STATE OF DELAWARE

REGULATIONS GOVERNING
HAZARDOUS WASTE

DIVISION OF ENVIRONMENTAL CONTROL
DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL

JULY 28, 1983

DELAWARE REGULATIONS GOVERNING HAZARDOUS WASTE

These regulations are effective since July 28, 1983, except for the manifest, continuation forms and the related regulations. Final action on these forms will be taken after the Environmental Protection Agency has promulgated the National Uniform Manifest. In the meantime, only for the manifest and the associated regulations, the Delaware Hazardous Waste Regulations as adopted November 19, 1980, and amended September 24, 1982, will continue to be effective.

Part 260-HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

Subpart A-General

Subpart B-Definitions

Subpart C-Rulemaking Petitions

Subpart D-Public Participation

Appendix I-Overview of Regulations

Subpart A-General

§260.1 Purpose, scope, and applica bility.

(a) This part provides definitions of terms, general standards, and overview information applicable to Parts 260 through 265 of these Regulations.

(b) In this part: (1) Section 260.2 sets forth the rules that DNREC will use in making information it receives available to the public and sets forth the requirements that generators, transporters, or owners or operators of treatment, storage, or disposal facilities must follow to assert claims of business confidentiality with respect to information that is submitted to DNREC under Parts 260 through 265 of these Regulations.

(2) Section §260.3 establishes rules of grammatical construction for Parts 260 through 265 of these Regulations.

(3) Section §260.10 defines terms which are used in Parts 260 through 265 of these Regulations.

§260.2 Availability of information; confidentiality of information.

(a) Any information provided to DNREC under Parts 260 through 265 of these Regulations will be made available to the public to the extent and in the manner authorized by 29 Del. C. Chapter 100 and 7 Del. C. §6304 and DNREC regulations implementing 29 Del. C. Chapter 100 and 7 Del. C. §6304.

(b) Any person who submits informa tion to DNREC in accordance with Parts 260 through 265 of these Regulations may assert a claim of business confiden tiality covering part or all of that information by following the proce dures set forth in 7 Del. C. §6304(c). Information covered by such a claim will be disclosed by DNREC only to the extent, and by means of the procedures, set forth in 7. Del. C §6304(c). However, if no such claim accompanies the information when it is received by DNREC, it may be made available to the public without further notice to the person submitting it.

§260.3 Use of number and gender.

As used in Parts 260 through 265 of these Regulations.

(a) Words in the masculine gender also include the feminine and neuter genders; and

(b) Words in the singular include the plural; and

(c) Words in the plural include the singular.

Subpart B-Definitions

§260.10 Definitions.

When used in Parts 260 through 265 of these Regulations, the following terms have the meanings given below:

"Act" or "RCRA" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. section 6901 et seq.

"Active portion" means that portion of a facility where treatment, storage, or disposal operations are being or have been conducted after the effective date of Part 261 of these Regulations and which is not a closed portion. (See also "closed portion" and inactive portion".)

"Activity" means construction, operation, or use of any facility, site, property or device.

"Administrator" means the Adminis trator of the Environmental Protection Agency, or his designee.

"Aquifer" means a geologic forma tion, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs.

"Authorized representative" means the person responsible for the overall operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, superintendent or person of equivalent responsibility.

"Certification" means a statement of professional opinion based upon knowledge and belief.

"CFR" means Code of Federal Regulations. "Commission" means the Commission on the Transportation of Hazardous Materials.

"Closed portion" means that portion of a facility which an owner or opera tor has closed in accordance with the approved facility closure plan and all applicable closure requirements. (See also "active portion" and "inactive portion".)

"Commission" means the Commission on the Transportation of Hazardous Materials.

"Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined ground water.

"Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

"Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

"Department" means the Department of Natural Resources and Environmental Control of the State of Delaware.

"Designated facility" means a hazardous waste treatment, storage, or disposal facility which has received an DNREC permit (or a facility with interim status) in accordance with the requirements of Parts 122 and 124 of these Regulations, or a permit from a State authorized in accordance with 40 CFR Part 271 of these Regulations, that has been designated on the manifest by the generator pursuant to §262.20.

"Dike" means an embankment or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

"Discharge" or "hazardous waste discharge" means the accidental or intentional spilling, leaking, pumping, puring, emitting, emptying, or dumping of hazardous waste into or on any land or water.

"Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardouus waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

"Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure.

"Division" means the Division of Environmental Control.

"DNREC hazardous waste number" means the number assigned by DNREC to each hazardous waste listed in Part 261, Subpart D, of these Regulations and to each characteristic identified in Part 261, Subpart C, of these Regulations.

"EPA identification number" means the number assigned by DNREC to each generator, transporter, and treatment, storage, or disposal facility.

"EPA region" means the states and territories found in any one of the following ten regions:

Region I-Maine, Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island.
Region II-New York, New Jersey, Commonwealth of Puerto Rico, and the U. S. Virgin Islands.
Region III-Pennsylvania, Delaware, Maryland, West Virginia, Virginia, and the District of Columbia.
Region IV-Kentucky, Tennessee, North Carolina, Mississippi, Alabama, Georgia, South Carolina, and Florida.
Region V-Minnesota, Wisconsin, Illinois, Michigan, Indiana and Ohio.
Region VI-New Mexico, Oklahoma, Arkansas, Louisiana, and Texas.
Region VII-Nebraska, Kansas, Missouri, and Iowa.
Region VIII-Montana, Wyoming, North Dakota, South Dakota, Utah, and Colorado.
Region IX-California, Nevada, Arizona, Hawaii, Guam, American Samoa, Commonwealth of the Northern Mariana Islands.
Region X-Washington, Oregon, Idaho, and Alaska.

"Elementary neutralization unit" means a device which:

(1) Is used for neutralizing wastes which are hazardous wastes only because they exhibit the corrosivity characteristic defined in §261.22 of these Regulations, or are listed in Subpart D of Part 261 of these Regulations only for this reason; and

(2) Meets the definition of tank, container, transport vehicle or vessel in §260.10 of these Regulations.

"Engineer" means an engineer registered and authorized to practice in Delaware as a Professional Engineer by the "Delaware Association of Professional Engineers".

"Equivalent method" means any testing or analytical method approved by the Secretary under Part 260 Subpart C of these Regulations.

"Existing hazardous waste management (HWM) facility" or "existing facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980. A facility has commenced construction if:

(1) The owner or operator has obtained the Federal, State and local approvals or permits necessary to begin physical construction; and either

(2)(i) A continuous on-site, physical construction program has begun; or

(ii) The owner or operator has entered into contractual obligations - which cannot be cancelled or modified without substantial loss - for physical construction of the facility to be completed within a reasonable time. Within this definition, "Federal, State and local approvals or permits necessary to begin physical construction" means permits and approvals required under Federal, State or local hazardous waste control statutes, regulations or ordinances.

"Existing Portion" means that land surface area of an existing waste management unit included in the original Part A application, on which wastes have been placed prior to the issuance of a permit.

"Facility or Hazardous Waste Management (HWM) Facility" means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combination of them).

"Federal agency" means any department, agency, or other instrumentality of the Federal Government, any independent agency or establishment of the Federal Government including any Government corporation, and the Government Printing Office.

"Federal, State and local approvals or permits necessary to begin physical construction" means permits and approvals required under Federal, State or local hazardous waste control statutes, regulations or ordinances.

"Food-chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

"Freeboard" means the vertical distance between the top of a tank or surface impoundment dike, and the surface of the waste contained therein.

"Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

"Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in Part 261 of these Regulations or whose act first causes a hazardous waste to become subject to regulation.

"Geologist" means a geologist registered by the "Delaware State Board of Registration of Geologists."

"Ground water" means water below the land surface in a zone of saturation.

"Hazardous waste" means a hazardous waste as defined in §261.3 of these Regulations.

"Hazardous Waste Constituent"- means a constituent which caused the Secretary to list the hazardous waste in Part 261, Subpart D of these regulations, or a constituent listed in Table 1 of §261.24 of these Regulations.

"Inactive portion" means that portion of a facility which is not operated after the effective date of Part 261 of these Regulations. (See also "active portion" and "closed portion".)

"Incinerator" means an enclosed device using controlled flame combustion, the primary purpose of which is to thermally break down hazardous waste. Examples of incinerators are rotary kiln, fluidized bed, and liquid injection incinerators.

"Incompatible waste" means a hazardous waste which is unsuitable for:

(1) Placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g., container inner liners or tank walls); or

(2)Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases.

(See Part 265, Appendix V, of these Regulations for examples.)

"Individual generation site" means the contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

"In operation" refers to a facility which is treating, storing, or disposing of hazardous waste.

"Injection well" means a well into which fluids are injected. (See also "underground injection".)

"Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

"International shipment" means the transportaton of hazardous waste into or out of the jurisdiction of the United States.

"Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a land treatment facility, a surface impoundment, or an injection well.

"Landfill cell" means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

"Land treatment facility" means a facility or part of a facility at which hazardous waste is applied onto or

biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge. (See also "incinerator" and "open burning".)

"Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

"Transfer facility" means any transportation related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

"Transportation" means the movement of hazardous waste by air, rail, highway, or water.

"Transporter" means a person engaged in the offsite transportation of hazardous waste by air, rail, highway, or water.

"Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle.

"Treatment" means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

"Treatment Zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.

"Underground injection" means the subsurface emplacement of fluids through a bored, drilled or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. (See also "injection well".)

"Unsaturated zone" or "zone of aeration" means the zone between the land surface and the water table.

"United States" means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the U. S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

"Uppermost Aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer, within the facility's property boundary.

"Vessel" includes every description of watercraft, used or capable of being used as a means of transportation on the water.

"Wastewater treatment unit" means a device which:

(1) Is part of a wastewater treatment facility which is subject to regulations under either Section 402 or Section 307(b) of the Clean Water Act; and

(2) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in §261.3 of these Regulations, or generates and accumulates a wastewater treatment sludge which is a hazardous waste as defined §261.3 of these Regulations, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in §261.3 of these Regulations.

(3) Meets the definition of tank in §260.10 of these Regulations.

"Water (bulk shipment)" means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

"Well" means any shaft or pit dug or bored into the earth, generally of a cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

"Well injection": (See "underground injection".)

§260.11 References

(a) When used in Parts 260 through 265 of these Regulations, the following publications are incorporated by reference:

"ASTM Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester," ASTM Standard D-3278-78 available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

"ASTM Standard Test Methods for Flash Point by Pensky-Martens Closed Tester."

ASTM Standard D-93-79 or D-93-80. D-93-80 is available from American Society for Testing and Materials, 1916, Race Street, Philadelphia, PA 19103.

"Flammable and Combustible Liquids Code" (1977 or 1981), available from the National Fire Protection Association, 470 Atlantic Avenue, Boston, Massachusetts 02210.

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 (First Edition, 1980, as updated by Revisions A (August, 1980), B (July, 1981), and C (February, 1982) or (Second Edition, 1982). The first edition of SW-846 is no longer in print. Revisions A and B are available from EPA, Office of Solid Waste, (WH-565B), 401 M Street, S.W., Washington, D.C. 20460. Revision C is available from NTIS, 5285 Port Royal Road, Springfield, Virginia 22161. The second edition of SW-846 includes material from the first edition and Revisions A, B, and C in a reorganized format. It is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238, on a subscription basis, and future updates will automatically be mailed to the subscriber.

(b) The references listed in paragraph (a) of this section are also available for inspection at the Office of the Federal Register, 1100 L Street, NW, Washington, D. C. 20408. These incorporations by reference were approved by the Director of the Federal Register. These materials are incorporated as they exist on the date of approval and a notice of any change in these materials will be published in the Federal Register.

Subpart C-Rulemaking Petitions

Where the Administrator of EPA has granted a Rulemaking Petition pursuant to 40 CFR Part 260 §§260.20, 260.21 or 260.22, the Secretary of DNREC, may in his discretion, accept such determination and amend the Delaware regulations accordingly, provided that the person whose petition was granted can furnish appropriate evidence of the Administrator's action and provided further that the Secretary determines such action to be consistent with the policies and purposes of the Hazardous Waste Management Act of 1980 (7 Del. C. Chapter 63).

Subpart D - Public Participation

In furtherance of the policies and purposes of 7 Del. C. Chapter 63 and in the interest of providing an opportunity for encouraging public participation in the efforts of the State toward a more effective Hazardous Waste Management Program, DNREC will:

(A) Investigate and provide written responses to all citizen complaints submitted in accordance with such reporting procedures as the Secretary may establish;

(B) Not oppose intervention by any citizen where permissive intervention may be authorized by statute, rule, and regulation; and

(C) Publish and provide at least 30 days for public comment on any proposed settlement of a state enforcement action.

Appendix I. - Overview of Regulations

The Department believes that there are many people who suspect, but are not sure, that their activities are subject to control under the Hazardous Waste regulations. This appendix is written for these people. It is designed to help those who are unfamiliar with the hazardous waste control program to determine with which, if any, of the regulations they should comply.

Definition of Solid Waste

The first question which such a person should ask himself is: "Is the material I handle a solid waste?" If the answer to this question is "No", then the material is not subject to control under Hazardous Waste Regulations and, therefore, the person need not worry about whether he should comply with these Regulations.

Section 261.2 of these Regulations provides a definition of "solid waste" which expands the statutory definition of that term given in 7 Del. C. Chapter 63. This definition is diagrammed in Figure 1.

Figure 1 explains that all materials are either: (1) garbage refuse, or sludge; (2) solid, liquid, semi-solid or contained gaseous material; or (3) something else. No materials in the third category are solid waste. All materials in the first category are solid waste. Materials in the second category are solid waste unless they are one of the five exclusions specified in §261.4(a).

Definition of Hazardous Waste

If a person has determined that his material is a "solid waste", the next question he should ask is: Is the solid waste I handle a hazardous waste?

Hazardous waste is defined in §261.3 of these Regulations. Section 261.3 provides that, in general, a solid waste is a hazardous waste if: (1) It is, or contains, a hazardous waste listed in Subpart D of Part 261 of these Regulations, or (2) the waste exhibits any of the characteristics defined in Subpart C of Part 261. However, Parts 260 and 261 also contain provisions which exclude (§§261.4(b), Part 260 Subpart C) certain solid wastes from the

definition of "hazardous waste", even though they are listed in Subpart D or exhibit one or more of the characteristics defined in Subpart C. Figure 2 depicts the interplay of these special provisions with the definition of "hazardous waste". It presents a series of questions which a person should ask himself concerning his waste. After doing so, the person should be able to determine if the solid waste he handles is a hazardous waste.

Hazardous Waste Regulations

If this is the case, the person should look at Figure 3. Figure 3 depicts the special provisions specified in the final Part 261 rules for hazardous waste which:

1. Is generated by a small quantity generator

2. Is or is intended to be legitimately and beneficially used, re-used, recycled, or reclaimed.

3. Is a sludge: is listed in Part 261. Subpart D; or is a mixture containing a waste listed in Part 261, Subpart D.

For each of these Groups, Figure 3 indicates with which regulations (if any) the person handling these wastes must comply. Figure 3 also explains that, if a person handles hazardous waste which is not included in any one of the above three categories, his waste is subject to the regulations diagrammed in Figure 4.

Figure 4 is a flowchart which identifies the three categories of activities regulated under the corresponding set of rules with which people in each of these categories must comply. It points out that all people who handle hazardous waste are either: (1) generators of hazardous waste, (2) transporters of hazardous waste, (3) owners of operators of hazardous waste treatment, storage, or disposal facilities, or (4) a combination of the above. Figure 4 indicates that all of these people must notify DNREC of their hazardous waste activities in accordance with the Notification Procedures of 7 Del. C. Chapter 63 and obtain an EPA identification number.

It should be noted that people handling wastes listed in Subpart D of Part 261 who have filed, or who intend to file an application to exempt their waste from regulation under the regulations governing Hazardous Waste must also comply with the notification requirements.

If a person generates hazardous waste, Figure 4 indicates that he must comply with the Part 262 rules. If he transports it, he must comply with the Part 263 rules. The standards in both these Parts are designed to ensure, among other things, proper recordkeeping and reporting, the use of a manifest system to track shipments of hazardous waste, the use of proper labels and containers, and the delivery of the waste to a permitted treatment, storage, or disposal facility.

If a person owns or operates a facility which treats, stores, or disposes of hazardous waste, the standards with which he must comply depend on a number of factors. First of all, if the owner or operator of a storage facility is also the person who generates the waste, and the waste is stored at the facility for less than 90 days for subsequent shipment off-site, then the person must comply with §262.34 of the Part 262 rules.

All other owners or operators of treatment, storage, or disposal facilities must comply with either the Part 264 or the Part 265 rules. To determine with which of these sets of rules an owner or operator must comply, he must find out whether his facility qualifies for interim status. To qualify, the owner or operator must: (1) Have been treating, storing, or disposing of the hazardous waste, or commenced facility

construction on or before November 19, 1980, (2) comply with the notification requirements, and (3) apply for a permit under Part 122 of these Regulations.

If the owner or operator has done all of the above, he qualifies for interim status, and he must comply with the Part 265 rules. These rules contain administrative requirements, monitoring and closure standards, and an abbreviated set of technical and closure and post-closure cost estimate requirements. The owner or operator must comply with these standards until final administrative disposition of his permit application is made. If a permit is issued to the owner or operator, he must then comply with the permit which will be based on the Part 264 rules.

If the owner or operator has not carried out the above three requirements, he does not qualify for interim status. Until he is issued a permit for his facility, the owner or operator must stop waste management operations (if any) at the facility, and send his hazardous waste (if any) to a facility whose owner or operator has interim status or to a storage facility following the Part 262 rules.

In order to apply for a permit, the owner or operator must comply with the procedures specified in Part 122 of these Regulations.

It should be noted that the Department will be periodically revising the rules depicted in Figures 3 and 4. All persons are encouraged to write to DNREC to verify that the regulations which they are reading are up-to-date. To obtain this verification, contact: DNREC, 89 Kings Highway, P. O. Box 1401, Dover, DE 19903, (302) 736-4781.

FIGURE 1

DEFINITION OF A SOLID WASTE

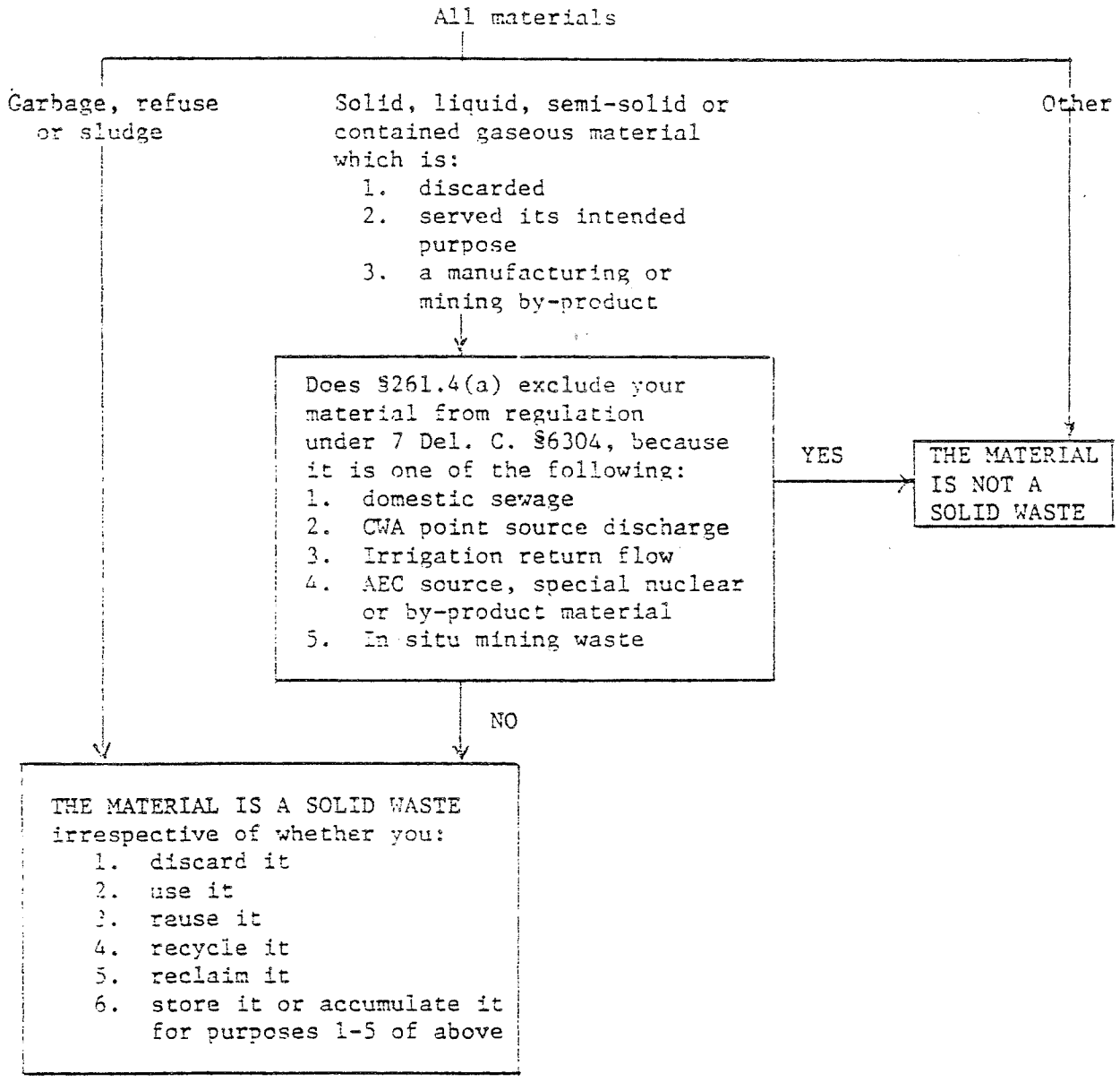


FIGURE 2

DEFINITION OF A HAZARDOUS WASTE

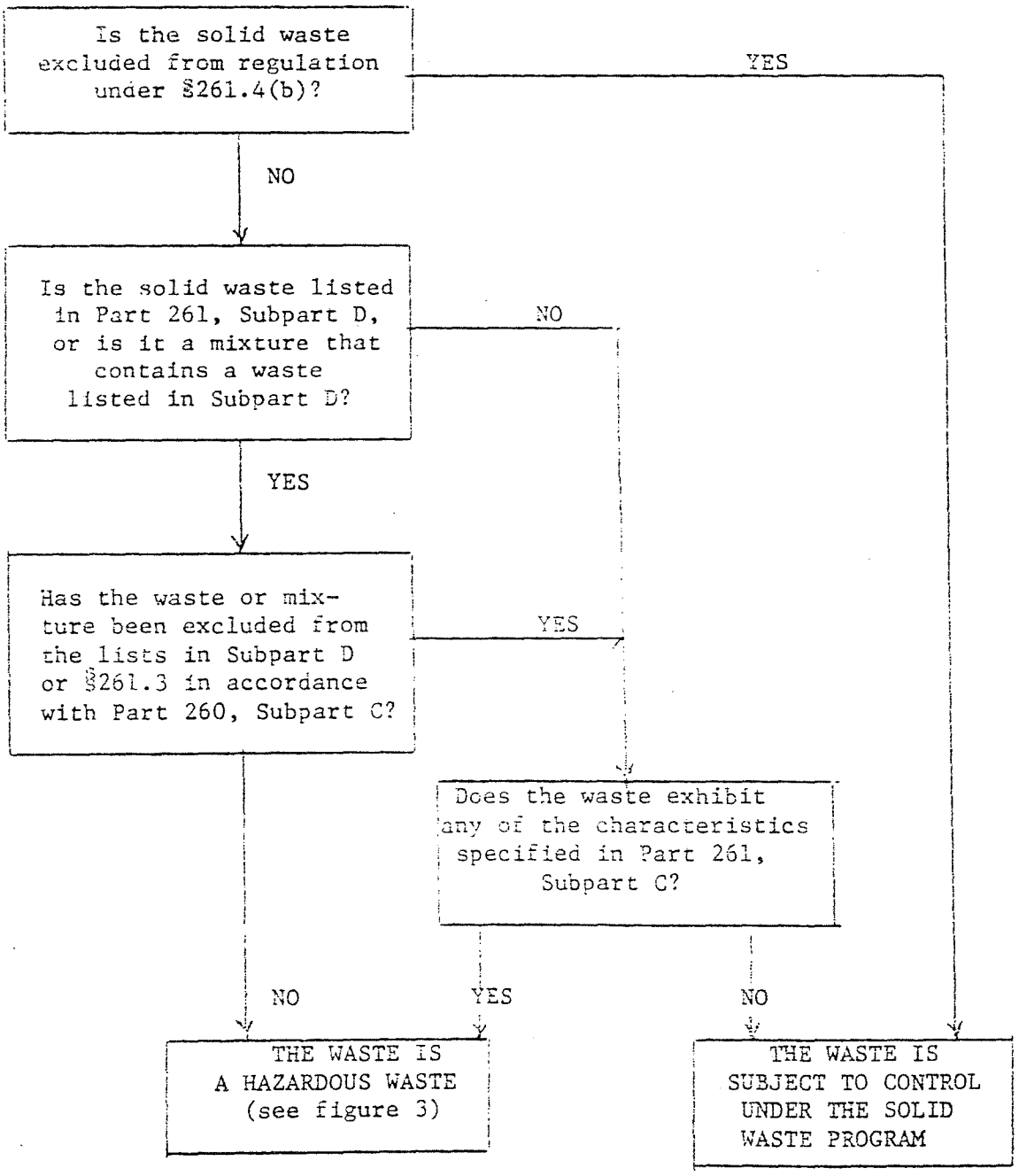


FIGURE 3

SPECIAL PROVISIONS FOR CERTAIN HAZARDOUS WASTE

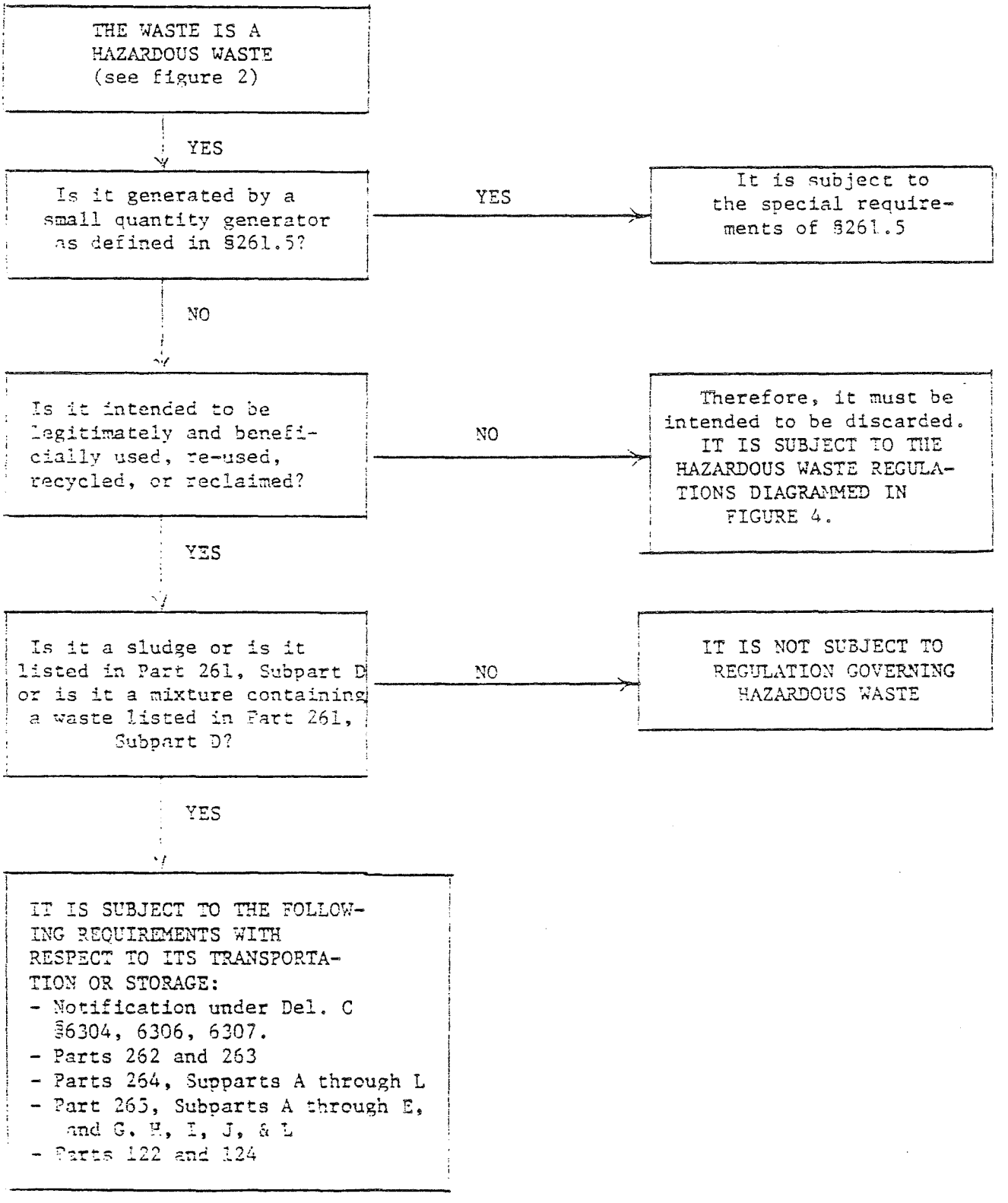
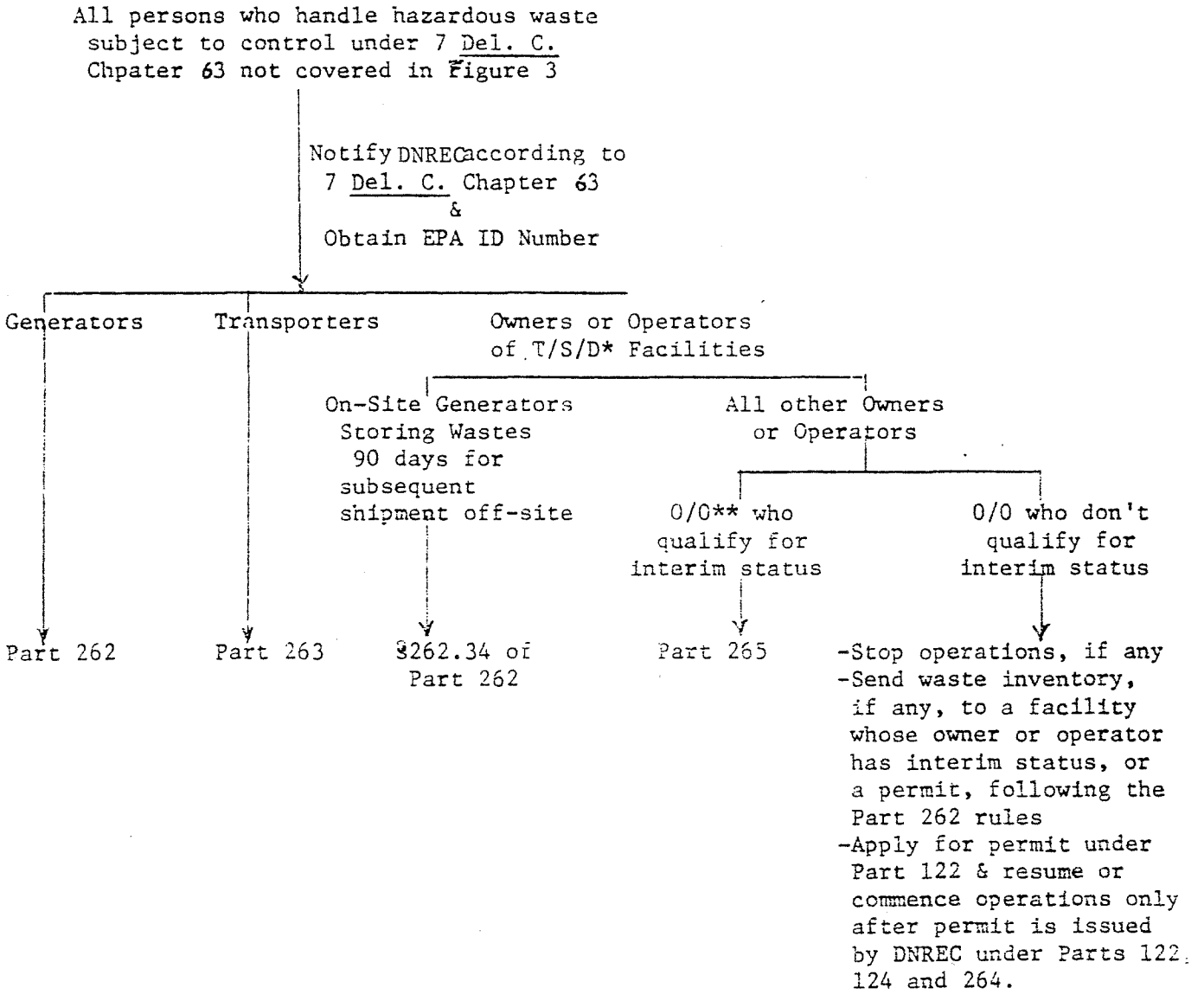


FIGURE 4

REGULATIONS FOR HAZARDOUS WASTE
NOT COVERED IN DIAGRAM 3



---

* T/S/D stands for Treatment, Storage, or Disposal
** 0/0 stands for Owners or Operators

PART 261-IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

Subpart A-General

Section

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

Subpart C-Characteristics of Hazardous Wastes

Subpart D-Lists of Hazardous Wastes

Appendices

Subpart A-General

§261.1 Purpose and scope.

(a) This Part identifies those solid wastes which are subject to regulation as hazardous wastes under Parts 262 through 265 and Parts 122 through 124 of these Regulations and which are subject to the notification and requirements of 7 Del. C. §§6304, 6306 and 6307.

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 quanitity generators and hazardous waste which is used, reused, recycled or reclaimed.

(2) Subpart B sets forth the criteria used by DNREC 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 7 Del. C. §6310 and §6308.

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 7 Del. C. §6310, DNREC has reason to believe that the material may be a hazardous waste within the meaning of 7 Del. C. §6302(7).

(2) In the case of 7 Del. C. § 6308, 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 by-product 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 by-product" 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 exhibits any of the characteristics of hazardous waste identified in Subpart C.

(ii) It is listed in Subpart D and has not been excluded from the lists in Subpart D under Part 260 Subpart C of these Regulations.

(iii) It is a mixture of a solid waste and a hazardous waste that is listed in Subpart D solely because it exhibits one or more of the characteristics of hazardous waste identified in Subpart C, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in Subpart C.

(iv) 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 Part 260 Subpart C of these Regulations; however, the following mixtures of solid wastes and hazardous wastes listed in Subpart D are not hazardous wastes (except by application of paragraph (a)(2) (i) or (ii) of this Section) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act (including wastewater at facilities which have eliminated the discharge of wastewater) and:

(A) One or more of the following spent solvents listed in §261.31-carbon tetrachloride, tetrachloroethylene trichloroethylene-provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pre-treatment system does not exceed 1 part per million or

(B) One or more of the following spent solvents listed in §261.31-methylene chloride, 1,1,1-trichloroethane, chlorobenzene, O-dichloro benzene, cresols, cresylic acid, nitrobenzene, toluene, methyl-ethylketone, carbon disulfide, isobutanol, pyridine, spent chlorofluoro carbon solvents-provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pre-treatment system does not exceed 25 parts per million; or

(C) One of the following wastes listed in §261.32-heat exchanger bundle cleaning sludge from the petroleum refining industry DNREC Hazardous Waste No.K050); or

(D) A discarded commercial chemical product, or chemical intermediate listed in §261.33 arising from de minimis losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this sub-paragraph, "de minimis" losses include those from normal material handling operations (e.g. spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing; or

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

(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.

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

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

(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 Part 260 Subpart C of these regulations.

§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 treatement.)

(3) Irrigation return flows.

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

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

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

(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.

(6)(i) Wastes which fail the test for the characteristics of EP toxicity because chromium is present or are listed in Subpart D due to the presence of chromium which do not fail the test for the characteristic of EP toxicity for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

(A) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and

(B) The waste is generated from an industrial process which uses trivalent chromium exclusively, (or nearly exclusively) and the process does not generate hexavalent chromium; and

(C) The waste is typically and frequently managed in non-oxidizing environments.

(ii) Specific wastes which meet the standard in (b)(6)(i)(A), (B) and (C) (so long as they do not fail the test for the characteristic of EP toxicity, and do not fail the test for any other characteristic) are:

(A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan wet finish; hair save/chrome tan/retan/ wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

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

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

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

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

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

(H) Wastewater treatment sludges from the production of TiO2 pigment using chromium-bearing ores by the chloride process.

(7) Solid waste from the extration, beneficiation and processing of ores and mineral (including coal), including phosphate rock and overburden from the mining of uranium ore.

(8) Cement kiln dust waste.

(9) Solid waste which consists of discarded wood or wood products which fails the test for the characteristic of EP toxicity and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(c) Hazardous wastes which are exempted from certain regulations. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under Parts 262 through 265 of these Regulations and Parts 122 through 124 of these Regulations or to the notifi cation requirements of 7 Del. Code 6304, 6306 & 6307, until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manu facturing, or for storage or transportation of product or raw materials.

(d) Samples. (1) Except as provided in paragraph (d)(2) of this section, a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its character istics or composition, is not subject to any requirements of this part of Parts 262 through 265 or Parts 122 or 124 of these Regulations or to the notification requirements of Del. C. §§6304, 6306 and 6307 when:

(i) The sample is being transported to a laboratory for the purpose of testing; or

(ii) The sample is being transported back to the sample collector after testing; or

(iii) The sample is being stored by the sample collector before transport to a laboratory for testing; or

(iv) The sample is being stored in a laboratory before testing; or

(v) The sample is being stored in a laboratory after testing but before it is returned to the sample collector; or

(vi) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).

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

(i) Comply with U.S. Department of Transportation(DOT), U.S. Postal Service (USPS), or any other applicable shipping require ments; or

(ii) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

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

(1) The sample collector's name, mailing address and telephone number;

(2) The laboratory's name, mailing address, and telephone number;

(3) The quantity of the sample;

(4) The date of shipment; and

(5) A description of the sample.

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

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

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

(a) A generator is a small quantity generator in a calendar month if he generated less than 1000 kilograms of hazardous waste in that month.

(b) Except for those wastes identified in paragraphs (e) and (f) of this section, a small quantity generator's hazardous wastes are not subject to regulation under Parts 262 through 265 of these Regulations and Parts 122 and 124 of these Regulations, and the notification requirements of 7 Del. Code §6304, 6306 & 6307, provided the generator complies with the requirements of paragraph (g) of this section.

(c) Hazardous waste that is beneficially used or re-used or legitimately recycled or reclaimed and that is excluded from regulation by §261.6(a) is not included in the quantity determinations of this section and is not subject to any requirements of this section. Hazardous waste that is subject to the special requirements of §261.6(b) is included in the quantity determinations of this section and is subject to the requirements of this section.

(d) In determining the quantity of hazardous waste he generates, a generator need not include:

(1) His hazardous waste when it is removed from on-site storage; or

(2) Hazardous waste produced by on-site treatment of his hazardous waste.

(e) If a small quantity generator generates acutely hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acutely hazardous waste are subject to regulation under parts 262 through 265 of these Regulations and Parts 122 and 124, and the notificaion requirements of 7 Del. Code §6304, 6306 & 6307:

(1) A total of one kilogram of commercial chemical products and manufacturing chemical intermediates having the generic names listed in §261.33(e), and off-specification commercial chemical products and maunufacturing chemical intermediates which, if they met specifications, would have the generic names listed in §261.33(e).

(2) A total of 100 kilograms of any residue or contaminated soil, water or other debris resulting form the cleanup of a spill, into or on any land or water, of any commercial chemical products or manufacturing chemical intermediates having the generic names listed in §261.33(e), or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specifi cation commercial chemical products or manufacturing chemical intermediates which, if they met specifications, would have the generic names listed in §261.33(e).

(f) A small quantity generator may accumulate hazardous waste on site. If he accumulates, at any time, more than a total of 1000 kilograms of his hazardous waste, or his acutely hazardous wastes in quanitites greater than set forth in paragraphs (e)(1) or (e)(2) of this section, all of those accumulated wastes for which the accumulation limit was exceeded are subject to regulation under Parts 262 through 265 of these Regulations and Parts 122 and 124., and the notification requirements of 7 Del. Code §6304, 6306 & 6307. The time period of §262.34 for accumulation of wastes on-site begins for a small quantity generator when the accumulated wastes exceed the applicable exclusion level.

(g) In order for hazardous waste generated by a small quantity generator to be excluded from full regulation under this section, the generator must:

(1) Comply with §262.11 of these Regulations.

(2) If he stores his hazardous waste on-site store it in compliance with the requirements of paragraph (f) of this section; (and section 265 Subpart I & J;) and

(3) Either treat or dispose of his hazardous waste in an on-site facility, or ensure delivery to an offsite storage, treatment or disposal facility, either of which is:

(i) Permitted under Part 122.

(ii) In interim status under Parts 122 and 265 of these Regulations.

(iii) Authorized to manage hazardous waste by the Delaware Hazardous Waste Management Program approved under 40 CFR Part 123;

(iv) Permitted, licensed or registered by a State to manage municipal or industrial solid waste and which is approved by the Department to handle hazardous wastes from small quantity generators;

(v) A facility which:

(A) Beneficially uses or re-uses, or legitimately recycles or reclaims his waste; or

(B) Treats his waste prior to beneficial use or re-use, or legitimate recycling or reclamation.

(h) Hazardous waste subject to the reduced requirements of this section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous wastes identified in Subpart C.

(i) If a small quantity generator mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this section, the mixture is subject to full regulation.

§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 any of the following criteria is not subject to regulation under Parts 262 through 265 of Parts 122 through 124 of these regulations and is not subject to the notification requirements of 7 Del. C. §§6304, 6306 and 6307 until such time as the Secretary 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.

(3) It is one of the following materials being used, reused, recycled or reclaimed in the specified manner:

(i) Spent pickle liquor which is reused in wastewater treatment at a facility holding a National Pollutant Discharge Elimination System (NPDES) permit or which is being accumulated, stored, or physically, chemically or biologically treated before such reuse.

(b) Except for those wastes listed in paragraph (a)(3) of this section, a hazardous waste that is a sludge, or that is listed in §§261.31 or 261.32, or that contains one or more hazardous wastes listed in §§261.31 or 261.32: and that is transported or stored prior to being used, reused, recycled, or reclaimed is subject to the following requirements with respect to such transportation or storage:

(1) Notification requirements under 7 Del. C. §§6304, 6306 and 6307.

(2) Part 262 of these regulations.

(3) Part 263 of these regulations.

(4) Applicable provisions of Subparts A through L of Part 264 of these regulations.

(5) Applicable provisions of Subparts A through L of Part 265 of these regulations.

(6) Parts 122 and 124 of these Regulations with respect to storage facilities.

§261.7 Residues of hazardous waste in empty containers.

(a)(1) Any hazardous waste remaining in either (i) an empty container or (ii) an inner liner removed from an empty container, as defined in paragraph (b) of this section, is not subject to regulation under Parts 261 through 265 of these Regulations or Parts 122 or 124 of these Regulations or to the notification requirements of 7 Del. Code 6304, 6306 & 6307.

(2) Any hazardous waste in either (i) a container that is not empty or (ii) an inner liner removed from a container that is not empty, as defined in paragraph (b) of this section, is subject to regulation under Parts 261 through 265, and Parts 122 and 124 of these Regulations and to the notification requirements of 7 Del. Code 6304, 6306 & 6307.

(b)(1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified in §261.33(c) of these Regulations, is empty if:

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

(ii) no more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner, or

(iii)(A) no more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 110 gallons in size, or (B) no more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 110 gallons in size.

(2) A container that has held a hazardous waste that is a compressed gas is empty when the

pressure in the container approaches atmospheric.

(3) A container or an inner liner removed from a container that has held a hazardous waste identified in §261.33(c) of these Regulations is empty if:

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

(ii) the container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(iii) in the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

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 Secretary 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 Secretary shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

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

(2) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible or incapacitating reversible, illness. (Waste listed in accordance with these criteria will be designated Acute Hazardous Waste.)

(3) It contains any of the toxic constituents listed in Appendix VIII unless, after considering any of the following factors, the Secretary 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 degrad ation 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 generations 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 Secretary 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 7 Del. C. Chapter 63.

(c) The Secretary 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 these Regulations 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 DNREC Hazardous Waste Number set forth in the respective characteristic in this Subpart. This number must be used in complying with the notification requirements of 7 Del. C. §§6304, 6306 and 6307 and certain recordkeeping and reporting requirements under Parts 262 through 265 and Part 122 of these regulations.

(c) For purposes of this Subpart, the Secretary will consider a sample obtained using any of the applicable sampling methods specified in Appendix I to be representative sample within the meaning of Part 260 of these regulations.

(Comment: Since the Appendix I sampling methods are not being formally adopted by the Secretary, 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 Part 260 Subpart C.

§261.21 Characteristic of Ignitability.

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

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60 degrees C (140 degrees F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (incorporated by reference see §260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see §260.11), or as determined by an equivalent test method approved by the Secretary under procedures set forth in Part 260 Subpart C.

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

(3) It is an ignitable, compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the Secretary under Part 260 Subpart C.

(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 DNREC Hazardous Waste Number of D001.

§261.22 Characteristic of corrosivity.

(a) A solid waste exhibits the characteristics 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 an EPA test method or an equivalent test method approved by the Secretary under the procedures set forth in Part 260 Subpart C. The EPA test method for pH is specified as Method 5.2 in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see §260.11).

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 degrees C (130 degrees 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" (incorporated by reference, see §260.11) or an equivalent test method approved by the Secretary under the procedure set forth in Part 260 Subpart C.

(b) A solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste in Subpart D, has the DNREC Hazardous Waste Number of D002.

§261.23 Characteristic of reactivity.

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

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5 can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(8) It is a forbidden explosive as defined in 49 CFR 173.51, 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 DNREC 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 Secretary under the procedures set forth in Part 260 Subpart C, 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 filterable 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 DNREC 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

DNREC hazardous waste number	Contaminant	Maximum concentration (milligrams per liter)
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-hexachloro-1,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo, endo-5,8-dimethano-naphthalene.	0.02
D013	Lindane (1,2,3,4,5,6-hexa- chlorocyclohexane, gamma isomer.	0.4
D014	Methoxychlor (1,1,1-Trichloro-2,2-bis (p-methoxyphenylethane).	10.0
D015	Toxaphene ($C_{10}H_{10}Cl_8$, Technical chlorinated camphene, 67-69 percent chlorine)	0.5
D016	2,4-D (2,4-Dichlorophenoxyacetic acid)	10.0
D017	2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid)	1.0

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 Part 260 Subpart C.

(b) The Secretary will indicate

his basis for listing the classes or types of wastes listed in this Subpart by employing one or more of the following Hazard Codes.

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

Appendix VII identifies the constituent which caused the Secretary to list the waste an 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 a DNREC Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of 7 Del. C. §6304, 6306 and 6307 and certain recordkeeping and reporting requirements under Parts 262-265 and Part 122 of these regulations.

(d) The following hazardous wastes listed in §261.31 or §261.32 are subject to the exclusion limits for acutely hazardous wastes established in §261.5.

§ 261.31 Hazardous wastes from non-specific sources.

Industry and hazardous waste No	Hazardous waste	Hazard code
Generic		
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; and sludges from the recovery of these solvents in degreasing operations	(T)
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, and trichlorofluoromethane; and the still bottoms from the recovery of these solvents	(T)
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; and the still bottoms from the recovery of these solvents	(I)
F004	The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; and the still bottoms from the recovery of these solvents	(T)
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	(I, T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations (except for precious metals electroplating spent cyanide plating bath solutions)	(R, T)
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)	(R, T)
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)	(R, T)
F010	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)	(R, T)
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)	(R, T)
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)	(T)

§ 261.32 Hazardous wastes from specific sources.

Industry and hazardous waste No	Hazardous waste	Hazard code
Wood preservation K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol	(T)
Inorganic pigments		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated)	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic chemicals		
K009	Distillation bottoms from the production of acetaldehyde from ethylene	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R, T)

Industry and hazardous waste No.	Hazardous waste	Hazard code
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
K015	Still bottoms from the distillation of benzyl chloride	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho xylene	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	(T)
K083	Distillation bottoms from aniline production	(T)
K103	Process residues from aniline extraction from the production of aniline	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	(T)
Inorganic chemicals:		
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)
Pesticides:		
K031	By-product salts generated in the production of MSMA and cacodylic acid	(T)
K032	Wastewater treatment sludge from the production of chlordane	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	(T)
K035	Wastewater treatment sludges generated in the production of creosote	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
K037	Wastewater treatment sludges from the production of disulfoton	(T)
K038	Wastewater from the washing and stripping of phorate production	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	(T)
K040	Wastewater treatment sludge from the production of phorate	(T)
K041	Wastewater treatment sludge from the production of toxaphene	(T)
K098	Untreated process wastewater from the production of toxaphene	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
K099	Untreated wastewater from the production of 2,4-D	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(R)
K045	Spent carbon from the treatment of wastewater containing explosives	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	(T)
K047	Pink/red water from TNT operations	(R)
Petroleum refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Slop oil emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	API separator sludge from the petroleum refining industry	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry	(T)
Iron and steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces	(T)
K062	Spent pickle liquor from steel finishing operations	(C, T)
Secondary lead:		
K069	Emission control dust/sludge from secondary lead smelting	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting	(T)
Veterinary pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
Ink formulation: K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps and stabilizers containing chromium and lead	(T)
Coking:		
K060	Ammonia still lime sludge from coking operations	(T)
K087	Decanting tank tar sludge from coking operations	(T)

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

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

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

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

(c) Any residue remaining in a container or an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) of this section, unless the container is empty as defined in §261.7(b)(3) of these Regulations.

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

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

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in 261.5(e).

[Comment: For the convenience of the regulated community the primary hazardous properties of these mater ials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.]

These wastes and their corresponding DNREC Hazardous Waste Numbers are:

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in paragraphs (a) through (d) of this section, are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in 261.5(a) and (f).

[Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.]

These wastes and their corresponding DNREC Hazardous Waste Numbers are:

Hazardous Waste No.	Substance
U001	Acetaldehyde (I)
U034	Acetaldehyde, trichloro-
U187	Acetamide, N-(4-ethoxyphenyl)-
U005	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)
U004	Acetophenone
U005	2-Acetylaminofluorene
U006	Acetyl chloride (C,R,T)
U007	Acrylamide
U008	Acrylic acid (I)
U009	Acrylonitrile
U150	Alanine, 3-[p-bis(2-chloroethyl)amino]-, 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-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-,
U157	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	Benz[c]acridine
U017	Benzal chloride
U018	Benz[a]anthracene
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)-
U328	Benzenamine, 4-methyl-2-(o-tolylazo)-
U222	Benzenamine, 2-methyl-, hydrochloride
U181	Benzenamine, 2-methyl-5-nitro-
U019	Benzene (I,T)
U038	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	Benzene, 1-bromo-4-phenoxy-
U037	Benzene, chloro-
U190	1,2-Benzenedicarboxylic acid, anhydride
U028	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	1,2-Benzenedicarboxylic acid, diethyl ester
U102	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	Benzene, 1,2-dichloro-
U071	Benzene, 1,3-dichloro-
U072	Benzene, 1,4-dichloro-
U060	Benzene, (dichloromethyl)-
U223	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	Benzene, dimethyl- (I,T)
U201	1,3-Benzenediol
U127	Benzene, hexachloro-
U056	Benzene, hexahydro- (I)
U220	Benzene, methyl-
U105	Benzene, 1-methyl-2,4-dinitro-
U106	Benzene, 1-methyl-2,6-dinitro-
U055	Benzene, (1-methylethyl)- (I)
U169	Benzene, nitro- (I,T)
U183	Benzene, pentachloro-
U185	Benzene, pentachloronitro-
U020	Benzenesulfonic acid chloride (C,R)
U020	Benzenesulfonyl chloride (C,R)
U207	Benzene, 1,2,4,5-tetrachloro-
U023	Benzene, (trichloromethyl)- (C,R,T)
0234	Benzene, 1,3,5-trinitro- (R,T)
U021	Benzidine
U202	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide
U120	Benzo[j,k]fluorene
U022	Benzo[a]pyrene
U022	3,4-Benzopyrene
U197	p-Benzoquinone
U023	Benzotrichloride (C,R,T)
U050	1,2-Benzophenanthrene
U094	2,2'-Bioxirane (I,T)
U021	(1,1'-Biphenyl)-4,4'-diamine
U091	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-
U095	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-
U024	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-
U027	Bis(2-chloroisopropyl) ether
U244	Bis(dimethylthiocarbamoyl) disulfide
U028	Bis(2-ethylhexyl) phthalate
U246	Bromine cyanide
U225	Bromoform
U030	4-Bromophenyl phenyl ether
U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	1-Butanamine, N-butyl-N-nitroso-
U035	4-Butanoic acid, 4-[Bis(2-chloroethyl)amino]-benzene
U031	1-Butanol (I)
U159	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, methyl-, 2-methylphenyl 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
U038	4-Chlorobenzilic acid
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
U045	o-Chlorophenol
U049	4-Chloro-o-toluidine, hydrochloride
U032	Chromic acid, calcium salt
U050	Chrysene
U051	Creosote
U052	Cresols
U052	Cresylic acid
U053	Crotonaldehyde

Hazardous Waste No.	Substance
U055	Cumene (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-
U058	Cyclophosphamide
U240	2,4-D, salts and esters
U059	Daunomycin
U060	DDD
U061	DDT
U142	Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one
U062	Diallate
U133	Diamine (R,T)
U221	Diaminotoluene
U063	Dibenz[a,h]anthracene
U063	1,2,5,6-Dibenzanthracene
U064	1,2,7,8-Dibenzopyrene
U064	Dibenz[a,i]pyrene
U066	1,2-Dibromo-3-chloropropane
U069	Dibutyl phthalate
U062	S-(2,3-Dichloroallyl) diisopropylthiocarbamate
U070	o-Dichlorobenzene
U071	m-Dichlorobenzene
U072	p-Dichlorobenzene
U073	3,3'-Dichlorobenzidine
U074	1,4-Dichloro-2-butene (I,T)
U075	Dichlorodifluoromethane
U192	3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide
U060	Dichlorodiphenyldichloroethane
U061	Dichlorodiphenyltrichloroethane
U078	1,1-Dichloroethylene
U079	1,2-Dichloroethylene
U025	Dichloroethyl ether
U081	2,4-Dichlorophenol
U082	2,6-Dichlorophenol
U240	2,4-Dichlorophenoxyacetic acid, salts and esters
U083	1,2-Dichloropropane
U084	1,3-Dichloropropene
U085	1,2:3,4-Diepoxybutane (I,T)
U108	1,4-Diethylene dioxide
U086	N,N-Diethylhydrazine
U087	O,O-Diethyl S-methyl dithiophosphate
U088	Diethyl phthalate
U089	Diethylstilbestrol
U148	1,2-Dihydro-3,6-pyridazinedione
U090	Dihydrosafrole
U091	3,3'-Dimethoxybenzidine
U092	Dimethylamine (I)
U093	Dimethylaminoazobenzene
U094	7,12-Dimethylbenz[a]anthracene
U095	3,3'-Dimethylbenzidine
U096	alpha,alpha-Dimethylbenzyl hydroperoxide (R)
U097	Dimethylcarbamoyl chloride
U098	1,1-Dimethylhydrazine
U099	1,2-Dimethylhydrazine
U101	2,4-Dimethylphenol
U102	Dimethyl phthalate
U103	Dimethyl sulfate
U105	2,4-Dinitrotoluene
U106	2,6-Dinitrotoluene
U107	Di-n-octyl phthalate
U109	1,2-Diphenylhydrazine
U110	Dipropylamine (I)
U111	Di-n-propylnitrosamine
U001	Ethanal (I)
U174	Ethanamine, N-ethyl-N-nitroso-
U067	Ethane, 1,2-dibromo-

Hazardous Waste No.	Substance
U076	Ethane, 1,1-dichloro-
U077	Ethane, 1,2-dichloro-
U114	1,2-Ethanediylbis(carbamodithioic acid)
U131	Ethane, 1,1,1,2,2,2-hexachloro-
U024	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U003	Ethanenitrile (I,T)
U117	Ethane, 1,1'-oxybis (I)
U025	Ethane, 1,1'-oxybis[2-chloro-
U184	Ethane, pentachloro-
U208	Ethane, 1,1,1,2-tetrachloro-
U209	Ethane, 1,1,2,2-tetrachloro-
U218	Ethanethioamide
U247	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)-
U227	Ethane, 1,1,2-trichloro-
U043	Ethene, chloro-
U042	Ethene, 2-chloroethoxy-
U078	Ethene, 1,1-dichloro-
U079	Ethene, trans-1,2-dichloro-
U210	Ethene, 1,1,2,2-tetrachloro-
U173	Ethanol, 2,2'-(nitrosoimino)bis-
U004	Ethanone, 1-phenyl-
U006	Ethanoyl chloride (C,R,T)
U112	Ethyl acetate (I)
U113	Ethyl acrylate (I)
U238	Ethyl carbamate (urethan)
U038	Ethyl 4,4-dichlorobenzilate
U114	Ethylenebis(dithiocarbamic acid)
U067	Ethylene dibromide
U077	Ethylene dichloride
U115	Ethylene oxide (I,T)
U116	Ethylene thiourea
U117	Ethyl ether (I)
U076	Ethylidene dichloride
U119	Ethyl methanesulfonate
U119	Ethyl methanesulfonate
U120	Fluoranthene
U122	Formaldehyde
U123	Formic acid (C,T)
U124	Furan (I)
U125	2-Furancarboxaldehyde (I)
U147	2,5-Furandione
U213	Furan, tetrahydro- (I)
U125	Furfural (I)
U124	Furfuran (I)
U206	D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)
U126	Glycidylaldehyde
U163	Guanidine, N-nitroso-N-methyl-N'-nitro-
U127	Hexachlorobenzene
U128	Hexachlorobutadiene
U129	Hexachlorocyclohexane (gamma isomer)
U130	Hexachlorocyclopentadiene
U131	Hexachloroethane
U132	Hexachlorophene
U243	Hexachloropropene
U133	Hydrazine (R,T)
U086	Hydrazine, 1,2-diethyl-
U098	Hydrazine, 1,1-dimethyl-
U099	Hydrazine, 1,2-dimethyl-
U109	Hydrazine, 1,2-diphenyl-
U134	Hydrofluoric acid (C,T)
U134	Hydrogen fluoride (C,T)
U135	Hydrogen sulfide
U096	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U136	Hydroxydimethylarsine oxide
U116	2-Imidazolidinethione
U137	Indeno(1,2,3-cd)pyrene
U139	Iron dextran
U140	Isobutyl alcohol (I,T)
U141	Isosafrole

Hazardous Waste No.	Substance
U142	Kepone
U143	Lasiocarpine
U144	Lead acetate
U145	Lead phosphate
U146	Lead subacetate
U129	Lindane
U147	Maleic anhydride
U148	Maleic hydrazide
U149	Malononitrile
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-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)
U132	2,2'-Methylenebis(3,4,6-trichlorophenol)
U068	Methylene bromide
U080	Methylene chloride
U122	Methylene oxide
U159	Methyl ethyl ketone (I,T)
U160	Methyl ethyl ketone peroxide (R,T)
U138	Methyl iodide
U161	Methyl isobutyl ketone (I)
U162	Methyl methacrylate (I,T)
U163	N-Methyl-N'-nitro-N-nitrosoguanidine
U161	4-Methyl-2-pentanone (I)
U164	Methylthiouracil
U010	Mitomycin C
U059	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-((3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxy)-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-
U165	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-Naphthoquinone
U167	1-Naphthylamine
U168	2-Naphthylamine
U167	alpha-Naphthylamine
U168	beta-Naphthylamine
U026	2-Naphthylamine, N,N-bis(2-chloroethyl)-
U169	Nitrobenzene (I,T)

Hazardous Waste No.	Substance
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
U186	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-
U101	Phenol, 2,4-dimethyl-
U170	Phenol, 4-nitro-
U242	Phenol, pentachloro-
U212	Phenol, 2,3,4,6-tetrachloro-
U230	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, O,O-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-Propenol, 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
U162	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U233	Propenoic 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-

Hazardous Waste No.	Substance
U184	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	Pyrrole, tetrahydro-N-nitroso-
U200	Reserpine
U201	Resorcinol
U202	Saccharin and salts
U203	Safrole
U204	Selenious acid
U204	Selenium dioxide
U205	Selenium disulfide (R,T)
U015	L-Serine, diazoacetate (ester)
U203	Silvex
U049	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
U216	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
U237	Uracil, 5[bis(2-chloroethyl)amino]-
U237	Uracil mustard
U043	Vinyl chloride
U239	Xylene (I)
U200	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester

Appendix I-Representative sampling Methods

The methods and equipment used for sampling waste materials will vary with the form and cosistency 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 Department 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 Street, Philadelphia, PA 19103)

Containerized liquid wastes-"COLIWASA" Described in "Test Methods for the Evaulation of Solid WH-5658 Waste, Physical/Chemical Methods*, : U.S. Environmental Protection Agency, WH-5658 Office of Solid Waste, Washington, D.C. 20460

Liquid waste in pits, ponds, lagoons, and similar resevoirs - "Pond Sampler" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods.[1]

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

---

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

Appendix II - EP Toxicity Test Procedures

A. Extraction Procedure (EP)

1. A representative sample of the waste to be tested (minimum size 100 grams) shall be obtained using the methods specified in Appendix I or any other method capable of yeilding a representative sample within the meaning of Part 260. (For detailed guidance on conducting the various aspects of the EP Toxicity Test see "Test Methods for the Evaluation of Solid Waste, Physical/ Chemical Methods" incorporated by reference, see §260.11).

2. The sample shall be separated into its component liquid and solid phases using the method described in "Separation Procedure" below. If the solid residue obtained using this method totals less than 0.5% of the original weight of the waste, the residue can be discarded and the operator shall treat the liquid phase as the extract and proceed immediately to Step 8.

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

$$\% \text{ solids} = \frac{(\text{weight of pad + solid}) - (\text{tare weight of pad})}{\text{initial weight of sample}} \times 100$$

3. The solid material obtained from the Separation Procedure shall 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 cm^2 or passes through a 9.5 mm (0.375 inch) standard sieve, the operator shall proceed to Step 4. If the surface area is smaller, or the particle size large than specified above, the solid material shall be prepared for extraction by crushing, cutting or grinding the material so that it passes through a 9.5 mm (0.375 inch) seive 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 shall 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 continuously brought into contact with well mixed extraction fluid.

5. After the solid material and deionized water are placed in the extractor the operator shall begin agitation and measure the pH of the solution in the extractor. If the pH is greater than 5.0, the pH of the solution shall be decreased to 5.0 $\pm$ 0.2 by adding 0.5N acetic acid. If the pH is equal to or less than 5.0, no acetic acid should be added. The pH of the solution shall be monitored, as described below, during the course of the extraction and if the pH rises above 5.2, 0.5N acetic acid shall 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 shall be agitated for 24 hours and maintained at 20 degrees - 40 degrees C (68 degrees - 104 degrees 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 Contoller manufactured by Chemtrix, Inc., Hillsboro, Oregon 97123 or its equivalent, in conjuction with a metering pump and reservior of 0.5N acetic acid. If such a system is not available, the following manual procedure shall be employed:

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

(b) The pH of the solution shall be checked and, if necessary, 0.5N acetic acid shall be manually added to the extractor until the pH reaches 5.0 $\pm$ 0.2. The pH of the solution shall be adjusted to 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 shall 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 (4ml per gram of solids) has not been added, the pH shall be adjusted to 5.0 $\pm$ 0.2 and the extraction continued for an additional four hours, during which the pH shall be adjusted at one hour intervals.

6. At the end of the 24 hour extraction period, deionized water shall 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 shall be separated into its component liquid and solid phases as described under "Separation Procedure."

8. The liquids resulting from Steps 2 and 7 shall be combined. This combined liquid (or waste itself if it has less than 1/2 percent solids, as noted in Step 2) is the extract and shall be anaylzed for the presence of any of the contaminants specified in Table I of 261.24 using the Analytical Procedures designated below.

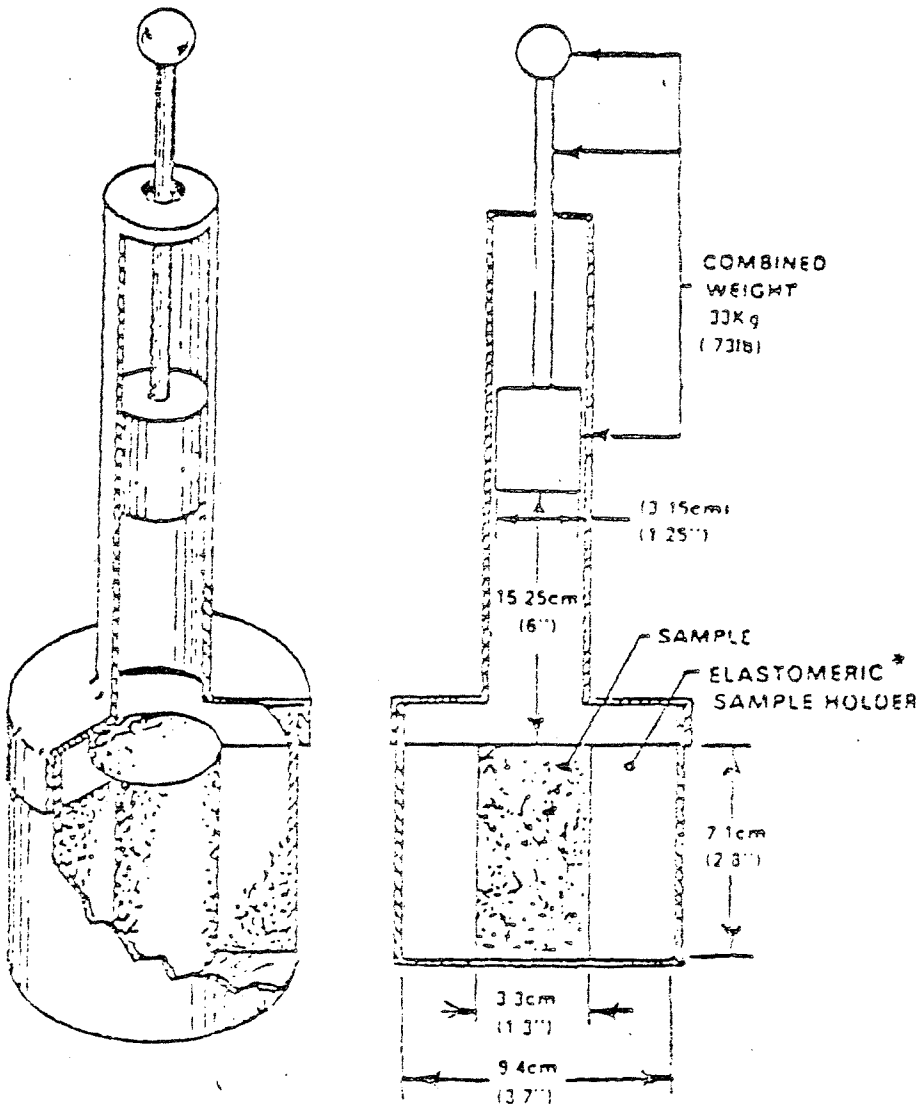
Separation Procedure: Equipment: A filter holder, designated for filtration media having a nominal pore size of 0.45 micrometers and capable of applying a 5.3 kg/cm^2 (75 psi) hysdrostatic pressure to the solution being filtered, shall be used. For mixtures containing nonabsorptive solids, where separation can be effected without imposing a 5.3 kg/cm^2 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 Evaulating Solid Waste, Physical/ Chemical Methods" incorporated by reference, see §260.11). Procedure:

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

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

(iii) The reservoir shall be slowly pressurized until liquid begins to flow from the filtrate outlet at which point the pressure in the filter shall be immediately lowered to 10-15 psig. filtration shall be continued until liquid flow ceases.

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



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

Figure 1

COMPACTION TESTER

(v) The filter unit shall be depressurized, the solid material removed and weighed and then transferred to the extracton 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 shall be stored at 4 C for subsequent use in Step 8.

This procedure is intended to reult in separation of the "Free" liquid portion of the waste form any solid matter having a particle size greater than 0.45 micrometers. 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 centriugation, the liquid portion (centrifugate) is filtered through the 0.45 micrometers 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.

B. Structural Integrity Procedure: Equipment: A Structural Integrity tester having 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 shall be filled with the material to be tested. If the sample of waste is a large monolithic block, a portion shall be cut from the block having the dimensions of a 3.3 cm (1.3) 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 such cases, the waste may be allowed to cure for 30 days prior to further testing.

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

(3) The material shall 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, silver, endrin, lindane methoxychlor, toxaphene, 2,4-D(2,4-dichlorophenoxyacetic acid) or 2,4,5-TP (2,4,5-trichloropheno xypropionic acid): "Test methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see 260.11).

2. (Reserved)

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

Appendix III-Chemical Analysis Test Methods

Tables 1, 2, and 3 specify the appropriate analytical procedures described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (incorporated by reference, see 260.11), which shall be used to determine whether a sample contains a given Appendix VII or VIII toxic constituent.

Table 1 identifies each Appendix VII or VIII organic constituent along with the approved measurement method. Table 2 identifies the corresponding methods for inorganic species. Table 3 summarizes the contents of SW-846 and supplies specific section and method numbers for sampling and analysis methods.

Prior to final sampling and analysis method selection the analyst should consult the specific section or method described in SW-846 for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.

TABLE 1.—ANALYSIS METHODS FOR ORGANIC CHEMICALS CONTAINED IN SW-846

Compound	First edition method(s)	Second edition method(s)
Acetonitrile	8.03, 8.24	8030, 8240
Acrolein	8.03, 8.21	8030, 8240
Acrylamide	8.01, 8.24	8015, 8240
Acrylonitrile	8.03, 8.24	8030, 8240
Benzene	8.02, 8.24	8020, 8024
Benz(a)anthracene	8.10, 8.25	8100, 8250, 8310
Benzo(a)pyrene	8.10, 8.25	8100, 8250, 8310
Benzotrichloride	8.12, 8.25	8120, 8250
Benzyl chloride	8.01, 8.12, 8.24, 8.25	8120, 8250
Benzo(b)fluoranthene	8.10, 8.25	8100, 8250, 8310
Bis(2-chloroethoxy)methane	8.01, 8.24	8010, 8240
Bis(2-chloroethyl)ether	8.01, 8.24	8010, 8240
Bis(2-chloroisopropyl) ether	8.01, 8.24	8010, 8240
Carbon disulfide	8.01, 8.24	8015, 8240
Carbon tetrachloride	8.01, 8.24	8010, 8240
Chlordane	8.08, 8.25	8080, 8250
Chlorinated dibenzofurans	8.03, 8.25	8020, 8250
Chlorinated biphenyls	8.08, 8.25	8080, 8250
Chloroacetaldehyde	8.01, 8.24	8010, 8240
Chlorobenzene	8.01, 8.02, 8.24	8020, 8240
Chloroform	8.01, 8.24	8010, 8240
Chloromethane	8.01, 8.24	8010, 8240
2-Chlorophenol	8.04, 8.25	8040, 8250
Chrysene	8.10, 8.25	8100, 8250, 8310
Cresols	8.10, 8.25	8100, 8250
Cresol(s)	8.04, 8.25	8040, 8250
Cresylic Acid(s)	8.04, 8.25	8040, 8250
Dichlorobenzene(s)	8.01, 8.02, 8.12, 8.25	8010, 8120, 8250

TABLE 1.—ANALYSIS METHODS FOR ORGANIC CHEMICALS CONTAINED IN SW-846—Continued

Compound	First edition method(s)	Second edition method(s)
Dichloroethane(s)	8.01, 8.24	8010, 8240
Dichloromethane	8.01, 8.24	8010, 8240
Dichlorophenylacetic acid	8.40, 8.25	8150, 8250
Dichloropropanol	8.12, 8.25	8120, 8250
2,4-Dimethylphenol	8.04, 8.25	8040, 8250
Dinitrobenzene	8.09, 8.25	8090, 8250
4,6-Dinitro-o-cresol	8.04, 8.25	8040, 8250
2,4-Dinitrotoluene	8.09, 8.25	8090, 8250
Dioxin	8.08, 8.25	8080, 8250
Ethyl ether	8.01, 8.02, 8.24	8015, 8240
Formaldehyde	8.01, 8.24	8015, 8240
Formic acid	8.06, 8.25	8250
Methacrylonitrile	8.06, 8.25	8080, 8250
Hexachlorobenzene	8.12, 8.25	8120, 8250
Hexachlorobutadiene	8.12, 8.25	8120, 8250
Hexachloroethane	8.12, 8.25	8010, 8210
Hexachlorocyclopentadiene	8.12, 8.25	8120, 8250
Isodrin	8.08, 8.25	8080, 8250
Maleic anhydride	8.06, 8.25	8250
Methanol	8.01, 8.24	8010, 8240
Methomyl	8.32	8250
Methyl ethyl ketone	8.01, 8.02, 8.24	8015, 8240
Methyl isobutyl ketone	8.01, 8.02, 8.24	8015, 8240
Naphthalene	8.10, 8.25	8100, 8250
Naphthoquinone	8.06, 8.09, 8.25	8090, 8250
Nitrobenzene	8.09, 8.25	8090, 8250
Nitrophenol	8.04, 8.25	8040, 8240
Paraldehyde (trimer of acetaldehyde)	8.01, 8.24	8015, 8240
Pentachlorophenol	8.04, 8.25	8040, 8250
Phenol	8.04, 8.25	8040, 8250
Phorate	8.27	8140
Phosphorodithioic acid esters	8.06, 8.09, 8.22	8140
Phthalic anhydride	8.06, 8.09, 8.25	8090, 8250
2-Picoline	8.06, 8.09, 8.25	8090, 8250
Pyridine	8.06, 8.09, 8.25	8090, 8250
Tetrachlorobenzene(s)	8.12, 8.25	8120, 8250
Tetrachloroethane(s)	8.01, 8.24	8010, 8240
Tetrachloroethene	8.01, 8.24	8010, 8240
Tetrachlorophenol	8.04, 8.24	8040, 8250
Toluene	8.02, 8.24	8020, 8024
Toluenediamine	8.25	8250
Toluene diisocyanate(s)	8.06, 8.25	8250
Toxaphene	8.08, 8.25	8080, 8250
Trichloroethane	8.01, 8.24	8010, 8240
Trichloroethene(s)	8.01, 8.24	8010, 8240
Trichlorofluoromethane	8.01, 8.24	8010, 8240
Trichlorophenol(s)	8.04, 8.25	8040, 8250
2,4,5-Trichlorophenoxy propionic acid	8.40, 8.25	8150, 8250
Trichloropropane	8.01, 8.24	8010, 8240
Vinyl chloride	8.01, 8.24	8010, 8240
Vinylidene chloride	8.01, 8.24	8010, 8240
Xylene	8.02, 8.24	8020, 8240

[1] Analyte for phenanthrene and anthracene if these are present in a ratio between 1.4:1 and 5:1 chrysene should be considered present.

TABLE 2.—ANALYSIS METHODS FOR INORGANIC CHEMICALS CONTAINED IN SW-846

Compound	First edition method(s)	Second edition method(s)
Antimony	8.50	7040, 7041
Arsenic	8.51	7060, 7061
Barium	8.52	7080, 7081
Cadmium	8.53	7090, 7091
Chromium	8.54	7190, 7191
Chromium Hexavalent	8.545, 8.546, 8.547	7195, 7196, 7197
Lead	8.58	7420, 7421
Mercury	8.57	7470, 7471
Nickel	8.58	7520, 7521
Selenium	8.59	7740, 7741
Silver	8.60	7760, 7761
Cyanides	8.65	9010
Total Organic Halogen	8.65	9020
Sulfides	8.67	9030

TABLE 3.—SAMPLING AND ANALYSIS METHODS CONTAINED IN SW-846—Continued

Title	First edition		Second edition	
	Section No.	Method No.	Section No.	Method No.
Characteristics of Hazardous Waste			7.1	
Ignitability	4.0		7.1.1	
Pensky-Martens Closed-Cup Method	4.1		7.1.1	1010
Setaflash Closed-Cup Method	4.1		7.1.1	1020
Corrosivity	5.0		7.1.2	
Corrosivity Toward Steel	5.3		7.1.2	1110
Reactivity	6.0		7.1.3	
Extraction Procedure Toxicity	7.0		7.1.4	
Extraction Procedure Toxicity Test	7.1, 7.2	7.3		
Method and Structural Integrity Test		7.4	7.1.4	1310
Sample Workup Techniques			4.0	
Inorganic Techniques	8.49		4.1	
Acid Digestion for Flame AAS	[1]		4.1	3010
Acid Digestion for Furnace AAS	[1]		4.1	3020
Acid Digestion of Oil, Grease, or Wax	8.49-9		4.1	3030
Extraction Procedure for Oil, Grease or Wax	8.49-8			
Alkaline Digestion	8.0	8.458	4.1	3060
Organic Techniques	9.0		4.2	
Separatory Funnel Liquid-Liquid Extraction	9.0	9.1	4.2	3510
Continuous Liquid-Liquid Extraction	9.0	9.01	4.2	3520
Acid-Base Cleanup Extraction	8.0	8.84	4.2	3530
Soxhlet Extraction	9.0	8.86	4.2	3540
Sonication Extraction	8.0	8.85	4.2	3550
Sample Introduction Techniques			5.0	
Headspace	8.0	8.62	5.0	5020
Purge-and-Trap	8.0	8.83	5.0	5030
Inorganic Analytical Methods	8.0		7.0	
Antimony, Flame AAS	8.0	8.50	7.0	7470
Antimony, Furnace AAS	8.0	8.50	7.0	7471
Arsenic, Flame AAS	8.0	8.51	7.0	7060
Arsenic, Furnace AAS	8.0	8.51	7.0	7061
Barium, Flame AAS	8.0	8.52	7.0	7080
Barium, Furnace AAS	8.0	8.52	7.0	7081
Beryllium, Flame AAS	8.0	8.53	7.0	7120
Beryllium, Furnace AAS	8.0	8.53	7.0	7131
Chromium, Flame AAS	8.0	8.54	7.0	7090
Chromium, Furnace AAS	8.0	8.54	7.0	7191
Chromium, Hexavalent, Coprecipitation	8.0	8.545	7.0	7195
Chromium, Hexavalent, Colorimetric	8.0	8.546	7.0	7196
Chromium, Hexavalent, Chelation	8.0	8.547	7.0	7197
Lead, Flame AAS	8.0	8.56	7.0	7420
Lead, Furnace AAS	8.0	8.56	7.0	7421
Mercury, Cold Vapor, Liquid	8.0	8.57	7.0	7470
Mercury, Cold Vapor, Solid	8.0	8.57	7.0	7471
Nickel, Flame AAS	8.0	8.58	7.0	7520
Nickel, Furnace AAS	8.0	8.58	7.0	7521
Thallium, Flame AAS	8.0	8.59	7.0	7740
Thallium, Gaseous Hydride AAS	8.0	8.59	7.0	7741
Tin, Flame AAS	8.0	8.60	7.0	7760
Tin, Furnace AAS	8.0	8.60	7.0	7761
Organic Analytical Methods	8.0		8.0	
Gas Chromatographic Methods	8.0		8.1	
Halogenated Volatile Organics	8.0	8.01	8.1	8010
Nonhalogenated Volatile Organics	8.0	8.01	8.1	8015
Aromatic Volatile Organics	8.0	8.02	8.1	8020
Acrolein, Acrylonitrile, Acetonitrile	8.0	8.03	8.1	8030
Phenols	8.0	8.04	8.1	8040
Phthalate Esters	8.0	8.06	8.1	8060
Organochlorine Pesticides and PCBs	8.0	8.08	8.1	8080
Nonhalogenated and Cyclic Ketones	8.0	8.09	8.1	8090
Polynuclear Aromatic Hydrocarbons	8.0	8.10	8.1	8100
Chlorinated Hydrocarbons	8.0	8.12	8.1	8120
Organophosphorus Pesticides	8.0	8.22	8.1	8140
Chlorinated Herbicides	8.0	8.40	8.1	8150
Gas Chromatographic/Mass Spectroscopy Methods (GC/MS)	8.0		8.2	
GC/MS Volatiles	8.0	8.24	8.2	8240
GC/MS Semi-Volatiles, Packed Column	8.0	8.25	8.2	8250
GC/MS Semi-Volatiles, Capillary	8.0	8.27	8.2	8270
High Performance Liquid Chromatographic Methods (HPLC)	8.0		8.3	
Polynuclear Aromatic Hydrocarbons	8.0	8.10	8.3	8310
Miscellaneous Analytical Methods	8.0		9.0	
Cyanide, Total and Amenable to Chlorination	8.0	8.55	9.0	9010
Total Organic Halogen (TOX)	8.0	8.60	9.0	9020
Sulfides	8.0	8.67	9.0	9030
pH Measurement	9.0	9.2	9.0	9040
Quality Control/Quality Assurance	10.0		10.1	
Introduction	10.0		10.1	
Program Design	10.0		10.2	
Sampling	10.0		10.3	
Analysis	10.0		10.4	
Data Handling	10.0		10.5	

[1] See specific metal.

TABLE 3.—SAMPLING AND ANALYSIS METHODS CONTAINED IN SW-846

Title	First edition		Second edition	
	Section No.	Method No.	Section No.	Method No.
Sampling of Solid Wastes	1.0		1.0	
Development of Appropriate Sampling Plans	1.0		1.1	
Regulatory and Scientific Objectives	1.0-2		1.1.1	
Fundamental Statistical Concepts	1.0-3		1.1.2	
Basic Statistical Strategies	1.0-7		1.1.3	
Simple Random Sampling			1.1.3.1	
Stratified Random Sampling			1.1.3.2	
Systematic Random Sampling			1.1.3.3	
Special Considerations	1.0-7			
Composite Sampling			1.1.4.1	
Subsampling			1.1.4.2	
Cost and Loss Functions			1.1.4.3	
Implementation of Sampling Plan	1.0-7		1.2	
Selection of Sampling Equipment			1.2.1	
Composite Liquid Waste Sampler	3.2.9		1.2.1.1	
Weighted Bottle	3.2.2		1.2.1.2	
Dipper	3.2.3		1.2.1.3	
Thief	3.2.4		1.2.1.4	
Trier	3.2.5		1.2.1.5	
Auger	3.2.6		1.2.1.6	
Scoop and Shovel	3.2.7		1.2.1.7	
Selection of Sample Containers	3.3		1.2.2	
Processing and Storage of Samples	3.3		1.2.3	
Documentation of Chain of Custody	2.0		1.3	
Sample Labels	2.0-1		1.3.1	
Sample Seals	2.0-3		1.3.2	
Field Log Book	2.0-5		1.3.3	
Chain-of-Custody Record	2.0-6		1.3.4	
Sample Analysis Request Sheet	2.0-8		1.3.5	
Sample Delivery to Laboratory	2.0-10		1.3.6	
Shipping of Samples	2.0-10		1.3.7	
Receipt and Logging of Samples	2.0-12		1.3.8	
Assignment of Samples for Analysis	2.0-13		1.3.9	
Sampling Methodology	3.0		1.4	
Containers	3.2-2		1.4.1	
Tanks	3.2-2		1.4.2	
Waste Piles	3.2-2		1.4.3	
Landfills and Lagoons	3.2-2		1.4.4	
Waste Evaluation Procedures			2.0	

Appendices - IV, V, VI [Reserved]

Appendix VII—Basis for Listing Hazardous Waste

EPA hazardous waste No.	Hazardous constituents for which listed
F001	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine.
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed)
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts)
F011	Cyanide (salts)
F012	Cyanide (complexed).
F019	Hexavalent chromium, cyanide (complexed).
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, creosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benz(a)anthracene, dibenz(a)anthracene, acenaphthalene
K002	Hexavalent chromium, lead
K003	Hexavalent chromium, lead
K004	Hexavalent chromium
K005	Hexavalent chromium, lead
K006	Hexavalent chromium
K007	Cyanide (complexed), hexavalent chromium.
K008	Hexavalent chromium
K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid
K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde
K011	Acrylonitrile, acetonitrile, hydrocyanic acid
K013	Hydrocyanic acid, acrylonitrile, acetonitrile
K014	Acetonitrile, acrylamide
K015	Benzyl chloride, chlorobenzene, toluene, benzotrichloride
K016	Vinyl chloride, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene
K017	Epichlorohydrin, chloroethers (bischloromethyl) ether, and bis (2-chloroethyl) ethers), trichloropropane, dichloropropanols
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene
K019	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride
K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride
K021	Antimony, carbon tetrachloride, chloroform
K022	Phenol, tars (polycyclic aromatic hydrocarbons)
K023	Phthalic anhydride, maleic anhydride
K024	Phthalic anhydride, 1,4-naphthoquinone
K025	Meta-dinitrobenzene, 2,4-dinitrotoluene
K026	Paraldehyde, pyridine, 2-picoline
K027	Toluene diisocyanate, toluene-2,4-diamine
K028	1,1,1-trichloroethane, vinyl chloride
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform
K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,2,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride
K031	Arsenic
K032	Hexachlorocyclopentadiene
K033	Hexachlorocyclopentadiene
K034	Hexachlorocyclopentadiene
K035	Creosote, chrysene, naphthalene, fluoranthene, benzo(b) fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene
K036	Toluene, phosphorodithioic and phosphorothioic acid esters
K037	Toluene, phosphorodithioic and phosphorothioic acid esters
K038	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters
K039	Phosphorodithioic and phosphorothioic acid esters
K040	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters
K041	Toxaphene
K042	Hexachlorobenzene, ortho-dichlorobenzene
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol
K044	N.A.
K045	N.A.
K046	Lead
K047	N.A.
K048	Hexavalent chromium, lead
K049	Hexavalent chromium, lead
K050	Hexavalent chromium
K051	Hexavalent chromium, lead
K052	Lead
K060	Cyanide, naphthalene, phenolic compounds, arsenic
K061	Hexavalent chromium, lead, cadmium
K062	Hexavalent chromium, lead.
K069	Hexavalent chromium, lead, cadmium
K071	Mercury
K073	Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine
K084	Arsenic
K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride
K086	Lead, hexavalent chromium.
K087	Phenol, naphthalene.
K093	Phthalic anhydride, maleic anhydride
K094	Phthalic anhydride.
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
K097	Chlordane, heptachlor
K098	Toxaphene
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol.
K100	Hexavalent chromium, lead, cadmium
K101	Arsenic
K102	Arsenic
K103	Aniline, nitrobenzene phenylenediamine
K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine.
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.
K106	Mercury

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

Acetonitrile (Ethanenitrile)
Acetophenone (Ethanone, 1-phenyl)
2-Acetylaminofluorene (Acetamide, N-(9H-fluoren-2-yl)-)
Acetyl chloride (Ethanoyl chloride)
1-Acetyl-2-thiourea (Acetamide, N-(aminothioxomethyl)-)
Acrolein (2-Propenal)
Acrylamide (2-Propenamide)
Acrylonitrile (2-Propenenitrile)
Aflatoxins
Aldrin (1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a,9b-hexahydro-1,4-endo,exo-5,8-dimethanonaphthalene)
Allyl alcohol (2-Propen-1-ol)
Aluminum phosphide
4-Aminobiphenyl ([1,1'-Biphenyl]-4-amine)
6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methylcarbamate[*] azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, (ester) (Mitomycin C) (Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[((aminocarbonyl)oxy)methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-)
5-(Aminomethyl)-3-isoxazolol (3(2H)-Isoxazolone, 5-(aminomethyl)-)
4-Aminopyridine (4-Pyridinamine)
Aniline (Benzenamine)
Antimony and compounds, N.O.S.*
Arsenic (Sulfurous acid, 2-chloroethyl-, 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester)
Arsenic and compounds, N.O.S.*
Arsenic acid (Orthoarsenic acid)
Arsenic pentoxide (Arsenic (V) oxide)
Arsenic trioxide (Arsenic (III) oxide)
Auramine (Benzenamine, 4,4'-carbonimidoylbis[N,N-Dimethyl-, monohydrochloride)
Azaserine (L-Serine, diazoacetate (ester))
Barium and compounds, N.O.S.*
Barium cyanide
Benz[c]acridine (3,4-Benzacridine)
Benz[a]anthracene (1,2-Benzanthracene)
Benzene (Cyclohexatriene)
Benzenearsonic acid (Arsonic acid, phenyl-)
Benzene, dichloromethyl- (Benzal chloride)
Benzenethiol (Thiophenol)
Benzidine ([1,1'-Biphenyl]-4,4'-diamine)
Benzo[b]fluoranthene (2,3-Benzofluoranthrene)
Benzo[j]fluoranthene (7,8-Benzofluoranthrene)
Benzo[a]pyrene (3,4-Benzopyrene)
p-Benzoquinone (1,4-Cyclohexadienedione)
Benzotrichloride (Benzene, trichloromethyl-)
Benzyl chloride (Benzene, (chloromethyl)-)
Beryllium and compounds, N.O.S.*
Bis(2-chloroethoxy)methane (Ethane, 1,1'-[methylenebis(oxy)]bis(2-chloro-))
Bis(2-chloroethyl) ether (Ethane, 1,1'-oxybis(2-chloro-))
N,N-Bis(2-chloroethyl)-2-naphthylamine (Chlornaphazine)
Bis(2-chloroisopropyl) ether (Propane, 2,2'-oxybis(2-chloro-))
Bis(chloromethyl) ether (Methane, oxybis(chloro-))
Bis(2-ethylhexyl) phthalate (1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester)
Bromoacetone (2-Propanone, 1-bromo-)
Bromomethane (Methyl bromide)
4-Bromophenyl phenyl ether (Benzene, 1-bromo-4-phenoxy-)
Brucine (Strychnidin-10-one, 2,3-dimethoxy-)
2-Butanone peroxide (Methyl ethyl ketone, peroxide)
Butyl benzyl phthalate (1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester)
2-sec-Butyl-4,6-dinitrophenol (DNBP) (Phenol, 2,4-dinitro-6-(1-methylpropyl)-)
Cadmium and compounds, N.O.S.*
Calcium chromate (Chromic acid, calcium salt)
Calcium cyanide
Carbon disulfide (Carbon bisulfide)
Carbon oxyfluoride (Carbonyl fluoride)
Chloral (Acetaldehyde, trichloro-)
Chlorambucil (Butanoic acid, 4-[bis(2-chloroethyl)amino]benzene-)
Chlordane (alpha and gamma isomers) (4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3,4,7,7a-tetrahydro-) (alpha and gamma isomers)
Chlorinated benzenes, N.O.S.*
Chlorinated ethane, N.O.S.*
Chlorinated fluorocarbons, N.O.S.*
Chlorinated naphthalene, N.O.S.*
Chlorinated phenol, N.O.S.*
Chloroacetaldehyde (Acetaldehyde, chloro-)
Chloroalkyl ethers, N.O.S.*
p-Chloroaniline (Benzenamine, 4-chloro-)
Chlorobenzene (Benzene, chloro-)
Chlorobenzilate (Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester)
p-Chloro-m-cresol (Phenol, 4-chloro-3-methyl)
1-Chloro-2,3-epoxypropane (Oxirane, 2-(chloromethyl)-)
2-Chloroethyl vinyl ether (Ethene, (2-chloroethoxy)-)
Chloroform (Methane, trichloro-)
Chloromethane (Methyl chloride)
Chloromethyl methyl ether (Methane, chloromethoxy-)
2-Chloronaphthalene (Naphthalene, beta-chloro-)
2-Chlorophenol (Phenol, o-chloro-)
1-(o-Chlorophenyl)thiourea (Thiourea, (2-chlorophenyl)-)
3-Chloropropionitrile (Propanenitrile, 3-chloro-)
Chromium and compounds, N.O.S.*
Chrysene (1,2-Benzphenanthrene)
Citrus red No. 2 (2-Naphthol, 1-[(2,5-dimethoxyphenyl)azo]-)
Coal tars
Copper cyanide
Creosote (Creosote, wood)
Cresols (Cresylic acid) (Phenol, methyl-)
Crotonaldehyde (2-Butenal)
Cyanides (soluble salts and complexes), N.O.S.*
Cyanogen (Ethanedinitrile)
Cyanogen bromide (Bromine cyanide)
Cyanogen chloride (Chlorine cyanide)
Cycasin (beta-D-Glucopyranoside, (methyl-ONN-azoxy)methyl-)
2-Cyclohexyl-4,6-dinitrophenol (Phenol, 2-cyclohexyl-4,6-dinitro-)
Cyclophosphamide (2H-1,3,2,-Oxazaphosphorine, [bis(2-chloroethyl)amino]-tetrahydro-, 2-oxide)
Daunomycin (5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl]oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methox

[*] The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appen

DDD (Dichlorodiphenyldichloroethane) (Ethane, 1,1-dichloro-2,2-bis(p-chlorophenyl)-)
DDE (Ethylene, 1,1-dichloro-2,2-bis(4-chlorophenyl)-)
DDT (Dichlorodiphenyltrichloroethane) (Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)-)
Diallate (S-(2,3-dichloroallyl) diisopropylthiocarbamate)
Dibenz[a,h]acridine (1,2,5,6 Dibenzacridine)
Dibenz[a,j]acridine (1,2,7,8-Dibenzacridine)
Dibenz[a,h]anthracene (1,2,5,6-Dibenzanthracene)
7H Dibenzo[c,g]carbazole (3,4,5,6-Dibenzcarbazole)
Dibenzo[a,e]pyrene (1,2,4,5-Dibenzpyrene)
Dibenzo[a,h]pyrene (1,2,5,6-Dibenzpyrene)
Dibenzo[a,i]pyrene (1,2,7,8 Dibenzpyrene)
1,2-Dibromo 3-chloropropane (Propane, 1,2-dibromo-3-chloro-)
1,2-Dibromoethane (Ethylene dibromide)
Dibromomethane (Methylene bromide)
Di-n butyl phthalate (1,2-Benzenedicarboxylic acid, dibutyl ester)
o-Dichlorobenzene (Benzene, 1,2 dichloro-)
m-Dichlorobenzene (Benzene, 1,3-dichloro-)
p Dichlorobenzene (Benzene, 1,4 dichloro-)
Dichlorobenzene, N.O.S.* (Benzene, dichloro-, N.O.S.*)
3,3 Dichlorobenzidine ([1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-)
1,4 Dichloro-2-butene (2-Butene, 1,4-dichloro-)
Dichlorodifluoromethane (Methane, dichlorodifluoro-)
1,1-Dichloroethane (Ethylidene dichloride)
1,2-Dichloroethane (Ethylene dichloride)
trans-1,2-Dichloroethene (1,2-Dichloroethylene)
Dichloroethylene, N.O.S.* (Ethene, dichloro-, N.O.S.*)
1,1-Dichloroethylene (Ethene, 1,1-dichloro-)
Dichloromethane (Methylene chloride)
2,4-Dichlorophenol (Phenol, 2,4-dichloro-)
2,6-Dichlorophenol (Phenol, 2,6-dichloro-)
2,4-Dichlorophenoxyacetic acid (2,4-D), salts and esters (Acetic acid, 2,4-dichlorophenoxy-, salts and esters)
Dichlorophenylarsine (Phenyl dichloroarsine)
Dichloropropane, N.O.S.* (Propane, dichloro-, N.O.S.*)
1,2-Dichloropropane (Propylene dichloride)
Dichloropropanol, N.O.S.* (Propanol, dichloro-, N.O.S.*)
Dichloropropene, N.O.S.* (Propene, dichloro-, N.O.S.*)
1,3-Dichloropropene (1-Propene, 1,3-dichloro-)
Dieldrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,exo-1,4:5,8-dimethanonaphthalene)
1,2:3,4-Diepoxybutane (2,2'-Bioxirane)
Diethylarsine (Arsine, diethyl-)
N,N Diethylhydrazine (Hydrazine, 1,2-

O,O-Diethyl S-methyl ester of phosphorodithioic acid (Phosphorodithioic acid, O,O-diethyl S-methyl ester
O,O-Diethylphosphoric acid, O-p-nitrophenyl ester (Phosphoric acid, diethyl p-nitrophenyl ester)
Diethyl phthalate (1,2-Benzenedicarboxylic acid, diethyl ester)
O,O-Diethyl O-2-pyrazinyl phosphorothioate (Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
Diethylstilbesterol (4,4'-Stilbenediol, alpha,alpha-diethyl, bis(dihydrogen phosphate, (E)-)
Dihydrosafrole (Benzene, 1,2-methylenedioxy-4-propyl-)
3,4-Dihydroxy-alpha-(methylamino)methyl benzyl alcohol (1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-)
Diisopropylfluorophosphate (DFP) (Phosphorofluoridic acid, bis(1-methylethyl) ester)
Dimethoate (Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
3,3'-Dimethoxybenzidine ([1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-)
p-Dimethylaminoazobenzene (Benzenamine, N,N-dimethyl-4-(phenylazo)-)
7,12-Dimethylbenz[a]anthracene (1,2-Benzanthracene, 7,12-dimethyl-)
3,3'-Dimethylbenzidine ([1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-)
Dimethylcarbamoyl chloride (Carbamoyl chloride, dimethyl-)
1,1-Dimethylhydrazine (Hydrazine, 1,1-dimethyl-)
1,2-Dimethylhydrazine (Hydrazine, 1,2-dimethyl-)
3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino) carbonyl]oxime (Thiofanox)
alpha,alpha-Dimethylphenethylamine (Ethanamine, 1,1-dimethyl-2-phenyl-)
2,4-Dimethylphenol (Phenol, 2,4-dimethyl-)
Dimethyl phthalate (1,2-Benzenedicarboxylic acid, dimethyl ester)
Dimethyl sulfate (Sulfuric acid, dimethyl ester)
Dinitrobenzene, N.O.S.* (Benzene, dinitro-, N.O.S.*)
4,6-Dinitro-o-cresol and salts (Phenol, 2,4-dinitro-6-methyl-, and salts)
2,4-Dinitrophenol (Phenol, 2,4-dinitro-)
2,4-Dinitrotoluene (Benzene, 1-methyl-2,4-dinitro-)
2,6-Dinitrotoluene (Benzene, 1-methyl-2,6-dinitro-)
Di-n-octyl phthalate (1,2-Benzenedicarboxylic acid, dioctyl ester)
1,4-Dioxane (1,4-Diethylene oxide)
Diphenylamine (Benzenamine, N-phenyl-)
1,2-Diphenylhydrazine (Hydrazine, 1,2-diphenyl-)
Di-n-propylnitrosamine (N-Nitroso-di-n-pro-

Disulfoton (O,O-diethyl S-[2-(ethylthio)ethyl] phosphorodithioate)
2,4-Dithiobiuret (Thioimidodicarbonic diamide)
Endosulfan (5-Norbornene, 2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfite)
Endrin and metabolites (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, and metabolites)
Ethyl carbamate (Urethan) (Carbamic acid, ethyl ester)
Ethyl cyanide (propanenitrile)
Ethylenebisdithiocarbamic acid, salts and esters (1,2-Ethanediylbiscarbamodithioic acid, salts and esters
Ethyleneimine (Aziridine)
Ethylene oxide (Oxirane)
Ethylenethiourea (2-Imidazolidinethione)
Ethyl methacrylate (2-Propenoic acid, 2-methyl-, ethyl ester)
Ethyl methanesulfonate (Methanesulfonic acid, ethyl ester)
Fluoranthene (Benzo[j,k]fluorene)
Fluorine
2-Fluoroacetamide (Acetamide, 2-fluoro-)
Fluoroacetic acid, sodium salt (Acetic acid, fluoro-, sodium salt)
Formaldehyde (Methylene oxide)
Formic acid (Methanoic acid)
Glycidylaldehyde (1-Propanol-2,3-epoxy)
Halomethane, N.O.S.*
Heptachlor (4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-)
Heptachlor epoxide (alpha, beta, and gamma isomers) (4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7-tetrahydro-, alpha, beta, and gamma isomers)
Hexachlorobenzene (Benzene, hexachloro-)
Hexachlorobutadiene (1,3-Butadiene, 1,1,2,3,4,4-hexachloro-)
Hexachlorocyclohexane (all isomers) (Lindane and isomers)
Hexachlorocyclopentadiene (1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-)
Hexachloroethane (Ethane, 1,1,1,2,2,2-hexachloro-)
1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,endo-dimethanonaphthalene (Hexachlorohexahydro-endo,endo-dimethanonaphthalene)
Hexachlorophene (2,2'-Methylenebis(3,4,6-trichlorophenol))
Hexachloropropene (1-Propene, 1,1,2,3,3,3-hexachloro-)
Hexaethyl tetraphosphate (Tetraphosphoric acid, hexaethyl ester)
Hydrazine (Diamine)
Hydrocyanic acid (Hydrogen cyanide)
Hydrofluoric acid (Hydrogen fluoride)
Hydrogen sulfide (Sulfur hydride)
Hydroxydimethylarsine oxide (Cacodylic acid)

Indeno(1,2,3-cd)pyrene (1,10-(1,2-phenylene)pyrene)
Iodomethane (Methyl iodide)
Iron dextran (Ferric dextran)
Isocyanic acid methyl ester (Methyl isocyanate)
Isobutyl alcohol (1-Propanol, 2-methyl-)
Isosafrole (Benzene, 1,2-methylenedioxy-4-allyl-)
Kepone (Decachlorooctahydro-1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one)
Lasiocarpine (2-Butenoic acid, 2-methyl-, 7-[(2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy)methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester)
Lead and compounds, N.O.S.*
Lead acetate (Acetic acid, lead salt)
Lead phosphate (Phosphoric acid, lead salt)
Lead subacetate (Lead, bis(acetato-O)tetrahydroxytri-)
Maleic anhydride (2,5-Furandione)
Maleic hydrazide (1,2-Dihydro-3,6-pyridazinedione)
Malononitrile (Propanedinitrile)
Melphalan (Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-, L-)
Mercury fulminate (Fulminic acid, mercury salt)
Mercury and compounds, N.O.S.*
Methacrylonitrile (2-Propenenitrile, 2-methyl-)
Methanethiol (Thiomethanol)
Methapyrilene (Pyridine, 2-[(2-dimethylamino)ethyl]-2 thenylamino-)
Methomyl (Acetimidic acid, N-[(methylcarbamoyl)oxy]thio-, methyl ester
Methoxychlor (Ethane, 1,1,1-trichloro-2,2'-bis(p-methoxyphenyl)-)
2-Methylaziridine (1,2-Propylenimine)
3-Methylcholanthrene (Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-)
Methyl chlorocarbonate (Carbonochloridic acid, methyl ester)
4,4'-Methylenebis(2-chloroaniline) (Benzenamine, 4,4'-methylenebis-(2-chloro-)
Methyl ethyl ketone (MEK) (2-Butanone)
Methyl hydrazine (Hydrazine, methyl-)
2-Methyllactonitrile (Propanenitrile, 2-hydroxy-2-methyl-)
Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)
Methyl methanesulfonate (Methanesulfonic acid, methyl ester)
2-Methyl-2-(methylthio)propionaldehyde-O-(methylcarbonyl) oxime (Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime)
N-Methyl-N'-nitro-N-nitrosoguanidine (Guanidine, N-methyl-N'-nitro-N-nitroso-)
Methyl parathion (O,O-dimethyl O-(4-nitrophenyl) phosphorothioate)
Methylthiouracil (4-1H-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-)
Mustard gas (Sulfide, bis(2-chloroethyl))

Naphthalene
1,4-Naphthoquinone (1,4-Naphthalenedione)
1-Naphthylamine (alpha-Naphthylamine)
2-Naphthylamine (beta-Naphthylamine)
1-Naphthyl-2-thiourea (Thiourea, 1-naphthalenyl-)
Nickel and compounds, N.O.S.*
Nickel carbonyl (Nickel tetracarbonyl)
Nickel cyanide (Nickel (II) cyanide)
Nicotine and salts (Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts)
Nitric oxide (Nitrogen (II) oxide)
p-Nitroaniline (Benzenamine, 4-nitro-)
Nitrobenzene (Benzene, nitro-)
Nitrogen dioxide (Nitrogen (IV) oxide)
Nitrogen mustard and hydrochloride salt (Ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-, and hydrochloride salt)
Nitrogen mustard N-Oxide and hydrochloride salt (Ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-, and hydrochloride salt)
Nitroglycerine (1,2,3-Propanetriol, trinitrate)
4-Nitrophenol (Phenol, 4-nitro-)
4-Nitroquinoline-1-oxide (Quinoline, 4-nitro-1-oxide-)
Nitrosamine, N.O.S.*
N-Nitrosodi-n-butylamine (1-Butanamine, N-butyl-N-nitroso-)
N-Nitrosodiethanolamine (Ethanol, 2,2'-(nitrosoimino)bis-)
N-Nitrosodiethylamine (Ethanamine, N-ethyl-N-nitroso-)
N-Nitrosodimethylamine (Dimethylnitrosamine)
N-Nitroso-N-ethylurea (Carbamide, N-ethyl-N-nitroso-)
N-Nitrosomethylethylamine (Ethanamine, N-methyl-N-nitroso-)
N-Nitroso-N-methylurea (Carbamide, N-methyl-N-nitroso-)
N-Nitroso-N-methylurethane (Carbamic acid, methylnitroso-, ethyl ester)
N-Nitrosomethylvinylamine (Ethenamine, N-methyl-N-nitroso-)
N-Nitrosomorpholine (Morpholine, N-nitroso-)
N-Nitrosonornicotine (Nornicotine, N-nitroso-)
N-Nitrosopiperidine (Pyridine, hexahydro-, N-nitroso-)
N-Nitrosopyrrolidine (Pyrrole, tetrahydro-, N-nitroso-)
N-Nitrososarcosine (Sarcosine, N-nitroso-)
5-Nitro-o-toluidine (Benzenamine, 2-methyl-5-nitro-)
Octamethylpyrophosphoramide (Diphosphoramide, octamethyl-)
Osmium tetroxide (Osmium (VIII) oxide)
7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid (Endothal)
Paraldehyde (1,3,5-Trioxane, 2,4,6-trimethyl-)
Parathion (Phosphorothioic acid, O,O-diethyl-O-(p-nitrophenyl) ester)
Pentachlorobenzene (Benzene, pentachloro-)
Pentachloroethane (Ethane, pentachloro-)
Pentachloronitrobenzene (PCNB) (Benzene, pentachloronitro-)
Pentachlorophenol (Phenol, pentachloro-)
Phenacetin (Acetamide, N-(4-ethoxyphenyl)-)
Phenol (Benzene, hydroxy-)
Phenylenediamine (Benzenediamine)
Phenylmercury acetate (Mercury, acetatophenyl-)
N-Phenylthiourea (Thiourea, phenyl-)
Phosgene (Carbonyl chloride)
Phosphine (Hydrogen phosphide)
Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester (Phorate)
Phosphorothioic acid, O,O-dimethyl O-[p-(dimethylamino)sulfonyl]phenyl] ester (Famphur)
Phthalic acid esters, N.O.S.* (Benzene, 1,2-dicarboxylic acid, esters, N.O.S.*)
Phthalic anhydride (1,2-Benzenedicarboxylic acid anhydride)
2-Picoline (Pyridine, 2-methyl-)
Polychlorinated biphenyl, N.O.S.*
Potassium cyanide
Potassium silver cyanide (Argentate(1-), dicyano-, potassium)
Promamide (3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide)
1,3-Propane sultone (1,2-Oxathiolane, 2,2-dioxide)
n-Propylamine (1-Propanamine)
Propylthiouracil (Thiolcarbamylmethylenediamine, N,N'-bis(2-chlorobenzyl)-, dihydrochloride)
2-Propyn-1-ol (Propargyl alcohol)
Pyridine
Reserpine (Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester)
Resorcinol (1,3-Benzenediol)
Saccharin and salts (1,2-Benzoisothiazolin-3-one, 1,1-dioxide, and salts)
Safrole (Benzene, 1,2-methylenedioxy-4-allyl-)
Selenious acid (Selenium dioxide)
Selenium and compounds, N.O.S.*
Selenium sulfide (Sulfur selenide)
Selenourea (Carbamimidoselenoic acid)
Silver and compounds, N.O.S.*
Silver cyanide
Sodium cyanide
Streptozotocin (D-Glucopyranose, 2-deoxy-2-[(3-methyl-3-nitrosoureido)-)
Strontium sulfide
Strychnine and salts (Strychnidin-10-one, and salts)
1,2,4,5-Tetrachlorobenzene (Benzene, 1,2,4,5-tetrachloro-)
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) (Dibenzo-p-dioxin, 2,3,7,8-tetrachloro-)
Tetrachloroethane, N.O.S.* (Ethane, tetrachloro-, N.O.S.*)
1,1,1,2-Tetrachloroethane (Ethane, 1,1,1,2-tetrachloro-)
1,1,2,2-Tetrachloroethane (Ethane, 1,1,2,2-tetrachloro-)
Tetrachloroethane (Ethene, 1,1,2,2-tetrachloro-)
Tetrachloromethane (Carbon tetrachloride)
2,3,4,6-Tetrachlorophenol (Phenol, 2,3,4,6-tetrachloro-)
Tetraethyldithiopyrophosphate (Dithiopyrophosphoric acid, tetraethyl ester)
Tetraethyl lead (Plumbane, tetraethyl-)
Tetraethylpyrophosphate (Pyrophosphoric acid, tetraethyl ester)
Tetranitromethane (Methane, tetranitro-)
Thallium and compounds, N.O.S.*
Thallic oxide (Thallium (III) oxide)
Thallium (I) acetate (Acetic acid, thallium (I) salt)
Thallium (I) carbonate (Carbonic acid, dithallium (I) salt)
Thallium (I) chloride
Thallium (I) nitrate (Nitric acid, thallium (I) salt)
Thallium selenite
Thallium (I) sulfate (Sulfuric acid, thallium (I) salt)
Thioacetamide (Ethanethioamide)
Thiosemicarbazide (Hydrazinecarbothioamide)
Thiourea (Carbamide thio-)
Thiuram (Bis(dimethylthiocarbamoyl) disulfide)
Toluene (Benzene, methyl-)
Toluenediamine (Diaminotoluene)
o-Toluidine hydrochloride (Benzenamine, 2-methyl-, hydrochloride)
Tolylene diisocyanate (Benzene, 1,3-diisocyanatomethyl-)
Toxaphene (Camphene, octachloro-)
Tribromomethane (Bromoform)
1,2,4-Trichlorobenzene (Benzene, 1,2,4-trichloro-)
1,1,1-Trichloroethane (Methyl chloroform)
1,1,2-Trichloroethane (Ethane, 1,1,2-trichloro-)
Trichloroethene (Trichloroethylene)
Trichloromethanethiol (Methanethiol, trichloro-)
Trichloromonofluoromethane (Methane, trichlorofluoro-)
2,4,5-Trichlorophenol (Phenol, 2,4,5-trichloro-)
2,4,6-Trichlorophenol (Phenol, 2,4,6-trichloro-)
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) (Acetic acid, 2,4,5-trichlorophenoxy-)
2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP) (Silvex) (Propionic acid, 2-(2,4,5-trichlorophenoxy)-)
Trichloropropane, N.O.S.* (Propane, trichloro-, N.O.S.*)
1,2,3-Trichloropropane (Propane, 1,2,3-trichloro-)
O,O,O-Triethyl phosphorothioate (Phosphorothioic acid, O,O,O-triethyl ester)
sym-Trinitrobenzene (Benzene, 1,3,5-trinitro-)
Tris(1-aziridinyl) phosphine sulfide (Phosphine sulfide, tris(1-aziridinyl)-)
Tris(2,3-dibromopropyl) phosphate (1-Propanol, 2,3-dibromo-, phosphate)
Trypan blue (2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis(5-amino-4-hydroxy-, tetrasodium salt)
Uracil mustard (Uracil 5-[bis(2-chloroethyl)amino]-)
Vanadic acid, ammonium salt (Ammonium vanadate)
Vanadium pentoxide (Vanadium (V) oxide)
Vinyl chloride (Ethene, chloro-)
Zinc cyanide
Zinc phosphide

PART 262--STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

Subpart A-General

Section

Subpart B-The Manifest

Subpart C-Pre-Transport Requirements

Subpart D-Recordkeeping and Reporting

Subpart E-Special Conditions

Appendix-I

Annual Report (DNREC Form 8700-13).

Appendix II - Uniform Hazardous Waste Manifest (DNREC Forms 8700-22 and 8700-22A and Instructions).

Subpart A-General

§262.10 Purpose, scope, and applicability.

(a) These regulations establish standards for generators of hazardous waste.

(b) A generator who treats, stores, or disposes of hazardous waste on-site must only comply with the following sections of this Part with respect to that waste: Section 262.11 for determining whether or not he has a hazardous waste, §262.12 for obtaining an EPA identification number, §262.34 for accumulation of hazardous waste, §262.40(c) and (d) for Recordkeeping, §262.43 for additional reporting and if applicable, §262.51 for farmers.

(c) Any person who imports hazardous waste into the State of Delaware must comply with the standards applicable to generators established in this Part.

(d) A farmer who generates waste pesticides which are hazardous waste and who complies with all of the requirements of §262.51 is not required to comply with other standards in this Part or Parts 122, 264, or 265 with respect to such pesticides.

(e) A person who generates a hazardous waste as defined by Part 261 is subject to the compliance requirements and penalties prescribed in 7 Del. C. 6309 if he does not comply with the requirements of this Part.

(f) An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility must comply with the generator standards established in this Part. (Note: The provisions of §262.34 are applicable to the on-site accumulation of hazardous waste by generators. Therefore, the provisions of §262.34 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.)

Note: A generator who treats, stores, or disposes of hazardous waste on-site must comply with the applicable standards and permit requirements set forth in Parts 264, 265, and Part 122.

§262.11 Hazardous waste determination.

A person who generates a solid waste, as defined in §261.2, must determine if that waste is a hazardous waste using the following method:

(a) He should first determine if the waste is excluded from regulation under §261.4.

(b) He must then determine if the waste is listed as a hazardous waste in Subpart D of Part 261.

Note: Even if the waste is listed, the generator still has an opportunity under Part 260 Subpart C to demonstrate to the Secretary that the waste from his particular facility or operation is not a hazardous waste.

(c) If the waste is not listed as a hazardous waste in Subpart D of Part 261, he must determine whether the waste is identified in Subpart C of Part 261 by either.

(1) Testing the waste according to the methods set forth in Subpart C of Part 261, or according to an equivalent method approved by the Secretary under Part 260 Subpart C; or

(2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

§262.12 EPA identification numbers.

(a) A generator must not treat, store, dispose of, transport, or offer for transportation, hazardous waste without having received an EPA identification number from the Secretary.

(b) A generator who has not received an EPA identification number may obtain one by applying to the Secretary using "State of Delaware Notification of Hazardous Waste Activity" form. Upon receiving the request, the Secretary will assign an EPA identification number to the generator.

(c) A generator must not offer his hazardous waste to transporters or to treatment, storage, or disposal facilities that have not received an EPA identification number.

Subpart B-The Manifest

§262.20 General requirements.

(a) A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal must prepare a manifest, using forms supplied by the Department, before transporting the waste off-site.

(b) A generator must designate on the manifest one facility which is permitted to handle the waste described on the manifest.

(c) A generator may also designate on the manifest one alternate facility which is permitted to handle his waste in the event an emergency prevents delivery of the waste to the primary designated facility.

(d) If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator must either designate another facility or instruct the transporter to return the waste.

§262.21 Acquisition of Manifests.

A generator must use the manifest form supplied by the Department.

§262.22 Number of Copies

The manifest consists of the number of copies which provide a copy for each transporter, the generator state, the facility state and the copy which is mailed from the facility to the generator. This process is discussed in detail in the instructions for manifest preparation Appendix II of this Part.

NOTE: Photocopies of this form will be necessary for the generator and facility to meet the requirements of 262.23(a)(3); 264.71(a)(5), or 265.71(a)(5); or if necessary 262.23(c) & (d).

§262.23 Use of the manifest.

(a) The generator must:

(1) Sign the manifest certification by hand; and

(2) Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and

(3) Retain one copy in accordance with 262.40(a).

(4) Send a copy of the manifest to the State in which the Generator is located and to the State in which the facility is located.

(b) The generator must give the transporter the remaining copies of the manifest in accordance with instructions on the uniform manifest form.

(c) For shipments of hazardous waste within the United States solely by water (bulk shipments only), the generator must send three copies of the manifest dated and signed in accordance with this section to the owner or operator of the designated facility or the last water (bulk shipment) transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

(d) For rail shipments of hazardous waste within the United States which originate at the site of generation, the generator must send at least three copies of the manifest dated and signed in accordance with this section to:

(i) The next non-rail transporter, if any; or

(ii) The designated facility if transported solely by rail; or

(iii) The last rail transporter to handle the waste in the United States if exported by rail.

NOTE: See §§263.20(e) and (f) for special provisions for rail or water (bulk shipment) transporters.

Subpart C-Pre-Transport Requirements

§262.30 Packaging.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the applicable Department of Transportation regulations on packaging under 49 CFR Parts 173, 178, and 179.

§262.31 Labeling.

Before transporting or offering hazardous waste for transportation off-site, a generator must label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR Part 172.

§262.32 Marking.

(a) Before transporting or offering hazardous waste for transportation off-site, a generator must mark each package of hazardous waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR Part 172;

(b) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 110 gallons or less used in such transportation with the following words and information displayed in accordance with the requirements of 49 CFR 172.304:

HAZARDOUS WASTE--Federal Law Prohibits Improper Disposal. If

found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address----------
Manifest Document Number----------

§262.33 Placarding.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR Part 172, Subpart F.

§262.34 Accumulation time.

(a) A generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status provided that:

(1) The waste is placed in containers and the generator complies with Subpart I of Part 265, or the waste is placed in tanks and the generator complies with Subpart J of Part 265 except §265.193;

(2) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

(3) While being accumulated on-site, each container and tank is labeled or marked clearly with the words, "Hazardous Waste"; and

(4) The generator complies with the requirements for owners or operators in Subparts C and D in Part 265 and with §265.16.

(b) A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of Part 264 and 265 and the permit requirement of Part 122 unless he has been granted an extension to the 90-day period. Such extension may be granted by DNREC if hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Secretary on a case-by-case basis.

Subpart D-Recordkeeping and Reporting

§262.40 Recordkeeping.

(a) A generator must keep a copy of each manifest signed in accordance with §262.23(a) for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

(b) A generator must keep a copy of each Annual Report and Exception Report for a period of at least three years from the due date of the report (March 1).

(c) A generator must keep records of any test results, waste analyses, or other determinations made in accordance with §262.11 for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

(d) The periods or retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Secretary.

§262.41 Annual reporting.

(a) A generator who ships his hazardous waste off-site must submit Annual Reports:

(1) On DNREC forms 8700-13 and 8700-13A according to the instructions on the form (See the appendix to this Part):

(2) To the State of Delaware, Department of Natural Resources and Environmental Control.

(3) No later than March 1 for the preceding calendar year.

(b) Any generator who treats, stores, or disposes of hazardous waste on-site must submit an Annual Report covering provisions of Parts 264, 265 and 122.

§262.42 Exception reporting

(a) A generator who does not receive a copy of the manifest with the hand written signature of the owner or operator of the designated facility within thirty-five (35) days of the date the waste was accepted by the initial transporter must contact the transporter and/or the owner or operator of the designated facility to determine the status of the hazardous waste, and if it has not been delivered the generator must identify the shipment and report it by telephone to the State in which the shipment originated.

(b) A generator must submit an Exception Report to the DNREC if he has not received a copy of the manifest/shipping paper with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter and the generator must also notify the State in which the manifest-designated facility is located and the State to which the shipment may have been delivered or to EPA in the case of unauthorized states.

The Exception Report must include:

(1) A legible copy of the manifest for which the generator does not have confirmation of delivery;

(2) A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

§262.43 Additional reporting.

The Secretary, as he deems necessary under 7 Del. C. 6305(a)(10), may require generators to furnish additional reports concerning the quantities and disposition of wastes identified or listed in Part 261.

Subpart E-Special Conditions

§262.50 International shipments.

(a) Any person who exports hazardous waste to a foreign country or imports hazardous waste from a foreign country into the United States must comply with the requirements of this Part and with the special requirements of this section.

(b) When shipping hazardous waste outside the United States, the generator must:

(1) Notify the Administrator and Secretary in writing four (4) weeks before the initial shipment of hazardous waste to each country in each calendar year;

(i) The waste must be identified by its EPA hazardous waste identification number and its DOT shipping description;

(ii) The name and address of the foreign consignee must be included in this notice;

(iii) These notices must be sent to: Office of International Activities A-106, United States Environmental Protection Agency, Washington, D. C. 20460, and Department of Natural Resources and Evnironmental Control, P. O. Box 1401, Dover, Delaware 19903.

(2) Require that the foreign consignee confirm the delivery of the waste in the foreign country. A copy of the manifest signed by the foreign consignee may be used for this purpose:

(3) Meet the requirements under §262.20 (a) and §262.21 for the manifest except that:

(i) In place of the name, address, and EPA identification number of the designated facility, the name and address of the foreign consignee must be used;

(ii) The generator must identify the point of departure from the United States through which the waste must travel before entering a foreign country.

(c) A generator must file an Exception Report, if:

(1) He has not received a copy of the manifest signed by the transporter stating the date and place of departure from the United States within 45 days from the date it was accepted by the initial transporter; or

(2) Within 90 days from the date the waste was accepted by the initial transporter, the generator has not received written confirmation from the foreign consignee that the hazardous waste was received.

(d) When importing hazardous waste a person must meet all the requirements specified in §262.20 (a) and §262.21 for the manifest except that:

(1) In place of the generator's name, address and EPA identification number, the name and address of the foreign generator and the importer's name, address and EPA identification number must be used.

(2) In place of the generator's signature on the certification statement, the U.S. importer or his agent must sign and date the certification and obtain the signature of the initial transporter.

§262.51 Farmers.

A farmer disposing of waste pesticides from his own use which are hazardous wastes is not required to comply with the standards in this Part or other standards in Parts 122, 264 or 265 for those wastes provided he triple rinses each emptied pesticide container in accordance with §261.7(b)(3) and disposes of the pesticide residues on his own farm in a manner consistent with the disposal instructions on the pesticide label.

(Appendix I - Annual Report - (DNREC Form 8700-13))

APPENDIX I —FORM—ANNUAL REPORT (FORM 8700-13)

Please print or type with ELITE type (12 characters per inch)

DNREC HAZARDOUS WASTE REPORT

I. TYPE OF HAZARDOUS WASTE REPORT

PART A: GENERATOR ANNUAL REPORT

THIS REPORT IS FOR THE YEAR ENDING DEC. 31 19 -

PART B: FACILITY ANNUAL REPORT

THIS REPORT FOR YEAR ENDING DEC. 31 19

PART C: UNMANIFESTED WASTE REPORT

THIS REPORT IS FOR A WASTE RECEIVED (day, mo., & yr.) - - 19

PLEASE PLACE LABEL IN THIS SPACE

INSTRUCTIONS You may have received a preprinted label attached to the front of this pamphlet, affix it in the designated space above—left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Sections II, III, and IV below blank. If you did not receive a preprinted label, complete all sections. "Installation" means a single site where hazardous waste is generated, treated, stored, or disposed of. Please refer to the specific instructions for generators or facilities before completing this form. The information requested herein is required by law (Section 3002/3004 of the Resource Conservation and Recovery Act).

II. INSTALLATION'S EPA I.D. NUMBER

III. NAME OF INSTALLATION

IV. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX

CITY OR TOWN | ST | ZIP CODE

V. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER

CITY OR TOWN | ST | ZIP CODE

VI. INSTALLATION CONTACT

NAME (last and first) | PHONE NO. (area code & no.)

VII. TRANSPORTATION SERVICES USED (for Part A reports only)

List the EPA Identification Numbers for those transporters whose services were used during the reporting year represented by this report.

VIII. COST ESTIMATES FOR FACILITIES (for Part B reports only)

A. COST ESTIMATE FOR FACILITY CLOSURE

$

B. COST ESTIMATE FOR POST CLOSURE MONITORING AND MAINTENANCE (disposal facilities only)

$

IX. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. PRINT OR TYPE NAME | B. SIGNATURE | C. DATE SIGNED

PAGE 1 OF

DNREC FACILITY REPORT – PARTS B & C

(Submitted under the authority of Section 3005 of RCRA)

FOR OFFICIAL USE ONLY (Items 1 & 2)	1. DATE RECEIVED	XVI. TYPE OF REPORT (enter an X)	XVII. FACILITY'S EPA I.D. NO.
	2. RECEIVED BY	☐ PART B ☐ PART C	

XVIII. GENERATOR'S EPA I.D. NO.

XX. GENERATOR ADDRESS (street or P.O. box, city, state & zip code)

XIX. GENERATOR NAME (specify)

XXI. WASTE IDENTIFICATION

LINE NUMBER	A. DESCRIPTION OF WASTE	B. EPA HAZARDOUS WASTE NUMBER (see instructions)	C. HAND LING METHOD (enter code)	D. AMOUNT OF WASTE	UNIT OF MEASURE (enter code)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

XXII. COMMENTS (enter information by line number – see instructions)

General Instructions, Hazardous Waste Report (DNREC Form 8700-13)

Important: READ ALL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

Section I. Type of Hazardous Waste Report

Part A: Generator Annual Report--For generators who ship their waste off-site to facilities which they do not own or operate, fill in the reporting year for this report (e.g., 1982).

Note--Generators who ship hazardous waste off-site to a facility which they own or operate must complete the facility (Part B) report instead of the Part A report.

Part B: Facility Annual Report--For owners or operators of on-site or off-site facilities that treat, store, or dispose of hazardous waste, fill in the reporting year for this report (e.g., 1982).

Part C: Unmanifested Waste Report--For facility owners or operators who accept for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, fill in the date the waste was received at the facility (e.g. 04-12-1982).

Section II thru Section IV. Installation I.D. Number, Name of Installation, and Installation Mailing Address

If you did not receive a preprinted label, complete Section II through Section IV.

Section V. Location of Installation

If your installation location address is different than the mailing address, enter the location address of your installation.

Section VI. Installation Contact

Enter the name (last and first) and telephone number of the person who may be contacted regarding information contained in this report.

Section VII. Transportation Services Used (For Part A-Reports ONLY)

List the EPA identification Number for each transporter whose services you used during the reporting year.

Section VIII. Cost Estimates for Facilities (For Part B Reports ONLY)

A. Enter the most recent cost estimate for facility closure in dollars. See Subpart H of Parts 264 or 265 for more detail.

B. For disposal facilities only, enter the most recent cost estimate for post closure monitoring and maintenance. See Subpart H of Parts 264 or 265 for more detail.

Section IX. Certification

The generator or his authorized representative (Part A reports) or the owner or operator of the facility or his authorized representative (Parts B and C reports) must sign and date the certification where indicated. The printed or typed name of the person signing the report must also be included where indicated.

Note--Since more than one page is required for each report, enter the page number of each sheet in the lower right corner as well as the total number of pages.

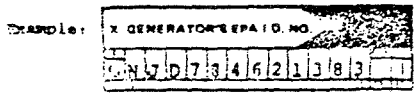
Generator Annual Report, Part A Instructions (DNREC Form 8700-13A)

Generator Annual Report for generators who ship their hazardous waste off-site to facilities which they do not own or operate.

Important: READ ALL INSTRUCTIONS BEFORE COMPLETING THIS REPORT.

Section X. Generator's Identification Number

Enter your EPA identification number.



Section XI. Facility's Identification Number

Enter the EPA identification number of the facility to which you sent the waste described below in Section XIV (a separate sheet must be used for each facility to which you sent hazardous waste.)

Section XII. Facility Name

Enter the name of the facility corresponding to the facility's EPA identification number in Section XI.

Section XIII. Facility Address

Enter the address of the facility corresponding to the facility's EPA identification number in Section XI.

Section XIV. Waste Identification

All information in this section must be entered by line number. Each line entry will describe the total annual amount of each waste shipped to the facility identified in Section XI, above.

Section XIV-A. Description of Waste

For hazardous wastes that are listed under Part 261, Subpart D, enter the listed name, abbreviated if necessary. Where mixtures of listed wastes were shipped, enter the description which you believe best describes the waste.

For unlisted hazardous waste identified under Part 261, Subpart C, enter the description which you believe best describes the waste. Include the specific manufacturing or other process generating the waste (e.g. green sludge from widget manufacturing) and if known, the chemical or generic chemical name of the waste.

Section XIV-B. DOT Hazard Class

Enter the two digit code from Table 1 which corresponds to the DOT hazard class of the waste described. (If the waste described has been shipped under more than one DOT hazard class, use a separate line for each DOT hazard class.)

TABLE 1

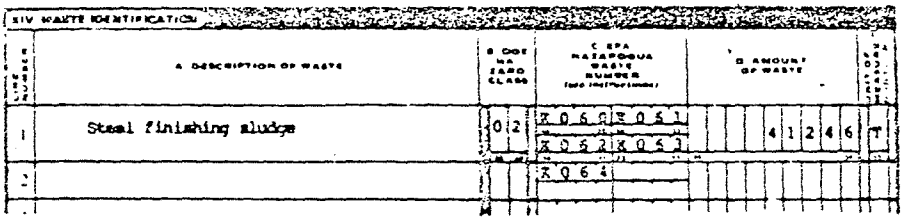
DOT hazard class	Code
Combustible	
Corrosive	
[illegible agent]	
[illegible] A	
[illegible] B	
[illegible] gas	
[illegible] liquid	
[illegible] solid	
[illegible] liquid	
[illegible] gas	
[illegible]	
[illegible] A	
[illegible]	
Corrosive	

Section XIV-C. DNREC Hazardous Waste Number

For listed wastes, enter the DNREC Hazardous Waste Number from Part 261, Subpart D, which identifies the waste.

For a mixture of more than one listed waste, enter each of the applicable DNREC Hazardous Waste Numbers. Four spaces are provided. If more space is needed, continue on the next line(s) and leave all other information on that line blank.

For unlisted hazardous wastes, enter the DNREC Hazardous Waste Numbers from Part 261, Subparts C, applicable to the waste. If more than four spaces are required, follow the procedure described above.



XIV WASTE IDENTIFICATION					
E. LINE NO.	A. DESCRIPTION OF WASTE	B. CODE (FROM LIST ON CLOSE)	C. EPA HAZARDOUS WASTE NUMBER (ENTER CODE)	D. AMOUNT OF WASTE	E. UNIT OF MEASURE (ENTER CODE)
1	Steel finishing sludge	0 2	X 0 6 0 X 0 5 1 X 0 5 2 X 0 5 3	4 1 2 4 6	T
2			X 0 6 4		

Section XIV-D. Amount of Waste

Enter the amount of this waste you shipped to the facility identified in Section XI and include the weight of containers if left at the treatment, storage, or disposal facility.

Section XIV-E. Unit of Measure

Enter the unit of measure code for the quantity of waste described on this line. Units of measure which must be used in this report and the appropriate codes are:

Units of measure	Code
Pounds	P
Short tons (2,000 lbs)	T
Kilograms	K
Tonnes (1,000 kg)	M

Units of volume may not be used for reporting but must be converted into one of the above units of weight taking into account the appropriate density or specific gravity of the waste.

Section XV. Comments

This space may be used to explain or clarify any entry. If used, enter a cross reference to the appropriate Section number.

Note.-Since more than one page is required for each report, enter this page number of each sheet in the lower right corner as well as the total number of pages.

APPENDIX II - UNIFORM HAZARDOUS WASTE MANIFEST
DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

Form 8700-22

DE-A-

DNREC
Solid Waste Management Branch
89 Kings Highway
P. O. Box 1401
Dover, DE 19903

INSTRUCTIONS FOR PREPARATION

Routing of the Manifest

Identify your shipment category and follow the instructions as in A, B, C, & D:

No. of Wastes according to U.S. DOT shipping name	No. of Transporters	Instructions
4 or less than 4	2 or less than 2	A
more than 4	2 or less than 2	B
4 or less than 4	more than 2	C
more than 4	more than 2	D

(The instructions for B, C & D are [illegible] on the continuation sheet)

Instructions A

Mailed by Generator to	Mailed by Facility to	Mailed by Facility to	[illegible]	Retained by
Generator State	Generator State	Facility State	Generator	Transporter No. 1 / Transporter No. 2	Transporter No. 2
Green Copy	Blue Copy	Yellow Copy	[illegible]	Pink Copy	White Copy

The Generator shall mail a photocopy of the [illegible] Facility State and retain a photocopy of the Green Copy.

The Facility shall retain a photocopy of the [illegible]

1. Generator completes the Generator portion of the Manifest and has Transporter No. 1 sign and certify receipt of the shipment.

2. The Generator detaches the Green Copy and sends it to the Generator State and sends a photocopy of the Green Copy to the Facility State. The Generator retains a photocopy of the Green Copy.

3. Transporter No. 1 carries the remaining copies of the manifest along with the shipment.

4. Upon delivery of the shipment to the Designated TSD Facility or Transporter No. 2, Transporter No. 1 signs and certifies delivery of the shipment, obtains the signature and certification of the TSD Facility's authorized representative or Transporter No. 2 and detaches and retains the Green Copy of the manifest.

5. Upon delivery of the shipment to the Designated TSD Facility, Transporter No. 2 signs and certifies delivery of the shipment, obtains the signature and certification of the TSD Facility's authorized representative and detaches and retains the White Copy of the manifest.

6. The TSD Facility detaches the Blue Copy and retains a photo copy and sends the Blue and Yellow Copies to the respecti Generator and Facility States and sends the Pink Copy to th Generator.

7. Note the above instructions hold for Interstate and Intra- state shipments. If there are any questions or clarific tion regarding the instructio please contact the DNREC, Solid Waste Management Branch P. O. Box 1401, 89 Kings Highway, Dover, DE 19903 or call (302) 736-4781.

UNIFORM HAZARDOUS WASTE MANIFEST INSTRUCTIONS (Form 8700-22)

READ ALL INSTRUCTIONS BEFORE COMPLETING THE FORM.

This form was designed to be used by a 12-pitch (elite) typewriter, however, a firm point pen may be used -- press down hard.

FEDERAL REGULATIONS REQUIRE USE OF UNIFORM HAZARDOUS WASTE MANIFEST FORM 8700-22A CONTINUATION SHEET (IF NECESSARY) BY OPERATORS OF HAZARDOUS WASTE MANAGEMENT FACILITIES (TSDFs) AS A CONDITION OF TRANSPORTATION.

STATE LAW ALSO MAKES GENERATORS AND TRANSPORTERS OF HAZARDOUS WASTE AND OWNERS OR OPERATORS OF HAZARDOUS WASTE MANAGEMENT FACILITIES (TSDFs) RESPONSIBLE FOR COMPLETION OF THE FOLLOWING INFORMATION:

* *

GENERATORS: ----------

Item 1- MANIFEST DOCUMENT NUMBER:

Enter your EPA ID number in the first twelve spaces. In the last five spaces a number must appear which is unique to each shipment made during each calendar year by the generator.

For purposes of the manifest, a shipment refers to the transport of hazardous waste initially accepted for transportation in a single transport vehicle.

Item 2- PAGE 1 OF :

Enter the total number of forms (Forms 8700-22 and 8700-22A, Continuation Sheet) you use to complete this manifest. For example, if the manifest only consists of the first page (Form 8700-22) and no Continuation Sheets, then the correct entry is "Page 1 of 1". If the manifest contains one front page (Form 8700-22) and no Continuation Sheet (Form 8700-22A), then the correct entry is "Page 1 of 2".

Item 3- GENERATOR NAME AND MAILING ADDRESS:

Enter the generator's name and mailing address.

Item 4- GENERATOR PHONE NUMBER:

Enter a telephone number within your organization where a knowledgeable person may be reached who can give information in response to an emergency.

Item 5- TRANSPORTER #1:

Enter the first transporter's name.

Item 6- EPA I.D. NUMBER:

Enter the EPA ID number and phone number of the first transporter.

Item 7- TRANSPORTER #2:

Enter, if applicable, the second transporter's name.

Item 8- EPA I.D. NUMBER:

Enter, if applicable, the EPA ID number and phone number of the second transporter.

(NOTE: If additional transporters are used, their names and EPA I.D. numbers must be entered in the space provided on the Continuation Sheet(DNREC Form 8700-22A). Each Continuation Sheet will accommodate two additional transporters. Every transporter used between the generator and the designated facility must be listed on the manifest in the correct order.)

Item 9- DESIGNATED FACILITY AND SITE ADDRESS:

Enter the name and site address of the designated facility to which you are sending the waste listed on this manifest. The address entered must describe the site location address and as such may be different from the site's mailing address.

Item 10- EPA I.D. NUMBER:

Enter the EPA ID number and phone number of the designated facility identified in Item 9 to which you are sending the waste listed on this manifest.

Item 11- U.S. DOT DESCRIPTION (Including Proper Shipping Name, Hazard Class, and DOT I.D. Number (UN/NA))

Enter the DOT proper shipping name, hazard class and DOT I.D. number (UN/NA) for each waste entry. The U.S. DOT (Department of Transportation) regulations must be complied with in completing this part. You can find these regulations in Title 49 of the Code of Federal Regulations (49 CFR Part 172).

Item 12- CONTAINERS: NUMBER AND TYPE

Enter the number of containers for each waste in the appropriate column followed by the appropriate abbreviation from Table I for the type of each container you are using to manage the waste described on each line.

TABLE I

(Type of Containers)

DM = Metal drums, barrels, keys
DW = Wooden drums, barrels, keys

DF = Fiberboard or plastic drums, barrels, keys
TP = Portable tanks.
TT = Cargo tanks (tank trucks)
TC = Tank cars
DT = Dump Truck
CY = Cylinders
CM = Metal boxes, cartons, cases (including roll-offs)
CF = Fiber or plastic boxes, cartons, cases
BA = Bags made of burlap, cloth, paper or plastic

Item 13- TOTAL QUANTITY AND UNIT (Wt. / Vol.), HAZARD CODE AND WASTE NUMBER: Item 14-

For the waste described on each line, enter the total quanitity of the wast in Item 13 the and the appropriate unit of measure abbreviation (from Table II, Byam) code and Waste Number in Item 14.

TABLE II
(Units of Measure)

G = gals (liquids only)
L = liters (liquids only)
P = pounds
K = Kilograms
T = tons
N = metric tons
Y = cubic yards
M = cubic meters

(NOTE: If additional space is required for waste desciptions, this information must be entered in the space provided in the Continuation Sheet (EPA Form 8700-22A).

Item 15- SPECIAL HANDLING INSTRUCTIONS

Enter any special handling instructions here. (This space is for use by the generator to indicate special transportation, treatment, storage or disposal information. Alternate facility information, if used, and point of departure from the United States (for international shipments) must also be entered in this space. States are not authorized to require additional, or different information in this space.)

Item 16- GENERATOR'S CERTIFICATION:

Read the certification statement. Type or print your name and sign your name on the appropriate line.

INTERNATIONAL SHIPMENTS:

Generators must enter in the "Special Handling Instructions" box the point of departure (City and State) for those shipments destined for treatment, storage or disposal outside the jurisdiction of the United States. Be sure to leave enough space for the transporter to enter the date the shipment left the United States.

(NOTE: All of the above information for which the generator is responsible may be preprinted, except the handwritten signature required in Item 16.)

****

TRANSPORTERS ONLY:----------

Item 17- TRANSPORTER I ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS:

Print or type the name of the person accepting the materials on behalf of the first transporter. That person must sign and date the manifest in this space upon assuming custody of the waste.

Item 18- TRANSPORTER 2 ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS:

In the event that a second transporter is used to transport the waste, print or type the name of the person accepting the materials on behalf of the second trasnporter. That person must sign and date the manifest in this space upon assuming custody of the waste.

ADDITIONAL TRANSPORTERS:

(NOTE: Additional transporters must acknowledge receipt of waste shipments from previous transporters on the Continuation Sheet (EPA Form 8700-22A). See the instruction for the Continuation Sheet.)

INTERNATIONAL SHIPMENTS:

The transporter who takes the waste identified on the manifest out of the United States must enter the date the hazardous waste leaves the United States. This entry must be made in Item 15 "Special Handling Instructions" after the generator's entry for point of departure (city and state).

OWNERS AND OPERATORS OF TSDF's ONLY----

Item 19- DISCREPANCY INDICATION:

In this space the authorized representative of the designated (or alternate) facility's owner or operator must note any significant discrepancy between the waste described on the manifest and the waste actually received.

If you cannot resolve significant discrepancies within 15 days of receiving the waste, you must submit a letter with a copy of the manifest at issue to the Department describing the discrepancy and your attempts to reconcile it.

Item 20- FACILITY OWNER OR OPERATOR: CERTIFICATION OF RECEIPT:

Print or type the name of the person accepting the materials represented by the manifest on behalf of the owner or operator of the facility. That person must sign and date the manifest in this space indicating receipt of the waste described on the manifest. (NOTE: If the person accepting the shipment represents an alternate facility, that person must so indicate.)

SPECIAL NOTE CONCERNING INTERNATIONAL SHIPMENTS:

Shipments of hazardous waste destined for a foreign country but originating within the United States must comply with Sec. §262.50 and 263.20 of the Delaware regulations governing Hazardous Waste. (Generators are advised that foreign countries may require specific forms for use in their country.)

Transporters taking hazardous waste outside the jurisdiction of the United States are, in addition to their normal hazardous waste managment requirements, required to indicate the date the shipment left the United States.

Shipments of hazardous waste regulated by 7 Del.C. Ch. 63 and originating outside the United States must be accompanied by a manifest. Transporters of such hazardous waste are responsible for completing the manifest when hazardous waste is transported into the United States from abroad (40 CFR Part 263.10(c)(1) of the Delaware regulations governing Hazardous Waste.

[illegible] Form 8700-22	1] Manifest Document Number EPA I.D. Number	Page 1 of __	Information in the shaded area is not required by Federal Law

2] Generator Name and Mailing Address

State Manifest Number

4] Generator Phone Number ( )

5] Transporter 1 Name | 6] EPA I.D. Number | Phone #

7] Transporter 2 Name | 8] EPA I.D. Number | Phone #

9] Designated Facility and Site Address | 10] EPA I.D. Number | Phone #

11] U.S. DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12] Containers No.	Type	13] Total Quantity	14] Unit Wt/Vol	Haz. Code	Waste No.
a]						
b]						
c]						

15] Special Handlign Instruction and Additional Information

16] Generator's Certification: This is to certify that the herein named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Dept. of Transportation & EPA.

X
Printed/Typed Name | Signature

17] Transporter 1 Acknowledgement of Receipt of Materials | Month Day Year

X
Printed/Typed Name | Signature | Date

18] Transporter 2 Acknowledgement of Receipt of Materials | Month Day Year

X
Printed/Typed Name | Signature | Date

19] Discrepance Indication Space

20] Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in the discrepancy indication space.

MO. DAY. YEAR

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

Form 8700-22A

DE-A-

DNREC
Solid Waste Management Branch
89 Kings Highway
P. O. Box 1401
Dover, DE 19903

INSTRUCTIONS FOR PREPARATION

Routing of the Continuation Sheet

Instructions B

Mailed by Generator to	Mailed by Facility to	Mailed by Facility to	Mailed by Facility to	Retained by	Retained by
Generator State	Generator State	Facility State	Generator	Transporter No. 1	Transporte No. 2
Green copy of Manifest & Cont. Sheet	Blue copy of Manifest & Cont. Sheet	Yellow copy of Manifest & Cont. Sheet	Pink Copy of Manifest & Cont. Sheet	Orange Copy of Manifest & Cont. Sheet	White Copy Manifest & Cont. Sheet

(Generator shall mail a photocopy of the Green Copy of the Manifest & Continuation Sheet to the Facility State and retain a copy.)

(Facility shall retain a photocopy of the Blue Copy of the Manifest & Continuation Sheet.)

1. Generator completes Manifest and a Continuation Sheet and has Transporter No. 1 sign and certify receipt of the shipment.

2. Follow the instructions A-2 through A-7 for both the Manifest and the Continuation Sheet.

Sends Pink copy of manifest and continuation sheet to Generator

GENERATOR	TRANSPORTER NO 1	TRANSPORTER NO. 2	TRANSPORTER NO 3	TRANSPORTER NO 4	FACILITY
Sends Green copy of manifest and cont sheet to Generator State. Retains photo-copies.	Retains Orange copy of manifest	Retains White copy of manifest	Retains Orange copy of Cont. sheet.	Retains White copy of cont. sheet.	Sends Yellow copy of Manifest and cont. sheet to Facility Stat Retains photo-copies.

Sends photocopies of Green copy of manifest and continuation sheet to Facility State.

Sends Blue copy of Manifest and continuation sheet to Generator State.

GENERATOR STATE

FACILITY STATE

INSTRUCTIONS C

Please call DNREC office at (302) 736-4781 for complete details for both C & D types of transactions.

Sends all four Pink copies to Generator

GENERATOR	TRANSPORTER NO 1	TRANSPORTER NO 2	TRANSPORTER NO 3	TRANSPORTER NO 4	FACILITY
Sends Green copy (total 4) of Manifest 1 & 2 & cont. sheet 1 & 2. Retains photocopies of all 4 Green copy.	Retains Orange copy of Manifest 1 and Manifest 2	Retains White copy of Manifest 1 and Manifest 2	Retains Orange copy of cont. sheet 1 and 2.	Retains White copy of cont. sheet 1 and 2	Sends all four Yellow copies to Facility State. Retains photo-copies of all 4 pink copies.

Sends photocopies of all Four Green copies to Facility State

Sends all Four Blue copies to Generator State

GENERATOR STATE

FACILITY STATE

INSTRUCTIONS D

INSTRUCTIONS
FORM 87-22A
(Continuation Sheet)

READ ALL INSTRUCTIONS BEFORE COMPLETING THE FORM.

This form was designed to be used by a 12-pitch (elite) typewriter, however, a frim point pen may be used -- press down hard.

THIS FORM (8700-22A) HAS BEEN DESIGNATED FOR USE BY GENERATORS AND TRANSPORTERS OF HAZARDOUS WASTE AND OWNERS AND OPERATORS OF TREATMENT STORAGE AND DISPOSAL FACILITIES. IT IS THE RESPONSIBILITY OF THE GENERATOR TO INITIATE A CONTINUATION SHEET IF EITHER OF THE FOLLOWING CONDITIONS EXIST:

- MORE THAN TWO TRANSPORTERS ARE TO BE USED TO TRANSPORT THE SHIPMENT
- MORE THAN FOUR KINDS OF WAST/MATERIALS AND/OR TYPES OF CONTAINERS ARE PART OF THE SHIPMENT

STATE REGULATIONS REQUIRE USE OF EPA HAZARDOUS WASTE MANIFEST FORM 8700-22 AND 8700-22A CONTINUATION SHHET (IF NECESSARY) BY GENERATORS AND TRANSPORTS OF HAZARDOUS WASTE AND OWNERS OR OPERATORS OF HAZARDOUS WASTE MANAGEMENT FACILITIES (TSDFs) AS A CONDITION OF TRANSPORTATION.

STATE LAW ALSO MAKES GENERATORS AND TRANSPORTERS OF HAZARDOUS WASTE AND OWNERS OR OPERATORS OF HAZARDOUS WASTE MANAGEMENT FACILITIES (TSDFs) RESPONSIBLE FOR COMPLETION OF THE FOLLOWING INFORMATION:

GENERATORS:----------

Item 21- MANIFEST DOCUMENT NUMBER:

Enter the same Manifest Document Number here that appears on the first page of the manifest (Form 8700-22).

Item 22- PAGE OF :

Enter the page number of this form (Form 8700-22A) in the first blank and the total number of pages of this manifest [front pages (Form 8700-22) plus all Continuation Sheets (Form 8700-22A)] in the second blank. For example, if there is one front page and one Continuation Sheet, then the correct entry here is "Page 2 of 2". If there is one front page with two Continuation Sheets, then the correct entry for the first Continuation Sheet would be "Page 2 of 3" and for the second Continuation Sheet the correct entry would be "Page 3 of 3".

Item 23- GENERATORS NAME:

Enter the generator's name as it appears in Item 3 (on Form 8700-22).

Item 24- TRANSPORTER :
Item 25-
Item 26-
Item 27-

If you require more than two transporters to complete the shipment of the hazardous waste described on this manifest, enter the name, EPA I.D. Number and phone number of each additional transporter in the order in which they will transport the waste. Be sure to indicate in the space following the word "Transporter" the order in which they carry the waste (e.g., 3rd, 4th, etc.).

Item 28- U.S. DOT DESCRIPTION (Including Proper Shipping Name, Hazard Class, DOT Identification Number); CONTAINER AND TYPE: QUANTITY;
Item 29-
Item 30-
Item 31-

If you require additional space to list the hazardous

wastes described by this manifest, enter the appropriate information here. [See Instructions for Generators (Form 8700-22).]

Item 32- SPECIAL HANDLING INSTRUCTIONS

Enter any special handling instructions here which are specific to the waste described on the same Continuation Sheet. (This space is for use by the generator to indicate special transportation, treatment, storage or disposal information. Alternate facility information, if used, and point of departure from the United States for international shipments must also be entered in this space. States are not authorized to require additional, new or different information. in this space.)

****

[NOTE: All of the above information for which the generator is responsible may be printed.]

****

TRANSPORTERS ONLY----------

Item 33- TRANSPORTER ACKNOWLEDGMENT OF RECEIPT OF MATERIALS:

Item 34-

Print or type the name of the person accepting the materials on behalf of the additional transporters. Those persons must sign and date the manifest in the appropriate space. If there are no more than two transporters, this information and these signatures are not required on the Continuation Sheet.

[NOTE: The last transporter who carries waste inside the jurisdiction of the United States before it is exported must indicate the export date in item 15, Special Handling Instruction and Additional Information, on form 8700-22.]

****

OWNERS AND OPERATORS OF TSDFs ONLY:----

Item 35- DISCREPANCY INDICATION SPACE:

In this space you must note any significant discrepancy between the waste described on th manifest and the waste you actually received. Discrepancies should be documented on the form which contains a discrepancy.

SPECIAL NOTE CONCERNING INTERNATIONAL SHIPMENTS:

Shipments of hazardous waste destined for a foreign country but originating within the United States must comply with Section 262.50. and 263.20 of the Delaware regulations governing hazardous waste (Generators are advised that foreign countries may require specific forms for use in their country.)

Transporters taking hazardous waste outside the United States are required to indicate the date the shipment leaves the United States.

Shipments of hazardous waste regulated by 7 Del. C. Chapter 63 and originating outside the United States must be accompanied by a manifest. Transporters of such hazardous waste are responsible for completing the manifest when hazardous waste is transported into the United States form abroad [Section 263.10(c)(1) of the Delaware Regulations Governing Hazardous Waste].

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet) Form 8700-22A	21] Manifest Document Number EPA I.D. Number	22] Page ___ of ___	Information in the shaded area is not required by law
23] Generator Name		State Manifest Number	
24] Transporter ____Name	25] EPA I.D. Number	Phone #	
25] Transporter ____Name	27] EPA I.D. Number	Phone #	

28] U.S. DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	29] Containers No.	Type	30] Total Quantity	31] Unit Wt/Vol	Haz. Code	Waste
a]						
b]						
c]						
d]						
e]						
f]						
g]						
h]						
i]						

32] Special Handling Instruction and Additional Information

33] Transporter __Acknowledgement of Receipt of Materials — Month Day Year

Printed/Typed Name — Signature — DATE

34] Transporter __Acknowledgement of Receipt of Materials — Month Day Year

Printed/Typed Name — Signature — DATE

35] Discrepancy Indication Space

Facility owner or operator: Certification of receipt of hazardous material [illegible]

PART 263--STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE

Subpart A-General

Section
263.10 Scope
263.11 EPA identification numbers.
263.12 Transfer facility requirements

Subpart B-Compliance With the Manifest System and Recordkeeping

263.20 The manifest system
263.21 Compliance with the manifest
263.22 Recordkeeping.

Subpart C-Hazardous Waste Discharges

263.30 Immediate action.
263.31 Discharge clean up.

Subpart A-General

§263.10 Scope.

(a) These regulations establish standards which apply to persons transporting hazardous waste within the United States if the transportation requires a manifest under Part 262.

Note: The regulations set forth in Parts 262 and 263 establish the responsibilities of generators and transporters of hazardous waste in the handling, transportation, and management of that waste. In these regulations, DNREC has expressly adopted certain regulations of the Department of Transportation (DOT) governing the transportation of hazardous materials. These regulations concern, among other things, labeling, marking, placarding, using proper containers, and reporting discharges. DNREC's adoption of these DOT regulations ensures consistency with the require ments of DOT and thus avoids the establishment of duplicative or conflicting requirements with respect to these matters. These DNREC regula tions which apply to intrastate transportation of hazardous waste are enforceable by DNREC.

DOT has revised its hazardous materials transportation regulations in order to encompass the transporta tion of hazardous waste and to regulate intrastate, as well as interstate, transportation of hazardous waste. Transporters of hazardous waste are cautioned that DOT's regulations are fully applicable to their activities and enforceable by DOT. These DOT regulations are codified in Title 49, Code of Federal Regulations, Subchapter C.

(b) These regulations do not apply to on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities.

(c) A transporter of hazardous waste must also comply with Part 262, Standards Applicable to Generators of Hazardous Waste, if he:

(1) Transports hazardous waste into the United States from abroad; or

(2) Mixes hazardous wastes of different DOT shipping descriptions by placing them into a single container.

§263.11 EPA Identification number

(a) A transporter must not transport hazardous wastes without having received an EPA identification number from the Secretary.

(b) A transporter who has not received an EPA identification number may obtain one by applying to the Secretary using "State of Delaware Notification of Hazardous Waste Activity" form and EPA Form 8700-12. Upon receiving the request the Secretary will assign an EPA identification number to the transporter.

§263.12 Transfer Facility Requirements

A transporter who stores manifested shipments of hazardous waste in containers meeting the requirements of §262.30 at a transfer facility for a period of ten (10) days or less is not

subject to regulation under Parts 122, 264 and Part 265 of these Regulations with respect to the storage of those wastes.

Subpart B-Compliance With the Manifest System and Recordkeeping

§263.20 The manifest system.

(a) A transporter may not accept hazardous waste from a generator unless it is accompanied by a manifest, signed by the generator in accordance with the provisions of Part 262.

(b) Before transporting the hazardous waste, the transporter must sign and date the manifest acknowledging acceptance of the hazardous waste from the generator. The transporter must return a signed copy to the generator before leaving the generator's property.

(c) The transporter must ensure that the manifest accompanies the hazardous waste.

(d) A transporter who delivers a hazardous waste to another transporter or to the designated facility must:

(1) Obtain the date of delivery and the handwritten signature of that transporter or of the owner or operator of the designated facility on the manifest; and

(2) Retain one copy of the manifest in accordance with §263.22; and

(3) Give the remaining copies of the manifest to the accepting transporter or designated facility

(e) The requirements of paragraph (c), (d) and (f) of this section do not apply to water (bulk shipment) transporters if:

(1) The hazardous waste is delivered by water (bulk shipment) to the designated facility; and

(2) A shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator certification, and signatures) accompanies the hazardous waste; and

(3) The delivering transporter obtains the date of delivery and handwritten signature of the owner or operator of the designated facility on either the manifest or the shipping paper; and

(4) The person delivering the hazardous waste to the initial water (bulk shipment) transporter obtains the date of delivery and signature of the water (bulk shipment) transporter on the manifest and forwards it to the designated facility; and

(5) A copy of the shipping paper or manifest is retained by each water (bulk shipment) transporter in accordance with §263.22.

(f) For shipments involving rail transportation, the requirements of paragraphs (c), (d) and (e) do not apply and the following requirements do apply:

(1) When accepting hazardous waste from a non-rail transporter, the initial rail transporter must:

(i) Sign and date the manifest acknowledging acceptance of the hazardous waste;

(ii) Return a signed copy of the manifest to the non-rail transporter;

(iii) Forward at least three copies of the manifest to:

(A) The next non-rail transporter, if any; or

(B) The designated facility, if the shipment is delivered to that facility by rail; or

(C) The last rail transporter designated to handle the waste in the United States;

(iv) Retain one copy of the manifest and rail shipping paper in accordance with §263.22.

(2) Rail transporters must ensure that a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator certification, and signatures) accompanies the hazardous waste at all times.

Note: Intermediate rail transporters are not required to sign either the manifest or shipping paper.

(3) When delivering hazardous waste to the designated facility, a rail transporter must:

(i) Obtain the date of delivery and handwritten signature of the owner or operator of the designated facility on the manifest or the shipping paper (if the manifest has not been received by the facility); and

(ii) Retain a copy of the manifest or signed shipping paper in accordance with §263.22.

(4) When delivering hazardous waste to a non-rail transporter a rail transporter must;

(i) Obtain the date of delivery and the handwritten signature of the next non-rail transporter on the manifest; and

(ii) Retain a copy of the manifest in accordance with §263.22.

(5) Before accepting hazardous waste from a rail transporter, a non-rail transporter must sign and date the manifest and provide a copy to the rail transporter.

(g) Transporters who transport hazardous waste out of the United States must:

(1) Indicate on the manifest the date the hazardous waste left the United States; and

(2) Sign the manifest and retain one copy in accordance with §263.22 (c); and

(3) Return a signed copy of the manifest to the generator.

§263.21 Compliance with the manifest.

(a) The transporter must deliver the entire quantity of hazardous waste which he has accepted from a generator or a transporter to:

(1) The designated facility listed on the manifest; or

(2) The alternate designated facility, if the hazardous waste cannot be delivered to the designated facility because an emergency prevents delivery; or

(3) The next designated transporter, or

(4) The place outside the United States designated by the generator.

(b) If the hazardous waste cannot be delivered in accordance with paragraph (a) of this section, the transporter must contact the generator for further directions and must revise the manifest according to the generator's instructions.

§263.22 Recordkeeping.

(a) A transporter of hazardous waste must keep a copy of the manifest signed by the generator, himself, and the next designated transporter or the owner or operator of the designated facility for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(b) For shipments delivered to the designated facility by water (bulk shipment), each water (bulk shipment) transporter must retain a copy of the shipping paper containing all the information required in §263.20(e)(2) for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(c) For shipments of hazardous waste by rail within the United States:

(i) The initial rail transporter must keep a copy of the manifest and shipping paper with all the information required in §263.20(f)(2) for a period of three years from the date the hazardous waste was accepted by the initial transporter; and

(ii) The final rail transporter must keep a copy of the signed manifest (or the shipping paper if signed by the designated facility in lieu of the manifest) for a period of three years from the date the hazardous waste was accepted by the initial transporter.

Note: Intermediate rail transporters are not required to keep records pursuant to these regulations.

(d) A transporter who transports hazardous waste out of the United States must keep a copy of the manifest indicating that the hazardous waste left the United States for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(e) The periods of retention referred to in this Section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Secretary.

Subpart C - Hazardous Waste Discharges

§263.30 Immediate action.

(a) In the event of a discharge of hazardous waste during transportation, the transporter must take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge area).

(b) If a discharge of hazardous waste occurs during transportation and an official (State or local government or a Federal Agency) acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, that official may authorize the removal of the waste by transporters who do not have EPA identification numbers and without the preparation of a manifest.

(c) An air, rail, highway, or water transporter who has discharged hazardous waste must:

(1) Give notice, if required by 49 CFR 171.15, to the National Response Center (800-424-8802 or (202) 426-2675), and give notice to the Department of Natural Resources and Environmental Control ((302)-736-4781 or (302) 736-4580) immediately; and

(2) Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590.

(d) A water (bulk shipment) transporter who has discharged hazardous waste must give the same notice as required by 33 CFR 153.203 for oil and hazardous substances.

263.31 Discharge clean up.

A transporter must clean up any hazardous waste discharge that occurs during transportation and restore the spill area to the original condition existing before the spill or take such action as may be required or approved by Federal, State, or local officials so that the hazardous waste discharge no longer presents a hazard to human health or the environment.