposes of this Subpart. the Administrator will consider a sample obtained using any of the applicable sampling methods specified in Appendix I to be a representative sample within the meaning of Part 260 of this Chapter.

[Comment: Since the Appendix I sampling methods are not being formally adopted by the Administrator, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of his method under the procedures set forth in -§§ 260.20 and 260.21.]

§ 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 a 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 a Setaflash Closed Cup Tester, using the test method specified in ASTM standard D-3278-78. or as determined by an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21.1

ASTM Standards are available from ASTM. 1916 Race Street, Philadelphia, PA 19103.

- (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 is creates a hazard.
- (3) It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the Administrator under §§ 260.20 and 260.21.
- (4) It is an oxidizer as defined in 49 CFR 173.151.
- (b) A solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D001.

§ 261.22 Characteristic of corrosivity.

- (a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:
- (1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5. as determined by a pH meter using either the test method specified in the "Test Methods for the Evaluation of Solid Waste. Physical/ Chemical Methods" ² (also described in "Methods for Analysis of Water and Wastes" EPA 600/4-79-020. March 1979), or an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21
- (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 the Evaluation of Solid Waste, Physical/Chemical Methods." or an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21.
- (b) A solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D002.
- ²This document is available from Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair Street, Cincinnati, Ohio 45268.
- ³The NACE Standard is available from the National Association of Corrosion Engineers, P.O. Box 986, Katy, Texas 77450.

§ 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:
- 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, but is not listed as a hazardous waste in Subpart D. has the EPA Hazardous Waste Number of D003.

§ 261.24 Characteristic of EP Toxicity.

- (a) A solid waste exhibits the characteristic of EP toxicity if, using the test methods described in Appendix II or equivalent methods approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21, the extract from a representative sample of the waste contains any of the contaminants listed in Table I at a concentration equal to or greater than the respective value given in that Table. Where the waste contains less than 0.5 percent filteriable solids, the waste itself, after filtering, is considered to be the extract for the purposes of this section.
- (b) A solid waste that exhibits the characteristic of EP toxicity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

Table I.—Maximum Concentration of Contaminants for Characteristic of EP Toxicity—Continued

hazardous waste number	Contaminant	Maximum concentration (miligrams per liter)	
D004	Arsenic	5.0	
D005		100.0	
D006	Cadmum	1.0	
D007	. Chromum	5.0	
D008		5.0	
D009		0.2	
D010		1.0	
D011	. Silver	5.0	
D012	. Endnn (1,2,3,4,10,10-	0.02	
	hexachloro-1,7-epoxy-		
	1,4,4a,5,6,7,8,8a-		
	octativoro-1,4-endo, endo-		
* . *	5.8-dimethano naphthaiene		
D013	. Lindane (1.2.3.4.5.6-	0.4	
	hexachlorocyclohexane.	•	
	gamma isomer.	A	
D014	Methoxychior (1,1,1-	10.0	
0017	Trichloro-2.2-bis [o-	10.0	
	methoxyphenyi]ethane).		
D015	Toxapnene (C ₁₀ H ₁₀ Cl ₁	0.5	
0013	Technical chlorinated	- 0.5	
	camphene, 67-69 percent		
5045	chionne).		
D016		10.0	
	Dichlorophenoxyacetic		
	acid).		
D017	2,4,5-TP Silvex (2,4,5-	1.0	
	Trichlorophenoxypropionic		
	acid).		

Subpart D—Lists of Hazardous Wastes

§ 261.30 General.

- (a) A solid waste is a hazardous waste if it is listed in this Subpart, unless it has been excluded from this list under §§ 260.20 and 260.22.
- (b) The Administrator will indicate his basis for listing the classes or types of wastes listed in this Subpart by employing one or more of the following Hazard Codes:

•	
ntable Waste	(1)
prosive Waste	(C)
eactive Waste	(R)
Toxic Waste	(E)
tute Hazardous Waste	(H)
we Wasta	m

Appendix VII identifies the constituent which caused the Administrator to list the waste as an EP Toxic Waste (E) or Toxic Waste (T) in §§ 261.31 and 261.32.

(c) Each hazardous waste listed in this Subpart is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under Parts 262 through 265 and Part 122 of this Chapter.

(d) Certain of the hazardous wastes listed in § 261.31 or § 261.32 have exclusion limits that refer to § 261.5(c)(5).

§ 261.31 Hazardous waste from nonspecific sources.

industry and EPA hazardous waste No.	Hazardous waste	Hazard code
nenc:		
F001	The spent halogenated solvents used in degreasing, tetrachloroethylene, inchloroethylene, methylene chlonde, 1,1,1-trichloroethane, carbon tetrachlonde, and the chlonnated fluorocarbons; and sludges from the recovery of these solvents in degreasing operations.	e e
F002	The spent halogenated solvents, tetrachioroethylene, methylene chloride, trichloroethylene, 1,1,1-inchloroethane, chlorobenzene, 1,1,2-inchloro-1,2,2-influoroethane, o-dichlorobenzene, trichloroffuoromethane and the still bottoms from the recovery of these solvents.	(U
F003	The spent non-halogenated solvents, xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, n-butyl alcohol, cyclohexanone, and the still bottoms from the recovery of these solvents.	(I) · · ·
F004	The spent non-halogenated solvents, cresols and cresylic acid, nitrobenzene, and the still bottoms from the recovery of these solvents. The spent non-halogenated solvents, methanol, follower, methyl ethyl ketone, methyl isobutyl ketone, carbon disuffide, isobutanol, pyridine and the still bottoms from the recovery of these solvents.	(r, 1)
	Wastewater treatment sludges from electropiating operations.	m T
F007	Plaung bath studges from the bottom of plating baths from electroplating operations	(R. 1) (R. T)
F009	Spent stripping and cleaning bath solutions from electropiating operations. Quenching bath sludge from oil baths from metal heat treating operations.	(R, T) (R, T)
	Spent solutions from sait bath pot cleaning from metal heat treating operations	(A. T)
F013	Flotation tailings from selective flotation from mineral metals recovery operations	Ö
F014	Cyanidation wastewater treatment taking pond sediment from mineral metals recovery operations	(R, T)

§ 261.32 Hazardous waste from specific sources.

•		Hazard coo
	Bottom sediment studge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol	m
rganic Pigments:		
K002	Wastewater treatment studge from the production of chrome yellow and orange pigments	(F)
K003	Wastewater treatment studge from the production of molybdate orange pigments	<u>. O </u>
K004	Wastewater treatment studge from the production of zinc yellow pigments. Wastewater treatment studge from the production of chrome green pigments.	<u>`</u> m
K005	Wastewater treatment studge from the production of chrome green pigments	(1)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated)	`
K007	Wastewater treatment studge from the production of iron blue pigments	٠ <u>٠</u>
ganic Chemicals:	Oven residue from the production of chrome oxide green pigments.	(1)
ganic Chemicals:	Distillation bottoms from the production of acetaldehyde from ethylene	m
	Distillation side cuts from the production of acetalderinge from ethylene.	
	Distinguish size outs from the wastewater stroper in the production of acrivonitrie	
	Still bottoms from the final purification of acrylonithie in the production of acrylonithie	
	Suit outcome stream from the line actions of the control of the order of the control of the cont	
	Sottoms from the acetronitale purification column in the production of acryonitale	
KO16	Still bottoms from the distrilation of benzyl chloride	m
K015	Sue obtains into the dissilation residues from the production of carbon tetrachionds	Ö
	Heavy ends (still bottoms) from the purification column in the production of epichloromydnin	
VO19	heavy ends from fractionation in ethyl chloride production.	4
	Heavy ends from the distillation of ethylene dichlonde in ethylene dichlonde production	m i
K020	Heavy error from the distribution of universe distribution and only on the distribution of the distribution of universe d	m .
K020	Heavy ends from the distillation of virty chloride in virtyl chloride monomer production.	
	Distillation bottom are from the production of phenol/acetone from cumene.	
	Distillation light ends from the production of phthairc annydind from naphthaiene	
	Distillation bottoms from the production of printains arrivance from naphthalene	
	Disablation bottoms from the production of nitrobenzene by the nitration of benzene	
KU20	Stripping still tails from the production of methyl ethyl pyndines	(T) (R, T)
K027	. Centrifuge residue from toluene diisocyanate production	(F. 1)
K028	Spent catalyst from the hydrochlonnator reactor in the production of 1,1,1-trichloroethane	Ö
K029	Waste from the product stream stripper in the production of 1,1,1-inchloroeithane	Ö
	Column bottoms or neavy ends from the combined production of trichloroethylene and perchloroethylene	(1)
esticides:	By-products salts generated in the production of MSMA and cacodylic acid	m
K031	. By-products saits generated in the production of MSMA and Cacodylic acid	ெ
K032	Wastewater treatment studge from the production of chlordane in the production of chlordane	
K033	Filter solids from the lilitration of hexachlorocyclopentadiene in the production of chlordane	ä
K034	Wastewater treatment sludges generated in the production of creosole	(i)
, K035	. Yastawater treatment studges generated in the production of decision of disulfoton	m i
K036	State potitions from followers reclamation displacation in the procupour of displaction	ິ ຕິ
K038	Wastewater from the washing and stropping of phorate production	60
K039	. Hiter cake from the literation of destryiphosphorogramonic acid in the production of priorate	6
K040	Wastewater treatment studge from the production of phorate Wastewater treatment studge from the production of toxaphene	(1)
K041	Wastewater treatment sludge from the production of toxaphene	. W
		6
	25-Dichlorophenol waste from the production of 2,4-D	n 6 dt 3
Explosiven	Wastewater treatment sludges from the manufacturing and processing of explosives	יו נווכ ני
K044	Wastewater treatment studges from the manufacturing and processing of explosives	CHI CH
K045	Spent carbon from the treatment of wastewater containing explosives Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	. (n) . (n) 13
K046	Wastewater treatment sudges from the manufacturing, formulation and loading of lead-based initiating compounds	. (1) /::
K047/3.6	Pink/red water from TNT operations	Lighting a
Petroleum Retining:	Dissolved air flotation (DAF) float from the petroleum refining industry.	٠. ١
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	. (1)
KU40	Slog on emulsion solids most the petroleum reliantly moustly	. <u>m</u> '
AU43	Heat exchanger bundle cleaning studge from the petroleum refining industry	- (1) -
VOCA	- riset ductalige builde cleaning stude not the passessi raining stude y	m '''
VOCA	API separator studge from the petroleum retining industry	. ഇ
VOCA	API separator studge from the petroleum retining industry. Tank bottoms (leaded) from the petroleum retining industry.	. თ ^{.::}

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§ 261.32 Hazardous waste from specific sources. -- Continued

industry and EPA hazardous waste No.	Hazardous waste	. Hazard code
K054	Chrome (blue) shavings generated by the following subcategones of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; no beamhouse; through-the-blue; and shearling.	m
K055	Butting dust generated by the following succategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; had seem/observe tan/retan/wet finish; no beamhouse; and through-the-blue.	
K056	. Sewer acreenings generated by the following subcategones of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish: no beamhouse; through-the-blue; and shearing.	
K057	Wastewater treatment sludges generated by the following subcategones of the leather tanning and finishing industry: hair pulp/chrome tan/	
K058	Wastewater treatment studges generated by the following subcategones of the leather tanning and finishing industry; hair pulip/chrome tan/	
K059	Wastewater treatment studges generated by the following subcategory of the leather tanning and finishing industry; haw save/non-chrome tan/retan/wet finish.	(H)
Iron and Steek		m
K060	_ Ammonia still time studge from coking operations	
K061	Emission control dust/studge from the electric furnace production of steel	· (C)
K062	Soent pickle liquor from steel finishing operations.	(C, T)
K063	Sludge from lime treatment of spent pickle liquor from steel finishing operations	(1)
Primary Copper: K064	Acid plant blowdown sturry/sludge resulting from the thickening of blowdown sturry from primary copper production	(3)
Primary Lead: K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities	. 107
Primary Zinc:		
K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production	(1)
K067	Electrolytic anode slimes/sludges from pnmary zinc production	. <u>()</u>
K068	Cadmium plant leach residue (iron oxide) from primary zinc production	<u>U</u>
Secondary Lead: K069	Emission control dust/sludge from secondary lead smelting.	(1)

§ 261.33 Discarded Commercial Chemical Products, Off-Specification Species, Containers, and Spill Residues Thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded:

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

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

(c) Any container or inner liner removed from a container that has been used to hold any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) of this section. unless:

(1) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate:

(2) 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

(3) 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.

(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 paragraphs (e) or (f) of this Section.

[Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . . " refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraphs (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraphs (e) or (f), such waste will be listed in either §§ 261.31 or 261.32 or will be identified as a hazardous waste by the characteristics set forth in Subpart C of this Part.] -

(e) The commercial chemical products or manufacturing chemical intermediates, referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in § 261.5(c). These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Sub	stance 1 .		·
	····		<u>, , , , , , , , , , , , , , , , , , , </u>	
	1080 see P058	•	-	
	1081 see P057			
	(Acetato)phenyimercu	ry see P092		
	Acetone cyanohydnn			
P001	3-(alpha-Acetonyibena	ryi)-4-hydroxy	coumanin	and
	saits			
P002	1-Acetyl-2-thioures			
P003	Acrolein			
	Agann see P007			
	Agrosan GN 5 see PC	192 1		- 4
	Aldicarb see P069			
	Aldifen see P048	u etr		

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ropargyi alconol

if it is listed under its generic name.

LIQUIPHENE see P092

(f) The commercial chemical products or manufacturing chemical intermediates, referred to in paragraphs (a), (b) and (d) of this section, are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in § 261.5 (a) and (b). These wastes and their corresponding EPA Hazardous Waste Numbers are:

	<u> </u>		
Hazardous		Substance ¹	
Waste No.			•
	AAF see U005	5	
	Acetaldehyde		
U002		٠.	• • .
	Acatonimie (I,	ח	
	Acetophenone		
U005	2-Acatylamino	illourene	
U006	Acetyl chlonds		
11007	Acrotamete		
7	Acetylene tetr	rachioride see U2	209
	Acetylene Inc.	nionde see UZZE	•
U008	Acrylic acid (I)	,	
U009	ACRIOTHENE	TT ear 1995	$(j_{\bullet}, j_{\bullet}, j_{\bullet}) \in \mathcal{A}_{\bullet} \times \mathbb{R}^{n}$
			i)-1H-1,2,4-tnazole.
	3-Amino-5-(p- hydrate see		, 1212-0163016 .
U010		.2.8.8a.8b-hexan	vdro-8-
			i-methyicarbamate
	ammo(2° 3°		a) indole-4, 7-dione
	(ester)		
. Ù011	Amitroie		and the second s
U012	. Aniine (I)		
U013	Asbestos		
U014	Auramine	•	
U015	Azasenne		
Ų016	Benz(c)acno	ine '	e * •
UU17	Benzai chione Benz(a]anthi	O#	£10e
UU18	Denzia Janthi	GUETIE	•
_U019	Benzene		ь
U020 U021		onyt chlonder (C,F	•
		hazolin-2.	1-dioxide see U202
		niazolin-3-one, 1, hracene see UO1	
U022	Benzo(a)pyr		•
	Benzotnonion		Line of
U024	Bis(2-chloroe	thoxy)methane	145
U025	Bist2-chloroe	thyi) ether	respiration of the
U026	N,N-Bis(2-cn	ethyi) ether loroethyi)-2-naph	ithylamine
U027	. Bis(2-cnloro:	sopropyi) ether	,. 31
		exvi) pnthalate	3757
UU29	Bromometha 4-Bromonne	ine	JEYET
11021	e-promopher	nyi phenyi ether	Heni
	. n-Butyl alcoh . Calcium chro		
~~~~	Carbolic acid		
		see u 186 Ichionde see U21	11
U033	. Carbonyl fluo		
U034	Chloral		•
U035	. Chlorambuci	ni .	•
U036	. Chiordane		
U037	. Chioropenze	me	
U038	_ Chlorobenzii	iate	
U039	_ p-Chloro-m-i	cresoi	
U040	Chlorodibror	momethane	
U041		epoxypropane	1996
110.00		HENE NU see U	1440
	Chloroethyl Chloroether		•
UU43 110.4.4	Chloroethen Chloroform	(ID)	•
	Chlorotorm Chlorometh		•
		ane (I, I ) yi methyi ether	•
U047	2-Chloronac	)hthaiene	
	_ 2-Chlorophe		
U049			londe
U050	Chrysene	,	•
	C.I. 23060 s	see U073	
U051	Cresote,		
U052	Cresols		:[1+ .
U053	Crotonaidel		
U054	Cresylic aci	ď	
U055	Cumene	÷	•
		ane see U003	
. U056	_ Cyclohexane		
	Cyclohexani		C Januarata
UU58	Cyclophospi	HARTIFUEL.	
U059	Daunomycan	- 51	• •

	Hazardous Waste No.	Substance ¹	H
	J061		ט ט
1	J063	Dibenz(a,h]anthracene	U
١,	1064	Dibenzo(a,h)anthracene see U063 Dibenzo(a,i)pyrene	U
11	J065	Dibromocnioromethane	U
		1,2-Dibromo-3-chloropropane ,1,2-Dibromoethane	U
1	J068	Dibromomethane	U
ľ	J070	Di-n-butyl phthalate 1,2-Dichlorobenzene	U
1.	1072	1,3-Dichlorobenzene 1,4-Oichlorobenzene	U
11	U073	3,3'-Dichlorobenzidine .	Ū
	U074	. 1,4-Dichloro-2-butene 3,3'-Dichloro-4,4'-diaminobiphenyl see U073	U
		Dichlorodifluoromethane	1
	U075 U077	1,1-Dichloroethane 1,2-Dichloroethane	V
L	U078	1,1-Dichloroethylene	U
	U080	. 1,2-trans-dichloroethylene . Dichloromethane	u
1		Dichloromethylbenzene see U017 2,4-Dichlorophenol	U
	U082	2,6-Dichlorophenol	ţ
		. 1,2-Dichloropropane . 1,3-Dichloropropene	U
1	U085	Diepoxybutane (I,T)	Ų
	U086 U087	. 1,2-Diethylhydrazine . 0,0-Diethyl-S-methyl ester of phosphorodithioic	١
		acid	1
		Diethyl phthalate Diethylsulbestrol	١١.
	U090	. Dihydrosatroie	1
1	U092	. 3,3'-Dimethoxybenzidine . Dimethylamine (I)	
	U093	p-Oimethylaminoazobenzene 7,12-Oimethylbenz[a]anthracene	1
1	U095	_ 3,3'-Dimethylbenzidine	.   (
ı	U096	alpha.alpha-Dimethylbenzylhydroperoxide (R)	1
	U098	1,1-Dimethylnydrazine	i
		1,2-Dimethylhydrazine Dimethylntrosoamine	1
1		2,4-Dimethylonenol Dimethyl phthalate	١
	U103	Dimethyl sulfate	li
		2,4-Dintrophenol	
	U106	2.4-Dinitrotoluene 2.5-Dinitrotoluene	1
- }		Di-n-octyl phthalate 1,4-Dioxane	
.	U109	1,2-Diphenyihydrazine	
Ì	U110	Dipropylamine (I) Di-n-oropylnitrosamine	'
		EBDC see U114	1
	U112	1.4-Epoxybutane see U213	
1	U113	Ethyl acrylate (I) Ethylenepisothiocarbamate	]
١		Ethylene oxide (I,T) Ethylene thiourea	٠
		Ethylene thiourea Ethyl ether (i,T)	
	U118	Ethylmethacrylate	
	U119	Ethyl methanesulfonate Ethylnitnie see U003	
		Firemaster T23P see U235	١
		Fluoranthene Fluoratrichloromethane	
	U122	Formaldehyde	
		Formic acid (C,T) Furan (I)	ļ
		Furtural (I) Glycxdylaldetryde	-
	U127	Hexachlorobenzene	•
		Hexachlorobutadiene Hexachlorocyclohexane	-
	U130	Hexachlorocyclopentadiene	
	U132	Hexachiorophene	
	U133	Hydrazine (R,T)	:
•		Hydrofluonc acid (C,T) Hydrogen suifide	
	11128	Hydroxybenzene see U188	
	10130	Hydroxydimethyl arsine oxide 4,4'-(Imidocarbonyl)bis(N,N-dimethyl)aniline sei	•
,	. 11127	U014 Indeno(1,2,3-cd)pyrene	
٠,		lodomethane	
•		Iron Dextran	. [

Hazardous	Substance 1
Waste No.	• •
-	
U141	Isosafroie
U141 U142	Kepone
U143	Lasiocarpine
	Lead acetate
U145	Lead phosphate
	Lead subacetate
U147	
U148	Maleic hydrazide
U149	Malononitrie
	MEX Peroxide see U160
U150	Melohalan
U151	Mercury
	Methacrylonitrile
	Methanethiol
U154	
	Methapyniene
	Methyl alcohol see U154
0136	Methyl chlorocaroonate
l	Methyl chloroform see U226
U157	. 3-Methylcholanthrene
	Methyl chloroformate see U156
	. 4,4'-Methylene-bis-(2-chloroaniline)
U159	. Methyl ethyl ketone (MEK) (I,T)
U160	Methyl ethyl ketone peroxide (R)
ļ	Methyl logide see U138
U161	Methyl isoputyl ketore
	. Methyl methacrylate (R,T)
	. N-Methyl-N'-nitro-N-nitrosoguanidine
11164	Mathetharead
0,04	Methylthiouracil Mitomycin C see U010
11100	Naphthalene
U105	
U166	1,4-Naphthoquinone offs or of the
U167	1-Naphthylamine
U168	2-Naphthylamine 2 :32:22
U169	1-Naphthylamine (23.225) 2-Naphthylamine (23.225) Nitroberizene (I,T) one 15522
	Nitrobenzol see U169- 11 A012-141 July 1
1 U170	. 4-Nitroonenol
U171	2-Nitropropane (I)
U172	Nitrobenzol see U169 4-Nitrobenzol see U169 2-Nitropropane (I) N-Nitrosod-n-butylamine
U173	N-Nitrosodiethanolamine
U175	N-Nitroson-o-oronamoe
11176	N-Nitroson-netroturea
11177	N-Nitroso-n-methylurea
• • • • • • • • • • • • • • • • • • • •	a remode a many a ce
	N-Nitroso-n-methylurethane
U179	
U180	
	., 5-Nitro-o-toluigine
U182	
i	PCN8 see U185
U183	Pentachloropenzene
U184	
U185	
U186	1,3-Pentagiene (I)
1	Perc see U210
	Perchtorethylene see U210
	Phenaceun
	Phenoi
	Phosphorous suifide (R)
	Phthalic annydride
	2-Picoline
U192	1,3-Propane suitone
	n-Propylamine (I) Pyndine
11900	Quinones
1200	Reserpine
	Resorcinol
	Saccnann
U203	Satrole
	Selenious acid .
U205	Selenium sultide (R,T)
	Silvex see U233
U206	Streptozotocin
•	2,4,5-T see U232
U207	1.2.4.5-Tetrachiorobenzene
	1,1,1,2-Tetrachloroethane
	1,1,2,2-Tetracnioroethane
U210	
	Tetrachioroethylene see 11210
U211	Tetrachloromethane
11212	2.3.4.6-Tetrachiorophenol
11212	Tetrahydropyse (it the state)
11214	Tetrahyoroturan (I)
11215	Thatleyn (I) company
110.0	Thailium (I) carbonate
	Thailium (I) chlonde 19 11 55 1191 151
U217:	Thailium (i) nitrate Thioacetamide
U218	Thioacetamide
	Thioures 11 1 and 14
U221	Toluenediamine
U222	0-Toluidine hydrochlonde
	See The Control of th
	and the second s

¹ The Agency included those trade names of which it was, aware; an omission of a trade name does not imply that it is not hazardous. The material is hazardous if it is listed under the generic name.

## Appendix I—Representative Sampling Methods

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Agency to be representative of the waste.

Extremely viscous liquid—ASTM Standard D140-70 Crushed or powdered material—ASTM Standard D346-75 Soil or rock-like material—ASTM Standard D420-69 Soil-like material—ASTM Standard D1452-65 Fly Ash-like material—ASTM Standard D2234-76 [ASTM Standards are available from ASTM. 1916 Race St., Philadelphia, PA 19103]

Containerized liquid wastes—"COLIWASA" described in "Test Methods for the Evaluation of Solid Waste, Physical/ Chemical Methods." 1 U.S. Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460. [Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair St., Cincinnati, Ohio 45268]

Liquid waste in pits, ponds, lagoons, and similar reservoirs.—"Pond Sampler" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods."

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

## Appendix II— EP Toxicity Test Procedure

#### A. Extraction Procedure (EP)

- 1. A representative sample of the waste to be tested (minimum size 100 grams) should be obtained using the methods specified in Appendix I or any other methods capable of yielding a representative sample within the meaning of Part 260. [For detailed guidance on conducting the various aspects of the EP see "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," SW-846, U.S. Environmental Protection Agency Office of Solid Waste, Washington, D.C. 20460."]
- 2. The sample should be separated into its component liquid and solid phases using the method described in "Separation Procedure" below. If the solid residue 2 obtained using this method totals less than 0.5% of the original weight of the waste, the residue can be discarded and the operator should treat the liquid phase as the extract and proceed immediately to Step 8.
  - 3. The solid material obtained from the Separation Procedure should be evaluated for its particle size. If the solid material has a surface area per gram of material equal to, or greater than, 3.1 cm2 or passes through a 9.5 mm (0.375 inch) standard sieve, the operator should proceed to Step 4. If the surface area is smaller or the particle size larger than specified above, the solid material should be prepared for extraction by crushing, cutting or grinding the material so that it passes through a 9.5 mm (0.375 inch) sieve or, if the material is in a single piece, by subjecting the material to the "Structural Integrity Procedure" described below.
  - 4. The solid material obtained in Step 3 should be weighed and placed in an extractor with 16 times its weight of deionized water. Do not allow the material to dry prior to weighing. For purposes of this test, an acceptable extractor is one which will impart sufficient agitation to the mixture to not only prevent stratification of the sample and extraction fluid but also insure that all sample surfaces are continously

ritial weight of sample i

brought into contact with well mixed extraction fluid.

5. After the solid material and deionized water are placed in the extractor, the operator should begin agitation and measure the pH of the 1 solution in the extractor. If the pH is greater than 5.0, the pH of the solution should be decreased to 5.0  $\pm$  0.2 by adding 0.5 N acetic acid. If the pH is equal to or less than 5.0, no acetic acid should be added. The pH of the solution should be monitored, as described below, during the course of the extraction and if the pH rises above 5.2 0.5N acetic acid should be added to bring the pH down to 5.0  $\pm$  0.2. However, in no event shall the aggregate amount of acid added to the solution exceed 4 ml of acid per gram of solid. The mixture should be agitated for 24 hours and maintained at 20°-40° C (68°-104° F) during this time. It is recommended that the operator monitor and adjust the pH during the course of the extraction with a device such as the Type 45-A pH Controller manufactured by Chemtrix, Inc., Hillsboro, Oregon 383 97123 or its equivalent, in conjunction with a metering pump and reservoir of 🖺 0.5N acetic acid. If such a system is not available, the following manual procedure shall be employed:

(a) A pH meter should be calibrated in accordance with the manufacturer's specifications.

(b) The pH of the solution should be checked and, if necessary, 0.5N acetic acid should be manually added to the extractor until the pH reaches  $5.0\pm0.2$ . The pH of the solution should be adjusted at 15, 30 and 60 minute intervals, moving to the next longer interval if the pH does not have to be adjusted more than 0.5N pH units.

(c) The adjustment procedure should be continued for at least 6 hours.

(d) If at the end of the 24-hour extraction period, the pH of the solution is not below 5.2 and the maximum amount of acid (4 ml per gram of solids) has not been added, the pH should be adjusted to  $5.0\pm0.2$  and the extraction continued for an additional four hours, during which the pH should be adjusted at one hour intervals.

6. At the end of the 24 hour extraction period, deionized water should be added to the extractor in an amount .... determined by the following equation:

V = (20)(W) - 16(W) - A

V = ml deionized water to be added. -W = weight in grams of solid charged to
extractor

A = ml of 0.5N acetic acid added during extraction

7. The material in the extractor should be separated into its component liquid and solid phases as described under "Separation Procedure."

- 8. The liquids resulting from Steps 2 and 7 should be combined. This

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

Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency. 28 W. St. Clair Street, Cincinnati, Ohio 45268.

²The percent solids is determined by drying the filter pad at 80° C until it reaches constant weight and then calculating the percent solids using the following equation:

⁽weight of pad + solid) - (tare weight of pad)

combined liquid (or the waste itself if it. has less than 1/2 percent solids. as noted in Step 2) is the extract and should be analyzed for the presence of any of the contaminants specified in Table I of § 261.24 using the Analytical Procedures designated below.

#### Separation Procedure

Equipment: A filter holder, designed for filtration media having a nominal pore size of 0.45 micrometers and capable of applying a 5.3 kg/cm² (75 psi) hydrostatic pressure to the solution being filtered shall be used. For mixtures containing nonabsorptive solids, where separation can be affected without imposing a 5.3 kg/cm^f pressure differential, vacuum filters employing a 0.45 micrometers filter media can be used. (For further guidance on filtration equipment or procedures see "Test Methods for Evaluating Solid Waste, 200 Physical/Chemical Methods.") Procedure: 3

(i) Following manufacturer's directions, the filter unit should be: assembled with a filter bed consisting of a 0.45 micrometer filter membrane. For ___ such cases, the waste may be allowed to difficult or slow to filter mixtures a prefilter bed consisting of the following prefilters in increasing pore size (0.65 micrometer membrane, fine glass fiber prefilter, and coarse glass fiber prefilter) can be used.

. (ii) The waste should be poured into the filtration unit.

(iii) The reservoir should be slowly pressurized until liquid begins to flow from the filtrate outlet at which point the pressure in the filter should be and noite as immediately lowered to 10-15 psign attento Filtration should be continued until a metric liquid flow ceases.

(iv) The pressure should be increased stepwise in 10 psi increments to 75 psig and filtration continued until flow ceases or the pressurizing gas begins to exit from the filtrate outlet.

(v) The filter unit should be depressurized, the solid material removed and weighed and then transferred to the extraction apparatus. or, in the case of final filtration prior to analysis, discarded. Do not allow the

material retained on the filter pad to dry prior to weighing.

(vi) The liquid phase should be stored at 4°C for subsequent use in Step 8.

#### B. Structural Integrity Procedure

Equipment: A Structural Integrity Tester having a 3.18 cm (1.25 in.) diameter hammer weighing 0.33 kg (0.73 lbs.) and having a free fall of 15.24 cm (6 in.) shall be used. This device is available from Associated Design and Manufacturing Company, Alexandria. VA., 22314, as Part No. 125, or it may be fabricated to meet the specifications shown in Figure 1.

#### Procedure:

1. The sample holder should be filled with the material to be tested. If the sample of waste is a large monolithic block, a portion should be cut from the block having the dimensions of a 3.3 cm (1.3 in.) diameter x 7.1 cm (2.8 in.) cylinder. For a fixated waste, samples may be cast in the form of a 3.3 cm (1.3 in.) diameter x 7.1 cm (2.8 in.) cylinder for purposes of conducting this test. In cure for 30 days prior to further testing.

2. The sample holder should be placed into the Structural Integrity Tester, then . the hammer should be raised to its maximum height and dropped. This should be repeated fifteen times.

3. The material should be removed from the sample holder, weighed, and transferred to the extraction apparatus for extraction.

Analytical Procedures for Analyzing Extract Contaminants

The test methods for analyzing the extract are as follows:

(1) For arsenic, barium, cadmium, chromium, lead, mercury, selenium or silver: "Methods for Analysis of Water and Wastes." Environmental Monitoring and Support Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268 (EPA-600/4-79 020. March 1979).

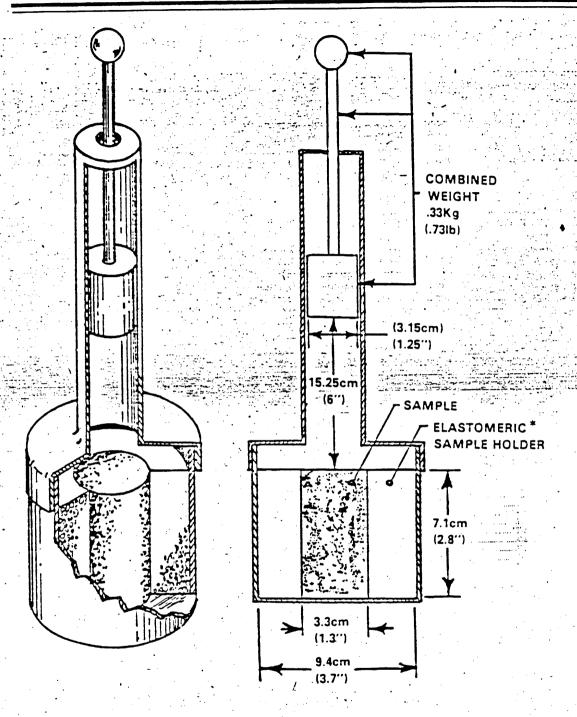
(2) For Endrin: Lindane: Methoxychlor: Toxaphene: 2,4-D: 2,4,5 TP Silver: in "Methods for Benzidine. Chlorinated Organic Compounds, Pentachlorophenol and Pesticides in Water and Wastewater." September 1978, U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio

as standardized in "Test Methods for the Evaluation of Solid Waste. Physical/ Chemical Methods."

For all analyses, the method of standard addition shall be used for the quantification of species concentration.

This method is described in "Test Methods for the Evaluation of Solid Waste." (It is also described in "Methods for Analysis of Water and Wastes.") BILLING CODE 6560-01-M

³This procedure is intended to result in separation of the "free" liquid portion of the waste from any solid matter having a particle size .>0.45um. If the sample will not filter, various other separation techniques can be used to aid in the filtration. As described above, pressure filtration is employed to speed up the filtration process. This does not alter the nature of the separation. If liquid does not separate during filtration, the waste can be centrifuged. If separation occurs during centrifugation the liquid portion (centrifugate) is: filtered through the 0.45um filter prior to becoming mixed with the liquid portion of the waste obtained from the initial filtration. Any material that will not pass through the filter after centrifugation is considered a solid and is extracted.



*ELASTOMERIC SAMPLE HOLDER FABRICATED OF ...
MATERIAL FIRM ENOUGH TO SUPPORT THE SAMPLE

# Figure 1

# COMPACTION TESTER

BILLING CODE 6560-01-0

## Appendix III—Chemical Analysis Test Methods

Tables 1, 2 and 3 specify the appropriate analytical procedures, described in "Test Methods for Evaluating Solid Waste" (SW-846), which should be used in determining whether the waste in question contains a given toxic constituent. Table 1 identifies the analytical class and the approved measurement techniques for each organic chemical listed in Appendix VII. Table 2 identifies the corresponding methods for the inorganic

species. Table 3 identifies the specific sample preparation and measurement instrument introduction techniques which may be suitable for both the organic and inorganic species as well as the matrices of concern.

Prior to final selection of the analytical method the operator should consult the specific method descriptions in SW-846 for additional guidance on which of the approved methods should be employed for a specific waste analysis situation.

Table 1.—Analytical Characteristics of Organic Chemicals

Compound	, Sample handling	Non-GC	M	easurement tec	7
	class/fraction	methods	GC/MS	GC Co	rventional
			GC/M3		Detector
cetonitrile	Volatile		8.24	8.03	NSD
crolein	Volatile		8.24	8.03	NSD
crviamide	Volatrie		8.24	8.01	FID
zvionitnie	Volatile		8.24	8.03	NSD
crylonitrile	Volatile		8.24	8.02	PIO
enz(a)anthracene enzo(a)pyrene. enzotrichlonde	Extractable/BN	8.10 (HPLC)	8.25	8.10	FID
enzo(a)pyrene	Extractable/8N	8.10 (HPLC)	8.25	8.10	FID
enzotrichlonde	Extractable/BN	•	8.25	8.12	ECD
enzyi chloride	: Volatile of Extractable/8N		8.24	8.01	HSD
سونسح بموج الماحات			8.25	8.12	ECO
enz(b)nuoanthene	Extractable/BN	8.10 (HPLC)	8.25	8.10	-FIO
is(2-chloroethoxymethane)is(2-chloroethyi)ether	Voiatile		8.24	8.01	HSO
is(2-chloroethyl)ether	Volatrie		8.24	8.01	HSD
is(2-chloroisopropyi)ether	Volatile	<del></del>	8.24	8.01	HSD
arbon disulfide	Volatile		8.24	8.01	HSD
hiordane	Future makin (ON		8.24	8.01	HSD
hiordane	Extractable/DN		8.25	8.08	HSD
Thornated dibenzodioxins	Extractable/ BN		8.25	8.08 8.08	ECD
			8.25		HSD
hioroacetaldenyde	Voienie		8.24 8.24	8.01 8.01	HSD HSD
HOTOGenzen <del>a</del>	AOISING		8.24	8.01	PIO
Pilorotorm	Volable		8.24	8.02	HSD
hioromethane			8.24	8.01	HSD
-Chlorophenol			8.25	- 8.04	FID. ECD
hrysene			8.25		FIO. ECO
zeosote	Extractable/ 8N	0.10 (nrcc)	18.25	8.10	ECD
Cresoi(s)			8.25	8.04	FID. ECD
Cresylic acid(s)	Extractable/A	***************************************	8.25	8.04	FID. ECD
Dichloropenzene(s)	Extractable/BN		8.25	8.01	HSD
			0.20	8.02	PID
•	•			8.12	ECD
Dichloroethane(s)	Volatile		8.24	- 8.01	HSD
Dichloromethane	. Votatile		8.24	8.01	HSD
Dichlorophenoxy-acetic acid	. Extractable/A		8.25	8.40	HSD
Dichloropropanol	Extractable/BN		8.25	8.12	ECD
2,4-Dimethylphenol	Extractable/A		8.25	8.04	FID. ECD
Dinitrobenzene	Extractable/BN		8.25	8.09	FID, ECD
4,6-Dinotro-o-cresol	Extractable/A		8.25	8.04	FID. ECD
2,4-Dinitratoluene	. Extractable/8N		8.25	8.09	FID. ECD
ndrin	Extractable/P		8.25	8.08	HSD
Ethyl ether	. Volatile		8.24	8.01	FID
_				8.02	FID
Formaldehyde	_ Volaule		8.24	8.01	FID .
Formic acid	Extractable/BN		8.25	. 8.06	FIO
Heptachlor	_ Extractable/P		8.25	8.06	HSD
Hexachlorobenzene			8.25	8.12	ECD
dexachlorobutadiene	_ Extractable/ BN		8.25	8.12	ECD .
Hexachloroethane	_ Extractable/BN		8.25	8.12	ECO
Hexachtorocyclopentadiene	Extractable/BN		8.25	8.12	
Lindane	_ Extractable/P		8.25	8.08	
Maleic anhydride	Extractable/BN		8.25	8.06	ECD, FID
Methanol	_ Volatile		8.24	8.01	FID
Methornyl	Extractable/BN	8.32 (HPLC)		<u>.</u>	
Methyl ethyl kelone	Volatile		8.25	8.01	FIO
*********				8.02	
Methyl isobutyl ketone	Volatile		. 8.25	8.01	
••	-			8.02	
Naphthalene	Extractable/BN		8.25	8.10	
Napthoquinone	Extractable/8N		8.25	8.06	ECD, FID
				8.09	FID
				0.04	
	Extractable/6N		8.25	8.09	
	Extractable/8N		8.25 8.24		ECD, FID

Table 1.—Analytical Characteristics of Organic Chemicals—Continued

Compound	Samole handling	Non-GC			Aeasurem	ent te	chniques
	class/fraction	methods		GC/MS		GC C	onventional Detector
			:	GC/M3	14. F	, GC	Detector
Pentachlorophenol	Extractable/A		-:	8 25		8.04	ECD
Phenoi	Extractable/A			8.25		8.04	ECD, FID
Phorate						8.22	FPD
Phosphorodithioic acid esters						8.06	ECD, FID
						8.09	ECD. FID
					•	8.22	FPO -
Phthalic anhydride	Extractable/BN			8.25		8.06	ECD, FID
	a e e e e e e e e e e e e e e e e e e e	ويه مماسي		. ,		8.09	ECD, FID
2-Picoline	Extractable/BN			_ 8.25		8.06	ECD, FID
ڭ مامكن≛م د	•	. ,				8.09	ECD, FID
Pyridine	Extractable/BN	· · · · · · · · · · · · · · · · · · ·	. :	8.25	-	8.06	ECO, FIO
•					٠.	8.09	ECD, FID
Tetrachlorobenzene(s)	Extractable/BN			8.25		8.12	ECO.
Tetracnioroethane(s)				8.24		8.01	HSD
Tetrachioroethene	Volatile			8.24		8.01	HSD
Tetrachlorophenol	Extractable/A			8.24		8.04	ECD
Toluene	Volatile			8.24		8.02	PIO
Toluenediamine	Extractable/BN			- 8.25			
Toluene disocyanate(s)				8.25	* *	8.06	FIO
	Extractable/P		•	8.25		8.08	HSD
Trichloroethane	Volatile	<del></del>		8.24		8.01	HSD
Trichloroethene(s)	Voiatile			8.24		8.01	HSD
Trichloroffuoromethane				8.24	-	8.01	HSD
Trichlorophenoi(s)	Extractable/A	·	•	8.25		8.04	HSD
Z-,3-17 (3#V8X)	EXTRICATION A		•	8.25	•	8.40	, HSD
Trichloropropane				8.24		8.01	HSD
Vinvidene chloride				8.24		8.01	HSD
Xylene			•	8.24		8.01	HSD
^yran 75	A CHITING	<del></del>	•	8.24		8.02	PID

Analyze for phenanthrene and carbazole; if these are present in a ratio between 1.4:1 and 5:1, crecsote should be considered present.

ECD = Electron capture detetor; FID = Flame ionization detector; FPO = Flame photometric detector; HSD = Halide specific detector; HPLG = High pressure liquid chromotography; NSD = Nitrogen-specific detector; PID = Photoionization detector;

Table 2-Analytical Characteristics of Inorganic Species

Species	Sample handling class	, - Measurement technique	Method number	٠.
Antimony	Digestion	Atomic absorbtion-furnace/flame	8.50	
Arsenic	Hydnde	Atomic absorbtion-flame	8.51	
Banum	Digestion	Atomic absorbtion-furnace/flame	. 8.52	
Cadmium.	Digestion	Atomic absorbtion-furnace/flame	8.53	: 5
Chromium	Digestion	Atomic absorption-furnace/flame	8,54	
Cyanides	Hydrolysis	Atomic absorbtion-spectroscopy	8.55	7
Lead	Digestion	Atomic absorption-furnace/flame	8.56	. =
Mercury	Cold Vapor	Atomic absorption	8.57	2
Nicket	Digestion	Atomic absorption-furnace/flame	8.58	
Selenium	Hydnde digestion	Atomic absorbtion-furnace/iffame	8.59	
Silver	Digestion	Atomic absorption-furnace/flame	8.60	•

Table 3.—Sample Prepartion/Sample Introduction Techniques

	i ecni	nques		
Sample	Physical characteristics of waste ¹			
handling class	Fluid	Paste	Solid	
Voltile	trap. Direct	Purge and trap. Headspace	Headspace.	
Semvolatile and nonvolatile.	injection.  Direct injection.  Shake out	Shake out	Soxnlet.	
Inorganic		Digestion	Digestion.	

¹For purposes of this Table, fluid refers to readily pourable figures, which may or may not contain suspended particles. Paste-like materials, while fluid in the sense of flowability, can be thought of as being thisotropic or plastic in nature, e.g. paints. Solid materials are those wastes which can be handled without a container (i.e., can be piled up without appreciable securing).

Procedure and Method Number(s)

Digestion—See appropriate procedure for element of interest.
Direct injection—8.80
Headspace—8.82
Hydride—See appropriate procedure for element of interest.
Purge & Trap—8.83
Shake out—8.84
Sonication—8.85
Soxhlet—8.88

Appendix VII.—Basis for Listing Hazardous Wastes

EPA hazardous	Hazardous constituents for which listed
waste No.	and the second s
F001	tetrachioroethylene, methylene chloride trichlor-
	oethyllene, 1,1,1-trichloroethane chlonnated
F002	tetrachloroethylene, methylene chloride, trichlor-
	oethylene, 1,1,1-trichloroethene, chloroben-
	zene, 1,1,2-trichtoro-1,2,2-trifluoroethane, o-
F003	dichlorobenzene, trichlorofluoromethane N.A.
	14are
F005	cresols and cresylic acid, nitrobenzene
	methanol, toluene, methyl ethyl ketone, methyl isobutyl ketone, carbon disulfide, isobutanol,
• •	рупште
F006	cadmium, chromium, nickel, cyanide (complexed)
F007	cyanide (saits)
	cyanide (saits)
	cyanide (saits)
F010	cyanide (saits)
F011	Cyanide (saits)
F012	Cyanide (complexed)
F013	cyanide (complexed)
	cyanide (complexed)
F015	cyanide (saits)
	cyanide (saits) cyanide (complexed)
	benzene, benz(a)anthracene, benzo(a)pyrene,
22.	chrysene, 4-nitrophenol, toluene, naphthalene
	phenol, 2-chlorophenol, 2,4-dimethyl phenol,
	2,4,6-trichiorophenoi, pentachiorophenoi, 4,6-
	dinitro-o-cresol, tetrachlorophenol
K002	chromium, lead
K003	chromum, lead
	chromum
	chromium, lead
K006	chromum
K007	cyanide (complexed), chromium
K008	chromium
K009	chloroform, formaldehyde, methylene chlonde,
	methyl chlonde, paraidehyde, formic acid
K010	chloroform, formaldehyde, methylene chloride,
	methyl chlonde, paraidehyde, formic acid,
	chloroacetaldehyde
ـــــــــــــــــــــــــــــــــــــ	acrylonitnie, acetonitnie, hydrocyanic acid
K012	acrylonitnie, acetonitnie, acrolein, acrylamide
	hydrocyanic acid, acrylonitnie, acetonitnie
K014	acetonitrile, acrylamide
K015	benzyi chlonde, chlorobenzene, toluene, benzo-
	trichlonde
K016	. hexachlorobenzene, hexachlorobutadiene;
	carbon tetrachionde, hexachioroethane, perch-
	loroethylene #.34
K017	epichlorohydrin, chloroethers [bis(chloromethyl)
	ether and bis (2-chloroethyl) ethers], trichloro-
	propane, dichloropropanols
K018	. 1,2-dichloroethane, trichloroethylene, hexachloro-
	butadiene, hexachlorobenzene
K019	ethylene dichlonde, 1,1,1-trichloroethane, 1,1,2-
	Inchloroethane, tetrachloroethanes (1,1,2,2-te-
•	trachloroethane and 1,1,1,2-tetrachloroethane),
	trichloroethylene, tetrachloroethylene, carbon
	tetrachionde, chioroform, vinyi chionde, vinyi-

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#### Appendix VII.—8asis for Listing Hazardous Wastes-Continued hazardous Hazardous constituents for which listed waste No. thylene dichloride, 1,1,1-trichloroethane, 1,1,2trachloroethane and 1,1,1,2-tetrachloroethane). tetrachloride, chloroform, vinvi chloride, vinvi dene chloride K021 antimony, carbon tetrachloride, chloroform K022 phenol, tars (polycyclic aromatic hydrocarbons) K023 phthalic anahydnde, maleic annydnde hthalic anhydride, polynuclear tar-like materials, naphthoguinone K025 neta-dinitrobenzene, 2.4-dinitrotoluer paraidenvde, pyndines, 2-picoline KD26 K027 louiene diisocyanate, (benzidimidazapone) 1,1-inchloroethane, vinyl chlonde K029 .2.-dichloroethane, 1,1,1-trichloroethane, chloride, vintyidene chloride, chlorotorm nexachiorobenzene, K030 hexachioroputadier 1,1,1,2-tetrachioroethane 1.1.2.2-tetrachioroethane. K032 hexachiorocyclopentadiene K033 hexachlorocyclopentagiene K034 hexachiorocyclope K035 benz(a)anthracene, benz(b)fluoroancresole, thene, benzo(a)pyrene K036 louiene, phosphorodithioic and phosphorothioid acid esters K037 toulene, phosphorodithioic and phosphorothioid acid esters _K038 phorate, formaldehyde, phosphoroditi K039 phosphorodithioic and phosphorothioic K040 phorate, formaldehyde, phosphorodithioic enerasxat K042 K043 2.4-dichlorophenol. 2.6-dichlorophenol. trichloropheno KO44 N.A. K045 K046 lead K047 K048 chromium, lead K049 chromium, lead K050 chromum KOS1 K052 lead K053 chromeum chromum K054 K055 chromium, lead K056 chromium, lead K057 chromium. chromium, lead K058 K059 K060 Cyanide, naphthalene, phenolic compounds, ar-K061 chromium, lead, cadr K062 K063 chromium, lead K064 lead, cadmium K065 lead, cadmium KOSE lead, cadmium K067 lead, cadmium KOSS lead, cadn K069 chromium, lead, cadn N.A.—Waste is hazardous because it medignitability, corrosivity or reactivity character

#### ... Appendix VIII—Hazardous Constituents

Acetaldehyde
(Acetato)phenylmercury
Acetonitrile
3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin
and salts
2-Acetylaminofluorene
Acetyl chloride
1-Acetyl-2-thiourea
Acrolein
Acrylamide
Acrylonitrile
Aflatoxins

Aldrin Allyl alcohol Aluminum phosphide 4-Aminobiphenyl 6-Amino-1.1a.2.8.8a.8b-hexahvdro-8-(hydroxymethyl)-8a-methoxy-5methylcarbamate azirino(2',3':3,4) pyrrolo(1,2-a)indole-4,7-dione (ester) (Mitomycin C) 5-(Aminomethyl)-3-isoxazolol 4-Aminopyridine Amitrole Antimony and compounds, N.O.S.¹ Aramite Arsenic and compounds, N.Ó.S. Arsenic acid Arsenic pentoxide Arsenic trioxide Auramine Azaserine Barium and compounds. N.O.S. Barium cyanide Benz/clacridine Benz(a)anthracene Benzene Benzenearsonic acid Benzenethiol Benzidine Benzo(a)anthracene Benzo(b)fluoranthene The second Benzo(j]fluoranthene Benzo(a)pyrene 🚋 Benzotrichloride Benzyl chloride Beryllium and compounds. N.O.S. Bis(2-chloroethoxy)methane Bis(2-chloroethyl) ether N.N-Bis(2-chloroethyi)-2-naphthylamine Bis(2-chloroisopropyl) ether Bis(chloromethyl) ether Bis(2-ethylhexyl) phthalate Bromoacetone Bromomethane 4-Bromophenyl phenyl ether Brucine 2-Butanone peroxide Butyl benzyl phthalate 2-sec-Butyl-4.6-dinitrophenol (DNBP) Cadmium and compounds, N.O.S. Calcium chromate Calcium cvanide Carbon disulfide Chlorambucil Chlordane (alpha and gamma isomers) Chlorinated benzenes, N.O.S. Chlorinated ethane, N.O.S. Chlorinated naphthalene, N.O.S. Chlorinated phenol, N.O.S. Chloroacetaldehyde Chloroalkyl ethers p-Chloroaniline Chlorobenzene Chlorobenzilate 1-(p-Chlorobenzoyl)-5-methoxy-2methylindole-3-acetic acid p-Chloro-m-cresol 1-Chloro-2.3-epoxybutane 2-Chloroethyl vinyl ether Chioroform Chioromethane Chloromethyl methyl ether 2-Chloronaphthalene ....

¹The abbreviation N.O.S. signifies those members of the general class "not otherwise specified" by name in this listing.

2-Chlorophenol 1-(o-Chlorophenyl)thiourea 3-Chloropropionitrile alpha-Chiorotoluene Chlorotoluene, N.O.S. Chromium and compounds, N.O.S. Chrysene Citrus red No. 2 Copper cyanide Creosote Crotonaldehyde Cyanides (soluble salts and complexes). N.O.S. Cyanogen Cyanogen bromide Cyanogen chloride Cycasin 2-Cyclohexyl-4.6-dinitrophenol Cyclophosphamide Daunomycin ממם DDE DDT Diallate Dibenz(a.h)acridine Dibenz[a.j]acridine Dibenz[a,h]anthracene(Dibenzo[a,h] anthracene) 7H-Dibenzo(c.g)carbazole Dibenzo(a.e|pyrene Dibenzo(a,h)pyrene Dibenzo(a.i)pyrene 1.2-Dibromo-3-chloropropane
1.2-Dibromoethane Dibromomethane Di-n-butyl phthalate Dichlorobenzene, N.O.S. 3.3'-Dichlorobenzidine 1.1-Dichloroethane 1.2-Dichloroethane trans-1.2-Dichloroethane Dichloroethylene. N.O.S. 1.1-Dichloroethylene Dichloromethane 2.4-Dichlorophenol 2.6-Dichlorophenol 2.4-Dichlorophenoxyacetic acid (2.4-D) Dichloropropane Dichlorophenylarsine 1,2-Dichloropropane Dichloropropanol, N.O.S. Dichloropropene. N.O.S. 1.3-Dichloropropene Dieldrin Diepoxybutane Diethylarsine 0.0-Diethyl-S-(2-ethylthio)ethyl ester of phosphorothioic acid 1.2-Diethylhydrazine 0.0-Diethyl-S-methylester phosphorodithioic acid 0.0-Diethylphosphoric acid. 0-p-nitrophenyl ester Diethyl phthalate 0.0-Diethyl-0-(2-pyrazinyl)phosphorothioate Diethylstilbestrol Dihydrosafrole 3.4-Dihydroxy-alpha-(methylamino)-methyl benzyl alcohol -----

Di-isopropylfluorophosphate (DFP)

p-Dimethylaminoazobenzene ...

7.12-Dimethylbenz(a)anthracene

3.3'-Dimethoxybenzidine

Dimethylcarbamoyl chloride

3.3'-Dimethylbenzidine

Dimethoate

1.1-Dimethylhydrazine 1.2-Dimethylhydrazine 3.3-Dimethyl-1-(methylthio)-2-butanone-0-((methylamino) carbonyl)oxime Dimethylnitrosoamine alpha.alpha-Dimethylphenethylamine 2.4-Dimethylphenol Dimethyl phthalate Dimethyl sulfate Dinitrobenzene, N.O.S. 4.6-Dinitro-o-cresol and salts 2.4-Dinitrophenol 2.4-Dinitrotoluene 2.6-Dinitrotoluene Di-n-octyl phthalate 1.4-Dioxane 1.2-Diphenylhydrazine Di-n-propylnitrosamine Disulfoton 2.4-Dithiobiuret Endosulfan Endrin and metabolites Epichlorohydrin Ethyl cyanide Ethylene diamine Ethylenebisdithiocarbamate (EBDC) Ethyleneimine Ethylene oxide Ethylenethiourea Ethyl methanesulfonate Fluoranthene Fluorine 2-Fluoroacetamide Fluoroacetic acid, sodium salt Formaldehyde Glycidylaldehyde Halomethane, N.O.S. Heptachlor Heptachlor epoxide (alpha, beta, and gamma isomers) Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclohexane (all isomers) Hexachlorocyclopentadiene Hexachloroethane 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8ahexahvdro-1.4:5.8-endo.endodimethanonaphthalene Hexachlorophene Hexachloropropene Hexaethyl tetraphosphate Hydrazine Hydrocyanic acid Hydrogen sulfide Indeno(1.2.3-c.d)pyrene Iodomethane Isocyanic acid, methyl ester Isosafrole Kepone Lasiocarpine Lead and compounds, N.O.S. Lead acetate Lead phosphate Lead subacetate Maleic anhydride Malononitrile Melphalan Mercury and compounds, N.O.S. Methapyrilene Methomyl 2-Methylaziridine 3-Methylcholanthrene 4.4'-Methylene-bis-(2-chloroaniline) Methyl ethyl ketone (MEK)

Methyl hydrazine

2-Methyllactonitrile

Methyl methacrylate

Methyl methanesulfonate 2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime N-Methyl-N'-nitro-N-nitrosoguanidine Methyl parathion Methylthiouracil Mustard gas Naphthalene 1.4-Naphthoquinone 1-Naphthylamine 2-Naphthylamine 1-Naphthyl-2-thiourea Nickel and compounds, N.O.S. Nickel carbonyl Nickel cyanide Nicotine and salts Nitric oxide p-Nitroaniline Nitrobenzene Nitrogen dioxide Nitrogen mustard and hydrochloride salt Nitrogen mustard N-oxide and hydrochloride Nitrogen peroxide Nitrogen tetroxide Nitroglycerine 4-Nitrophenol 4-Nitroquinoline-1-oxide Nitrosamine, N.O.S. N-Nitrosodi-N-butylamine N-Nitrosodiethanolamine N-Nitrosodiethylamine N-Nitrosodimethylamine N-Nitrosodiphenylamine N-Nitrosodi-N-propylamine N-Nitroso-N-ethylurea N-Nitrosomethylethylamine N-Nitroso-N-methylurea N-Nitroso-N-methylurethane N-Nitrosomethylvinylamine N-Nitrosomorpholine N-Nitrosonomicotine N-Nitrosopiperidine N-Nitrosopyrrolidine N-Nitrososarcosine 5-Nitro-o-toluidine Octamethylpyrophosphoramide Oleyl alcohol condensed with 2 moles ethylene oxide Osmium tetroxide 7-Oxabicyclo[2.2.1]heptane-2.3-dicarboxylic acid Parathion Pentachlorobenzene Pentachloroethane Pentachloronitrobenzene (PCNB) Pentacholorophenol Phenacetin Phenol Phenyl dichloroarsine Phenylmercury acetate N-Phenylthiourea Phosgene Phosphine Phosphorothioic acid, O.O-dimethyl ester, Oester with N.N-dimethyl benzene sulfonamide Phthalic acid esters, N.O.S. Phthalic anhydride Polychlorinated biphenyl, N.O.S. Potassium cyanide Potassium silver cyanide Pronamide 1,2-Propanediol 1.3-Propane sultone

Propionitrile

Propylthiouracil 2-Propyn-1-ol Pryidine Reserpine Saccharin Safrole Selenious acid Selenium and compounds, N.O.S Selenium sulfide Selenourea Silver and compounds, N.O.S. Silver cyanide Sodium cyanide Streptozotocin Strontium sulfide Strychnine and salts 1.2.4.5-Tetrachlorobenzene 2.3.7.8-Tetrachlorodibenzo-p-dioxin (TCDD) Tetrachloroethane, N.O.S. 1.1.1.2-Tetrachioroethane 1.1.2.2-Tetrachloroethane Tetrachloroethene (Tetrachloroethylene) Tetrachloromethane 2.3.4.6-Tetrachlorophenol Tetraethyldithiopyrophosphate Tetraethyl lead Tetraethylpyrophosphate Thallium and compounds, N.O.S. Thallic oxide Thallium (I) acetate Thailium (I) carbonate Thallium (I) chloride Thallium (I) nitrate Thailium selenite Thallium (I) sulfate Thioacetamide Thiosemicarbazide Thiourea Thiuram Toluene Toluene diamine o-Toluidine hydrochloride Tolylene diisocyanate Toxaphene Tribromomethane 1.2.4-Trichlorobenzene 1.1.1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene (Trichloroethylene) Trichloromethanethiol 2.4.5-Trichlorophenol 2.4.6-Trichlorophenol 2.4.5-Trichlorophenoxyacetic acid (2.4.5-T) 2.4.5-Trichlorophenoxypropionic acid (2.4.5-TP) (Silvex) Trichloropropane, N.O.S. 1.2.3-Trichloropropane 0.0.0-Triethyl phosphorothioate Trinitrobenzene Tris(1-azridinyl)phosphine sulfide Tris(2.3-dibromopropyl) phosphate Trypan blue Uracil mustard Urethane Vanadic acid, ammonium salt Vanadium pentoxide (dust) Vinyl chloride Vinylidene chloride Zinc cyanide Zinc phosphide IFR Doc. 80-14307 Filed 5-16-80: 8:45 am BILLING CODE 6560-01-M

### ATTACHMENT B

# Unlisted (Characteristic) Hazardous Wastes (40 CFR Part 261, Subpart C)

Waste Number	Characteristic	Contaminant	
Dode	Toxic		•
D001	Ignitable		•
D002	Corrosive		
D003	Reactive	•	
			Maximum concen-
			tration (mg/1)
D004		Arsenic	5.0
D005		Barium	100.0
D006	**	Cadmium	1.0
D007		Chromium	5.0
D008	•	Lead	5.0
D009		Mercury	0.2
D010		Selenium	1.0
D011		Silver	5.0
D012		Endrin (1,2,3,4,10,10-	0.02
	•	hexachloro-1,7-epoxy-	
į		1,4,4a,5,6,7,8,8a-	
		octahydro-1,4-endo, endo-	
		5,8-dimethano naphthalene	)
D013	EP Toxic:	Lindane (1,2,3,4,5,6-	0.4
	Specify .	hexachiorocyclohexane,	
	Contaminant	gamma isomer)	
D014		Methoxychlor (1,1,1-	10.0
		Trichloro-2,2-bis 'p-	
	·	methoxyphenyl ethane)	
D015			0.5
		Toxaphene (C 10H10Cl 8, Technical chlorinated	
		camphene, 67-69 percent	
	•	chlorine)	
D016	•	2,4-D,(2,4-	10.0
	•	Dichlorophenoxyacetic	
		acid)	
D017		2,4,5-TP Silvex (2,4,5-	1.0
		Trichlorophenoxypropionic	<b>:</b>
		acid)	

## List of Hazardous Wastes

# (40 CFR Part 261, Subpart D)

Industry	and I	PA
Hazardous	Waste	No.

#### Hazardous Waste

паза	rdous waste No.	Hazardous Waste
Gene	ric:	
F001	·	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride,
		1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; and sludges from the recovery of these solvents in degreasing operations
F002		The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, and trichlorofluoromethane; and the still
F003		bottoms from the recovery of these solvents  The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; and the still bottoms from the recovery of these solvents
F004		The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; and the still bottoms from the recovery of these solvents
F005		The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, and pyridine; and the still bottoms from the recovery of these solvents
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
F019	:	Wastewater treatment sludges from the chemical conversion coating of aluminum
F007		Spent cyanide plating bath solutions from electroplating operations (except for precious metals electroplating spent cyanide plating bath solutions)
F008		Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process (except for precious metals electroplating plating bath sludges)
F009	: :	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process (except for precious metals electroplating spent stripping and cleaning bath solutions)
F010	· · · · · · · · · · · · · · · · · · ·	Quenching bath solutions) Quenching bath sludge from oil baths from metal heat treating operations where cyanides are used in the process (except for precious metals heat-treating quenching bath sludges)

·	
Industry and EPA	
iazardous Waste No.	: Hazardous Waste
F011 .	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations (except for precious metals heat treating spent cyanide solutions from salt bath pot cleaning)
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process (except for precious metals heat treating quenching wastewater treatment sludges)
wood Preservation	
<b>K001</b>	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol
Inorganic Pigments	
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments
003	Wastewater treatment sludge from the production of molybdate orange pigments
(004	Wastewater treatment sludge from the production of zinc yellow pigments
K005	Wastewater treatment sludge from the production of chrome green pigments
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated)
K007	Wastewater treatment sludge from the production of iron blue pigments
K008	Oven residue from the production of chrome oxide green pigments
Organic Chemicals	
K009	Distillation bottoms from the production of acetaldehyde from ethylene
K010	Distillation side cuts from the production of acetaldehyde from ethylene
K011	Bottom stream from the wastewater stripper in the product: of acrylonitrile
K013	Bottom stream from the acetonitrile column in the product: of acrylonitrile
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile
K015	Still bottoms from the distillation of benzyl chloride
K016	Heavy ends or distillation residues from the production

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Industry Hazardous		Hazardous Waste
K017		Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin
K018		Heavy ends from the fractionation column in ethyl chloride production
K019		Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production
K020		Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production
K021	•	Aqueous spent antimony catalyst waste from fluoromethanes production
K022		Distillation bottom tars from the production of phenol/ acetone from cumene
K023		Distillation light ends from the production of phthalic anhydride from naphthalene
K024		Distillation bottoms from the production of phthalic anhydride from naphthalene
K093		Distillation light ends from the production of phthalic anhydride from ortho-xylene
K094		Distillation bottoms from the production of phthalic anhydride from ortho-xylene
K025		Distillation bottoms from the production of nitrobenzene by the nitration of benzene
K026		Stripping still tails from the production of methy ethyl
K027		pyridines Centrifuge and distillation residues from toluene diisocyanate
K028		production  Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane
K029		Waste from the product steam stripper in the production of 1,1,1-trichloroethane
K095		Distillation bottoms from the production of 1,1,1-trichloroetha
K095		Heavy ends from the heavy ends column from the production
K0 90		of 1,1,1-trichloroethane
K030 .		Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene
K083	•	Distillation bottoms from aniline production
K103		Process residues from aniline extraction from the production of aniline
K104		Combined wastewater streams generated from nitrobenzene/ aniline production
K085		Distillation or fractionation column bottoms from the production of chlorobenzenes
K105		Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes

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Industry and EPA Hazardous Waste. N	
Inorganic Chemica	ls
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production
K106	Wastewater treatment sludge from the mercury cell process in chlorine production
Pesticides	. <b>~ .</b> `
K031	By-product salts generated in the production of MSMA and cacodylic acid
K032	Wastewater treatment sludge from the production of chlordane
K033 .	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane
K034	Filter solids from the filtration of hexachlorocyclo- pentadiene in the production of chlordane
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane
K035	Wastewater treatment sludges generated in the production of creosote
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton
K037	Wastewater treatment sludges from the production of disulfoton
K038	Wastewater from the washing and stripping of phorate production
K039	Filter cake from the filtration of diethylphosphorodi- thioic acid in the production of phorate
K040 K041	Wastewater treatment sludge from the production of phorate Wastewater treatment sludge from the production of toxaphene
K098	Untreated process wastewater from the production of toxaphene
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T
K043 K099	2,6-Dichlorophenol waste from the production of 2,4-D Untreated wastewater from the production of 2,4-D
Explosives	
K044	Wastewater treatment sludges from the manufacturing and
K045	processing of explosives  Spent carbon from the treatment of wastewater containing
K046	explosives Wastewater treatment sludges from the manufacturing, formulation and loading of load band initiation approach
K047	formulation and loading of lead-based initiating compound: Pink/red water from TNT operations

Hazardous Waste No.	Hazardous Waste
Petroleum Refining	
K048	Dissolved air flotation (DAF) float from the petroleum refining industry
K049	Slop oil emulsion solids from the petroleum refining industry
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry
K051 K052	API separator sludge from the petroleum refining industry Tank bottoms (leaded) from the petroleum refining industr
Iron and Steel	
K061	Emission control dust/sludge from the primary production of steel in electric furnaces
K062	Spent pickle liquor from steel finishing operations
Secondary Lead	
K069	Emission control dust/sludge from secondary lead smelting
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting
Veterinary Pharmace	uticals
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo arsenic compounds
K101 .	Distillation tar residues from the distillation of anilin based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds
K102	Residue from the use of activated carbon for decolorizati in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds
K102  Ink Formulation	Residue from the use of activated carbon for decolorizati in the production of veterinary pharmaceuticals from
	Residue from the use of activated carbon for decolorizati in the production of veterinary pharmaceuticals from

Ammonia still lime sludge from coking operations Decanter tank tar sludge from coking operations

K060 K087

Industry Hazardous	and EPA Waste No.	Acutely Hazardous Waste
P024		p-Chloroaniline
P026		1-(o-Chlorophenyl)thiourea
P027		3-Thloropropionitrile
P029		Copper cyanides
P030		Cyanides (soluble cyanide salts), not elsewhere specified
P031		Cyanogen
P033		Cyanogen chloride
P036	٠.	Dichlorophenylarsine
P037		Dieldrin
P038		Diethylarsine
P039		O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate
P041		Diethyl-p-nitrophenyl phosphate
P040		O,O-Diethyl O-pyrazinyl phosphorothioate
PG43		Diisopropyl fluorophosphate
P044		Dimethoate
P045		3,3-Dimethyl-1-(methylthio)-2-butanone, O-[methylamino)
		carbonyl] oxime
P071		O,O-Dimethyl O-p-nitrophenyl phosphorothicate
P082		Dimethylnitrosamine
P046		alpha,alpha-Dimethylphenethylamine
P047		4,6-Dinitro-o-cresol and salts
F034		4,6-Dinitro-o-cyclohexylphenol
P048		2,4-Dinitrophenol
P020		Dinoseb
P085		Diphosphoramide, octamethyl-
P039		Disulfoton
P049		2,4-Dithiobiuret
P109	•	Dithiopyrophosphoric acid, tetraethyl ester
PÚSÚ		Endosulfan
P088		Endothall
PC51		Endrin
P042		Epinephrine
P046		Ethanamine, 1,1-dimethyl-2-phenyl-
P084		Ethenamine, N-methyl-n-nitroso-
P101		Ethyl cyanide
P054		Ethylenimine
P097		Famphur
P056		Fluorine
P057		Fluoroacetamide
P058		Fluoroacetic acid, sodium salt
P065		Fulminic acide, mercury(II) salt(R,T)
P059		Heptachlor
P051		1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-
		octahydro-endo,endo-1,4:5,8-dimethanonaphthalene

Industry Hazardous	and EPA Waste No.	Acutely Hazardous Waste
P088		7-Oxabicyclo(2,2,1)heptane-2,3-dicarboxylic acid
P089		Parathion
P034		Phenol, 2-cyclohexyl-4,6-dinitro-
P048		Phenol, 2,4-dinitro-
P047		Phenol, 2,4-dinitro-6-methyl-
P0 20		Phenol, 2,4-dinitro-6-(l-methylpropyl)-
P009		Phenol, 2,4,6-trinitro- ammonium salt (R)
P036	٠.	Phenyl dichloroarsine
P092		Phenylmercuric acetate
P093		N-Phenylthiourea
P094		Phorate
P095		Phosgene
P096		Phosphine
P041		Phosphoric acid, diethyl p-nitrophenyl ester
P044		Phosphorodithioic acid, 0,0-dimethyl S-[2-(methylamino)-
		2-oxoethyl] ester
P043		Phosphorofluoric acid, bis(l-methylethyl) - ester
P094		Phosphorothioic acid, 0,0-diethyl S-(ethylthio)methyl
PU94		ester
D0.00		Phosphorothioic acid, 0,0-diethyl 0-(p-nitrophenyl)
P089		ester
D0 4 0		Phosphorothioic acid, 0,0-diethyl 0-pyrazinyl ester
P040		
P097		Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino)-
<b>7110</b>		sulfonyl)phenyl] ester
P110		Plumbane, tetraethyl-
P098		Potassium cyanide
P099		Potassium silver cyanide
P070		Propanal, 2-methyl-2-(methylthio), 0-[(methylamino)carbony
		Oxime
P101		Propanenitrile
P0 27		Propanenitrile, 3-chloro-
P069		Propanenitrile, 2-hydroxy-2-methyl-
P081		1,2,3-Propanetriol, trinitrate- (R)
P017		2-Propanone, 1-bromo-
P102		Propargyl alcohol
P003		2-Propenal
P005		2-Propen-1-ol
P067		1,2-Propylenimine
P102		2-Propyn-1-ol
P008		4-Pyridinamine
P075	:	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts
Plll		Pyrophosphoric acid, tetraethyl ester
P103		Selenourea
P104		Silver cyanide
P105		Sodium azide
P106		Sodium cyanide
P107		Strontium sulfide

Industry and EPA Hazardous Waste No.	Acutely Hazardous Waste
P108	Strychnidin-10-one, and salts
P018	Strychnidin-10-one, 2,3-dimethoxy-
P108	Strychnine and salts
P115	Sulfuric acid, thallium(I) salt
P109	Tetraethyldithiopyrophosphate .
P110	Tetraethyl lead
P111	Tetraethylpyrophosphate
P112 · ·	Tetranitromethane (R)
P062	Tetraphosphoric acid, hexaethyl ester
P113	Thallic oxide
P113	Thallium(III) oxide
P114	Thallium(I) selenite
P115	Thallium(I) sulfate
P045	Thiofanox
P049	Thioimidodicarbonic diamide
P014 '	Thiophenol
P116	Thiosemicarbazide
P0 26	Thiourea, (2-chlorophenyl)-
P072	Thiourea, 1-naphthalenyl-
P093	Thiourea, phenyl-
P123	Toxaphene
Pll8	Trichloromethanethiol
P119	Vanadic acid, ammonium salt
P120	Vanadium pentoxide
P120	Vanadium(V) oxide
P001	Warfarin
P121	Zinc cyanide
P122	Zinc phosphide (R,T)

Industry Hazardous		Hazardous Waste
UOC1		Acetaldehyde(I)
U034		Acetaldehyde, trichloro-
<b>U</b> 187		Acetamide, N-(4-ethoxyphenyl)-
<b>U</b> 005		Acetamide, N-9H-fluoren-2-yl-
U112		Acetic acid, ethyl ester (I)
U144		Acetic acid, lead salt
U214		Acetic acid, thallium(I) salt
U002		Acetone (I)
U003		Acetonitrile (I,T)
UC04		Acetophenone
U005		2-Acetylaminofluorene
U005		Acetyl chloride (C,R,T)
U007		Acrylamide
U008		Acrylic acid (I)
U009		Acrylonitrile
U150 .		Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-, L-
U011		Amitrole
U012		Aniline (I,T)
U014		Auramine
U015		Azaserine
U010		Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,7-dione, 6-amino-
0010		8-[((aminocarbonyl) oxy)methyl]-1,la,2,8,8a,8b-hexahydro-
		8a-methoxy-5-methyl-,
U157		Benz(j)aceanthrylene, 1,2-dihydro-3-methyl-
U016		Benz (c) acridine
U016		3,4-Benzacridine
U017		Benzal Chloride
U018		Benz(a)anthracene
U016		1,2 Benzanthracene
U094		1,2-Benzanthracene, 7,12-dimethyl-
U012		Benzenamine (I,T)
U014		Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl-
U049		Benzenamine, 4-chloro-2-methyl
U093		Benzenamine, N,N-dimethyl-4-phenylazo-
U158		Benzenamine, 4,4'-methylenebis(2-chloro-
U222		Benzenamine, 2-methyl-, hydrochloride
U181		Benzenamine, 2-methyl-5-nitro
U019		Benzene (I,T)
U038		Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-
0030	-	hydroxy, ethyl ester
770.20		Benzene, 1-bromo-4-phenoxy-
U030		Benzene, chloro-
U037	•	·
U190		1,2-Benzenedicarboxylic acid anhydride 1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester
U0 28		
U069		1,2-Benzenedicarboxylic acid, dibutyl ester
U088		1,2-Benzenedicarboxylic acid, diethyl ester

Industry Hazardous		Hazardous Waste
U128		1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172		1-Butanamine, N-butyl-N-nitroso-
U035		Butanoic acid 4-[Bis(2-chloroethyl)amino]benzene-
U031		1-Butanol (I)
<b>U</b> 159	•	2-Butanone (I,T)
U160		2-Butanone peroxide (R,T)
U053		2-Butenal
U074		2-Butene, 1,4-dichloro- (I,T)
U031		n-Butyl alcohol (I)
U136		Cacodylic acid
U032		Calcium chromate
U238		Carbamic acid, ethyl ester
U178		Carbamic acid, methylnitroso-, ethyl ester
U176	•	Carbamide, N-ethyl-N-nitroso-
U177 .		Carbamide, N-methyl-N-nitroso-
U219		Carbamide, thio-
U097		Carbamoyl chloride, dimethyl-
U215		Carbonic acid, dithallium(I) salt
U156		Carbonochloridic acid, methyl ester (I,T)
·U033		Carbon oxyfluoride (R,T)
U211		Carbon tetrachloride
U033		Carbonyl fluoride (R,T)
U034		Chloral
U035		Chlorambucil
U036		Chlordane, technical
U026		Chlornaphazine
U037		Chlorobenzene
U039		4-Chloro-m-cresol
U041		1-Chloro-2,3-epoxypropane
U042		2-Chloroethyl vinyl ether
U044		Chloroform
U046		Chloromethyl methyl ether
U047		beta-Chloronaphthalene
U048		o-Chlorophenol
U049		4-Chloro-o-toluidine, hydrochloride
U032		Chromic acid, calcium salt
U050		Chrysene
U051		Creosote
U052		Cresols
U052	•	Cresylic acid
<b>U</b> 053		Crotonaldehyde
U055		Cumeme (I)
U246		Cyanogen bromide
U197		1,4-Cyclohexadienedione
U056		Cyclohexane (I)
U057		Cyclohexanone (I)
U130		1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-

Industry and EPA Hazardous Waste No.	Hazardous Waste
U058 Cyclophosphamic	de
U240 2,4-D, salts as	nd esters
U059 Daunomycin	
U060 DDD	:
U061 DDT	<b>:</b>
U142 Decachlorooctal	hydro-1,3,4-metheno-2H-cyclobuta[c,d]-
pentalen-2-one	· ·
U062 Diallate	
Ul33 Diamine (R,T)	
U221 Diaminotoluene	
U063 Dibenz[a,h]ant	hracene
U063 1,2:5,6-Dibenz	anthracene
U064 1,2:7,8-Dibenzo	opyrene
U064 Dibenz[a,i]pyr	ene
U066 1,2-Dibromo-3-	chloropropane
U069 Dibutyl phthal	ate
<del>-</del> -	oallyl)disopropylthiocarbamate
U070 o-Dichlorobenz	
U071 m-Dichlorobenz	ene
U072 p-Dichlorobenz	ene
U073 3,3'-Dichlorob	
U074 1,4-Dichloro-2	
U075 Dichlorodifluo	romethane
	-(1,1-dimethyl-2-propynyl)benzamide
	enyl dichloroethane
<del>-</del>	nyl trichloroethane
U-78 l,l-Dichloroet	
U079 1,2-Dichloroet	-
U025 Dichloroethyl	<del>-</del>
U081 2,4-Dichloroph	
U082 2,6-Dichloroph	
· · · · · · · · · · · · · · · · · · ·	enoxyacetic acid, salts and esters
U083 1,2-Dichloropr	
U084 1,3-Dichloropr	
U085 1,2:3,4-Diepox	
Ul08 1,4-Diethylene	
U086 N,N-Diethylhyd	4
<del>_</del>	-methyl-dithiophosphate
U088 Diethyl phthal	
U089 Diethylstilbes	
	,6-pyradizinedione
U090 Dihydrosafrole	· • • • • • • • • • • • • • • • • • • •
U091 3,3'-Dimethoxy	
U092 Dimethylamine	
U093 Dimethylamino	
	penz[a]anthracene
U095 3,3'-Dimethyli	

Industry and EPA Hazardous Waste No.	Hazardous Waste
U096	alpha,alpha-Dimethylbenzylhydroperoxide (R)
<b>U</b> 097	Dimethylcarbamoyl chloride
U098	1,1-Dimethylhydrazine
<b>U</b> 099	1,2-Dimethylhydrazine
<b>U</b> 101	2,4-Dimethylphenol
U102	Dimethyl phthalate
U103	Dimethyl sulfate
U105	2,4-Dinitrotoluene
U106	2,6-Dinitrotoluene
U107	Di-n-octyl phthalate
U103	1,4-Dioxane
U109	1,2-Diphenylhydrazine
Ullo	Dipropylamine (I)
Ulll	Di-N-propylnitrosamine
U001	Ethanal (I)
U174	Ethanamine, N-ethyl-N-nitroso-
U067	Ethane, 1,2-dibromo-
<b>U</b> 076	Ethane, 1,1-dichloro-
<b>U</b> 077 -	Ethane, 1,2-dichloro-
U114	1,2-Ethanediylbiscarbamodithioic acid
U131	Ethane, 1,1,1,2,2,2-hexachloro-
U024	<pre>Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-</pre>
U003	Ethanenitrile (I,T)
U117	Ethane, 1,1'-oxybis- (I)
U025	Ethane, 1,1'-oxybis[2-chloro-
U184	Ethane, pentachloro-
<b>U</b> 208	Ethane, 1,1,1,2-tetrachloro-
U209	Etnane, 1,1,2,2-tetrachloro-
U218	Ethanethioamide
U227	Ethane, 1,1,2-trichloro-
U247	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)
U043	Ethene, chloro-

Ethene, 2-chloroethoxy-Ethene, 1,1-dichloro-

Ethanone, 1-phenyl-

Ethyl acetate (I)

Ethyl acrylate (I)

Etylene dibromide

Ethene, trans-1,2-dichloro-

Ethanoyl chloride (C,R,T)

Ethyl carbamate (urethan)

Ethyl 4,4'-dichlorobenzilate

Ethylenebis(dithiocarbamic acid)

Ethene, 1,1,2,2-tetrachloro-

Ethanol, 2,2'-(nitrosoimino)bis-

U042

**U**G78

**U**079

U210

U173 U004

U006 U112

U113

U238

UC38

U067

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Industry and EPA Hazardous Waste No.	Hazardous Waste
U129	Lindane
U147	Maleic anhydride
U148	Maleic hydrazide
U149	Malononitrie
U150	Melphalan
U151	Mercury
U152	Methacrylonitrile (I,T)
U092	Methanamine, N-methyl- (I)
U029	Methane, bromo-
U045	Methane, chloro- (I,T)
U046	Methane, chloromethoxy-
U068	Methane, dibromo-
U080	Methane, dichloro-
U075	Methane, dichlorodifluoro-
U138	Methane, iodo-
U119 ·	Methanesulfonic acid, ethyl ester
U211	Methane, tetrachloro-
U121	Methane, trichlorofluoro-
U153	Methanethiol (I,T)
U225	Methane, tribromo-
U044	Methane, trichloro-
U121	Methane, trichlorofluoro-
U123	Methanoic acid (C,T)
U036	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-
0030	tetrahydro-
U154	Methanol (I)
U155	Methapyrilene
U247	Methoxychlor
U154	Methyl alcohol (I)
U029	Methyl bromide
U186	1-Methylbutadiene (I)
U045	Methyl Chloride (I,T)
U156	Methyl chlorocarbonate (I,T)
U226	Methylchloroform
U157	3-Methylcholanthrene
U158	4,4'-Methylenebis(2-chloroaniline)
U138 U132	2,2'-Methylenebis(3,4,6-trichlorophenol)
U068	Methylene bromide
	Methylene chloride
U080	Mathulana avida

U122

U159

U160

U138

U161

U162

U163

U161

Industry a Hazardous W		Hazardous Waste
U164		Methylthiouracil
U010		Mitomycin C
U059		5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-
		2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxyl]-7,8,
		9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-
U1.65		Naphthalene
U047	. •	Naphthalene, 2-chloro-
U166		1,4-Naphthalenedione
U236		2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-(1,1'-
:		biphenyl)-4,4'diyl)]-bis(azo)bis(5-amino-4-hydroxy)-,
		tetrasodium salt
U166		1,4-Naphthaquinone
U167		1-Naphthylamine
U168		2-Naphthylamine
U167.		alpha-Naphthylamine
U168		beta-Naphthylamine
U026		2-Naphthylamine, N,N'-bis(2-chloromethyl)-
U169		Nitrobenzene (I,T)
U170		p-Nitrophenol
U171		2-Nitropropane (I)
U172		N-Nitrosodi-n-butylamine
U173		N-Nitrosodiethanolamine
U174		N-Nitrosodiethylamine
U111		N-Nitroso-N-propylamine
U176		N-Nitroso-N-ethylurea
U177		N-Nitroso-N-methylurea
U178		N-Nitroso-N-methylurethane
U179		N-Nitrosopiperidine
U180		N-Nitrosopyrrolidine
U181		5-Nitro-o-toluidine
U193		1,2,-Oxathiolane, 2,2-dioxide
U058		2H-1,3,2-Oxazaphosphorine, 2-[bis(2-chloroethyl)amino]
		tetrahydro-, oxide 2-
U115		Oxirane (I,T)
U041		Oxirane, 2-(chloromethyl)-
U182		Paraldehyde
U183		Pentachlorobenzene
U184		Pentachloroethane
U185		Pentachloronitrobenzene
U242		Pentachlorophenol
U188		1,3-Pentadiene (I)
U187		Phenacetin
U188		Phenol
U048		Phenol, 2-chloro-
U039		Phenol, 4-chloro-3-methyl-
U081		Phenol, 2,4-dichloro-
U082		Phenol, 2,6-dichloro-
5002		inches, 2,0 dientoto

Industry and EPA Hazardous Waste No.	Hazardous Waste
U101	Phenol, 2,4-dimethyl-
<b>U</b> 170	Phenol, 4-nitro-
U242	Phenol, pentachloro-
U212	Phenol, 2,3,4,6-tetrachloro-
<b>U2</b> 30	Phenol, 2,4,5-trichloro-
U231	Phenol, 2,4,6-trichloro-
u137	1,10-(1,2-phenylene)pyrene
U145	Phosphoric acid, Lead salt
U087	Phosphorodithioic acid, 0,0-diethyl, S-methyl ester
U189	Phosphorous sulfide (R)
U190	Phthalic anhydride
U191	2-Picoline
U192	Pronamide
U194	1-Propanamine (I,T)
U110	1-Propanamine, N-propyl- (I)
U066	Propane, 1,2-dibromo-3-chloro-
U149	Propanedinitrile
U171	Propane, 2-nitro (I)
U027	Propane, 2,2'-oxybis[2-chloro-
U193	1,3-Propane sultone
U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U126	1-Propanol, 2,3-epoxy-
U140	1-Propanol, 2-methyl- (I,T)
U002	2-Propanone (I)
U007	2-Propenamide
U084	Propene, 1,3-dichloro-
U243	1-Propene, 1,1,2,3,3,3-hexachloro-
U009 .	2-Propenenitrile
~ U152	2-Propenenitrile, 2-methyl- (I,T)
U008	2-Propenoic acid (I)
U113	2-Propenoic acid, ethyl ester (I)
U118	2-Propenoic acid, 2-methyl-, ethyl ester
U152	2-Propenoic acid, 2-methyl, methyl ester (I,T)
U233	Propionic acid, 2-(2,4,5-trichlorophenoxy)-
U194	n-Propylamine (I,T)
U083	Propylene dichloride
U196	Pyridine
U155	Pyridine, 2-[(2-(dimethylamino)-2-thenylamino-
U179	Pyridine, hexahydro-N-nitroso-
U191	Pyridine, 2-methyl
U164	4(lH)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	Pyrrole, tetrahydro-N-nitroso-
	Reservine
U200	Resorcinol
U201	Saccharin and salts
U202	•
U203	Safrole Selenious acid
U204	Selenious acid

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Hazardous	Wast	e No.

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## Hazardous Waste

U204	Selenium dioxide
U205	Selenium disulfide (R,T)
U015	L-Serine, diazoacetate (ester)
U233	Silvex
U089	4,4'-Stilbenediol, alpha,alpha'-diethyl-
U206	Streptozotocin
U135	Sulfur hydride
U103	Sulfuric acid, dimethyl ester
U189	Sulfur phosphide (R)
U205	Sulfur selenide (R,T)
U232	2,4,5-T
U207	1,2,4,5-Tetrachlorobenzene
U208 :	1,1,1,2-Tetrachloroethane
· U209	1,1,2,2-Tetrachloroethane
U210	Tetrachloroethylene
U212 ·	2,3,4,6-Tetrachlorophenol
U213	Tetrahydrofuran (I)
U214	Thallium(I) acetate
U215	Thallium(I) carbonate
U215	Thallium(I) chloride
U217	Thallium(I) nitrate
U218	Thioacetamide
U153	Thiomethanol (I,T)
U219	Thiourea
U244	Thiram
U220	Toluene
U221	Toluenediamine
U223	Toluene diisocyanate (R,T)
U222	O-Toluidine hydrochloride
U011	1H-1,2,4-Triazol-3-amine
U226	1,1,1-Trichloroethane
U227	1,1,2-Trichloroethane
U228	Trichloroethene
U228	Trichloroethylene
U121	Trichloromonofluoromethane
U230	2,4,5-Trichlorophenol
U231	2,4,6-Trichlorophenol
U232	2,4,5-Trichlorophenoxyacetic acid
U234	sym-Trinitrobenzene (R,T)
U182	1,3,5-Trioxane, 2,4,5-trimethyl-
U235	Tris(2,3-dibromopropyl)phosphate
U236	Trypan blue
U236	Uracil, 5[bis(2-chloromethyl)amino]-
U237	Uracil mustard
U043	Vinyl chloride
	<pre>Xylene(I)</pre>
U239	- · · · · · · · · · · · · · · · · · · ·
U200	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester
•	ar amenda and a language and a media