STATE OF DELAWARE

DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL

# REGULATIONS GOVERNING HAZARDOUS WASTE

As Amended April 23, 2001
Effective June 11, 2001

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# Delaware Regulations Governing Hazardous Waste

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**Note:** *Delaware Regulations Governing the Location of Hazardous Waste Storage, Treatment and Disposal Facilities* are available from the Hazardous Waste Management Branch.

Doc. #40-09/01/07/01

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## STATEMENT OF AUTHORITY

The Delaware Department of Natural Resources and Environmental Control (DNREC) is responsible for protecting, preserving and enhancing the environmental quality of the water, air, and land of the State. The General Assembly has found that the human health and environment are threatened when hazardous waste is not managed in an environmentally sound manner and that "[t]he problem of managing hazardous wastes has become a matter of statewide concern."

The intent and purpose of the Regulations Governing Hazardous Waste is "[t]o protect the public health and safety, the health of organisms and the environment from effects of the improper, inadequate or unsound management of hazardous wastes" and "[to] assure the safe and adequate management of hazardous wastes within this State."

These regulations are adopted and enforced pursuant to the authorities set forth in 7 Del. C., Chapters 60 and 63.

## Subpart A - General

### Section 260.1 Purpose, Scope, and Applicability.

(a) This part provides definitions of terms, general standards, and overview information applicable to Parts 260 through 265 and 268 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 and 268 of these regulations.

(2) Section 260.3 establishes rules of grammatical construction for Parts 260 through 265 and 268 of these regulations.

(3) Section 260.10 defines terms which are used in Parts 260 through 265 and 268 of these regulations.

(4) Section 260.20 establishes procedures for petitioning DNREC to amend, modify, or revoke any provision of Parts 260 through 266 and 268 of these regulations and establishes procedures for DNREC's action on such petitions.

(5) **[Reserved]**

(6) Section 260.22 establishes procedures for petitioning DNREC to amend from Subpart D of Part 261 to exclude a waste from a particular facility.

(Amended August 10, 1990, August 23, 1999)

### Section 260.2 Availability of Information; Confidentiality of Information.

(a) Any information provided to DNREC under Parts 260 through 265 and 268 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 information to DNREC in accordance with Parts 260 through 266 and 268 of these regulations may assert a claim of business confidentiality covering part or all of that information by following the procedures set forth in 7 Del. C., §6304. 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. 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.

(c) Any person submitting information to EPA in accordance with the above requirements must also submit a copy of that information to the Secretary.

[Note: See also Hazardous Waste Disclosure Regulations as adopted August 29, 1988, as part of the ***Delaware Regulations Governing Hazardous Waste***.]

(Amended August 10, 1990, January 1, 1999)

### Section 260.3 Use of Number and Gender.

As used in Parts 260 through 265 and 268 of these regulations:

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

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

(c) Words in the plural include the singular.

(Amended August 10, 1990)

## Subpart B - Definitions

**Section 260.10 Definitions.**

When used in Parts 260 through 273 of these regulations, the following terms have the meanings given below:

"**Aboveground tank**" means a device meeting the definition of "**tank**" in §260.10 and that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank (including the tank bottom) is able to be visually inspected.

"**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. §6901 et seq.

"**Activelife**" of a facility means the period from the initial receipt of hazardous waste at the facility until the Secretary receives certification of final closure.

"**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 Administrator of the Environmental Protection Agency, or his designee.

"**Ancillary equipment**" means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to a storage or treatment tank(s), between hazardous waste storage and treatment tanks to a point of disposal on-site, or to a point of shipment for disposal off-site.

"**Aquifer**" means a geologic formation, 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.

"**Battery**" means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

"**Boiler**" means an enclosed device using controlled flame combustion and having the following characteristics:

(1)(i) The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(ii) The unit's combustion chamber and primary energy recovery section(s) must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section(s) (such as waterwalls and superheaters) must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber, and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream), and fluidized bed combustion units; and

(iii) While in operation, the unit must maintain a thermal energy recovery efficiency of at least 60 percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(iv) The unit must export and utilize at least 75 percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feed water pumps); or

(2) The unit is one which the Secretary has determined, on a case-by-case basis to be a boiler, after considering standards in §260.32.

**"Carbon regeneration unit"** means any enclosed thermal treatment device used to regenerate spent activated carbon.

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

**"CFR"** means Code of Federal Regulations.

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

**"Commingling"** means the transfer of hazardous wastes between DOT approved containers performed by a hazardous waste transporter where the containers holding such wastes may be opened and mixed with other hazardous waste.

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

**"Component"** means either the tank or ancillary equipment of a tank system.

**"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.

**"Consolidation"** means the transfer of containers of hazardous wastes between transport conveyances by a hazardous waste transporter where the containers holding such wastes are not opened or the wastes repackaged.

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

**"Containment building"** means a hazardous waste management unit that is used to store or treat hazardous waste under the provisions of Subpart DD of Parts 264 or 265 of these regulations.

**"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.

**"Corrective action management unit (CAMU)"** means an area within a facility that is used only for managing remediation wastes for implementing corrective action or cleanup at the facility.

**"Corrosion expert"** means a person who, by reason of his knowledge of the physical sciences and the principles of engineering and mathematics, acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be certified as being qualified by the National Association of Corrosion Engineers (NACE) or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

**"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 (1) has received a permit (or interim status) in accordance with the requirements of Parts 122 or 124 of these regulations, (2) has received a permit (or interim status) from a State authorized in accordance with 40 CFR Part 271 or (3) is regulated under §261.6(c)(2) or Subpart F of Part 266 of these regulations, and (4) that has been designated on the manifest by the generator pursuant to §260.20. If a waste is destined to a facility in an authorized State which as not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility must be a facility allowed by the receiving State to accept such waste.

**"Destination facility"** means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in paragraphs (a) and (c) of §§ 273.13 and 273.33 of these regulations. A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

**"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.

**"Dioxins and furans (D/F)"** means tetra, penta, hexa, hepta, and octa-chlorinated dibenzo dioxins and furans.

**"Discharge"** or **"hazardous waste discharge"** means the accidental or intentional spilling, leaking, pumping, purging, 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 hazardous 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. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed.

**"Division"** means the Division of Air and Waste Management.

**"Drip pad"** is an engineered structure consisting of a curbed, free-draining base, constructed of non-earthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

**"Elementary neutralization unit"** means a device which:

(1) Is used for neutralizing wastes that are hazardous 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, tank system, container, transport vehicle, or vessel in §260.10 of these regulations.

**"EPA 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.

**"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 of 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 canceled 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.

**"Existing tank system"** or **"existing component"** means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation has commenced on or prior to July 14, 1986 for HSWA tanks, as defined in §260.10, or August 29, 1988 for non-HSWA tanks, as defined in §260.10. Installation will be considered to have commenced if (1) the owner or operator has obtained all Federal, State, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system; and (2) either (i) a continuous on-site physical construction or installation program has begun, or (ii) the owner or operator has entered into contractual obligations - which cannot be canceled or modified without substantial loss - for physical construction of the site or installation of the tank system to be completed within a reasonable time.

**"Explosives or munitions emergency"** means a situation involving the suspected or detected presence of unexploded ordnance (UXO), damaged or deteriorated explosives or munitions, an improvised explosive device (IED), other potentially explosive material or device, or other potentially harmful military chemical munitions or device, that creates an actual or potential imminent threat to human health, including safety, or the environment, including property, as determined by an explosives or munitions emergency response specialist. Such situations may require immediate and expeditious action by an explosives or munitions emergency response specialist to control, mitigate, or eliminate the threat.

**"Explosives or munitions emergency response"** means all immediate response activities by an explosives and munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. An explosives or munitions emergency response may include in-place render-safe procedures, treatment or destruction of the explosives or munitions and/or transporting those items to another location to be rendered safe, treated, or destroyed. Any reasonable delay in the completion of an explosives or munitions emergency response caused by a necessary, unforeseen, or uncontrollable circumstance will not terminate the explosives or munitions emergency. Explosives and munitions emergency responses can occur on either public or private lands and are not limited to responses at RCRA facilities.

**"Explosives or munitions emergency response specialist"** means an individual trained in chemical or conventional munitions or explosives handling, transportation, render-safe procedures, or destruction techniques. Explosives or munitions emergency response specialists include Department of Defense (DOD) emergency explosive ordnance disposal (EOD), technical escort unit (TEU), and DOD-certified civilian or contractor personnel; and other Federal, State, or local government, or civilian personnel similarly trained in explosives or munitions emergency responses.

**"Facility" or "Hazardous Waste Management (HWM) Facility"** means:
1. 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).
2. For the purpose of implementing corrective action under §264.101, all contiguous property under the control of the owner or operator seeking a permit 7 Del. C., Chapter 63. This definition also applies to facilities implementing corrective action under 7 Del. C., Chapter 63.
3. Notwithstanding paragraph (2) of this definition, a remediation waste management site is not a facility that is subject to §264.101, but is subject to corrective action requirements if the site is located within such a facility.
**"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.
**"Final closure"** means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under Parts 264 and 265 of these regulations are no longer conducted at the facility unless subject to the provisions in §262.34.
**"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.
**"HSWA tank"** means a tank owned or operated by a small quantity hazardous waste generator, a new underground tank, or a tank which cannot be entered for inspection.
**"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.
**"Hazardous waste management unit"** is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.
**"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 any enclosed device that:

(1) Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(2) Meets the definition of infrared incinerator or plasma arc incinerator.

**"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.

**"Industrial furnace"** means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

(1) Cement kilns
(2) Lime kilns
(3) Aggregate kilns
(4) Phosphate kilns
(5) Coke ovens
(6) Blast furnaces

(7) Smelting, melting and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machine, roasters, and foundry furnaces)

(8) Titanium dioxide chloride process oxidation reactors
(9) Methane reforming furnaces
(10) Pulping liquor recovery furnaces
(11) Combustion devices used in the recovery of sulfur values from spent sulfuric acid

(12) Halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least 3%, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of 20% as-generated.

(13) Such other devices as the Secretary may, after notice and comment, add to this list on the basis of one or more of the following factors.

(i) The design and use of the device primarily to accomplish recovery of material products;
(ii) The use of the device to burn or reduce raw materials to make a material product;
(iii) The use of the device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feedstocks;
(iv) The use of the device to burn or reduce secondary materials as ingredients in an industrial process to make a material product;
(v) The use of the device in common industrial practice to produce a material product; and
(vi) Other factors, as appropriate.

**"Infrared incinerator"** means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

**"Inground tank"** means a device meeting the definition of **"tank"** in §260.10 whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground.

**"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.

**"In operation"** refers to a facility which is treating, storing, or disposing of hazardous waste.
**"Installation inspector"** means a person who, by reason of his knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.
**"International shipment"** means the transportation of hazardous waste into or out of the jurisdiction of the United States.
**"Lamp"** also referred to as **"universal waste lamp"**, is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.
**"Landfill"** means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.
**"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 incorporated into the soil surface; such facilities are disposal facilities if the waste will remain after closure.
**"Leachate"** means any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.
**"Leak-detection system"** means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary containment structure. Such a system must employ operational controls (e.g., daily visual inspections for releases into the secondary containment system of aboveground tank) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure.
**"Liner"** means a continuous layer of natural or man-made materials, beneath or on the sides of a surface impoundment, landfill, or landfill cell, which restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.
**"Management" or "hazardous waste management"** means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.
**"Manifest"** means the shipping document EPA form 8700-22, and if necessary, EPA form 8700-22A, originated and signed by the generator in accordance with the instructions included in Part 262, Subpart B, Appendix II of these regulations.
**"Manifest document number"** means the U.S. EPA 12-digit identification number assigned to the Generator plus an optional unique 5 digit document number assigned to the Manifest by the generator for recording and reporting purposes.
**"Military munitions"** means all ammunition products and components produced or used by or for the U.S. Department of Defense or the U.S. Armed Services for national defense and security, including military munitions under the control of the Department of Defense, the U.S. Coast Guard, the U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DOD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. Military munitions do not include wholly inert items, improvised explosive

devices, and nuclear weapons, nuclear devices, and nuclear components thereof. However, the term does include non-nuclear components of nuclear devices, managed under DOE's nuclear weapons program after all required sanitization operations under the Atomic Energy Act of 1954, as amended, have been completed.

**"Mining overburden returned to the mine site"** means any material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine.

**"Miscellaneous unit"** means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 CFR Part 146, containment building, corrective active management unit, unit eligible for a research, development, and demonstration permit under §122.65, or staging pile.

**"Movement"** means that hazardous waste transported to a facility in an individual vehicle.

**"New hazardous waste management facility"** or **"new facility"** means a facility which began operation, or for which construction commenced after November 19, 1980. (See also **"Existing hazardous waste management facility".**)

**"New tank system"** or **"new tank component"** means a tank system or component that will be used for storage or treatment of hazardous waste and for which installation has commenced after July 14, 1986 for HSWA tanks, as defined in §260.10; except, however, for purposes of §264.193(g)(2) and 265.193(g)(2), a new tank system is one for which construction commences after July 14, 1986 for HSWA tanks and August 29, 1988 for non-HSWA tanks. (See also "existing tank system.")

**"Non-HSWA tank"** means a tank which is not owned or operated by a small quantity hazardous waste generator and is either an existing underground tank or a tank that can be entered for inspection.

**"Onground tank"** means a device meeting the definition of **"tank"** in §260.10 and that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

**"On-site"** means the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property.

**"Open burning"** means the combustion of any material without the following characteristics:

(1) Control of combustion air to maintain adequate temperature for efficient combustion;

(2) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(3) Control of emission of the gaseous combustion products. (See also "incineration" and "thermal treatment".)

**"Operator"** means the person responsible for the overall operation of a facility.

**"Owner"** means the person who owns a facility or part of a facility.

**"Partial closure"** means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of Parts 264 and 265 of these regulations at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank (including its associated piping and underlying containment systems), landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the same facility continue to operate.

**"Person"** means an individual, trust, firm, joint stock company, Federal Agency, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body.

**"Personnel"** or **"facility personnel"** means all persons who work at or oversee the operations of a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of Parts 264 or 265 of these regulations. [Comment: For the purpose of personnel training, the definition of *personnel* or *facility personnel* includes emergency coordinators.]

**"Pesticide"** means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(1) Is a new animal drug under FFDCA section 201(w), or

(2) Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or

(3) Is an animal feed under FFDCA section 201(x) that bears or contains any substances described by paragraph (1) or (2) of this definition.

**"Pile"** means any non-containerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage and that is not a containment building.

**"Plasma arc incinerator"** means any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

**"Point source"** means any discernible, confined, and discrete conveyance, including, but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

**"Publicly owned treatment works"** or **"POTW"** means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a **"State"** or **"municipality"** (as defined by §502(4) of the CWA). This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

**"Qualified Engineer"** or **"Qualified Geologist"** shall mean that the responsible professional geologist or engineer is qualified by training and experience to gather and evaluate the data required by these regulations.

**"Qualified Ground-Water Scientist"** means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in ground-water hydrology and related fields as may be demonstrated by state registration, professional certifications, or completion of accredited university courses that enable that individual to make sound professional judgments regarding ground-water monitoring and contaminant fate and transport.

**"Regional Administrator"** means the Regional Administrator for the Environmental Protection Agency Region in which the facility is located, or his designee.

**"Remediation waste"** means all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris that contain listed hazardous wastes or that themselves exhibit a hazardous waste characteristic and are managed for implementing cleanup.

**"Remediation waste management site"** means a facility where an owner or operator is or will be treating, storing or disposing of hazardous remediation wastes. A remediation waste management site is not a facility that is subject to corrective action under §264.101, but is subject to corrective action requirements if the site is located in such a facility.

**"Replacement Unit"** means a landfill, surface impoundment, or waste pile unit (1) from which all or substantially all of the waste is removed, and (2) that is subsequently reused to treat, store, or dispose of hazardous waste. "Replacement unit" does not apply to a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with an approved closure plan or EPA or State approved corrective action.

**"Representative sample"** means a sample of a universe or whole (e.g., waste pile, lagoon, ground water) which can be expected to exhibit the average properties of the universe or whole.

**"Run-off"** means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

**"Run-on"** means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

**"Saturated zone"** or **"zone of saturation"** means that part of the earth's crust in which all voids are filled with water.

**"Secretary"** means the Secretary of the Department of Natural Resources and Environmental Control, or his duly authorized designee.

**"Sludge"** means any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, stormwater management unit, or air pollution control facility not including the treated effluent from a water treatment plant or stormwater management unit.

**"Sludge dryer"** means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 Btu/lb of sludge treated on a wet-weight basis.

**"Small Quantity Generator"** means a generator who generates less than 1000 kg of hazardous waste in a calendar month.

**"Solid waste"** means a solid waste as defined in §261.2 of these regulations.

**"Sorbent"** means a material that is used to soak up free liquids by either adsorption or absorption, or both. "Sorb" means to either adsorb or absorb, or both.

**"Staging pile"** means an accumulation of solid, non-flowing remediation waste (as defined in this section) that is not a containment building and that is used only during remedial operations for temporary storage at a facility. Staging piles must be designated by the Secretary according to the requirements of §264.554.

**"State"** means any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

**"Storage"** means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere.

**"Sump"** means any pit or reservoir that meets the definition of tank and those troughs/trenches connected to it that serve to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities; except that as used in the landfill, surface impoundment, and waste pile rules, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

**"Surface impoundment"** or **"impoundment"** means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

**"Tank"** means a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

**"Tank system"** means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

**"TEQ"** means toxicity equivalence, the international method of relating the toxicity of various dioxin/furan congeners to the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin.

**"Thermal treatment"** means the treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, 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"**.)

"**Thermostat**" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of 273.13(c)(2) or 273.33(c)(2).

"**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.

"**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.

"**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.

"**Treatability Study**" means a study in which a hazardous waste is subjected to a treatment process to determine:

(1) Whether the waste is amenable to the treatment process,

(2) What pretreatment (if any) is required,

(3) The optimal process conditions needed to achieve the desired treatment,

(4) The efficiency of a treatment process for a specific waste or wastes, or

(5) The characteristics and volumes of residuals from a particular treatment process. Also included in this definition for the purpose of the §261.4 (e) and (f) exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies.

A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

"**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**".)

"**Underground tank**" means a device meeting the definition of "tank" in §260.10 whose entire surface area is totally below the surface of and covered by the ground.

"**Unfit-for-use tank system**" means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

"**Universal Waste**" means any of the following hazardous wastes that are managed under the universal waste requirements of Part 273 of these regulations:

(1) Batteries as described in §273.2 of these regulations;

(2) Pesticides as described in §273.3 of these regulations;

(3) Thermostats as described in §273.4 of these regulations; and

(4) Lamps as described §273.5 of these regulations.

"**Universal Waste Handler**":

(1) Means:

(i) A generator (as defined in this section) of universal waste; or

(ii) The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(2) Does not mean:

(i) A person who treats (except under the provisions of 273.13 (a) or (c), or 273.33 (a) or (c)), disposes of, or recycles universal waste; or

(ii) A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

**"Universal Waste Transporter"** means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

**"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.

**"Used oil"** means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

**"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 §402 or §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 in §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; and

(3) Meets the definition of tank or tank system 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"**.)

**"Zone of engineering control"** means an area under the control of the owner/operator that, upon detection of a hazardous waste release, can be readily cleaned up prior to the release of hazardous waste or hazardous constituents to ground water or surface water.

(Amended November 21, 1985, August 29, 1988; August 10, 1990; June 19, 1992; November 19, 1993; July 26, 1994, August 1, 1995, July 23, 1996, August 21, 1997, January 1, 1999, June 2, 2000, April 23, 2001)

**Section 260.11 References**

(a) When used in Parts 260 through 268, and 122 of these regulations, the following are incorporated by reference:

(1) "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.

(2) "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.

(3) "ASTM Standard Method for Analysis of Reformed Gas by Gas Chromatography," ASTM Standard D-1946-82, available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(4) "ASTM Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method)," ASTM Standard D 2382-83, available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(5) "ASTM Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis," ASTM Standard E 169-87 available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(6) "ASTM Standard Practices for General Techniques of Infrared Quantitative Analysis," ASTM Standard E 168-88, available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(7) "ASTM Standard Practice for Packed Column Gas Chromatography," ASTM Standard E 260-85, available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(8) "ASTM Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography," ASTM Standard D 2267-88, available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(9) "APTI Course 415: Control of Gaseous Emissions," EPA Publication EPA-450/2-81-005, December 1981, available from National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

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

(11) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 [Third Edition (November 1986), as amended by Updates I (dated July 1992), II (dated September 1994), IIA (dated August 1993), IIB (dated January 1995), III (dated December 1996) and IIIA (dated April 1998)]. The Third Edition of SW-846 and Updates I, II, IIA, IIB, and III (document number 955-001-00000-1) are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512-1800. Update IIIA is available through EPA's Methods Information Communication Exchange (MICE) Service. MICE can be contacted by phone at (703) 821-4690. Update IIIA can also be obtained by contacting the U.S. Environmental Protection Agency, Office of Solid Waste (5307W), OSW Methods Team, 401 M Street, SW, Washington, DC, 20460. Copies of the Third Edition and all of its updates are also available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605-6000 or (800) 553-6847. Copies may be inspected at the Library, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC.

(12) "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised", October 1992, EPA Publication No. EPA-450/R-92-019, Environmental Protection Agency, Research Triangle Park, NC.

(13) "ASTM Standard Test Methods for Preparing Refuse-Derived Fuel (RDF) Samples for Analyses of Metals," ASTM Standard E926-88, Test Method C--Bomb, Acid Digestion Method, available from American Society for Testing Materials, 1916 Race Street, Philadelphia, PA 19103.

(14) "API Publication 2517, Third Edition", February 1989, "Evaporative Loss from External Floating-Roof Tanks," available from the American Petroleum Institute, 1220 L Street, Northwest, Washington, DC 20005.

(15) "ASTM Standard Test Method for Vapor Pressure--Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope," ASTM Standard D 2879-92, available from American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA 19103.

(16) Method 1664, Revision A, n-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated n-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry. Available at NTIS, PB99-121949, U.S. Department of Commerce, 5285 Port Royal, Springfield, Virginia 22161.

(b) The references listed in paragraph (a) of this section are also available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC 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.

(Amended November 21, 1985; August 29, 1988; June 19, 1992; July 26, 1994, August 1, 1995, July 23, 1996, January 1, 1999, June 2, 2000)

## 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, or grant a waiver 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).

### Section 260.20 General

(a) Any person may petition DNREC to modify or revoke any provision in Parts 260 through 266, 268 and 273 of these regulations. This section sets forth general requirements which apply to all such petitions. Section 260.22 sets forth additional requirements for petitions to exclude a waste or waste-derived material at a particular facility from §261.3 of these regulations or the lists of hazardous wastes in Subpart D of Part 261. Section 260.23 sets forth additional requirements for petitions to amend Part 273 of these regulations to include additional hazardous wastes or categories of hazardous waste as universal waste.

(b) Each petition must be submitted to the Secretary by certified mail and must include:

(1) The petitioner's name and address;

(2) A statement of the petitioner's interest in the proposed action;

(3) A description of the proposed action, including (where appropriate) suggested regulatory language; and

(4) A statement of the need and justification for the proposed action, including any supporting tests, studies, or other information.

(c) The Secretary will make a tentative decision to grant or deny a petition and will public notice such tentative decision, either in the form of a proposed regulatory amendment, or a tentative determination to deny the petition, in accordance with 7 Del. C., §6312.

(d) Upon the written request of any interested person, the Secretary may, at his discretion, hold an informal public hearing to consider oral comments on the tentative decision. A person requesting a hearing must state the issues to be raised and explain why written comments would not suffice to communicate the person's views. The Secretary may in any case decide on his own motion to hold an informal public hearing.

(e) After evaluating all public comments the Secretary will make a final decision by publishing a public notice of a regulatory amendment or a denial of the petition.

(Amended July 23, 1996, August 21, 1997)

### Section 260.21 [Reserved]

**Section 260.22 Petitions**

(a) Any person seeking to exclude a waste at a particular generating facility from the lists in Subpart D of Part 261 may petition for a regulatory amendment under this section and §260.20. To be successful:

(1) The petitioner must demonstrate to the satisfaction of the Secretary that the waste produced by a particular generating facility does not meet any of the criteria under which the waste was listed as a hazardous or an acutely hazardous waste; and

(2) Based on a complete application, the Secretary must determine, where he has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of Subpart C of Part 261.

(b) The procedures in this section and §260.20 may also be used to petition the Secretary for a regulatory amendment to exclude from §261.3(a)(2)(ii) or (c), a waste which is described in these sections and is either a waste listed in Subpart D, or is derived from a waste listed in Subpart D. This exclusion may only be issued for a particular generating, storage, treatment, or disposal facility. The petitioner must make the same demonstration as required by paragraph (a) of this section. Where the waste is a mixture of solid waste and one or more listed hazardous wastes or is derived from one or more hazardous wastes, his demonstration must be made with respect to the waste mixture as a whole; analyses must be conducted for not only those constituents for which the listed waste contained in the mixture was listed as hazardous, but also for factors (including additional constituents) that could cause the waste mixture to be a hazardous waste. A waste which is so excluded may still be a hazardous waste by operation of Subpart C of Part 261.

(c) If the waste is listed with codes "I", "C", "R", or "E", in Subpart D:

(1) The petitioner must show that the waste does not exhibit the relevant characteristic for which the waste was listed as defined in §261.21, §261.22, §261.23, or §261.24 using any applicable methods prescribed therein. The petitioner also must show that the waste does not exhibit any of the other characteristics defined in §261.21, §261.22, §261.23, or §261.24 using any applicable methods prescribed therein;

(2) Based on a complete application, the Secretary must determine, where he has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of Subpart C of Part 261.

(d) If the waste is listed with code "T" in Subpart D:

(1) The petitioner must demonstrate that the waste:

(i) Does not contain the constituent or constituents (as defined in Appendix VII of Part 261 of these regulations) that caused the Secretary to list the waste, using the appropriate test methods prescribed in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11; or

(ii) Although containing one or more of the hazardous constituents (as defined in Appendix VII of Part 261) that caused the Secretary to list the waste, does not meet the criterion of §261.11(a)(3) when considering the factors used by the Secretary in §261.11(a)(3) (i) through (xi) under which the waste was listed as hazardous; and

(2) Based on a complete application, the Secretary must determine, where he has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

(3) The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in §261.21, §261.22, §261.23, and §261.24 using any applicable methods prescribed therein;

(4) A waste which is so excluded, however, still may be a hazardous waste by operation of Subpart C of Part 261.

(e) If the waste is listed with the code "H" in Subpart D,

(1) The petitioner must demonstrate that the waste does not meet the criterion of §261.11(a)(2); and

(2) Based on a complete application, the Secretary must determine, where he has a reasonable basis to believe that additional factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

(3) The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in §261.21, §261.22, §261.23, and §261.24 using any applicable methods prescribed therein;

(4) A waste which is so excluded, however, still may be a hazardous waste by operation of Subpart C of Part 261.

(f) [Reserved for listing radioactive wastes.]

(g) [Reserved for listed infectious wastes.]

(h) Demonstration samples must consist of enough representative samples, but in no case less than four samples, taken over a period of time sufficient to represent the variability or the uniformity of the waste.

(i) Each petition must include, in addition to the information required by §260.20(b):

(1) The name and address of the laboratory facility performing the sampling or tests of the waste;

(2) The names and qualifications of the persons sampling and testing the waste;

(3) The dates of sampling and testing;

(4) The location of the generating facility;

(5) A description of the manufacturing processes or other operations and feed materials producing the waste and an assessment of whether such processes, operations, or feed materials can or might produce a waste that is not covered by the demonstration;

(6) A description of the waste and an estimate of the average and maximum monthly and annual quantities of waste covered by the demonstration;

(7) Pertinent data on and discussion of the factors delineated in the respective criterion for listing a hazardous waste, where the demonstration is based on the factors in §261.11(a)(3);

(8) A description of the methodologies and equipment used to obtain the representative samples;

(9) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization and preservation of the samples;

(10) A description of the tests performed (including results);

(11) The names and model numbers of the instruments used in performing the tests; and

(12) The following statement signed by the generator of the waste or his authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, 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.

(j) After receiving a petition for an exclusion, the Secretary may request any additional information which he may reasonably require to evaluate the petition.

(k) An exclusion will only apply to the waste generated at the individual facility covered by the demonstration and will not apply to waste from any other facility.

(l) The Secretary may exclude only part of the waste for which the demonstration is submitted where he has reason to believe that variability of the waste justifies a partial exclusion.

**Section 260.23 Petitions to amend Part 273 to include additional hazardous wastes.**

(a) Any person seeking to add a hazardous waste or a category of hazardous waste to the universal waste regulations of Part 273 of these regulations may petition for a regulatory amendment under this section, 260.20, and Subpart G of Part 273.

(b) To be successful, the petitioner must demonstrate to the satisfaction of the Secretary that regulation under the universal waste regulations of Part 273: Is appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition must include the information required by 260.20(b). The petition should also address as many of the factors listed in 273.81 as are appropriate for the waste or category of waste addressed in the petition.

(c) The Secretary will grant or deny a petition using the factors listed in 273.81. The decision will be based on the weight of evidence showing that regulation under Part 273 is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program.

(d) The Secretary may request additional information needed to evaluate the merits of the petition.

(Amended July 23, 1996)

**Section 260.30 Variances from classification as a solid waste.**

In accordance with the standards and criteria in §260.31 and the procedures in §260.33, the Secretary may determine on a case-by-case basis that the following recycled materials are not solid wastes:

(a) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in §261.1(c)(8) of these regulations):

(b) Materials that are reclaimed and then reused within the original production process in which they were generated.

(c) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered.

(Amended November 21, 1985; August 29, 1988, July 23, 1996)

**Section 260.31 Standards and criteria for variances from classification as a solid waste.**

(a) The Secretary may grant requests for a variance from classifying as a solid waste those materials that are accumulated speculatively without sufficient amounts being recycled if the applicant demonstrates that sufficient amounts of the material will be recycled or transferred for recycling in the following year. If a variance is granted, it is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. The Secretary's decision will be based on the following criteria:

(1) The manner in which the material is expected to be recycled, when the material is expected to be recycled, and whether this expected disposition is likely to occur (for example, because of past practice, market factors, the nature of the material, or contractual arrangement for recycling);

(2) The reason that the applicant has accumulated the material for one or more years without recycling 75 percent of the volume accumulated at the beginning of the year;

(3) The quantity of material already accumulated and the quantity expected to be generated and accumulated before the material is recycled;

(4) The extent to which the material is handled to minimize loss;

(5) Other relevant factors.

(b) The Secretary may grant requests for a variance from classifying as a solid waste those materials that are reclaimed and then reused as feedstock within the original production process in which the materials were generated if the reclamation operation is an essential part of the production process. This determination will be based on the following criteria:

(1) How economically viable the production process would be if it were to use virgin materials, rather than the reclaimed materials;

(2) The prevalence of the practice on an industry-wide basis;

(3) The extent to which the material is handled before reclamation to minimize loss;

(4) The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;

(5) The location of the reclamation operation in relation to the production process;

(6) Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;

(7) Whether the person who generates the material also reclaims it;

(8) Other relevant factors.

(c) The Secretary may grant requests for a variance from classifying as a solid waste those materials that have been reclaimed but must be reclaimed further before recovery is completed if, after initial reclamation, the resulting material is commodity-like (even though it is not yet a commercial product, and has to be reclaimed further). This determination will be based on the following factors:

(1) The degree of processing the material has undergone and the degree of further processing that is required;

(2) The value of the material after it has been reclaimed;

(3) The degree to which the reclaimed material is like an analogous raw material;

(4) The extent to which an end market for the reclaimed material is guaranteed;

(5) The extent to which the reclaimed material is handled to minimize loss;

(6) Other relevant factors.

(Amended November 21, 1985, July 23, 1996)

**Section 260.32 Variances To Be Classified As A Boiler.**

In accordance with the standards and criteria in §261.10 (definition of "boiler") and the procedures in §260.33, the Secretary may determine on a case-by-case basis that certain enclosed devices using controlled flame combustion are boilers, even though they do not otherwise meet the definition of boiler contained in §260.10, after considering the following criteria:

(a) The extent to which the unit has provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases;

(b) The extent to which the combustion chamber and energy recovery equipment are of integral design;

(c) The efficiency of energy recovery, calculated in terms of the recovered energy compared with the thermal value of the fuel;

(d) The extent to which exported energy is utilized;

(e) The extent to which the device is in common and customary use as a "boiler" functioning primarily to produce steam, heated fluids, or heated gases; and

(f) Other factors, as appropriate.

(Amended November 21, 1985, July 23, 1996)

**Section 260.33 Procedures for variances from classification as solid waste or to be classified as a boiler.**

The Secretary will use the following procedures in evaluating applications for variances from classification as a solid waste or applications to classify particular enclosed controlled flame combustion devices as boilers:

(a) The applicant must apply to the Secretary for the variance. The application must address the relevant criteria contained in §260.31 or §260.32 of this part.

(b) The Secretary will evaluate the application and issue a draft notice tentatively granting or denying the application. Notification of this tentative decision will be provided by newspaper advertisement or radio broadcast in the locality where the recycler is located. The Secretary will accept comment on the tentative decision for 30 days, and may also hold a public hearing upon request or at his discretion. The Secretary will issue a final decision after receipt of comments and after the hearing (if any).

(Amended November 21, 1985, July 23, 1996, August 21, 1997, January 1, 1999)

**Section 260.40 Additional regulation of certain hazardous waste recycling activities on a case-by-case basis.**

(a) The Secretary may decide on a case-by-case basis that persons accumulating or storing the recyclable materials described in §261.6(a)(2)(iv) of these regulations should be regulated under §261.6 (b) and (c) of these regulations. The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect human health and the environment because the materials or their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. In making this decision, the Secretary will consider the following factors:

(1) The types of materials accumulated or stored and the amounts accumulated or stored;

(2) The method of accumulation or storage;

(3) The length of time the materials have been accumulated or stored before being reclaimed;

(4) Whether any contaminants are being released into the environment, or are likely to be so released; and

(5) Other relevant factors.

The procedures for this decision are set forth in §260.41 of these regulations.

(Amended November 21, 1985)

**Section 260.41 Procedures for case-by-case regulation of hazardous waste recycling activities.**

The Secretary will use the following procedures when determining whether to regulate hazardous waste recycling activities described in §261.6(a)(2)(iv) under the provisions of §261.6 (b) and (c), rather than under the provisions of Subpart F of Part 266 of these regulations.

(a) If a generator is accumulating the waste, the Secretary will issue a notice setting forth the factual basis for the decision and stating that the person must comply with the applicable requirements of Subparts A, C, D and E of Part 262 of these regulations. The notice will become final within 30 days, unless the person served requests a public hearing to challenge the decision. Upon receiving such a request, the Secretary will hold a public hearing. The Secretary will provide notice of the hearing to the public and allow public participation at the hearing. The Secretary will issue a final order after the hearing stating whether or not compliance with Part 262 is required. The order becomes effective 30 days after service of the decision unless the Secretary specifies a later date or unless review by the Appeals Board is requested. The order may be appealed to the Appeals Board. The Appeals Board may choose to grant or deny the appeal. Final Agency action occurs when a final order is issued and Agency review procedures are exhausted.

(b) If the person is accumulating the recyclable material as a storage facility, the notice will state that the person must obtain a permit in accordance with all applicable provisions of Parts 122 and 124 of these regulations. The owner or operator of the facility must apply for a permit within no less than 60 days and no more than six months of notice, as specified in the notice. If the owner or operator of the facility wishes to challenge the Secretary's decision he may do so in his permit application, in a public hearing held on the draft permit, or in comments filed on the draft permit or on the notice of intent to deny the permit. The fact sheet accompanying the permit will specify the reasons for the Department's determination. The question of whether the Secretary's decision was proper will remain open for consideration during the public comment period discussed under §124.11 of these regulations and in any subsequent hearing.
(Amended November 21, 1985)

**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 an 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: 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 Subtitle C rules, 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 record keeping 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, Dover, DE 19901. (302) 739-3689.

Figure 1
**Definition of Solid Waste**

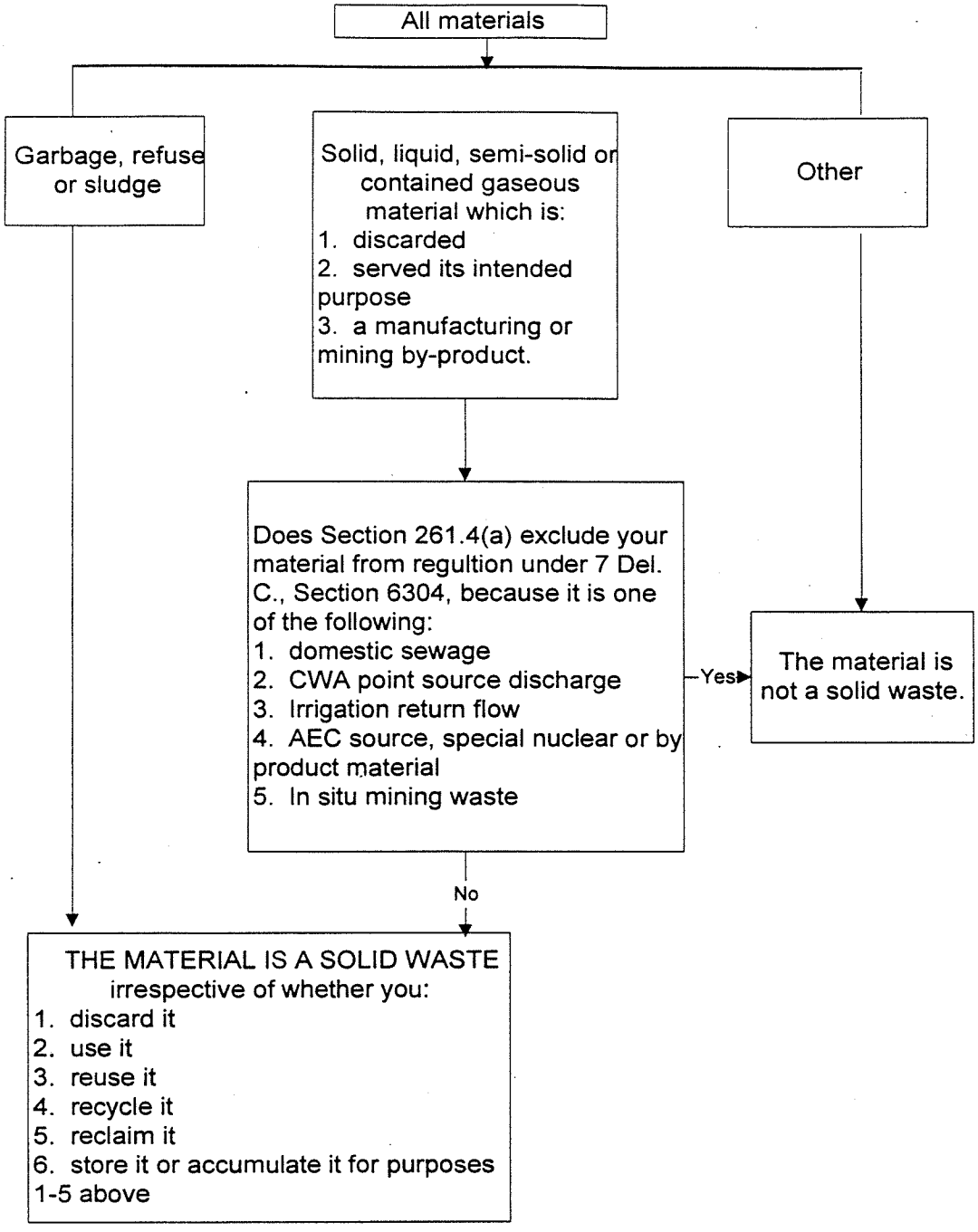


**Figure 2**

**Definition of a Hazardous Waste**

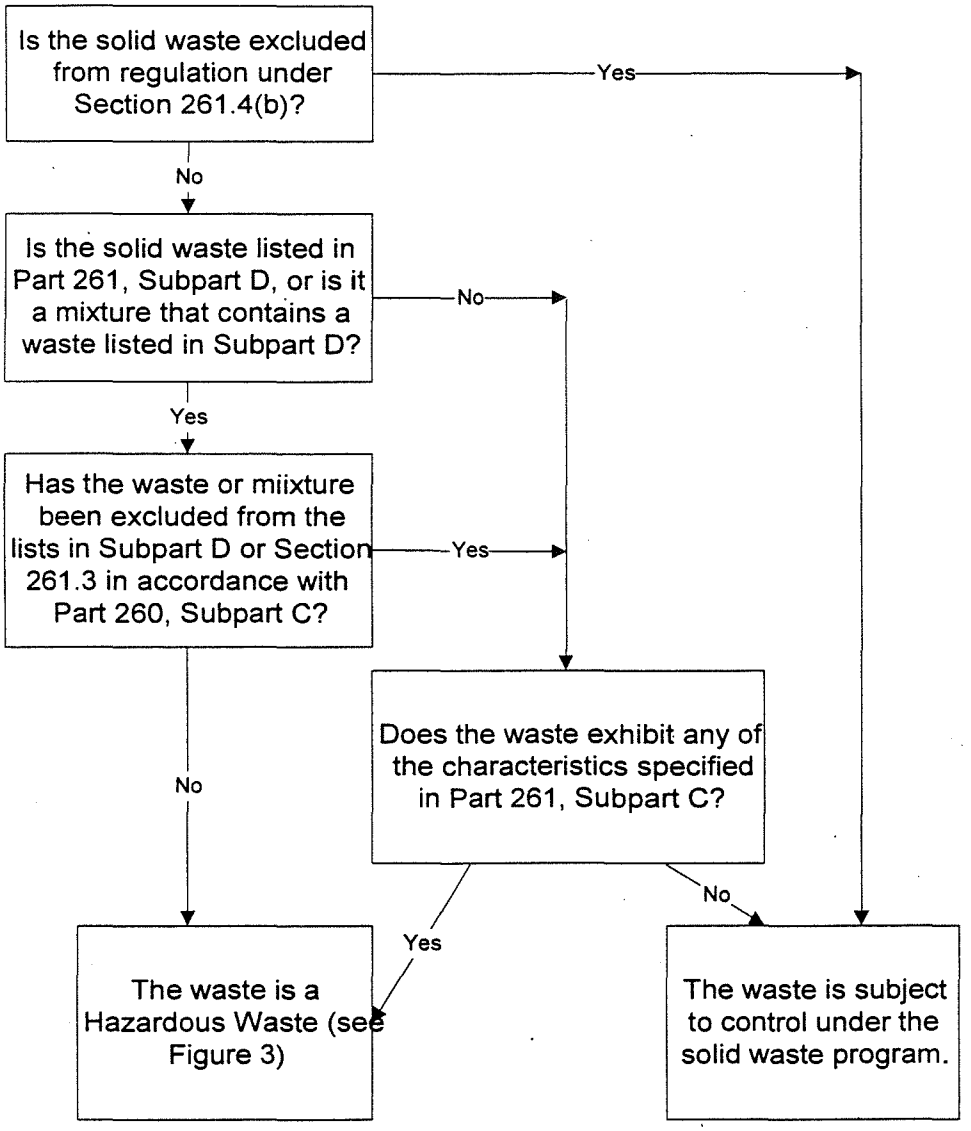
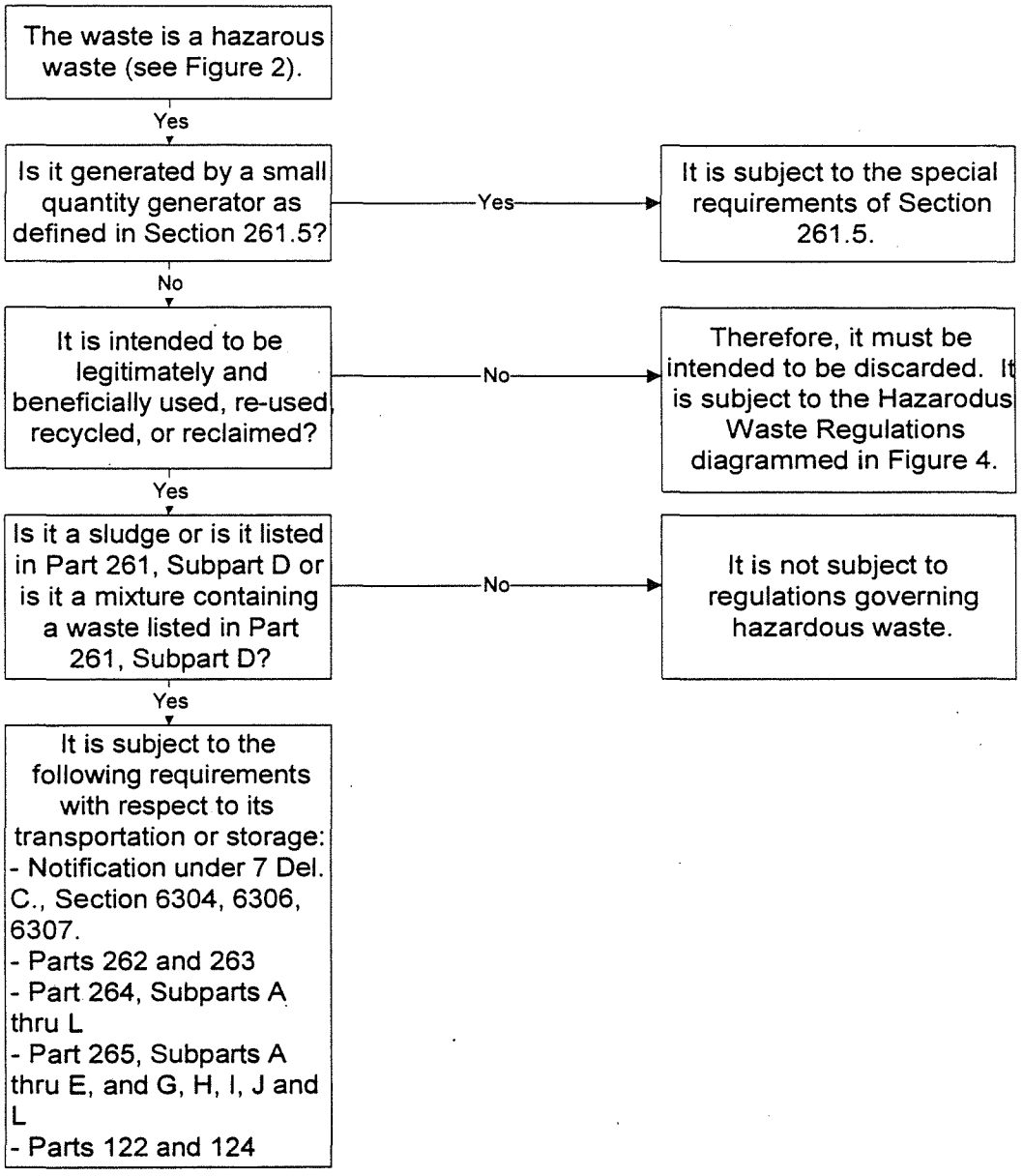


**Figure 3**

**Special Provisions for Certain Hazardous Waste**




NOTE: The figures contained within Appendix I of Part 260 were last amended by EPA in 1983, therefore, may not present a complete and accurate picture of the current regulations.

# Part 261 - Identification and Listing of Hazardous Waste

## Subpart A - General

**Section 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, Part 268 and Parts 122 through 124 of these regulations and which are subject to the notification 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 266, 268 and 122 and establishes special management requirements for hazardous waste produced by conditionally exempt small quantity generators and hazardous waste which is recycled.

(2) Subpart B sets forth the criteria used by 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)(1) The definition of solid waste contained in this part applies only to wastes that also are hazardous for purposes of the regulations implementing 7 Del. C., Chapter 63. For example, it does not apply to materials (such as non-hazardous scrap, paper, textiles, or rubber) that are not otherwise hazardous wastes and that are recycled.

(2) This part identifies only some of the materials which are solid wastes and hazardous wastes under 7 Del. C., §§6308, 6309, 6310. A material which is not defined as solid waste in this part, or is not a hazardous waste identified or listed in this part, is still a solid waste and a hazardous waste for purposes of these sections if:

(i) In the case of 7 Del. C. §6309 and §6310, DNREC has reason to believe that the material may be a solid waste within the meaning of 7 Del. C., §6302(12) and a hazardous waste within the meaning of 7 Del. C., §6302(7) or

(ii) In the case of 7 Del. C. §6308 the statutory elements are established.

(c) For the purposes of §§261.2 and 261.6:

(1) A **spent material** is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing;

(2) **Sludge** has the same meaning used in §260.10 of these regulations;

(3) A **by-product** is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(4) A material is **reclaimed** if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(5) A material is **used or reused** if it is either:

(i) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(ii) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(6) **Scrap metal** is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.

(7) A material is **recycled** if it is used, reused, or reclaimed.

(8) A material is **accumulated speculatively** if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that material is potentially recyclable and has a feasible means of being recycled; and that - during the calendar year (commencing on January 1) - the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under §261.4(c) are not be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

(9) "Excluded scrap metal" is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

(10) "Processed scrap metal" is scrap metal which has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes, but is not limited to scrap metal which has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type (i.e., sorted), and, fines, drosses and related materials which have been agglomerated. (Note: shredded circuit boards being sent for recycling are not considered processed scrap metal. They are covered under the exclusion from the definition of solid waste for shredded circuit boards being recycled (§261.4(a)(13)).

(11) "Home scrap metal" is scrap metal as generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

(12) "Prompt scrap metal" is scrap metal as generated by the metal working/fabrication industries and includes such scrap metal as turnings, cuttings, punchings, and borings. Prompt scrap is also known as industrial or new scrap metal.

(Amended November 21, 1985; August 29, 1988; August 10, 1990, January 1, 1999)

**Section 261.2 Definition of solid waste.**

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

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

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

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

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

(iv) A "military munition" identified as a solid waste in §266.202.

(b) Materials are solid waste if they are **abandoned** by being:

(1) Disposed of; or

(2) Burned or incinerated; or

(3) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

(c) Materials are solid wastes if they are **recycled** - or accumulated, stored, or treated before recycling - as specified in paragraphs (c)(1) through (c)(4) of this section.

(1) **Used in a manner constituting disposal.**

(i) Materials noted with a * in Column 1 of Table 1 are solid wastes when they are:

(A) Applied to or placed on the land in a manner that constitutes disposal: or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in §261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) **Burning for energy recovery.**

(i) Materials noted with a * in column 2 of Table 1 are solid wastes when they are:

(A) Burned to recover energy.

(B) Used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste).

(ii) However, commercial chemical products listed in §261.33 are not solid wastes if they are themselves fuels.

(3) **Reclaimed.** Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed (except as provided under §261.4(a)(17)). Materials noted with a "---" in column 3 of Table 1 are not solid wastes when reclaimed (except as provided under §261.4(a)(17)).

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

**TABLE 1**

| | Use constituting disposal (§261.2(c)(1) 1 | Energy recovery/fuel (§261.2(c)(2) 2 | Reclamation (§261.2(c)(3) (except as provided in §261.4(a)(17) for mineral processing secondary materials) 3 | Speculative Accumulation (§261.2(c)(4) 4 |
|---|---|---|---|---|
| Spent Materials. | (*) | (*) | (*) | (*) |
| Sludges (listed in Part 261.31 or 261.32. | (*) | (*) | (*) | (*) |
| Sludges exhibiting a characteristic of hazardous waste. | (*) | (*) | ---------- | (*) |
| By-products (listed in §§ 261.31 or 261.32. | (*) | (*) | (*) | (*) |
| By-products exhibiting a characteristic of hazardous waste. | (*) | (*) | ---------- | (*) |

| | | | | |
|---|---|---|---|---|
| Commercial chemical products listed in §261.33. | (*) | (*) | ---------- | ---------- |
| Scrap metal other than excluded scrap metal (see §261.1(c)(9)). | (*) | (*) | (*) | (*) |

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

(d) **Inherently waste-like materials.** The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of the generation), F022, F023, F026, and F028. If the Administrator accepts these wastes as hazardous wastes, the Secretary will use the following criteria to add wastes to that list:

(i)(A) The materials are ordinarily disposed of, burned, or incinerated; or

(B) The materials contain toxic constituents listed in Appendix VIII of Part 261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health and the environment when recycled.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in Subparts C or D of this part, except for brominated material that meets the following criteria:

(i) The material must contain a bromine concentration of at least 45%; and

(ii) The material must contain less than a total of 1% of toxic organic compounds listed in Appendix VIII; and

(iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).

(3) The Secretary will use the following criteria to add wastes to that list:

(i)(A) The materials are ordinarily disposed of, burned or incinerated; or

(B) The materials contain toxic constituents listed in Appendix VIII of Part 261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) **Materials that are not solid waste when recycled.**

(1) Materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land. In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at §261.4(a)(17) apply rather than this paragraph.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1)(i)-(iii) of this section):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(iii) Materials accumulated speculatively; or

(iv) Materials listed in paragraphs (d)(1) and (d)(2) of this section.

(f) **Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.** Respondents in actions to enforce regulations implementing 7 Del. C, Chapter 63 who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

(Amended November 21, 1985; August 29, 1988; July 26, 1994, August 1, 1995, July 23, 1996, August 21, 1997, January 1, 1999, August 23, 1999, June 2, 2000)

**Section 261.3 Definition of hazardous waste.**

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

(1) It is not excluded from regulation as a hazardous waste under §261.4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in Subpart C of this part. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under §261.4(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste under Subpart C is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred, or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in Table 1 to §261.24 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.

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

(iii) It is a mixture of a solid waste and a hazardous waste that is listed in Subpart D of this part solely because it exhibits one or more of the characteristics of hazardous waste identified in Subpart C of this part, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in Subpart C of this part, or unless the solid waste is excluded from regulation under §261.4(b)(7) and the resultant mixture no longer exhibits any characteristic of hazardous waste identified in Subpart C of this part for which the hazardous waste listed in Subpart D of this part was listed. (However, nonwastewater mixtures are still subject to the requirements of Part 268 of these regulations, even if they no longer exhibit a characteristic at the point of land disposal).

(iv) It is a mixture of solid waste and one or more hazardous wastes listed in Subpart D 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 §402 or §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 waster water) divided by the average weekly flow of waste water 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, 0-dichlorobenzene cresols, cresylic acid nitrobenzene, toluene, methylethylketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents - provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pre-treatment system does not exceed 25 parts per million; or

(C) One of the following wastes listed in §261.32, provided that the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation-heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050), crude oil storage tank sediment from petroleum refining operations (EPA Hazardous Waste No. K169), clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations (EPA Hazardous Waste No. K170), spent hydrotreating catalyst (EPA Hazardous Waste No. K171), and spent hydrorefining catalyst (EPA Hazardous Waste No. K172); or

(D) A discarded 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 packing seals; sample purgings; relief device discharges; discharges from safety shoes and rinsing and cleaning of personal safety equipment; and reinstate 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 that the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system, or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation; or

(F) One or more of the following wastes listed in §261.32 - wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K157) - Provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that can not be demonstrated to be reacted in the process, destroyed through treatment, or is recovered, i.e., what is discharged or volatilized) divided by the average weekly flow of process wastewater prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 parts per million by weight; or

(G) Wastewaters derived from the treatment of one or more of the following wastes listed in §261.32 - organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K156). - Provided, that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 milligrams per liter.

(v) Rebuttable presumption for used oil. Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in Subpart D of Part 261 of these regulations. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Third Edition, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of Part 261 of these regulations). EPA Publication SW-846, Third Edition, is available for the cost of $110.00 from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. ((202) 783-3238 - document number 955-001-00000-1).

(A) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a written contractual agreement (tolling agreement), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

NOTE: The contractual agreement, e.g., tolling agreement, must indicate the type of used oil and the frequency of shipments; the Delaware Waste Transporter Permit Number; and that the reclaimed oil will be returned to the generator.

(B) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(b) A solid waste which is not excluded from regulation under paragraph (a)(1) of this section becomes a hazardous waste when any of the following events occur:

(1) In the case of a waste listed in Subpart D, 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)(i) Except as otherwise provided in paragraph (c)(2)(ii) of this section, any solid waste generated from the treatment, storage or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust or leachate (but not including precipitation run-off), is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste:

(A) **[Reserved]**

(B) Waste from burning any of the materials exempted from regulation by §261.6(a)(3)(iii) and (vi).

(C)(*1*) Nonwastewater residues, such as slag, resulting from high temperature metals recovery (HTMR) processing of K061, K062 or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces (as defined in paragraphs (6), (7), and (13) of the definition for "Industrial furnace" in 260.10), that are disposed in Subtitle D units, provided that these residues meet the generic exclusion levels identified in the tables in this paragraph for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

| Constituent | Maximum for any single composite sample-TCLP (mg/l) |
|---|---|
| Generic exclusion levels for K061 and K062 nonwastewater HTMR residues | |
| Antimony | 0.10 |
| Arsenic | 0.50 |
| Barium | 7.6 |
| Beryllium | 0.010 |
| Cadmium | 0.050 |
| Chromium (total) | 0.33 |
| Lead | 0.15 |
| Mercury | 0.009 |
| Nickel | 1.0 |
| Selenium | 0.16 |
| Silver | 0.30 |
| Thallium | 0.020 |
| Zinc | 70 |
| Generic exclusion levels for F006 nonwastewater HTMR residues | |
| Antimony | 0.10 |
| Arsenic | 0.50 |
| Barium | 7.6 |
| Beryllium | 0.010 |

| | |
|---|---|
| Cadmium | 0.050 |
| Chromium (total) | 0.33 |
| Cyanide (total) (mg/kg) | 1.8 |
| Lead | 0.15 |
| Mercury | 0.009 |
| Nickel | 1.0 |
| Selenium | 0.16 |
| Silver | 0.30 |
| Thallium | 0.020 |
| Zinc | 70 |

(2) A one-time notification and certification must be placed in the facility's files and sent to EPA and DNREC for K061, K062 or F006 HTMR residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to RCRA Subtitle D units. The notification and certification that is placed in the generators or treaters files must be updated if the process or operation generating the waste changes and/or if the RCRA Subtitle D unit receiving the waste changes. However, the generator or treater need only notify the EPA and DNREC on an annual basis if such changes occur. Such notification and certification should be sent to EPA and DNREC by the end of the calendar year, but no later than December 31. The notification must include the following information: The name and address of the RCRA Subtitle D unit receiving the waste shipments; the Hazardous Waste Number(s) and treatability group(s) at the initial point of generation; and, the treatment standards applicable to the waste at the point of generation. The certification must be signed by an authorized representative and must state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

(D) Biological treatment sludge from the treatment of one of the following wastes listed in §261.32 - organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K156), and wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K157).

(E) Catalyst inert support media separated from one of the following wastes listed in §261.32 - Spent hydrotreating catalyst (EPA Hazardous Waste No. K171), and Spent hydrorefining catalyst (EPA Hazardous Waste No. K172).

(d) Any solid waste described in paragraph (c) of this section is not a hazardous waste if it meets the following criteria:

(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in Subpart C. (However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of Part 268, even if they no longer exhibit a characteristic at the point of land disposal.

(2) In the case of a waste which is a listed waste under Subpart D of this part, contains a waste listed under Subpart D of this part, or is derived from a waste listed in Subpart D of this part, it also is excluded from paragraph (c) of this section under §§ 260.20 and 260.22 of these regulations.

(e) **[Reserved]**

(f) Notwithstanding paragraphs (a) through (d) of this section and provided the debris as defined in Part 268 of these regulations does not exhibit a characteristic identified at Subpart C of this part, the following materials are not subject to regulation under Parts 260, 261 to 266, 268, or 122:

(1) Hazardous debris as defined in Part 268 of these regulations that has been treated using one of the required extraction or destruction technologies specified in Table 1 of §268.45 of these regulations; persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or

(2) Debris as defined in Part 268 of these regulations that the Secretary, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

(Amended November 21, 1985; August 29, 1988; August 10, 1990; June 19, 1992; July 26, 1994, August 1, 1995, August 21, 1997, August 23, 1999)

**Section 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 sewage system to a publicity-owned treatment works for treatment. **Domestic sewage** means untreated sanitary wastes that pass through a sewage system.

(2) Industrial wastewater discharges that are point source discharges subject to regulation under §402 of the Clean Water Act as amended.

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

(3) Irrigation return flows.

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

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

(6) Pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in §261.1(c) of these regulations.

(7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in §261.1(c) of these regulations.

(8) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided:

(i) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(ii) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces, or incinerators);

(iii) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and

(iv) The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

(9)(i) Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose; and

(ii) Wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood.

(iii) Prior to reuse, the wood preserving wastewaters and spent wood preserving solutions described in (a)(9)(i) and (a)(9)(ii) of this section, so long as they meet all of the following conditions:

(A) The wood preserving wastewaters and spent wood preserving solutions are reused on-site at water borne plants in the production process for their original intended purpose;

(B) Prior to reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or groundwater or both;

(C) Any unit used to manage wastewaters and/or spent wood preserving solutions prior to reuse can be visually or otherwise determined to prevent such releases;

(D) Any drip pad used to manage the wastewaters and/or spent wood preserving solutions prior to reuse complies with the standards in Part 265, Subpart W of these regulations, regardless of whether the plant generates a total of less than 100 kg/month of hazardous waste; and

(E) Prior to operating pursuant to this exclusion, the plant owner or operator submits to the Secretary one-time notification stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following language: "I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation." The plant must maintain a copy of that document in its on-site records for a period of no less than 3 years from the date specified in the notice. The exclusion applies only so long as the plant meets all of the conditions. If the plant goes out of compliance with any condition, it may apply to the Secretary for reinstatement. The Secretary may reinstate the exclusion upon finding that the plant has returned to compliance with all conditions and that violations are not likely to recur.

(10) EPA Hazardous Waste Nos. K060, K087, K141, K142, K143, K144, K145, K147, and K148 and any wastes from the coke by-products processes that are hazardous only because they exhibit the Toxicity Characteristic (TC) specified in §261.24 of this part, when, subsequent to generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar or mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or the tar recovery or refining processes, or mixed with coal tar.

(11) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery.

(12)(i) Oil-bearing hazardous secondary materials (i.e., sludges, byproducts, or spent materials) that are generated at a petroleum refinery (SIC code 2911) and are inserted into the petroleum refining process (SIC code 2911 - including, but not limited to, distillation, catalytic cracking, fractionation, or thermal cracking units (i.e., cokers)) unless the material is placed on the land, or speculatively accumulated before being so recycled. Materials inserted into thermal cracking units are excluded under this paragraph, provided that the coke product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the same petroleum refinery where they are generated, or sent directly to another petroleum refinery, and still be excluded under this provision. Except as provided in paragraph (a)(12)(ii) of this section, oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry (i.e., from sources other than petroleum refineries) are not excluded under this section. Residuals generated from processing or recycling materials excluded under this paragraph, where such materials as generated would have otherwise met a listing under Part 261, Subpart D, are designated as F037 listed wastes when disposed of or intended for disposal.

(ii) Recovered oil that is recycled in the same manner and with the same conditions as described in paragraph (a)(12)(i) of this section. Recovered oil is oil that has been reclaimed from secondary materials (including wastewater) generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto (SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172). Recovered oil does not include oil-bearing hazardous wastes listed in Part 261 Subpart D; however, oil recovered from such wastes may be considered recovered oil. Recovered oil does not include used oil as defined in §279.1.

(13) Excluded scrap metal (processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled.

(14) Shredded circuit boards being recycled provided that they are:

(i) Stored in containers sufficient to prevent a release to the environment prior to recovery; and

(ii) Free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

(15) **[Reserved]**

(16) Comparable fuels or comparable syngas fuels (i.e., comparable, syngas fuels) that meet the requirements of §261.38.

(17) Secondary materials (i.e., sludges, by-products, and spent materials as defined in §261.1) (other than hazardous wastes listed in Subpart D of this Part) generated within the primary mineral processing industry from which minerals, acids, cyanide, water or other values are recovered by mineral processing, provided that:

(i) The secondary material is legitimately recycled to recover minerals, acids, cyanide, water or other values;

(ii) The secondary material is not accumulated speculatively;

(iii) Except as provided in (a)(17)(iv), the secondary material is stored in tanks, containers, or buildings meeting the following minimum integrity standards: a building must be an engineered structure with a floor, walls, and a roof all of which are made of non-earthen materials providing structural support (except smelter buildings may have partially earthen floors provided the secondary material is stored on the non-earthen portion), and have a roof suitable for diverting rainwater away from the foundation; a tank must be free standing, not be a surface impoundment (as defined in §260.10), and be manufactured of a material suitable for containment of its contents; a container must be free standing and be manufactured of a material suitable for containment of its contents. If tanks or containers contain any particulate which may be subject to wind dispersal, the owner/operator must operate these units in a manner which controls fugitive dust. Tanks, containers, and buildings must be designed, constructed and operated to prevent significant releases to the environment of these materials.

(iv) The Secretary may make a site-specific determination, after public review and comment, that only solid mineral processing secondary materials may be placed on pads, rather than in tanks, containers, or buildings. Solid mineral processing secondary materials do not contain any free liquid. The decision-maker must affirm that pads are designed, constructed and operated to prevent significant releases of the secondary material into the environment. Pads must provide the same degree of containment afforded by the non-RCRA tanks, containers and buildings eligible for exclusion.

(A) The decision-maker must also consider if storage on pads poses the potential for significant releases via groundwater, surface water, and air exposure pathways. Factors to be considered for assessing the groundwater, surface water, air exposure pathways are: the volume and physical and chemical properties of the secondary material, including its potential for migration off the pad; the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway, and the possibility and extent of harm to human and environmental receptors via each exposure pathway.

(B) Pads must meet the following minimum standards: be designed of non-earthen material that is compatible with the chemical nature of the mineral processing secondary material, capable of withstanding physical stresses associated with placement and removal, have run on/runoff controls, be operated in a manner which controls fugitive dust, and have integrity assurance through inspections and maintenance programs.

(C) Before making a determination under this paragraph, the Secretary must provide notice and the opportunity for comment to all persons potentially interested in the determination. This can be accomplished by placing notice of this action in major local newspapers, or broadcasting notice over local radio stations.

(v) The owner or operator provides a notice to the Secretary, identifying the following information: the types of materials to be recycled; the type and location of the storage units and recycling processes; and the annual quantities expected to be placed in non land-based units. This notification must be updated when there is a change in the type of materials recycled or the location of the recycling process.

(vi) For purposes of §261.4(b)(7), mineral processing secondary materials must be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and characteristic hazardous wastes generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.

(17) Comparable fuels or comparable syngas fuels (i.e., comparable, syngas fuels) that meet the requirements of §261.38.

(18) Petrochemical recovered oil from an associated organic chemical manufacturing facility, where the oil is to be inserted into the petroleum refining process (SIC code 2911) along with normal petroleum refinery process streams, provided:

(i) the oil is hazardous only because it exhibits the characteristic of ignitability (as defined in Section 261.21) and/or toxicity for benzene (§261.24, waste code D018), and

(ii) the oil generated by the organic chemical manufacturing facility is not placed on the land, or speculatively accumulated before being recycled into the petroleum refining process. An "associated organic chemical manufacturing facility" is a facility where the primary SIC code is 2869, but where operations may also include SIC codes 2821, 2822, and 2865; and is physically co-located with a petroleum refinery; and where the petroleum refinery to which the oil being recycled is returned also provides hydrocarbon feedstocks to the organic chemical manufacturing facility. "Petrochemical recovered oil" is oil that has been reclaimed from secondary materials (i.e., sludges, byproducts, or spent materials, including wastewater) from normal organic chemical manufacturing operations, as well as oil recovered from organic chemical manufacturing processes.

(19) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed on the land, or accumulated speculatively as defined in §261.1(c).

(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 material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas). A resource recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if such facility:

(i) Receives and burns only

(A) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources) and

(B) Solid waste from commercial or industrial sources that does not contain hazardous waste; and

(ii) Such facility does not accept hazardous wastes and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

(2) Solid wastes generated by any of the following and which are returned to the soils as fertilizers:

(i) The growing and harvesting of agricultural crops.

(ii) The raising of animals, including animal manures.

(3) Mining overburden returned to the mine site.

(4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste, generated primarily from the combustion of coal or other fossil fuels, except as provided by §266.112 of these regulations for facilities that burn or process hazardous waste.

(5) Drilling fluids, produced waters, and other wastes associated with the exploration development, or production of crude oil, natural gas or geothermal energy.

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

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

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

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

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

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

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

(C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry; hairpulp/ chrome tan/retan/wet finish; hair save/chrome tan/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; hairpulp/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 $TiO_2$ pigment using chromium-bearing ores by the chloride process.

(7) Solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock, and overburden from the mining of uranium ore), except as provided by §266.112 of these regulations for facilities that burn or process hazardous waste.

(i) For purposes of §261.4(b)(7) beneficiation of ores and minerals is restricted to the following activities; crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water and/or carbon dioxide; roasting, autoclaving, and/or chlorination in preparation for leaching (except where the roasting (and/or autoclaving and/or chlorination)/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in situ leaching.

(ii) For the purposes of §261.4(b)(7), solid waste from the processing of ores and minerals includes only the following wastes as generated:

(A) Slag from primary copper processing;

(B) Slag from primary lead processing;

(C) Red and brown muds from bauxite refining;

(D) Phosphogypsum from phosphoric acid production;

(E) Slag from elemental phosphorus production;

(F) Gasifier ash from coal gasification;

(G) Process wastewater from coal gasification;

(H) Calcium sulfate wastewater treatment plant sludge from primary copper processing;

(I) Slag tailings from primary copper processing;

(J) Fluorogypsum from hydrofluoric acid production;

(K) Process wastewater from hydrofluoric acid production;

(L) Air pollution control dust/sludge from iron blast furnaces;

(M) Iron blast furnace slag;

(N) Treated residue from roasting/leaching of chrome ore;

(O) Process wastewater from primary magnesium processing by the anhydrous process;

(P) Process wastewater from phosphoric acid production;

(Q) Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production;

(R) Basic oxygen furnace and open hearth furnace slag from carbon steel production;

(S) Chloride process waste solids from titanium tetrachloride production;

(T) Slag from primary zinc processing.

(iii) A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under paragraph (b) of this section if the owner or operator:

(A) Processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials; and,

(B) Legitimately reclaims the secondary mineral processing materials.

(8) Cement kiln dust waste, except as provided by §266.112 of these regulations for facilities that burn or process hazardous waste.

(9) Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(10) Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of §261.24 (Hazardous Waste Codes D018 through D043 only) and are subject to the corrective action regulations under 7 Del. C., Chapter 74, Delaware Underground Storage Tank Act.

(11) **[Reserved]**

(12) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

(13) Non-terne plated used oil filters that are not mixed with wastes listed in Subpart D of this part if these oil filters have been gravity hot-drained using one of the following methods:

(i) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;

(ii) Hot-draining and crushing;

(iii) Dismantling and hot-draining; or

(iv) Any other equivalent hot-draining method that will remove used oil.

(14) Used oil re-fining distillation bottoms that are used as feedstock to manufacture asphalt products.

(15) Leachate or gas condensate collected from landfills where certain solid wastes have been disposed, provided that:

(i) The solid wastes disposed would meet one or more of the listing descriptions for Hazardous Waste Codes K169, K170, K171, and K172 if these wastes had been generated after the effective date of the listing (February 8, 1999);

(ii) The solid wastes described in paragraph (b)(15)(i) of this section were disposed prior to the effective date of the listing;

(iii) The leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste;

(iv) Discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a POTW by truck, rail, or dedicated pipe, is subject to regulation under sections 307(b) or 402 of the Clean Water Act.

(v) After February 13, 2001, leachate or gas condensate will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. There is one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation (e.g., shutdown of wastewater treatment system), provided the impoundment has a double liner, and provided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of this paragraph after the emergency ends.

(c) Hazardous wastes which are exempted from certain regulations. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under Parts 262 through 265, 268, 122 or 124 of these regulations or to the notification requirements of 7 Del. C. §§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 manufacturing, or for storage or transportation of product or raw materials.

(d) Samples.

(1) Except as provided in paragraph (d)(2) of this section, a sample of solid waste or sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this Part of Parts 262 through 268, or 122 or 124 of these regulations or to the notification requirements of 7 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 requirements; or

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

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

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

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

(3) The quantity of the sample;

(4) The date of shipment; and

(5) A description of the sample.

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

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

(e) Treatability Study Samples.

(1) Except as provided in paragraph (e)(2) of this section, persons who generate or collect samples for the purpose of conducting treatability studies as defined in §260.10, are not subject to any requirement of Parts 261 through 263 of these regulations or to the notification requirements of 7 Del. C., Chapter 63, nor are such samples included in the quantity determinations of §261.5 and §262.34(d) when:

(i) The sample is being collected and prepared for transportation by the generator or sample collector; or

(ii) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or

(iii) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.

(2) The exemption in paragraph (e)(1) of this section is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:

(i) The generator or sample collector uses (in "treatability studies") no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated waste stream; and

(ii) The mass of each sample shipment does not exceed 10,000 kg; the 10,000 kg quantity may be all media contaminated with non-acute hazardous waste, or may include 2500 kg of media contaminated with acute hazardous waste, 1000 kg of hazardous waste, and 1 kg of acute hazardous waste; and

(iii) The sample must be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of paragraph A or B of this subparagraph are met.

(A) The transportation of each sample shipment complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

(B) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample:

(1) The name, mailing address, and telephone number of the originator of the sample; annual report.

(2) The name, address, and telephone number of the facility that will perform the treatability study;

(3) The quantity of the sample;

(4) The date of shipment; and

(5) A description of the sample, including its EPA Hazardous Waste Number.

(iv) The sample is shipped to a laboratory or testing facility which is exempt under §261.4(f) or has an appropriate RCRA permit or interim status.

(v) The generator or sample collector maintains the following records for a period ending 3 years after completion of the treatability study:

(A) Copies of the shipping documents;

(B) A copy of the contract with the facility conducting the treatability study;

(C) Documentation showing:

(*1*) The amount of waste shipped under this exemption;

(*2*) The name, address, and EPA identification number of the laboratory or testing facility that received the waste;

(*3*) The date the shipment was made; and

(*4*) Whether or not unused samples and residues were returned to the generator.

(vi) The generator reports the information required under paragraph (e)(v)(C) of this section in its annual report.

(3) The Secretary may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The Secretary may grant requests on a case-by-case basis for quantity limits in excess of those specified in paragraphs (e)(2) (i) and (ii) and (f)(4) of this section, for up to an additional 5000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste and 1 kg of acute hazardous waste:

(i) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests include the nature of the technology, the type of process (e.g., batch versus continuous), size of the unit undergoing testing (particularly in relation to scale-up considerations), the time/quantity of material required to reach steady state operating conditions, or test design considerations such as mass balance calculations.

(ii) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, when: There has been an equipment or mechanical failure during the conduct of a treatability study; there is a need to verify the results of a previously conducted treatability study; there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.

(iii) The additional quantities and timeframes allowed in paragraph (e)(3)(i) and (ii) of this section are subject to all the provisions in paragraphs (e)(1) and (e)(2)(iii) through (vi) of this section. The generator or sample collector must apply to the DNREC Secretary and provide in writing the following information:

(A) The reason why the generator or sample collector requires additional time or quantity of sample for treatability study evaluation and the additional time or quantity needed;

(B) Documentation accounting for all samples of hazardous waste from the waste stream which have been sent for or undergone treatability studies including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results on each treatability study;

(C) A description of the technical modifications or change in specifications which will be evaluated and the expected results;

(D) If such further study is being required due to equipment or mechanical failure, the applicant must include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and

(E) Such other information that the Secretary considers necessary.

(f) Samples Undergoing Treatability Studies at Laboratories and Testing Facilities. Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to RCRA requirements) are not subject to any requirement of this Part, Part 124, Parts 262-266, 268, and 122, or to the notification requirements of 7 Del. C., Chapter 63 provided that the conditions of paragraphs (f)(1) through (11) of this section are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to paragraphs (f)(1) through (11) of this section. Where a group of MTUs are located at the same site, the limitations specified in (f)(1) through (11) of this section apply to the entire group of MTUs collectively as if the group were one MTU.

(1) No less than 45 days before conducting treatability studies, the facility notifies the Secretary in writing that it intends to conduct treatability studies under this paragraph.

(2) The laboratory or testing facility conducting the treatability study has an EPA identification number.

(3) No more than a total of 10,000 kg of "as received" media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste or 250 kg of other "as received" hazardous waste is subject to initiation of treatment in all treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.

(4) The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials (including nonhazardous solid waste) added to "as received" hazardous waste.

(5) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year (two years for treatability studies involving bioremediation) have elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

(6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

(7) The facility maintains records for 3 years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:

(i) The name, address, and EPA identification number of the generator or sample collector of each waste sample;

(ii) The date the shipment was received;

(iii) The quantity of waste accepted;

(iv) The quantity of "as received" waste storage each day;

(v) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;

(vi) The date the treatability study was concluded;

(vii) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the EPA identification number.

(8) The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending 3 years from the completion date of each treatability study.

(9) The facility prepares and submits a report to the Secretary by March 15 of each year that estimates the number of studies and the amount of waste expected to be used in treatability studies during the current year, and includes the following information for the previous calendar year:

(i) The name, address, and EPA identification number of the facility conducting the treatability studies;

(ii) The types (by process) of treatability studies conducted;

(iii) The names and addresses of persons for whom studies have been conducted (including their EPA identification numbers);

(iv) The total quantity of waste in storage each day;

(v) The quantity and types of waste subjected to treatability studies;

(vi) When each treatability study was conducted;

(vii) The final disposition of residues and unused sample from each treatability study;

(10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under §261.3 and, if so, are subject to Parts 261 through 268, and Part 122 of these regulations, unless the residues and unused samples are returned to the sample originator under the §261.4(e) exemption.

(11) The facility notifies the Secretary by letter when the facility is no longer planning to conduct any treatability studies at the site.

(g) Dredged material that is not a hazardous waste. Dredged material that is subject to the requirements of a permit that has been issued under 404 of the Federal Water Pollution Control Act (33 U.S.C.1344) or Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413) is not a hazardous waste. For this paragraph (g), the following definitions apply:

(1) The term dredged material has the same meaning as defined in 40 CFR 232.2;

(2) The term permit means:

(i) A permit issued by the U.S. Army Corps of Engineers (Corps) or an approved State under Section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344);

(ii) A permit issued by the Corps under Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413); or

(iii) In the case of Corps civil works projects, the administrative equivalent of the permits referred to in paragraphs (g)(2)(i) and (ii) of this section, as provided for in Corps regulations (for example, see 33 CFR 336.1, 336.2, and 337.6).

(Amended November 21, 1985; May 8, 1986; August 29, 1988; August 10, 1990; July 26, 1994, August 1, 1995, August 21, 1997, January 1, 1999, August 23, 1999, June 2, 2000)

**Section 261.5 Special conditions for hazardous waste generated by conditionally exempt small quantity generators.**

(a) A generator is a conditionally exempt small quantity generator in a calendar month if he generates no more than 100 kilograms of hazardous waste in that month.

(b) Except for those wastes identified in paragraphs (e), (f), (g), and (j) of this section, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under Parts 262 through 266, 268 and Parts 122 and 124 of these regulations, and the notification requirements of 7 Del. C., Chapter 63, provided the generator complies with the requirements of paragraphs (f), (g), and (j) of this section.

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

(1) Is exempt from regulation under 261.4(c) through (f), 261.6(a)(3), 261.7(a)(1), or 261.8; or

(2) Is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in 260.10; or

(3) Is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under 261.6(c)(2); or

(4) Is used oil managed under the requirements of 261.6(a)(4) and Part 279; or

(5) Is spent lead-acid batteries managed under the requirements of Part 266, Subpart G; or

(6) Is universal waste managed under 261.9 and Part 273.

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

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

(2) Hazardous waste produced by on-site treatment (including reclamation) of his hazardous waste, so long as the hazardous waste that is treated was counted once; or

(3) Spent materials that are generated, reclaimed, and subsequently reused on-site, so long as such spent materials have been counted once.

(e) If a generator generates acute hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acute hazardous waste are subject to full regulation under Parts 262 through 266, 268 and Parts 122 and 124 of these regulations, and the notification requirements of 7 Del. C., Chapter 63:

(1) A total of one kilogram of acute hazardous wastes listed in §§261.31, 261.32, or 261.33(e).

(2) A total of 100 kilograms of any residue or contaminated soil, waste, or other debris resulting from the clean-up of a spill, into or on any land or water, of any acute hazardous wastes listed in §§261.31, 261.32, or 261.33(e).

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

(f) In order for acute hazardous wastes generated by a generator of acute hazardous wastes in quantities equal to or less than those set forth in paragraph (e)(1) or (e)(2) of this section to be excluded from full regulation under this section, the generator must comply with the following requirements:

(1) Section 262.11 of these regulations;

(2) The generator may accumulate acute hazardous waste on-site. If he accumulates at any time acute hazardous wastes in quantities greater than those set forth in paragraphs (e)(1) or (e)(2) of this section, all of those accumulated wastes are subject to regulation under Parts 262 through 266, 268 and Parts 122 and 124 of these regulations, and the applicable notification requirements of 7 Del. C., Chapter 63. The time period of §262.34(a) of these regulations for accumulation of wastes on-site begins when the accumulated wastes exceed the applicable exclusion limit;

(3) A conditionally exempt small quantity generator may either treat or dispose of his acute hazardous waste in an on-site facility or ensure, by maintaining for a period of three years, appropriate documentation (i.e., tolling agreement, letter of acceptance, manifest or other documentation deemed acceptable by the Secretary) demonstrating delivery to an off-site treatment, storage or disposal facility, either of which, if located in the U.S. is:

(i) Permitted under Part 122 of these regulations;

(ii) In interim status under Parts 122 and 265 of these regulations;

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

(iv) **[Reserved]**

(v) A facility which:

(A) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(B) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

(vi) For universal waste managed under Part 273 of these regulations, a universal waste handler or destination facility subject to the requirements of Part 273 of these regulations.

(4) Complies with §265.173 of these regulations;

(5) Marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers;

(6) The requirements of §261.5(f)(3) are not intended to restrict or prohibit conditionally exempt small quantity generator participation in household hazardous waste collection activities approved by the Secretary.

(g) In order for hazardous waste generated by a conditionally exempt small quantity generator in quantities of less than 100 kilograms of hazardous waste during a calendar month to be excluded from full regulation under this section, the generator must comply with the following requirements:

(1) Section 262.11 of these regulations;

(2) The conditionally exempt small quantity generator may accumulate hazardous waste on-site. If he accumulates at any time more than a total of 1000 kilograms of his hazardous wastes, all of those accumulated wastes are subject to regulation under the special provisions of Part 262 applicable to generators of between 100 kg and 1000 kg of hazardous waste in a calendar month as well as the requirements of Parts 263 through 266, 268 and Parts 122 and 124 of these regulations, and the applicable notification requirements of 7 Del. C., Chapter 63. The time period of §262.34(d) for accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes exceed 1000 kilograms;

(3) A conditionally exempt small quantity generator may either treat or dispose of his hazardous waste in an on-site facility or ensure, by maintaining for a period of three years, appropriate documentation (i.e. tolling agreement, letter of acceptance, manifest or other documentation deemed acceptable by the Secretary) demonstrating delivery to an off-site treatment, storage or disposal facility, either of which, if located in the U.S., is:

(i) Permitted under Part 122 of these regulations;

(ii) In interim status under Parts 122 and 265 of these regulations;

(iii) Authorized to manage hazardous waste by a State with a hazardous waste program under Part 271 of 40 CFR;

(iv) **[Reserved]**

(v) A facility which:

(A) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(B) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

(vi) For universal waste managed under Part 273 of these regulations, a universal waste handler or destination facility subject to the requirements of Part 273 of these regulations.

(4) Complies with §265.173 of these regulations;

(5) Marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers;

(6) The requirements of §261.5(g)(3) are not intended to restrict or prohibit conditionally exempt small quantity generator participation in household hazardous waste collection activities approved by the Secretary.

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

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

(j) If a conditionally exempt small quantity generator's wastes are mixed with used oil, the mixture is subject to regulation under Parts 260 through 266, 268, 122 and 124 of these regulations.

(Amended November 21, 1985; May 8, 1986; August 29, 1988; August 10, 1990; July 26, 1994, July 23, 1996, August 21, 1997, January 1, 1999, August 23, 1999)

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

(a)(1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of paragraphs (b) and (c) of this section, except for the materials listed in paragraphs (a)(2) and (a)(3) of this section. Hazardous wastes that are recycled will be known as **recyclable materials.**

(2) The following recyclable materials are not subject to the requirements of this section but are regulated under Subparts C through H of Part 266 of these regulations, Subpart E of Part 263, and all applicable provisions in Parts 122 and 124 of these regulations:

(i) Recyclable materials used in a manner constituting disposal (Subpart C);

(ii) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under Subpart O of Part 264 or 265 of these regulations (Subpart H);

(iii) Recyclable materials from which precious metals are reclaimed (Subpart F);

(iv) Spent lead-acid batteries that are being reclaimed (Subpart G). Note: Spent lead-acid batteries destined for reclamation are not subject to the transporter permitting requirements of Part 263.

(3) The following recyclable materials are not subject to regulation under Parts 262 through 266 except Part 263 as applicable, Part 268 or Parts 122 or 124 of these regulations, and are not subject to the notification requirements of 7 Del. C., Chapter 63.

(i) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in §262.58;

(A) A person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, must comply with the requirements applicable to a primary exporter in §§262.53, 262.56(a)(1)-(4), (6), and (b), and 262.57, export such materials only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent, as defined in Subpart E of Part 262, and provide a copy of the EPA Acknowledgment of Consent to the shipment to the transporter transporting the shipment for export;

(B) Transporters transporting a shipment for export may not accept a shipment if he knows the shipment does not conform to the EPA Acknowledgment of Consent, must ensure that a copy of the EPA Acknowledgment of Consent accompanies the shipment and must ensure that it is delivered to the facility designated by the person initiating the shipment.

(ii) Scrap metal that is not excluded under §261.4(a)(13);

(iii) Fuels produced from the refining of oil-bearing hazardous waste along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices (this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, where such recovered oil is already excluded under §261.4(a)(12));

(iv)(A) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under §279.11 of these regulations and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

(B) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under §279.11 of these regulations; and

(C) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under §279.11 of these regulations.

(4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of Parts 260 through 268 of these regulations, but is regulated under Part 279 of these regulations. Used oil that is recycled includes any used oil which is reused, following its original use, for any purpose (including the purpose for which the oil was originally used). Such term includes, but is not limited to, oil which is re-refined, reclaimed, burned for energy recovery, or reprocessed.

(5) Hazardous waste that is exported to or imported from designated member countries of the Organization for Economic Cooperation and Development (OECD) (as defined in §262.58(a)(1)) for purpose of recovery is subject to the requirements of Part 262, Subpart H, if it is subject to either the manifesting requirements of Part 262 or to the universal waste management standards of Part 273.

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

(b) Generators and transporters of recyclable materials are subject to the applicable requirements of Parts 262 and 263 of these regulations and the notification requirements under 7 Del. C., Chapter 63 except as provided in paragraph (a) of this section.

(c)(1) Owners or operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of Subparts A through L, AA, BB and CC of Parts 264 and 265, and under Parts 122, 124, 266, and 268 of these regulations and the notification requirements under 7 Del. C., Chapter 63, except as provided in paragraph (a) of this section. (The recycling process itself is exempt from regulation except as provided in §261.6(d).)

(2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in paragraph (a) of this section:

(i) Notification requirements under 7 Del. C., Chapter 63;

(ii) Sections 265.71 and 265.72 (dealing with the use of the manifest and manifest discrepancies) of these regulations.

(iii) Section 261.6(d) of these regulations.

(d) Owners or operators of facilities subject to DNREC permitting requirements with hazardous waste management units that recycle hazardous wastes are subject to the requirements of Subparts AA and BB of Part 264 or 265 of these regulations.
(Amended November 21, 1985; August 29, 1988; May 17, 1990; August 10, 1990; July 26, 1994, August 1, 1995, July 23, 1996, August 21, 1997, January 1, 1999, August 23, 1999)

**Section 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 these regulations is not subject to regulation under Parts 261 through 265 of these regulations or Parts 268, 122 or 124 of these regulations or to the notification requirements of 7 Del. C. §§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 268, 122 and 124 of these regulations and to the notification requirements of 7 Del. C., §§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 as an acute hazardous waste listed in §§261.31, 261.32, or 261.33(e) 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 an acute hazardous waste listed in §§261.31, 261.32 or 261.33(e) is empty if:

(i) the container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemicals 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 of manufacturing chemical intermediate with the container, has been removed.
(Amended November 21, 1985; August 10, 1990, August 1, 1995)

**Section 261.8 PCB wastes regulated under Toxic Substances Control Act.**

The disposal of PCB-containing dielectric fluid and electric equipment containing such fluid authorized for use and regulated under 40 CFR Part 761 and that are hazardous only because they fail the test for the Toxicity Characteristic (Hazardous Waste Codes D018 through D043 only) are exempt from regulation under Parts 261 through 265, and Parts 268, 122, and 124 of these regulations, and the notification requirements of 7 Del. C., §§6304, 6306, and 6307.
(Amended June 19, 1992)

### §261.9 Requirements for Universal Waste.

The wastes listed in this section are exempt from regulation under Parts 262 through 268 and 122 of these regulations except as specified in Part 273 of these regulations and, therefore are not fully regulated as hazardous waste. The wastes listed in this section are subject to regulation under Part 273:

(a) Batteries as described in §273.2;
(b) Pesticides as described in §273.3 of these regulations;
(c) Thermostats as described in §273.4 of these regulations; and
(d) Lamps as described in §273.5 of these regulations.

(Amended July 23, 1996, June 2, 2000)

## Subpart B - Criteria for identifying the characteristic of hazardous waste and for listing hazardous waste.

### Section 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 other wise 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.

### Section 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, and after considering the following factors, the Secretary concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed:

(i) The nature of the toxicity presented by the constituent.

(ii) The concentration of the constituent in the waste.

(iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in paragraph (a)(3)(vii) of this section.

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

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

(vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.

(vii) The plausible types of improper management to which the waste could be subjected.

(viii) The quantities of the waste generated at individual 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).

(Amended June 19, 1992)

## Subpart C - Characteristics of hazardous waste

### Section 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: Section 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, is assigned every EPA Hazardous Waste Number that is applicable as set forth in this subpart. This number must be used in complying with the notification requirements of 7 Del. C., §§6304, 6306, and 6307 and all applicable recordkeeping and reporting requirements under Parts 262 through 265, 268, and 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.)

(Amended August 10, 1990; June 19, 1992)

**Section 261.21 Characteristics 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 60C (140F), 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 friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that creates a hazard.

(3) It is an ignitable compressed gas as defined in 49 CFR Part 173 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 Part 173.

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

(Amended June 19, 1992, January 1, 1999)

**Section 261.22 Characteristics 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 Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of these regulations.

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of these regulations.

(b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

(Amended June 19, 1992, July 23, 1996)

**Section 261.23 Characteristics 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 Part 173 or a Class A explosive as defined in 49 CFR Part 173 or a Class B explosive as defined in 49 CFR Part 173.

(b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

(Amended June 19, 1992, January 1, 1999)

**Section 261.24 Toxicity Characteristic.**

(a) A solid waste exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of these regulations, the extract from a representative sample of the waste contains any of the contaminants listed in table 1 at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of this section.

(b) A solid waste that exhibits the characteristic of toxicity has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

**Table 1. -- Maximum Concentration of Contaminants for the Toxicity Characteristic**

| EPA HW No [1] | Contaminant | CAS No. [2] | Regulatory Level (mg/L) |
|---|---|---|---|
| D004* | Arsenic | 7440-38-2 | 5.0 |
| D005* | Barium | 7440-39-3 | 100.0 |
| D018 | Benzene | 71-43-2 | 0.5 |
| D006* | Cadmium | 7440-43-9 | 1.0 |
| D019 | Carbon tetrachloride | 56-23-5 | 0.5 |
| D020 | Chlordane | 57-74-9 | 0.03 |
| D021 | Chlorobenzene | 108-90-7 | 100.0 |
| D022 | Chloroform | 67-66-3 | 6.0 |
| D007* | Chromium | 7440-47-3 | 5.0 |
| D023 | o-Cresol | 95-48-7 | [4] 200.0 |
| D024 | m-Cresol | 108-39-4 | [4] 200.0 |
| D025 | p-Cresol | 106-44-5 | [4] 200.0 |
| D026 | Cresol | ..... | [4] 200.0 |
| D016* | 2,4-D | 94-75-7 | 10.0 |
| D027 | 1,4-Dichlorobenzene | 106-46-7 | 7.5 |
| D028 | 1,2-Dichloroethane | 107-06-2 | 0.5 |
| D029 | 1,1-Dichloroethylene | 75-35-4 | 0.7 |
| D030 | 2,4-Dinitrotoluene | 121-14-2 | [3] 0.13 |
| D012* | Endrin | 72-20-8 | 0.02 |

| | | | |
|---|---|---|---|
| D031 | Heptachlor (and its epoxide) | 76-44-8 | 0.008 |
| D032 | Hexachlorobenzene | 118-74-1 | [3] 0.13 |
| D033 | Hexachlorobutadiene | 87-68-3 | 0.5 |
| D034 | Hexachloroethane | 67-72-1 | 3.0 |
| D008* | Lead | 7439-92-1 | 5.0 |
| D013* | Lindane | 58-89-9 | 0.4 |
| D009* | Mercury | 7439-97-6 | 0.2 |
| D014* | Methoxychlor | 72-43-5 | 10.0 |
| D035 | Methyl ethyl ketone | 78-93-3 | 200.0 |
| D036 | Nitrobenzene | 98-95-3 | 2.0 |
| D037 | Pentrachlorophenol | 87-86-5 | 100.0 |
| D038 | Pyridine | 110-86-1 | [3] 5.0 |
| D010* | Selenium | 7782-49-2 | 1.0 |
| D011* | Silver | 7440-22-4 | 5.0 |
| D039 | Tetrachloroethylene | 127-18-4 | 0.7 |
| D015* | Toxaphene | 8001-35-2 | 0.5 |
| D040 | Trichloroethylene | 79-01-6 | 0.5 |
| D041 | 2,4,5-Trichlorophenol | 95-95-4 | 400.0 |
| D042 | 2,4,6-Trichlorophenol | 88-06-2 | 2.0 |
| D017* | 2,4,5-TP (Silvex) | 93-72-1 | 1.0 |
| D043 | Vinyl chloride | 75-01-4 | 0.2 |

FOOTNOTE: [1] Hazardous waste number.
FOOTNOTE: [2] Chemical abstracts service number.
FOOTNOTE: [3] Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.
FOOTNOTE: [4] If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.
FOOTNOTE: * Original EP Toxicity Constituents
(Amended June 19, 1992, July 23, 1996)

## Subpart D - Lists of hazardous wastes

### Section 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) |
| Toxicity Characteristic Waste | (E) |
| Acute Hazardous Waste | (H) |
| Toxic Waste | (T) |

Appendix VII identifies the constituent which caused the Secretary to list the waste as a Toxicity Characteristic Waste (E) or Toxic Waste (T) in §§261.31 and 261.32.

(c) Each hazardous waste listed in this subpart is assigned a EPA 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 through 265, 268 and 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: EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026, and F027

(Amended November 21, 1985; August 10, 1990; June 19, 1992)

**Section 261.31 Hazardous waste from non-specific sources.**

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

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

| | | |
|---|---|---|
| | of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | |
| F005 | The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | (I,T) |
| F006 | Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum. | (T) |
| F007 | Spent cyanide plating bath solutions from electroplating operations. | (R, T) |
| F008 | Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process. | (R, T) |
| F009 | Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process. | (R, T) |
| F010 | Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process. | (R, T) |
| F011 | Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations. | (R, T) |
| F012 | Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process. | (T) |
| F019 | Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. | (T) |
| F020 | Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.). | (H) |
| F021 | Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives. | (H) |
| F022 | Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions. | (H) |
| F023 | Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from | (H) |

equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.).

| | | |
|---|---|---|
| F024 | Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in §261.31 or §261.32.). | (T) |
| F025 | Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. | (T) |
| F026 | Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions. | (H) |
| F027 | Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.). | (H) |
| F028 | Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027. | (T) |
| F032 | Wastewaters (except those that have not come in contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with §261.35 of these regulations or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 and F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. | (T) |
| F034 | Wastewaters (except those that have not come in contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. | (T) |
| F035 | Wastewaters (except those that have not come in contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at | (T) |

| | | |
|---|---|---|
| | plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. | |
| F037 | Petroleum refinery primary oil/water/solids separation sludge. -- Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oil cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in §261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under §261.4(a)(12)(i), if those residuals are to be disposed of. | (T) |
| F038 | Petroleum refinery secondary (emulsified) oil/water/solids separation sludge-Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in §261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing. | (T) |
| F039 | Leachate (liquids that have percolated through land disposal wastes) resulting from the disposal of more than one restricted wastes classified as hazardous under Subpart D of this part. (Leachate resulting from the disposal of one or more of the following hazardous wastes and no other hazardous wastes retains its hazardous waste number(s): F020, F021, F022, F023, F026, F027, and/or F028). | (T) |

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

(b) Listing Specific Definitions: (1) For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and/or solids.

(2)(i) For the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following four treatment methods: activated sludge; trickling filter; rotating biological contractor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and (A) the units employ a minimum of 6 hp per million gallons of treatment volume; and either (B) the hydraulic retention time of the unit is no longer than 5 days; or (C) the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is a hazardous waste by the Toxicity Characteristic.

(ii) Generators and treatment, storage and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage and disposal facilities must maintain, in their operating or other onsite records, documents and data sufficient to prove that: (A) the unit is an aggressive biological treatment unit as defined in this subsection; and (B) the sludges sought to be exempted from the definitions of F037 and/or F038 were actually generated in the aggressive biological treatment unit.

(3)(i) For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.

(ii) For the purposes of the F038 listing,

(A) sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement; and

(B) floats are considered to be generated at the moment they are formed in the top of the unit.

(Amended July 26, 1994, August 21, 1997, August 23, 1999, April 23, 2001)

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

The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under §§260.20 and 260.22 and listed in Appendix IX.

| Industry and EPA Hazardous Waste No. | Hazardous waste | Hazard code |
|---|---|---|
| **Wood preservation:** | | |
| K001 | Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol. | (T) |
| **Inorganic pigments:** | | |
| K002 | Wastewater treatment sludge from the production of chrome yellow and orange pigments. | (T) |
| K003 | Wastewater treatment sludge from the production of molybdate orange pigments. | (T) |
| K004 | Wastewater treatment sludge from the production of zinc yellow pigments. | (T) |
| K005 | Wastewater treatment sludge from the production of chrome green pigments. | (T) |
| K006 | Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated). | (T) |

| | | |
|---|---|---|
| K007 | Wastewater treatment sludge from the production of iron blue pigments. | (T) |
| K008 | Oven residue from the production of chrome oxide green pigments. | (T) |

**Organic chemicals:**

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

| | | |
|---|---|---|
| K094 | Distillation bottoms from the production of phthalic anhydride from ortho-xylene. | (T) |
| K095 | Distillation bottoms from the production of 1,1,1-trichloroethane. | (T) |
| K096 | Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane. | (T) |
| K103 | Process residues from aniline extraction from the production of aniline. | (T) |
| K104 | Combined wastewater streams generated from nitrobenzene/aniline production. | (T) |
| K105 | Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes. | (T) |
| K107 | Column bottoms from product separation from the production of 1,1-dimethyl-hydrazine (UDMH) from carboxylic acid hydrazines. | (C,T) |
| K108 | Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. | (I,T) |
| K109 | Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. | (T) |
| K118 | Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene. | (T) |
| K136 | Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene. | (T) |
| K149 | Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillation of benzyl chloride.) | (T) |
| K150 | Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. | (T) |
| K151 | Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. | (T) |
| K156 | Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.). | (T) |
| K157 | Wastewaters (including scrubber waters, condenser waters, washwaters, and separation wasters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.). | (T) |
| K158 | Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.). | (T) |

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|---|---|---|
| K159 | Organics from the treatment of thiocarbamate wastes. | (T) |
| K161 | Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.) | (R,T) |
| **Inorganic chemicals:** | | |
| K071 | Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used. | (T) |
| K073 | Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production. | (T) |
| K106 | Wastewater treatment sludge from the mercury cell process in chlorine production. | (T) |
| **Pesticides:** | | |
| K031 | By-product salts generated in the production of MSMA and cacodylic acid. | (T) |
| K032 | Wastewater treatment sludge from the production of chlordane. | (T) |
| K033 | Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. | (T) |
| K034 | Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane. | (T) |
| K035 | Wastewater treatment sludges generated in the production of creosote. | (T) |
| K036 | Still bottoms from toluene reclamation distillation in the production of disulfoton. | (T) |
| K037 | Wastewater treatment sludges from the production of disulfoton. | (T) |
| K038 | Wastewater from the washing and stripping of phorate production. | (T) |
| K039 | Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate. | (T) |
| K040 | Wastewater treatment sludge from the production of phorate. | (T) |
| K041 | Wastewater treatment sludge from the production of toxaphene. | (T) |
| K042 | Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. | (T) |
| K043 | 2,6-Dichlorophenol waste from the production of 2,4-D. | (T) |
| K097 | Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane. | (T) |
| K098 | Untreated process wastewater from the production of toxaphene. | (T) |
| K099 | Untreated wastewater from the production of 2,4-D. | (T) |
| K123 | Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt. | (T) |
| K124 | Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts. | (C, T) |
| K125 | Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts. | (T) |
| K126 | Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts. | (T) |
| K131 | Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide. | (C,T) |

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| K132 | Spent absorbent and wastewater separator solids from the production of methyl bromide. | (T) |

**Explosives:**

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|---|---|---|
| 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:**

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|---|---|---|
| K048 | Dissolved air flotation (DAF) float from the petroleum refining industry. | (T) |
| K049 | Slop oil emulsion solids from the petroleum refining industry. | (T) |
| K050 | Heat exchanger bundle cleaning sludge from the petroleum refining industry. | (T) |
| K051 | API separator sludge from the petroleum refining industry. | (T) |
| K052 | Tank bottoms (leaded) from the petroleum refining industry. | (T) |
| K169 | Crude oil storage tank sediment from petroleum refining operations. | (T) |
| K170 | Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations. | (T) |
| K171 | Spent Hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media) | (I,T) |
| K172 | Spent Hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media.) | (I,T) |

**Iron and steel:**

| | | |
|---|---|---|
| K061 | Emission control dust/sludge from the primary production of steel in electric furnaces. | (T) |
| K062 | Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332). | (C,T) |

**Primary aluminum:**

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|---|---|---|
| K088 | Spent potliners from primary aluminum reduction. | (T) |

**Secondary lead:**

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|---|---|---|
| K069 | Emission control dust/sludge from secondary lead smelting. (Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the Federal Register). | (T) |
| K100 | Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting. | (T) |

**Veterinary pharmaceuticals:**

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|---|---|---|
| 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 formation:**

| | | |
|---|---|---|
| K086 | Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead. | (T) |

**Coking:**

| | | |
|---|---|---|
| K060 | Ammonia still lime sludge from coking operations. | (T) |
| K087 | Decanter tank tar sludge from coking operations. | (T) |
| K141 | Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations). | (T) |
| K142 | Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal. | (T) |
| K143 | Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal. | (T) |
| K144 | Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal. | (T) |
| K145 | Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal. | (T) |
| K147 | Tar storage tank residues from coal tar refining. | (T) |
| K148 | Residues from coal tar distillation, including but not limited to, still bottoms. | (T) |

(Amended August 29, 1988; August 10, 1990; June 19, 1992, August 1, 1995, August 21, 1997, January 1, 1999, August 23, 1999, April 23, 2001)

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

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in §261.2(a)(2)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

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

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

(c) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraphs (e) or (f) of this section, unless the container is empty as defined in §261.7(b) 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, DNREC considers the residue to be intended for discard, and thus a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.]

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in 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 nave the generic name listed in paragraph (e) or (f).

[Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . ." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraph (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraph (e) or (f), such waste will be listed in either §261.31 or §261.32 or will be identified as a hazardous waste by the characteristics set forth in Subpart C of this part.]

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

(Comment: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity. These wastes and their corresponding EPA Hazardous Waste Numbers are:

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---|---|---|
| P023 | 107-20-0 | Acetaldehyde, chloro- |
| P002 | 591-08-2 | Acetamide, N-(aminothioxomethyl)- |
| P057 | 640-19-7 | Acetamide, 2-fluoro- |
| P058 | 62-74-8 | Acetic acid, fluoro-, sodium salt |
| P002 | 591-08-2 | 1-Acetyl-2-thiourea |
| P003 | 107-02-8 | Acrolein |
| P070 | 116-06-3 | Aldicarb |
| P023 | 1646-88-4 | Aldicarb sulfone |
| P004 | 309-00-2 | Aldrin |
| P005 | 107-18-6 | Allyl alcohol |
| P006 | 20859-73-8 | Aluminum phosphide (R,T) |
| P007 | 2763-96-4 | 5-(Aminomethyl)-3-isoxazolol |
| P008 | 504-24-5 | 4-Aminopyridine |
| P009 | 131-74-8 | Ammonium picrate (R) |
| P119 | 7803-55-6 | Ammonium vanadate |
| P099 | 506-61-6 | Argentate(1-), bis(cyano-C)-, potassium |
| P010 | 7778-39-4 | Arsenic acid $H_3AsO_4$ |
| P012 | 1327-53-3 | Arsenic oxide $As_2O_3$ |
| P011 | 1303-28-2 | Arsenic oxide $As_2O_5$ |
| P011 | 1303-28-2 | Arsenic pentoxide |
| P012 | 1327-53-3 | Arsenic trioxide |
| P038 | 692-42-2 | Arsine, diethyl- |
| P036 | 696-28-6 | Arsonous dichloride, phenyl- |
| P054 | 151-56-4 | Aziridine |
| P067 | 75-55-8 | Aziridine, 2-methyl- |
| P013 | 542-62-1 | Barium cyanide |
| P024 | 106-47-8 | Benzenamine, 4-chloro- |
| P077 | 100-01-6 | Benzenamine, 4-nitro- |

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|---|---|---|
| P028 | 100-44-7 | Benzene, (chloromethyl)- |
| P042 | 51-43-4 | 1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)- |
| P046 | 122-09-8 | Benzeneethanamine, alpha,alpha-dimethyl- |
| P014 | 108-98-5 | Benzenethiol |
| P127 | 1563-66-2 | 7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate |
| P188 | 57-64-7 | Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b] indol-5-yl methylcarbamate ester (1:1). |
| P001 | [1]81-81-2 | H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3% |
| P028 | 100-44-7 | Benzyl chloride |
| P015 | 7440-41-7 | Beryllium powder |
| P017 | 598-31-2 | Bromoacetone |
| P018 | 357-57-3 | Brucine |
| P045 | 39196-18-4 | 2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[methylamino)carbonyl] oxime |
| P021 | 592-01-8 | Calcium cyanide |
| P021 | 592-01-8 | Calcium cyanide $Ca(CN)_2$ |
| P189 | 5285-14-8 | Carbamic acid, [(dibutylamino)- thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester |
| P191 | 644-64-4 | Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]- 5-methyl-1H-pyrazol-3-yl ester |
| P192 | 119-38-0 | Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H- pyrazol-5-yl ester |
| P190 | 1129-41-5 | Carbamic acid, methyl-, 3-methylphenyl ester |
| P127 | 1563-66-2 | Carbofuran |
| P022 | 75-15-0 | Carbon disulfide |
| P095 | 75-44-5 | Carbonic dichloride |
| P189 | 55285-14-8 | Carbosulfan |
| P023 | 107-20-0 | Chloroacetaldehyde |
| P024 | 106-47-8 | p-Chloroaniline |
| P026 | 5344-82-1 | 1-(o-Chlorophenyl)thiourea |
| P027 | 542-76-7 | 3-Chloropropionitrile |

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| P029 | 544-92-3 | Copper cyanide |
| P029 | 544-92-3 | Copper cyanide Cu(CN) |
| P202 | | m-Cumenyl methylcarbamate |
| P030 | 64-00-6 | Cyanides (soluble cyanide salts), not otherwise specified |
| P031 | 460-19-5 | Cyanogen |
| P033 | 506-77-4 | Cyanogen chloride |
| P033 | 506-77-4 | Cyanogen chloride (CN)Cl |
| P034 | 131-89-5 | 2-Cyclohexyl-4,6-dinitrophenol |
| P016 | 542-88-1 | Dichloromethyl ether |
| P036 | 696-28-6 | Dichlorophenylarsine |
| P037 | 60-57-1 | Dieldrin |
| P038 | 692-42-2 | Diethylarsine |
| P041 | 311-45-5 | Diethyl-p-nitrophenyl phosphate |
| P040 | 297-97-2 | O,O-Diethyl O-pyrazinyl phosphorothioate |
| P043 | 55-91-4 | Diisopropylfluorophosphate (DFP) |
| P004 | 309-00-2 | 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- |
| P060 | 465-73-6 | 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)- |
| P037 | 60-57-1 | 2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta, 7aalpha)- |
| P051 | [1]72-20-8 | 2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites |
| P044 | 60-51-5 | Dimethoate |
| P046 | 122-09-8 | alpha,alpha-Dimethylphenethylamine |
| P191 | 644-64-4 | Dimetilan |
| P047 | [1]534-52-1 | 4,6-Dinitro-o-cresol, & salts |

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| P048 | 51-28-5 | 2,4-Dinitrophenol |
| P020 | 88-85-7 | Dinoseb |
| P085 | 152-16-9 | Diphosphoramide, octamethyl- |
| P111 | 107-49-3 | Diphosphoric acid, tetraethyl ester |
| P039 | 298-04-4 | Disulfoton |
| P049 | 541-53-7 | Dithiobiuret |
| P185 | 26419-73-8 | 1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, 0- [(methylamino)- carbonyl]oxime |
| P050 | 115-29-7 | Endosulfan |
| P088 | 145-73-3 | Endothall |
| P051 | 72-20-8 | Endrin |
| P051 | 72-20-8 | Endrin, & metabolites |
| P042 | 51-43-4 | Epinephrine |
| P031 | 460-19-5 | Ethanedinitrile |
| P066 | 16752-77-5 | Ethanimidothioc acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester |
| P194 | 23135-22-0 | Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester |
| P101 | 107-12-0 | Ethyl cyanide |
| P054 | 151-56-4 | Ethyleneimine |
| P097 | 52-85-7 | Famphur |
| P056 | 7782-41-4 | Fluorine |
| P057 | 640-19-7 | Fluoroacetamide |
| P058 | 62-74-8 | Fluoroacetic acid, sodium salt |
| P198 | 23422-53-9 | Formetanate hydrochloride |
| P197 | 17702-57-7 | Formparanate |
| P065 | 628-86-4 | Fulminic acid, mercury(2+) salt (R,T) |
| P059 | 76-44-8 | Heptachlor |
| P062 | 757-58-4 | Hexaethyl tetraphosphate |
| P116 | 79-19-6 | Hydrazinecarbothioamide |
| P068 | 60-34-4 | Hydrazine, methyl- |
| P063 | 74-90-8 | Hydrocyanic acid |

| | | |
|---|---|---|
| P063 | 74-90-8 | Hydrogen cyanide |
| P096 | 7803-51-2 | Hydrogen phosphide |
| P060 | 465-73-6 | Isodrin |
| P192 | 119-38-0 | Isolan |
| P202 | 64-00-6 | 3-Isopropylphenyl N-methylcarbamate |
| P007 | 2763-96-4 | 3(2H)-Isoxazolone, 5-(aminomethyl)- |
| P196 | 15339-36-3 | Manganese, bis(dimethylcarbamodithioato-S,S')-, |
| P196 | 15339-36-3 | Manganese, dimethyldithiocarbamate |
| P092 | 62-38-4 | Mercury, (acetato-O)phenyl- |
| P065 | 628-86-4 | Mercury fulminate (R,T) |
| P082 | 62-75-9 | Methanamine, N-methyl-N-nitroso- |
| P064 | 624-83-9 | Methane, isocyanato- |
| P016 | 542-88-1 | Methane, oxybis[chloro- |
| P112 | 509-14-8 | Methane, tetranitro- (R) |
| P118 | 75-70-7 | Methanethiol, trichloro- |
| P198 | 23422-53-9 | Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino)-carbonyl]oxy]phenyl]-,monohydrochloride |
| P197 | 17702-57-7 | Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino)carbonyl]oxy]phenyl]- |
| P050 | 115-29-7 | 6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10- hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide |
| P059 | 76-44-8 | 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro- |
| P199 | 2032-65-7 | Methiocarb |
| P066 | 16752-77-5 | Methomyl |
| P068 | 60-34-4 | Methyl hydrazine |
| P064 | 624-83-9 | Methyl isocyanate |
| P069 | 75-86-5 | 2-Methyllactonitrile |
| P071 | 298-00-0 | Methyl parathion |
| P199 | 2032-65-7 | Metolcarb |
| P128 | 315-18-4 | Mexacarbate |
| P072 | 86-88-4 | alpha-Naphthylthiourea |
| P073 | 13463-39-3 | Nickel carbonyl |

| | | |
|---|---|---|
| P073 | 13463-39-3 | Nickel carbonyl $Ni(CO)_4$, (T-4)- |
| P074 | 557-19-7 | Nickel cyanide |
| P074 | 557-19-7 | Nickel cynaide $Ni(CN)_2$ |
| P075 | [1]54-11-5 | Nicotine, & salts |
| P076 | 10102-43-9 | Nitric oxide |
| P077 | 100-01-6 | p-Nitroaniline |
| P078 | 10102-44-0 | Nitrogen dioxide |
| P076 | 10102-43-9 | Nitrogen oxide NO |
| P078 | 10102-44-0 | Nitrogen oxide $NO_2$ |
| P081 | 55-63-0 | Nitroglycerine (R) |
| P082 | 62-75-9 | N-Nitrosodimethylamine |
| P084 | 4549-40-0 | N-Nitrosomethylvinylamine |
| P085 | 152-16-9 | Octamethylpyrophosphoramide |
| P087 | 20816-12-0 | Osmium oxide $OsO_4$, (T-4)- |
| P087 | 20816-12-0 | Osmium tetroxide |
| P088 | 145-73-3 | 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid |
| P194 | 23135-22-0 | Oxamyl |
| P089 | 56-38-2 | Parathion |
| P034 | 131-89-5 | Phenol, 2-cyclohexyl-4,6-dinitro- |
| P048 | 51-28-5 | Phenol, 2,4-dinitro- |
| P047 | [1]534-52-1 | Phenol, 2-methyl-4,6-dinitro-, & salts |
| P020 | 88-85-7 | Phenol, 2-(1-methylpropyl)-4,6-dinitro- |
| P009 | 131-74-8 | Phenol, 2,4,6-trinitro-, ammonium salt (R) |
| P128 | 315-18-4 | Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester) |
| P199 | 2032-65-7 | Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate |
| P202 | 64-00-6 | Phenol, 3-(1-methylethyl)-, methyl carbamate |
| P201 | 2631-37-0 | Phenol, 3-methyl-5(1-methylethyl)-, methyl carbamate |
| P092 | 62-38-4 | Phenylmercury acetate |
| P093 | 103-85-5 | Phenylthiourea |

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|---|---|---|
| P094 | 298-02-2 | Phorate |
| P095 | 75-44-5 | Phosgene |
| P096 | 7803-51-2 | Phosphine |
| P041 | 311-45-5 | Phosphoric acid, diethyl 4-nitrophenyl ester |
| P039 | 298-04-4 | Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester |
| P094 | 298-02-2 | Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester |
| P044 | 60-51-5 | Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester |
| P043 | 55-91-4 | Phosphorofluoridic acid, bis(1-methylethyl) ester |
| P089 | 56-38-2 | Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester |
| P040 | 297-97-2 | Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester |
| P097 | 52-85-7 | Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester |
| P071 | 298-00-0 | Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester |
| P204 | 57-47-6 | Physostigmine |
| P188 | 57-64-7 | Physostigmine salicylate |
| P110 | 78-00-2 | Plumbane, tetraethyl- |
| P098 | 151-50-8 | Potassium cyanide |
| P098 | 151-50-8 | Potassium cyanide K(CN) |
| P099 | 506-61-6 | Potassium silver cyanide |
| P201 | 2631-37-0 | Promecarb |
| P203 | 1646-88-4 | Propanal, 2-methyl-2-(methyl-sulfonyl)-, 0-[(methylamino)carbonyl] oxime |
| P070 | 116-06-3 | Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime |
| P101 | 107-12-0 | Propanenitrile |
| P027 | 542-76-7 | Propanenitrile, 3-chloro- |
| P069 | 75-86-5 | Propanenitrile, 2-hydroxy-2-methyl- |
| P081 | 55-63-0 | 1,2,3-Propanetriol, trinitrate (R) |

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|---|---|---|
| P017 | 598-31-2 | 2-Propanone, 1-bromo- |
| P102 | 107-19-7 | Propargyl alcohol |
| P003 | 107-02-8 | 2-Propenal |
| P005 | 107-18-6 | 2-Propen-1-ol |
| P067 | 75-55-8 | 1,2-Propylenimine |
| P102 | 107-19-7 | 2-Propyn-1-ol |
| P008 | 504-24-5 | 4-Pyridinamine |
| P075 | [1]54-11-5 | Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts |
| P204 | 57-47-6 | Pyrrolo[2,3-b] indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)- |
| P114 | 12039-52-0 | Selenious acid, dithallium(1 +) salt |
| P103 | 630-10-4 | Selenourea |
| P104 | 506-64-9 | Silver cyanide |
| P104 | 506-64-9 | Silver cyanide Ag(CN) |
| P105 | 26628-22-8 | Sodium azide |
| P106 | 143-33-9 | Sodium cyanide |
| P106 | 143-33-9 | Sodium cyanide Na(CN) |
| P108 | [1]57-24-9 | Strychnidin-10-one, & salts |
| P018 | 357-57-3 | Strychnidin-10-one, 2,3-dimethoxy- |
| P108 | [1]57-24-9 | Strychnine, & salts |
| P115 | 7446-18-6 | Sulfuric acid, dithallium(1 +) salt |
| P109 | 3689-24-5 | Tetraethyldithiopyrophosphate |
| P110 | 78-00-2 | Tetraethyl lead |
| P111 | 107-49-3 | Tetraethyl pyrophosphate |
| P112 | 509-14-8 | Tetranitromethane (R) |
| P062 | 757-58-4 | Tetraphosphoric acid, hexaethyl ester |
| P113 | 1314-32-5 | Thallic oxide |
| P113 | 1314-32-5 | Thallium oxide $Tl_2O_3$ |
| P114 | 12039-52-0 | Thallium(I) selenite |
| P115 | 7446-18-6 | Thallium(I) sulfate |
| P109 | 3689-24-5 | Thiodiphosphoric acid, tetraethyl ester |

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|---|---|---|
| P045 | 39196-18-4 | Thiofanox |
| P049 | 541-53-7 | Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$ |
| P014 | 108-98-5 | Thiophenol |
| P116 | 79-19-6 | Thiosemicarbazide |
| P026 | 5344-82-1 | Thiourea, (2-chlorophenyl)- |
| P072 | 86-88-4 | Thiourea, 1-naphthalenyl- |
| P093 | 103-85-5 | Thiourea, phenyl- |
| P185 | 26419-73-8 | Tirpate |
| P123 | 8001-35-2 | Toxaphene |
| P118 | 75-70-7 | Trichloromethanethiol |
| P119 | 7803-55-6 | Vanadic acid, ammonium salt |
| P120 | 1314-62-1 | Vanadium oxide $V_2O_5$ |
| P120 | 1314-62-1 | Vanadium pentoxide |
| P084 | 4549-40-0 | Vinylamine, N-methyl-N-nitroso- |
| P001 | [1]81-81-2 | Warfarin, & salts, when present at concentrations greater than 0.3% |
| P205 | 137-30-4 | Zinc, bis(dimethylcarbamodithioato-S,S;)- |
| P121 | 557-21-1 | Zinc cyanide |
| P121 | 557-21-1 | Zinc cyanide $Zn(CN)_2$ |
| P122 | 1314-84-7 | Zinc phosphide $Zn_3P_2$, when present at concentrations greater than 10% (R,T) |
| P205 | 137-30-4 | Ziram |

FOOTNOTE: [1]CAS Number given for parent compound only.

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

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

These wastes and their corresponding EPA Hazardous Waste Numbers are:

| Hazardous Waste No. | Chemical Abstracts No. | Substance |
|---|---|---|
| U394 | 30558-43-1 | A2213 |
| U001 | 75-07-0 | Acetaldehyde (I) |

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|---|---|---|
| U034 | 75-87-6 | Acetaldehyde, trichloro- |
| U187 | 62-44-2 | Acetamide, N-(4-ethoxyphenyl)- |
| U005 | 53-96-3 | Acetamide, N-9H-fluoren-2-yl- |
| U240 | [1]94-75-7 | Acetic acid, (2,4-dichlorophenoxy)-, salts & esters |
| U112 | 141-78-6 | Acetic acid ethyl ester (I) |
| U144 | 301-04-2 | Acetic acid, lead(2+) salt |
| U214 | 563-68-8 | Acetic acid, thallium(1+) salt |
| see F027 | 93-76-5 | Acetic acid, (2,4,5-trichlorophenoxy)- |
| U002 | 67-64-1 | Acetone (I) |
| U003 | 75-05-8 | Acetonitrile (I,T) |
| U004 | 98-86-2 | Acetophenone |
| U005 | 53-96-3 | 2-Acetylaminofluorene |
| U006 | 75-36-5 | Acetyl chloride (C,R,T) |
| U007 | 79-06-1 | Acrylamide |
| U008 | 79-10-7 | Acrylic acid (I) |
| U009 | 107-13-1 | Acrylonitrile |
| U011 | 61-82-5 | Amitrole |
| U012 | 62-53-3 | Aniline (I,T) |
| U136 | 75-60-5 | Arsinic acid, dimethyl- |
| U014 | 492-80-8 | Auramine |
| U015 | 115-02-6 | Azaserine |
| U010 | 50-07-7 | Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]- |
| U280 | 101-27-9 | Barban |
| U278 | 22781-23-3 | Bendiocarb |
| U364 | 22961-82-6 | Bendiocarb phenol |
| U271 | 17804-35-2 | Benomyl |
| U157 | 56-49-5 | Benz[j]aceanthrylene, 1,2-dihydro-3-methyl- |
| U016 | 225-51-4 | Benz[c]acridine |

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|---|---|---|
| U017 | 98-87-3 | Benzal chloride |
| U192 | 23950-58-5 | Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)- |
| U018 | 56-55-3 | Benz[a]anthracene |
| U094 | 57-97-6 | Benz[a]anthracene, 7,12-dimethyl- |
| U012 | 62-53-3 | Benzenamine (I,T) |
| U014 | 492-80-8 | Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl- |
| U049 | 3165-93-3 | Benzenamine, 4-chloro-2-methyl-, hydrochloride |
| U093 | 60-11-7 | Benzenamine, N,N-dimethyl-4-(phenylazo)- |
| U328 | 95-53-4 | Benzenamine, 2-methyl- |
| U353 | 106-49-0 | Benzenamine, 4-methyl- |
| U158 | 101-14-4 | Benzenamine, 4,4'-methylenebis[2-chloro- |
| U222 | 636-21-5 | Benzenamine, 2-methyl-, hydrochloride |
| U181 | 99-55-8 | Benzenamine, 2-methyl-5-nitro- |
| U019 | 71-43-2 | Benzene (I,T) |
| U038 | 510-15-6 | Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester |
| U030 | 101-55-3 | Benzene, 1-bromo-4-phenoxy- |
| U035 | 305-03-3 | Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]- |
| U037 | 108-90-7 | Benzene, chloro- |
| U221 | 25376-45-8 | Benzenediamine, ar-methyl- |
| U028 | 117-81-7 | 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester |
| U069 | 84-74-2 | 1,2-Benzenedicarboxylic acid, dibutyl ester |
| U088 | 84-66-2 | 1,2-Benzenedicarboxylic acid, diethyl ester |
| U102 | 131-11-3 | 1,2-Benzenedicarboxylic acid, dimethyl ester |
| U107 | 117-84-0 | 1,2-Benzenedicarboxylic acid, dioctyl ester |
| U070 | 95-50-1 | Benzene, 1,2-dichloro- |
| U071 | 541-73-1 | Benzene, 1,3-dichloro- |
| U072 | 106-46-7 | Benzene, 1,4-dichloro- |

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|---|---|---|
| U060 | 72-54-8 | Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro- |
| U017 | 98-87-3 | Benzene, (dichloromethyl)- |
| U223 | 26471-62-5 | Benzene, 1,3-diisocyanatomethyl- (R,T) |
| U239 | 1330-20-7 | Benzene, dimethyl- (I,T) |
| U201 | 108-46-3 | 1,3-Benzenediol |
| U127 | 118-74-1 | Benzene, hexachloro- |
| U056 | 110-82-7 | Benzene, hexahydro- (I) |
| U220 | 108-88-3 | Benzene, methyl- |
| U105 | 121-14-2 | Benzene, 1-methyl-2,4-dinitro- |
| U106 | 606-20-2 | Benzene, 2-methyl-1,3-dinitro- |
| U055 | 98-82-8 | Benzene, (1-methylethyl)- (I) |
| U169 | 98-95-3 | Benzene, nitro- |
| U183 | 608-93-5 | Benzene, pentachloro- |
| U185 | 82-68-8 | Benzene, pentachloronitro- |
| U020 | 98-09-9 | Benzenesulfonic acid chloride (C,R) |
| U020 | 98-09-9 | Benzenesulfonyl chloride (C,R) |
| U207 | 95-94-3 | Benzene, 1,2,4,5-tetrachloro- |
| U061 | 50-29-3 | Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro- |
| U247 | 72-43-5 | Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy- |
| U023 | 98-07-7 | Benzene, (trichloromethyl)- |
| U234 | 99-35-4 | Benzene, 1,3,5-trinitro- |
| U021 | 92-87-5 | Benzidine |
| U202 | [1]81-07-2 | 1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts |
| U278 | 22781-23-3 | 1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate |
| U364 | 22961-82-6 | 1,3-Benzodioxol-4-ol, 2,2-dimethyl-, |
| U203 | 94-59-7 | 1,3-Benzodioxole, 5-(2-propenyl)- |
| U141 | 120-58-1 | 1,3-Benzodioxole, 5-(1-propenyl)- |
| U090 | 94-58-6 | 1,3-Benzodioxole, 5-propyl- |

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| U367 | 1563-38-8 | Benzofuranol, 2,3-dihydro-2,2-dimethyl- |
| U064 | 189-55-9 | Benzo[rst]pentaphene |
| U248 | [1]81-81-2 | 2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less |
| U022 | 50-32-8 | Benzo[a]pyrene |
| U197 | 106-51-4 | p-Benzoquinone |
| U023 | 98-07-7 | Benzotrichloride (C,R,T) |
| U085 | 1464-53-5 | 2,2'-Bioxirane |
| U021 | 92-87-5 | [1,1'-Biphenyl]-4,4'-diamine |
| U073 | 91-94-1 | [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro- |
| U091 | 119-90-4 | [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy- |
| U095 | 119-93-7 | [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl- |
| U225 | 75-25-2 | Bromoform |
| U030 | 101-55-3 | 4-Bromophenyl phenyl ether |
| U128 | 87-68-3 | 1,3-Butadiene, 1,1,2,3,4,4-hexachloro- |
| U172 | 924-16-3 | 1-Butanamine, N-butyl-N-nitroso- |
| U031 | 71-36-3 | 1-Butanol (I) |
| U159 | 78-93-3 | 2-Butanone (I,T) |
| U160 | 1338-23-4 | 2-Butanone, peroxide (R,T) |
| U053 | 4170-30-3 | 2-Butenal |
| U074 | 764-41-0 | 2-Butene, 1,4-dichloro- (I,T) |
| U143 | 303-34-4 | 2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]- 2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]- |
| U031 | 71-36-3 | n-Butyl alcohol (I) |
| U136 | 75-60-5 | Cacodylic acid |
| U032 | 13765-19-0 | Calcium chromate |
| U372 | 10605-21-7 | Carbamic acid, 1H-benzimidazol-2-yl, methyl ester |
| U271 | 17804-35-2 | Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester |
| U280 | 101-27-9 | Carbamic acid, (3-chlorophenyl)-, 4-chloro-2- |

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| | | butynyl ester |
| U373 | 122-42-9 | Carbamic acid, phenyl-, 1-methylethyl ester |
| U409 | 23564-05-8 | Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)bis-, dimethyl ester |
| U238 | 51-79-6 | Carbamic acid, ethyl ester |
| U178 | 615-53-2 | Carbamic acid, methylnitroso-, ethyl ester |
| U097 | 79-44-7 | Carbamic chloride, dimethyl- |
| U114 | [1]111-54-6 | Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters |
| U062 | 2303-16-4 | Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester |
| U389 | 2303-17-5 | Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester |
| U387 | 52888-80-9 | Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester |
| U279 | 63-25-2 | Carbaryl |
| U372 | 10605-21-7 | Carbendazim |
| U367 | 1563-38-8 | Carbofuran phenol |
| U215 | 6533-73-9 | Carbonic acid, dithallium(1 +) salt |
| U033 | 353-50-4 | Carbonic difluoride |
| U156 | 79-22-1 | Carbonochloridic acid, methyl ester (I,T) |
| U033 | 353-50-4 | Carbon oxyfluoride (R,T) |
| U211 | 56-23-5 | Carbon tetrachloride |
| U034 | 75-87-6 | Chloral |
| U035 | 305-03-3 | Chlorambucil |
| U036 | 57-74-9 | Chlordane, alpha & gamma isomers |
| U026 | 494-03-1 | Chlornaphazin |
| U037 | 108-90-7 | Chlorobenzene |
| U038 | 510-15-6 | Chlorobenzilate |
| U039 | 59-50-7 | p-Chloro-m-cresol |
| U042 | 110-75-8 | 2-Chloroethyl vinyl ether |
| U044 | 67-66-3 | Chloroform |
| U046 | 107-30-2 | Chloromethyl methyl ether |
| U047 | 91-58-7 | beta-Chloronaphthalene |

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|---|---|---|
| U048 | 95-57-8 | o-Chlorophenol |
| U049 | 3165-93-3 | 4-Chloro-o-toluidine, hydrochloride |
| U032 | 13765-19-0 | Chromic acid $H_2CrO_4$, calcium salt |
| U050 | 218-01-9 | Chrysene |
| U051 | | Creosote |
| U052 | 1319-77-3 | Cresol (Cresylic acid) |
| U053 | 4170-30-3 | Crotonaldehyde |
| U055 | 98-82-8 | Cumene (I) |
| U246 | 506-68-3 | Cyanogen bromide (CN)Br |
| U197 | 106-51-4 | 2,5-Cyclohexadiene-1,4-dione |
| U056 | 110-82-7 | Cyclohexane (I) |
| U129 | 58-89-9 | Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)- |
| U057 | 108-94-1 | Cyclohexanone (I) |
| U130 | 77-47-4 | 1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro- |
| U058 | 50-18-0 | Cyclophosphamide |
| U240 | [1]94-75-7 | 2,4-D, salts & esters |
| U059 | 20830-81-3 | Daunomycin |
| U060 | 72-54-8 | DDD |
| U061 | 50-29-3 | DDT |
| U062 | 2303-16-4 | Diallate |
| U063 | 53-70-3 | Dibenz[a,h]anthracene |
| U064 | 189-55-9 | Dibenzo[a,i]pyrene |
| U066 | 96-12-8 | 1,2-Dibromo-3-chloropropane |
| U069 | 84-74-2 | Dibutyl phthalate |
| U070 | 95-50-1 | o-Dichlorobenzene |
| U071 | 541-73-1 | m-Dichlorobenzene |
| U072 | 106-46-7 | p-Dichlorobenzene |
| U073 | 91-94-1 | 3,3'-Dichlorobenzidine |
| U074 | 764-41-0 | 1,4-Dichloro-2-butene (I,T) |
| U075 | 75-71-8 | Dichlorodifluoromethane |

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| U078 | 75-35-4 | 1,1-Dichloroethylene |
| U079 | 156-60-5 | 1,2-Dichloroethylene |
| U025 | 111-44-4 | Dichloroethyl ether |
| U027 | 108-60-1 | Dichloroisopropyl ether |
| U024 | 111-91-1 | Dichloromethoxy ethane |
| U081 | 120-83-2 | 2,4-Dichlorophenol |
| U082 | 87-65-0 | 2,6-Dichlorophenol |
| U084 | 542-75-6 | 1,3-Dichloropropene |
| U085 | 1464-53-5 | 1,2:3,4-Diepoxybutane (I,T) |
| U108 | 123-91-1 | 1,4-Diethyleneoxide |
| U028 | 117-81-7 | Diethylhexyl phthalate |
| U086 | 1615-80-1 | N,N'-Diethylhydrazine |
| U087 | 3288-58-2 | O,O-Diethyl S-methyl dithiophosphate |
| U088 | 84-66-2 | Diethyl phthalate |
| U395 | 5952-26-1 | Diethylene glycol, dicarbamate |
| U089 | 56-53-1 | Diethylstilbesterol |
| U090 | 94-58-6 | Dihydrosafrole |
| U091 | 119-90-4 | 3,3'-Dimethoxybenzidine |
| U092 | 124-40-3 | Dimethylamine (I) |
| U093 | 60-11-7 | p-Dimethylaminoazobenzene |
| U094 | 57-97-6 | 7,12-Dimethylbenz[a]anthracene |
| U095 | 119-93-7 | 3,3'-Dimethylbenzidine |
| U096 | 80-15-9 | alpha,alpha-Dimethylbenzylhydroperoxide (R) |
| U097 | 79-44-7 | Dimethylcarbamoyl chloride |
| U098 | 57-14-7 | 1,1-Dimethylhydrazine |
| U099 | 540-73-8 | 1,2-Dimethylhydrazine |
| U101 | 105-67-9 | 2,4-Dimethylphenol |
| U102 | 131-11-3 | Dimethyl phthalate |
| U103 | 77-78-1 | Dimethyl sulfate |
| U105 | 121-14-2 | 2,4-Dinitrotoluene |
| U106 | 606-20-2 | 2,6-Dinitrotoluene |

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| U107 | 117-84-0 | Di-n-octyl phthalate |
| U108 | 123-91-1 | 1,4-Dioxane |
| U109 | 122-66-7 | 1,2-Diphenylhydrazine |
| U110 | 142-84-7 | Dipropylamine (I) |
| U111 | 621-64-7 | Di-n-propylnitrosamine |
| U041 | 106-89-8 | Epichlorohydrin |
| U001 | 75-07-0 | Ethanal (I) |
| U174 | 55-18-5 | Ethanamine, N-ethyl-N-nitroso- |
| U404 | 121-44-8 | Ethanamine, N,N-diethyl- |
| U155 | 91-80-5 | 1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)- |
| U067 | 106-93-4 | Ethane, 1,2-dibromo- |
| U076 | 75-34-3 | Ethane, 1,1-dichloro- |
| U077 | 107-06-2 | Ethane, 1,2-dichloro- |
| U131 | 67-72-1 | Ethane, hexachloro- |
| U024 | 111-91-1 | Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro- |
| U117 | 60-29-7 | Ethane, 1,1'-oxybis-(I) |
| U025 | 111-44-4 | Ethane, 1,1'-oxybis[2-chloro- |
| U184 | 76-01-7 | Ethane, pentachloro- |
| U208 | 630-20-6 | Ethane, 1,1,1,2-tetrachloro- |
| U209 | 79-34-5 | Ethane, 1,1,2,2-tetrachloro- |
| U218 | 62-55-5 | Ethanethioamide |
| U226 | 71-55-6 | Ethane, 1,1,1-trichloro- |
| U227 | 79-00-5 | Ethane, 1,1,2-trichloro- |
| U410 | 59669-26-0 | Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]]bis, dimethyl ester |
| U394 | 30558-43-1 | Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester |
| U395 | 5952-26-1 | Ethanol, 2,2'-oxybis-, dicarbamate |
| U359 | 110-80-5 | Ethanol, 2-ethoxy- |
| U173 | 1116-54-7 | Ethanol, 2,2'-(nitrosoimino)bis- |
| U004 | 98-86-2 | Ethanone, 1-phenyl- |

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|---|---|---|
| U043 | 75-01-4 | Ethene, chloro- |
| U042 | 110-75-8 | Ethene, (2-chloroethoxy)- |
| U078 | 75-35-4 | Ethene, 1,1-dichloro- |
| U079 | 156-60-5 | Ethene, 1,2-dichloro-, (E)- |
| U210 | 127-18-4 | Ethene, tetrachloro- |
| U228 | 79-01-6 | Ethene, trichloro- |
| U112 | 141-78-6 | Ethyl acetate (I) |
| U113 | 140-88-5 | Ethyl acrylate (I) |
| U238 | 51-79-6 | Ethyl carbamate (urethane) |
| U117 | 60-29-7 | Ethyl ether (I) |
| U114 | [1]111-54-6 | Ethylenebisdithiocarbamic acid, salts & esters |
| U067 | 106-93-4 | Ethylene dibromide |
| U077 | 107-06-2 | Ethylene dichloride |
| U359 | 110-80-5 | Ethylene glycol monoethyl ether |
| U115 | 75-21-8 | Ethylene oxide (I,T) |
| U116 | 96-45-7 | Ethylenethiourea |
| U076 | 75-34-3 | Ethylidene dichloride |
| U118 | 97-63-2 | Ethyl methacrylate |
| U119 | 62-50-0 | Ethyl methanesulfonate |
| U120 | 206-44-0 | Fluoranthene |
| U122 | 50-00-0 | Formaldehyde |
| U123 | 64-18-6 | Formic acid (C,T) |
| U124 | 110-00-9 | Furan (I) |
| U125 | 98-01-1 | 2-Furancarboxaldehyde (I) |
| U147 | 108-31-6 | 2,5-Furandione |
| U213 | 109-99-9 | Furan, tetrahydro-(I) |
| U125 | 98-01-1 | Furfural (I) |
| U124 | 110-00-9 | Furfuran (I) |
| U206 | 18883-66-4 | Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D- |
| U206 | 18883-66-4 | D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino]- |

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|---|---|---|
| U126 | 765-34-4 | Glycidylaldehyde |
| U163 | 70-25-7 | Guanidine, N-methyl-N'-nitro-N-nitroso- |
| U127 | 118-74-1 | Hexachlorobenzene |
| U128 | 87-68-3 | Hexachlorobutadiene |
| U130 | 77-47-4 | Hexachlorocyclopentadiene |
| U131 | 67-72-1 | Hexachloroethane |
| U132 | 70-30-4 | Hexachlorophene |
| U243 | 1888-71-7 | Hexachloropropene |
| U133 | 302-01-2 | Hydrazine (R,T) |
| U086 | 1615-80-1 | Hydrazine, 1,2-diethyl- |
| U098 | 57-14-7 | Hydrazine, 1,1-dimethyl- |
| U099 | 540-73-8 | Hydrazine, 1,2-dimethyl- |
| U109 | 122-66-7 | Hydrazine, 1,2-diphenyl- |
| U134 | 7664-39-3 | Hydrofluoric acid (C,T) |
| U134 | 7664-39-3 | Hydrogen fluoride (C,T) |
| U135 | 7783-06-4 | Hydrogen sulfide |
| U135 | 7783-06-4 | Hydrogen sulfide $H_2S$ |
| U096 | 80-15-9 | Hydroperoxide, 1-methyl-1-phenylethyl- (R) |
| U116 | 96-45-7 | 2-Imidazolidinethione |
| U137 | 193-39-5 | Indeno[1,2,3-cd]pyrene |
| U190 | 85-44-9 | 1,3-Isobenzofurandione |
| U140 | 78-83-1 | Isobutyl alcohol (I,T) |
| U141 | 120-58-1 | Isosafrole |
| U142 | 143-50-0 | Kepone |
| U143 | 303-34-4 | Lasiocarpine |
| U144 | 301-04-2 | Lead acetate |
| U146 | 1335-32-6 | Lead, bis(acetato-O)tetrahydroxytri- |
| U145 | 7446-27-7 | Lead phosphate |
| U146 | 1335-32-6 | Lead subacetate |
| U129 | 58-89-9 | Lindane |
| U163 | 70-25-7 | MNNG |

| | | |
|---|---|---|
| U147 | 108-31-6 | Maleic anhydride |
| U148 | 123-33-1 | Maleic hydrazide |
| U149 | 109-77-3 | Malononitrile |
| U150 | 148-82-3 | Melphalan |
| U151 | 7439-97-6 | Mercury |
| U152 | 126-98-7 | Methacrylonitrile (I, T) |
| U092 | 124-40-3 | Methanamine, N-methyl- (I) |
| U029 | 74-83-9 | Methane, bromo- |
| U045 | 74-87-3 | Methane, chloro- (I, T) |
| U046 | 107-30-2 | Methane, chloromethoxy- |
| U068 | 74-95-3 | Methane, dibromo- |
| U080 | 75-09-2 | Methane, dichloro- |
| U075 | 75-71-8 | Methane, dichlorodifluoro- |
| U138 | 74-88-4 | Methane, iodo- |
| U119 | 62-50-0 | Methanesulfonic acid, ethyl ester |
| U211 | 56-23-5 | Methane, tetrachloro- |
| U153 | 74-93-1 | Methanethiol (I, T) |
| U225 | 75-25-2 | Methane, tribromo- |
| U044 | 67-66-3 | Methane, trichloro- |
| U121 | 75-69-4 | Methane, trichlorofluoro- |
| U036 | 57-74-9 | 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- |
| U154 | 67-56-1 | Methanol (I) |
| U155 | 91-80-5 | Methapyrilene |
| U142 | 143-50-0 | 1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro- |
| U247 | 72-43-5 | Methoxychlor |
| U154 | 67-56-1 | Methyl alcohol (I) |
| U029 | 74-83-9 | Methyl bromide |
| U186 | 504-60-9 | 1-Methylbutadiene (I) |
| U045 | 74-87-3 | Methyl chloride (I,T) |

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|---|---|---|
| U156 | 79-22-1 | Methyl chlorocarbonate (I,T) |
| U226 | 71-55-6 | Methyl chloroform |
| U157 | 56-49-5 | 3-Methylcholanthrene |
| U158 | 101-14-4 | 4,4'-Methylenebis(2-chloroaniline) |
| U068 | 74-95-3 | Methylene bromide |
| U080 | 75-09-2 | Methylene chloride |
| U159 | 78-93-3 | Methyl ethyl ketone (MEK) (I,T) |
| U160 | 1338-23-4 | Methyl ethyl ketone peroxide (R,T) |
| U138 | 74-88-4 | Methyl iodide |
| U161 | 108-10-1 | Methyl isobutyl ketone (I) |
| U162 | 80-62-6 | Methyl methacrylate (I,T) |
| U161 | 108-10-1 | 4-Methyl-2-pentanone (I) |
| U164 | 56-04-2 | Methylthiouracil |
| U010 | 50-07-7 | Mitomycin C |
| U059 | 20830-81-3 | 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)- |
| U167 | 134-32-7 | 1-Naphthalenamine |
| U168 | 91-59-8 | 2-Naphthalenamine |
| U026 | 494-03-1 | Naphthalenamine, N,N'-bis(2-chloroethyl)- |
| U165 | 91-20-3 | Naphthalene |
| U047 | 91-58-7 | Naphthalene, 2-chloro- |
| U166 | 130-15-4 | 1,4-Naphthalenedione |
| U236 | 72-57-1 | 2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt |
| U279 | 63-25-2 | 1-Naphthalenol, methylcarbamate |
| U166 | 130-15-4 | 1,4-Naphthoquinone |
| U167 | 134-32-7 | alpha-Naphthylamine |
| U168 | 91-59-8 | beta-Naphthylamine |
| U217 | 10102-45-1 | Nitric acid, thallium(1 +) salt |
| U169 | 98-95-3 | Nitrobenzene (I,T) |

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|---|---|---|
| U170 | 100-02-7 | p-Nitrophenol |
| U171 | 79-46-9 | 2-Nitropropane (I,T) |
| U172 | 924-16-3 | N-Nitrosodi-n-butylamine |
| U173 | 1116-54-7 | N-Nitrosodiethanolamine |
| U174 | 55-18-5 | N-Nitrosodiethylamine |
| U176 | 759-73-9 | N-Nitroso-N-ethylurea |
| U177 | 684-93-5 | N-Nitroso-N-methylurea |
| U178 | 615-53-2 | N-Nitroso-N-methylurethane |
| U179 | 100-75-4 | N-Nitrosopiperidine |
| U180 | 930-55-2 | N-Nitrosopyrrolidine |
| U181 | 99-55-8 | 5-Nitro-o-toluidine |
| U193 | 1120-71-4 | 1,2-Oxathiolane, 2,2-dioxide |
| U058 | 50-18-0 | 2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide |
| U115 | 75-21-8 | Oxirane (I,T) |
| U126 | 765-34-4 | Oxiranecarboxyaldehyde |
| U041 | 106-89-8 | Oxirane, (chloromethyl)- |
| U182 | 123-63-7 | Paraldehyde |
| U183 | 608-93-5 | Pentachlorobenzene |
| U184 | 76-01-7 | Pentachloroethane |
| U185 | 82-68-8 | Pentachloronitrobenzene (PCNB) |
| See F027 | 87-86-5 | Pentachlorophenol |
| U161 | 108-10-1 | Pentanol, 4-methyl- |
| U186 | 504-60-9 | 1,3-Pentadiene (I) |
| U187 | 62-44-2 | Phenacetin |
| U188 | 108-95-2 | Phenol |
| U048 | 95-57-8 | Phenol, 2-chloro- |
| U039 | 59-50-7 | Phenol, 4-chloro-3-methyl- |
| U081 | 120-83-2 | Phenol, 2,4-dichloro- |
| U082 | 87-65-0 | Phenol, 2,6-dichloro- |
| U089 | 56-53-1 | Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-,(E)- |

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|---|---|---|
| U101 | 105-67-9 | Phenol, 2,4-dimethyl- |
| U052 | 1319-77-3 | Phenol, methyl- |
| U132 | 70-30-4 | Phenol, 2,2'-methylenebis[3,4,6-trichloro- |
| U411 | 114-26-1 | Phenol, 2-(1-methylethoxy)-, methylcarbamate |
| U170 | 100-02-7 | Phenol, 4-nitro- |
| See F027 | 87-86-5 | Phenol, pentachloro- |
| See F027 | 58-90-2 | Phenol, 2,3,4,6-tetrachloro- |
| See F027 | 95-95-4 | Phenol, 2,4,5-trichloro- |
| See F027 | 88-06-2 | Phenol, 2,4,6-trichloro- |
| U150 | 148-82-3 | L-Phenylalanine, 4-[bis(2-chloroethyl)amino]- |
| U145 | 7446-27-7 | Phosphoric acid, lead(2+) salt (2:3) |
| U087 | 3288-58-2 | Phosphorodithioic acid, O,O-diethyl S-methyl ester |
| U189 | 1314-80-3 | Phosphorus sulfide (R) |
| U190 | 85-44-9 | Phthalic anhydride |
| U191 | 109-06-8 | 2-Picoline |
| U179 | 100-75-4 | Piperidine, 1-nitroso- |
| U192 | 23950-58-5 | Pronamide |
| U194 | 107-10-8 | 1-Propanamine (I,T) |
| U111 | 621-64-7 | 1-Propanamine, N-nitroso-N-propyl- |
| U110 | 142-84-7 | 1-Propanamine, N-propyl- (I) |
| U066 | 96-12-8 | Propane, 1,2-dibromo-3-chloro- |
| U083 | 78-87-5 | Propane, 1,2-dichloro- |
| U149 | 109-77-3 | Propanedinitrile |
| U171 | 79-46-9 | Propane, 2-nitro- (I,T) |
| U027 | 108-60-1 | Propane, 2,2'-oxybis[2-chloro- |
| U193 | 1120-71-4 | 1,3-Propane sultone |
| See F027 | 93-72-1 | Propanoic acid, 2-(2,4,5-trichlorophenoxy)- |
| U235 | 126-72-7 | 1-Propanol, 2,3-dibromo-, phosphate (3:1) |
| U140 | 78-83-1 | 1-Propanol, 2-methyl- (I,T) |
| U002 | 67-64-1 | 2-Propanone (I) |

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|---|---|---|
| U007 | 79-06-1 | 2-Propenamide |
| U084 | 542-75-6 | 1-Propene, 1,3-dichloro- |
| U243 | 1888-71-7 | 1-Propene, 1,1,2,3,3,3-hexachloro- |
| U009 | 107-13-1 | 2-Propenenitrile |
| U152 | 126-98-7 | 2-Propenenitrile, 2-methyl- (I,T) |
| U008 | 79-10-7 | 2-Propenoic acid (I) |
| U113 | 140-88-5 | 2-Propenoic acid, ethyl ester (I) |
| U118 | 97-63-2 | 2-Propenoic acid, 2-methyl-, ethyl ester |
| U162 | 80-62-6 | 2-Propenoic acid, 2-methyl-, methyl ester (I,T) |
| U373 | 122-42-9 | Propham |
| U411 | 114-26-1 | Propoxur |
| U194 | 107-10-8 | n-Propylamine (I,T) |
| U083 | 78-87-5 | Propylene dichloride |
| U387 | 52888-80-9 | Prosulfocarb |
| U148 | 123-33-1 | 3,6-Pyridazinedione, 1,2-dihydro- |
| U196 | 110-86-1 | Pyridine |
| U191 | 109-06-8 | Pyridine, 2-methyl- |
| U237 | 66-75-1 | 2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]- |
| U164 | 56-04-2 | 4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo- |
| U180 | 930-55-2 | Pyrrolidine, 1-nitroso- |
| U200 | 50-55-5 | Reserpine |
| U201 | 108-46-3 | Resorcinol |
| U202 | [1]81-07-2 | Saccharin, & salts |
| U203 | 94-59-7 | Safrole |
| U204 | 7783-00-8 | Selenious acid |
| U204 | 7783-00-8 | Selenium dioxide |
| U205 | 7488-56-4 | Selenium sulfide |
| U205 | 7488-56-4 | Selenium sulfide $SeS_2$ (R,T) |
| U015 | 115-02-6 | L-Serine, diazoacetate (ester) |
| See F027 | 93-72-1 | Silvex (2,4,5-TP) |
| U206 | 18883-66-4 | Streptozotocin |

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|---|---|---|
| U103 | 77-78-1 | Sulfuric acid, dimethyl ester |
| U189 | 1314-80-3 | Sulfur phosphide (R) |
| See F027 | 93-76-5 | 2,4,5-T |
| U207 | 95-94-3 | 1,2,4,5-Tetrachlorobenzene |
| U208 | 630-20-6 | 1,1,1,2-Tetrachloroethane |
| U209 | 79-34-5 | 1,1,2,2-Tetrachloroethane |
| U210 | 127-18-4 | Tetrachloroethylene |
| See F027 | 58-90-2 | 2,3,4,6-Tetrachlorophenol |
| U213 | 109-99-9 | Tetrahydrofuran (I) |
| U214 | 563-68-8 | Thallium(I) acetate |
| U215 | 6533-73-9 | Thallium(I) carbonate |
| U216 | 7791-12-0 | Thallium(I) chloride |
| U216 | 7791-12-0 | Thallium chloride TlCl |
| U217 | 10102-45-1 | Thallium(I) nitrate |
| U218 | 62-55-5 | Thioacetamide |
| U410 | 59669-26-0 | Thiodicarb |
| U153 | 74-93-1 | Thiomethanol (I,T) |
| U244 | 137-26-8 | Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl- |
| U409 | 23564-05-8 | Thiophanate-methyl |
| U219 | 62-56-6 | Thiourea |
| U244 | 137-26-8 | Thiram |
| U220 | 108-88-3 | Toluene |
| U221 | 25376-45-8 | Toluenediamine |
| U223 | 26471-62-5 | Toluene diisocyanate (R,T) |
| U328 | 95-53-4 | o-Toluidine |
| U353 | 106-49-0 | p-Toluidine |
| U222 | 636-21-5 | o-Toluidine hydrochloride |
| U389 | 2303-17-5 | Triallate |
| U011 | 61-82-5 | 1H-1,2,4-Triazol-3-amine |
| U227 | 79-00-5 | 1,1,2-Trichloroethane |
| U228 | 79-01-6 | Trichloroethylene |
| U121 | 75-69-4 | Trichloromonofluoromethane |

| | | |
|---|---|---|
| See F027 | 95-95-4 | 2,4,5-Trichlorophenol |
| See F027 | 88-06-2 | 2,4,6-Trichlorophenol |
| U404 | 121-44-8 | Triethylamine |
| U234 | 99-35-4 | 1,3,5-Trinitrobenzene (R,T) |
| U182 | 123-63-7 | 1,3,5-Trioxane, 2,4,6-trimethyl- |
| U235 | 126-72-7 | Tris(2,3-dibromopropyl) phosphate |
| U236 | 72-57-1 | Trypan blue |
| U237 | 66-75-1 | Uracil mustard |
| U176 | 759-73-9 | Urea, N-ethyl-N-nitroso- |
| U177 | 684-93-5 | Urea, N-methyl-N-nitroso- |
| U043 | 75-01-4 | Vinyl chloride |
| U248 | [1]81-81-2 | Warfarin, & salts, when present at concentrations of 0.3% or less |
| U239 | 1330-20-7 | Xylene (I) |
| U200 | 50-55-5 | Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha |
| U249 | 1314-84-7 | Zinc phosphide $Zn_3P_2$, when present at concentrations of 10% or less |

FOOTNOTE: [1]CAS Number given for parent compound only.

(Amended November 21, 1985; May 8, 1986; August 29, 1988, August 10, 1990, July 23, 1996, August 21, 1997, January 1, 1999, April 23, 2001)

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

(a) Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of paragraphs (b) and (c) of this section. These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.

(b) Generators must either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the ground water, surface water, or atmosphere.

(1) Generators shall do one of the following:

(i) Prepare and follow an equipment cleaning plan and clean equipment in accordance with this section;

(ii) Prepare and follow an equipment replacement plan and replace equipment in accordance with this section; or

(iii) Document cleaning and replacement in accordance with this section, carried out after termination of use of chlorophenolic preservations.

(2) Cleaning Requirements.

(i) Prepare and sign a written equipment cleaning plan that describes:

(A) The equipment to be cleaned;

(B) How the equipment will be cleaned;

(C) The solvent to be used in cleaning;

(D) How solvent rinses will be tested; and

(E) How cleaning residues will be disposed.

(ii) Equipment must be cleaned as follows:

(A) Remove all visible residues from process equipment;

(B) Rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.

(iii) Analytical requirements.

(A) Rinses must be tested in accordance with SW-846, Method 8290.

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

(iv) The generator must manage all residues from the cleaning process as F032 waste.

(3) Replacement requirements.

(i) Prepare and sign a written equipment replacement plan that describes:

(A) The equipment to be replaced;

(B) How the equipment will be replaced; and

(C) How the equipment will be disposed.

(ii) The generator must manage the discarded equipment as F032 waste.

(4) Documentation requirements.

(i) Document that previous equipment cleaning and/or replacement was performed in accordance with this section and occurred after cessation of use of chlorophenolic preservatives.

(c) The generator must maintain the following records documenting the cleaning and replacement as part of the facility's operating record:

(1) The name and address of the facility;

(2) Formulations previously used and the date on which their use ceased in each process at the plant;
(3) Formulations currently used in each process at the plant;
(4) The equipment cleaning or replacement plan;
(5) The name and address of any persons who conducted the cleaning and replacement;
(6) The dates on which cleaning and replacement were accomplished;
(7) The dates of sampling and testing;
(8) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization, preservation, and chain-of-custody of the samples;
(9) A description of the tests performed, the date the tests were performed, and the results of the tests;
(10) The name and model numbers of the instrument(s) used in performing the tests;
(11) QA/QC documentation; and
(12) The following statement signed by the generator or his authorized representative:

I certify under penalty of law that all process equipment required to be cleaned or replaced under §261.35 was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment.
(Amended November 19, 1993)

**Section 261.36 [Reserved]**

**Section 261.37 [Reserved]**

**Section 261.38 Comparable/Syngas Fuel Exclusion.**

Wastes that meet the following comparable/syngas fuel requirements are not solid wastes:
(a) Comparable fuel specifications.-
(1) Physical specifications.
(i) Heating value. The heating value must exceed 5,000 BTU/lbs. (11,500 J/g).
(ii) Viscosity. The viscosity must not exceed: 50 cs, as-fired.
(2) Constituent specifications. For compounds listed in table 1 to this section the specification levels and, where non-detect is the specification, minimum required detection limits are: (see Table 1).
(b) Synthesis gas fuel specification. Synthesis gas fuel (i.e., syngas fuel) that is generated from hazardous waste must:
(1) Have a minimum Btu value of 100 Btu/Scf;
(2) Contain less than 1 ppmv of total halogen;
(3) Contain less than 300 ppmv of total nitrogen other than diatomic nitrogen ($N_2$);
(4) Contain less than 200 ppmv of hydrogen sulfide; and
(5) Contain less than 1 ppmv of each hazardous constituent in the target list of Appendix VIII constituents of this part.

Table 1 to §261.38 -- Detection and Detection Limit Values for Comparable Fuel Specification

| Chemical Name | CAS Number | Composite Value (mg/kg) | Heating Value (BTU/lb) | Concentration Limit (mg/kg at 10,000 BTU/lb) | Minimum Required Detection Limit (mg/kg) |
|---|---|---|---|---|---|
| **Total Nitrogen as N** | NA | 9000 | 18400 | 4900 | - |
| **Total Halogens as Cl** | NA | 1000 | 18400 | 540 | - |
| **Total Organic Halogens as Cl** | NA | | | 25 or individual halogenated organics listed below | - |
| **Polychlorinated biphenyls, total [Arocolors, total][a]** | 1336-36-3 | ND | | nondetect | 1.4 |
| **Cyanide, total** | 57-12-5 | ND | | nondetect | 1.0 |
| **Metals** | | | | | |
| Antimony, total | 7440-36-0 | ND | | 12 | - |
| Arsenic, total | 7440-38-2 | ND | | 0.23 | - |
| Barium, total | 7440-39-3 | ND | | 23 | - |
| Beryllium, total | 7440-41-7 | ND | | 1.2 | - |
| Cadmium, total | 7440-43-9 | ND | | 1.2 | - |
| Chromium, total | 7440-47-3 | ND | | 2.3 | - |
| Cobalt | 7440-48-4 | ND | | 4.6 | - |
| Lead, total | 7439-92-1 | 57 | 18100 | 31 | - |
| Manganese | 7439-96-5 | ND | | 1.2 | - |
| Mercury, total | 7439-97-6 | ND | | 0.25 | - |
| Nickel, total | 7440-02-0 | 106 | 18400 | 58 | - |
| Selenium, total | 7782-49-2 | ND | | 0.23 | - |
| Silver, total | 7440-22-4 | ND | | 2.3 | - |
| Thallium, total | 7440-28-0 | ND | | 23 | - |
| **Hydrocarbons** | | | | | |
| Benzo[a]anthracene | 56-55-3 | ND | | 2400 | - |
| Benzene | 71-43-2 | 8000 | 19600 | 4100 | - |
| Benzo[b]fluoranthene | 205-99-2 | ND | | 2400 | - |
| Benzo[k]fluoranthene | 207-08-9 | ND | | 2400 | - |
| Benzo[a]pyrene | 50-32-8 | ND | | 2400 | - |
| Chrysene | 218-01-9 | ND | | 2400 | - |
| Dibenzo[a,h]anthracene | 53-70-3 | ND | | 2400 | - |
| 7,12-Dimethylbenz[a]anthracene | 57-97-6 | ND | | 2400 | - |
| Fluoranthene | 206-44-0 | ND | | 2400 | - |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | ND | | 2400 | - |
| 3-Methylcholanthrene | 56-49-5 | ND | | 2400 | - |

| Chemical Name | CAS Number | Composite Value (mg/kg) | Heating Value (BTU/lb) | Concentration Limit (mg/kg at 10,000 BTU/lb) | Minimum Required Detection Limit (mg/kg) |
|---|---|---|---|---|---|
| Naphthalene | 91-20-3 | 6200 | 19400 | 3200 | - |
| Toluene | 108-88-3 | 69000 | 19400 | 36000 | - |
| **Oxygenates** | | | | | |
| Acetophenone | 98-86-2 | ND | | 2400 | - |
| Acrolein | 107-02-8 | ND | | 39 | - |
| Allyl alcohol | 107-18-6 | ND | | 30 | - |
| Bis(2-ethylhexyl)phthalate [Di-2-ethylhexyl phthalate] | 117-81-7 | ND | | 2400 | - |
| Butyl benzyl phthalate | 85-68-7 | ND | | 2400 | - |
| o-Cresol [2-Methyl phenol] | 95-48-7 | ND | | 2400 | - |
| m-Cresol [3-Methyl phenol] | 108-39-4 | ND | | 2400 | - |
| p-Cresol [4-Methyl phenol] | 106-44-5 | ND | | 2400 | - |
| Di-n-butyl phthalate | 84-74-2 | ND | | 2400 | - |
| Diethyl phthalate | 84-66-2 | ND | | 2400 | - |
| 2,4-Dimethylphenol | 105-67-9 | ND | | 2400 | - |
| Dimethyl phthalate | 131-11-3 | ND | | 2400 | - |
| Di-n-octyl phthalate | 117-84-0 | ND | | 2400 | - |
| Endothall | 145-73-3 | ND | | 100 | - |
| Ethyl methacrylate | 97-63-2 | ND | | 39 | - |
| 2-Ethoxyethanol [Ethylene glycol monoethyl ether] | 110-80-5 | ND | | 100 | - |
| Isobutyl alcohol | 78-83-1 | ND | | 39 | - |
| Isosafrole | 120-58-1 | ND | | 2400 | - |
| Methyl ethyl ketone [2-Butanone] | 78-93-3 | ND | | 39 | - |
| Methyl methacrylate | 80-62-6 | ND | | 39 | - |
| 1,4-Naphthoquinone | 130-15-4 | ND | | 2400 | - |
| Phenol | 108-95-2 | ND | | 2400 | - |
| Propargyl alcohol [2-Propyn-1-ol] | 107-19-7 | ND | | 30 | - |
| Safrole | 94-59-7 | ND | | 2400 | - |
| **Sulfonated Organics** | | | | | |
| Carbon disulfide | 75-15-0 | ND | | nondetect | 39 |
| Disulfoton | 298-04-4 | ND | | nondetect | 2400 |
| Ethyl methanesulfonate | 62-50-0 | ND | | nondetect | 2400 |
| Methyl methanesulfonate | 66-27-3 | ND | | nondetect | 2400 |
| Phorate | 298-02-2 | ND | | nondetect | 2400 |
| 1,3-Propane sultone | 1120-71-4 | ND | | nondetect | 100 |
| Tetraethyldithiopyrophosphate [Sulfotepp] | 3689-24-5 | ND | | nondetect | 2400 |
| Thiophenol [Benzenethiol] | 108-98-5 | ND | | nondetect | 30 |
| O,O,O-Triethyl phosphorothioate | 126-68-1 | ND | | nondetect | 2400 |

| Chemical Name | CAS Number | Composite Value (mg/kg) | Heating Value (BTU/lb) | Concentration Limit (mg/kg at 10,000 BTU/lb) | Minimum Required Detection Limit (mg/kg) |
|---|---|---|---|---|---|
| Acetonitrile [Methyl cyanide] | 75-05-8 | ND | | nondetect | 39 |
| 2-Acetylaminofluorene [2-AAF] | 53-96-3 | ND | | nondetect | 2400 |
| Acrylonitrile | 107-13-1 | ND | | nondetect | 39 |
| 4-Aminobiphenyl | 92-67-1 | ND | | nondetect | 2400 |
| 4-Aminopyridine | 504-24-5 | ND | | nondetect | 100 |
| Aniline | 62-53-3 | ND | | nondetect | 2400 |
| Benzidine | 92-87-5 | ND | | nondetect | 2400 |
| Dibenz[a,j]acridine | 224-42-0 | ND | | nondetect | 2400 |
| O,O-Diethyl O-pyrazinyl phosphorothioate [Thionazin] | 297-97-2 | ND | | nondetect | 2400 |
| Dimethoate | 60-51-5 | ND | | nondetect | 2400 |
| p-(Dimethylamino)azobenzene [4-Dimethylaminoazobenzene] | 60-11-7 | ND | | nondetect | 2400 |
| 3,3'-Dimethylbenzidine | 119-93-7 | ND | | nondetect | 2400 |
| α,α-Dimethylphenethylamine | 122-09-8 | ND | | nondetect | 2400 |
| 3,3'-Dimethoxybenzidine | 119-90-4 | ND | | nondetect | 100 |
| 1,3-Dinitrobenzene [m-Dinitrobenzene] | 99-65-0 | ND | | nondetect | 2400 |
| 4,6-Dinitro-o-cresol | 534-52-1 | ND | | nondetect | 2400 |
| 2,4-Dinitrophenol | 51-28-5 | ND | | nondetect | 2400 |
| 2,4-Dinitrotoluene | 121-14-2 | ND | | nondetect | 2400 |
| 2,6-Dinitrotoluene | 606-20-2 | ND | | nondetect | 2400 |
| Dinoseb [2-sec-Butyl-4,6-dinitrophenol] | 88-85-7 | ND | | nondetect | 2400 |
| Diphenylamine | 122-39-4 | ND | | nondetect | 2400 |
| Ethyl carbamate [Urethane] | 51-79-6 | ND | | nondetect | 100 |
| Ethylenethiourea (2- Imidazolidinethione) | 96-45-7 | ND | | nondetect | 110 |
| Famphur | 52-85-7 | ND | | nondetect | 2400 |
| Methacrylonitrile | 126-98-7 | ND | | nondetect | 39 |
| Methapyrilene | 91-80-5 | ND | | nondetect | 2400 |
| Methomyl | 16752-77-5 | ND | | nondetect | 57 |
| 2-Methyllactonitrile [Acetone cyanohydrin] | 75-86-5 | ND | | nondetect | 100 |
| Methyl parathion | 298-00-0 | ND | | nondetect | 2400 |
| MNNG (N-Metyl-N-nitroso-N'-nitroguanidine) | 70-25-7 | ND | | nondetect | 110 |
| 1-Naphthylamine, | 134-32-7 | ND | | nondetect | 2400 |

| Chemical Name | CAS Number | Composite Value (mg/kg) | Heating Value (BTU/lb) | Concentration Limit (mg/kg at 10,000 BTU/lb) | Minimum Required Detection Limit (mg/kg) |
|---|---|---|---|---|---|
| [α-Naphthylamine] | | | | | |
| 2-Naphthylamine, [β-Naphthylamine] | 91-59-8 | ND | | nondetect | 2400 |
| Nicotine | 54-11-5 | ND | | nondetect | 100 |
| 4-Nitroaniline, [p-Nitroaniline] | 100-01-6 | ND | | nondetect | 2400 |
| Nitrobenzene | 98-95-3 | ND | | nondetect | 2400 |
| p-Nitrophenol, [p-Nitrophenol] | 100-02-7 | ND | | nondetect | 2400 |
| 5-Nitro-o-toluidine | 99-55-8 | ND | | nondetect | 2400 |
| N-Nitrosodi-n-butylamine | 924-16-3 | ND | | nondetect | 2400 |
| N-Nitrosodiethylamine | 55-18-5 | ND | | nondetect | 2400 |
| N-Nitrosodiphenylamine, [Diphenylnitrosamine] | 86-30-6 | ND | | nondetect | 2400 |
| N-Nitroso-N-methylethylamine | 10595-95-6 | ND | | nondetect | 2400 |
| N-Nitrosomorpholine | 59-89-2 | ND | | nondetect | 2400 |
| N-Nitrosopiperidine | 100-75-4 | ND | | nondetect | 2400 |
| N-Nitrosopyrrolidine | 930-55-2 | ND | | nondetect | 2400 |
| 2-Nitropropane | 79-46-9 | ND | | nondetect | 30 |
| Parathion | 56-38-2 | ND | | nondetect | 2400 |
| Phenacetin | 62-44-2 | ND | | nondetect | 2400 |
| 1,4-Phenylene diamine, [p-Phenylenediamine] | 106-50-3 | ND | | nondetect | 2400 |
| N-Phenylthiourea | 103-85-5 | ND | | nondetect | 57 |
| 2-Picoline [alpha-Picoline] | 109-06-8 | ND | | nondetect | 2400 |
| Propylthioracil [6-Propyl-2-thiouracil] | 51-52-5 | ND | | nondetect | 100 |
| Pyridine | 110-86-1 | ND | | nondetect | 2400 |
| Strychnine | 57-24-9 | ND | | nondetect | 100 |
| Thioacetamide | 62-55-5 | ND | | nondetect | 57 |
| Thiofanox | 39196-18-4 | ND | | nondetect | 100 |
| Thiourea | 62-56-6 | ND | | nondetect | 57 |
| Toluene-2,4-diamine [2,4-Diaminotoluene] | 95-80-7 | ND | | nondetect | 57 |
| Toluene-2,6-diamine [2,6-Diaminotoluene] | 823-40-5 | ND | | nondetect | 57 |
| o-Toluidine | 95-53-4 | ND | | nondetect | 2400 |
| p-Toluidine | 106-49-0 | ND | | nondetect | 100 |

| Chemical Name | CAS Number | Composite Value (mg/kg) | Heating Value (BTU/lb) | Concentration Limit (mg/kg at 10,000 BTU/lb) | Minimum Required Detection Limit (mg/kg) |
|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene, [sym-Trinitobenzene] | 99-35-4 | ND | | nondetect | 2400 |
| **Halogenated Organic** | | | | | |
| Allyl chloride | 107-05-1 | ND | | nondetect | 39 |
| Aramite | 140-57-8 | ND | | nondetect | 2400 |
| Benzal chloride [Dichloromethyl benzene] | 98-87-3 | ND | | nondetect | 100 |
| Benzyl chloride | 100-44-77 | ND | | nondetect | 100 |
| bis(2-Chloroethyl)ether [Dichoroethyl ether] | 111-44-4 | ND | | nondetect | 2400 |
| Bromoform [Tribromomethane] | 75-25-2 | ND | | nondetect | 39 |
| Bromomethane [Methyl bromide] | 74-83-9 | ND | | nondetect | 39 |
| 4-Bromophenyl phenyl ether [p-Bromo diphenyl ether] | 101-55-3 | ND | | nondetect | 2400 |
| Carbon tetrachloride | 56-23-5 | ND | | nondetect | 39 |
| Chlordane | 57-74-9 | ND | | nondetect | 14 |
| p-Chloroaniline | 106-47-8 | ND | | nondetect | 2400 |
| Chlorobenzene | 108-90-7 | ND | | nondetect | 39 |
| Chlorobenzilate | 510-15-6 | ND | | nondetect | 2400 |
| p-Chloro-m-cresol | 59-50-7 | ND | | nondetect | 2400 |
| 2-Chloroethyl vinyl ether | 110-75-8 | ND | | nondetect | 39 |
| Chloroform | 67-66-3 | ND | | nondetect | 39 |
| Chloromethane [Methyl chloride] | 74-87-3 | ND | | nondetect | 39 |
| 2-Chloronaphthalene [beta-Chloronaphthalene] | 91-58-7 | ND | | nondetect | 2400 |
| 2-Chlorophenol [o-Chlorophenol] | 95-57-8 | ND | | nondetect | 2400 |
| Chloroprene [2-Chloro-1,3-butadiene] | 1126-99-8 | ND | | nondetect | 39 |
| 2,4-D [2,4-Dichlorophenoxyacetic acid] | 94-75-7 | ND | | nondetect | 7.0 |
| Diallate | 2303-16-4 | ND | | nondetect | 2400 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | ND | | nondetect | 39 |
| 1,2-Dichlorobenzene [o-Dichlorobenzene] | 95-50-1 | ND | | nondetect | 2400 |
| 1,3-Dichlorobenzene [m-Dichlorobenzene] | 541-73-1 | ND | | nondetect | 2400 |
| 1,4-Dichlorobenzene [p-Dichlorobenzene] | 106-46-7 | ND | | nondetect | 2400 |

| Chemical Name | CAS Number | Composite Value (mg/kg) | Heating Value (BTU/lb) | Concentration Limit (mg/kg at 10,000 BTU/lb) | Minimum Required Detection Limit (mg/kg) |
|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 91-94-1 | ND | | nondetect | 2400 |
| Dichlorodifluoromethane [CFC-12] | 75-71-8 | ND | | nondetect | 39 |
| 1,2-Dichloroethane [Ethylene dichloride] | 107-06-2 | ND | | nondetect | 39 |
| 1,1-Dichloroethylene [Vinylidene chloride] | 75-35-4 | ND | | nondetect | 39 |
| Dichloromethoxy ethane [Bis(2-chloroethoxy)methane | 111-91-1 | ND | | nondetect | 2400 |
| 2,4-Dichlorophenol | 120-83-2 | ND | | nondetect | 2400 |
| 2,6-Dichlorophenol | 87-65-0 | ND | | nondetect | 2400 |
| 1,2-Dichloropropane [Propylene dichloride] | 78-87-5 | ND | | nondetect | 39 |
| cis-1,3-Dichloropropylene | 10061-01-5 | ND | | nondetect | 39 |
| trans-1,3-Dichloropropylene | 10061-02-6 | ND | | nondetect | 39 |
| 1,3-Dichloro-2-propanol | 96-23-1 | ND | | nondetect | 30 |
| Endosulfan I | 959-98-8 | ND | | nondetect | 1.4 |
| Endosulfan II | 33213-65-9 | ND | | nondetect | 1.4 |
| Endrin | 72-20-8 | ND | | nondetect | 1.4 |
| Endrin aldehyde | 7421-93-4 | ND | | nondetect | 1.4 |
| Endrin Ketone | 53494-70-5 | ND | | nondetect | 1.4 |
| Epichlorohydrin [1-Chloro-2,3-epoxy propane] | 106-89-8 | ND | | nondetect | 30 |
| Ethylidene dichloride [1,1-Dichloroethane] | 75-34-3 | ND | | nondetect | 39 |
| 2-Fluoroacetamide | 640-19-7 | ND | | nondetect | 100 |
| Heptachlor | 76-44-8 | ND | | nondetect | 1.4 |
| Heptachlor epoxide | 1024-57-3 | ND | | nondetect | 2.8 |
| Hexachlorobenzene | 118-74-1 | ND | | nondetect | 2400 |
| Hexachloro-1,3-butadiene [Hexachlorobutadiene] | 87-68-3 | ND | | nondetect | 2400 |
| Hexachlorocyclopentadiene | 77-47-4 | ND | | nondetect | 2400 |
| Hexachloroethane | 67-72-1 | ND | | nondetect | 2400 |

| Chemical Name | CAS Number | Composite Value (mg/kg) | Heating Value (BTU/lb) | Concentration Limit (mg/kg at 10,000 BTU/lb) | Minimum Required Detection Limit (mg/kg) |
|---|---|---|---|---|---|
| Hexachlorophene | 70-30-4 | ND | | nondetect | 59000 |
| Hexachloropropene [Hexachloropropylene] | 1888-71-7 | ND | | nondetect | 2400 |
| Isodrin | 465-73-6 | ND | | nondetect | 2400 |
| Kepone [Chlordecone] | 143-50-0 | ND | | nondetect | 4700 |
| Lindane [gamma-BHC] [gamma-Hexachlorocyclohexane] | 58-89-9 | ND | | nondetect | 1.4 |
| Methylene chloride [Dichloromethane] | 75-09-2 | ND | | nondetect | 39 |
| 4,4'-Methylene-bis(2-chloroaniline) | 101-14-4 | ND | | nondetect | 100 |
| Methyl iodide [Iodomethane] | 74-88-4 | ND | | nondetect | 39 |
| Pentachlorobenzene | 608-93-5 | ND | | nondetect | 2400 |
| Pentachloroethane | 76-01-7 | ND | | nondetect | 39 |
| Pentachloronitrobenzene [PCNB] [Quintobenzene] [Quintozene] | 82-68-8 | ND | | nondetect | 2400 |
| Pentachlorophenol | 87-86-5 | ND | | nondetect | 2400 |
| Pronamide | 23950-58-5 | ND | | nondetect | 2400 |
| Silvex [2,4,5-Trichlorophenoxypropionic acid] | 93-72-1 | ND | | nondetect | 7.0 |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin [2,3,7,8-TCDD] | 1746-01-6 | ND | | nondetect | 30 |
| 1,2,4,5-Tetrachlorobenzene | 95-94-3 | ND | | nondetect | 2400 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | ND | | nondetect | 39 |
| Tetrachloroethylene [Perchloroethylene] | 127-18-4 | ND | | nondetect | 39 |
| 2,3,4,6-Tetrachlorophenol | 58-90-2 | ND | | nondetect | 2400 |
| 1,2,4-Trichlorobenzene | 120-82-1 | ND | | nondetect | 2400 |
| 1,1,1-Trichloroethane [Methyl chloroform] | 71-55-6 | ND | | nondetect | 39 |
| 1,1,2-Trichloroethane [Vinyl trichloride] | 79-00-5 | ND | | nondetect | 39 |
| Trichloroethylene | 79-01-6 | ND | | nondetect | 39 |
| Trichlorofluoromethane [Trichlormonofluoromethane] | 75-69-4 | ND | | nondetect | 39 |
| 2,4,5-Trichlorophenol | 95-95-4 | ND | | nondetect | 2400 |
| 2,4,6-Trichlorophenol | 88-06-2 | ND | | nondetect | 2400 |
| 1,2,3-Trichloropropane | 96-18-4 | ND | | nondetect | 39 |

| Chemical Name | CAS Number | Composite Value (mg/kg) | Heating Value (BTU/lb) | Concentration Limit (mg/kg at 10,000 BTU/lb) | Minimum Required Detection Limit (mg/kg) |
|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | ND | | nondetect | 39 |

NA - Not Applicable
ND - Nondetect

(c) Implementation--Waste that meets the comparable or syngas fuel specifications provided by paragraphs (a) or (b) of this section (these constituent levels must be achieved by the comparable fuel when generated, or as a result of treatment or blending, as provided in paragraphs (c)(3) or (4) of this section) is excluded from the definition of solid waste provided that the following requirements are met:

(1) Notices--For purposes of this section, the person claiming and qualifying for the exclusion is called the comparable/syngas fuel generator and the person burning the comparable/syngas fuel is called the comparable/syngas burner. The person who generates the comparable fuel or syngas fuel must claim and certify to the exclusion.

(i) DNREC Secretary.--

(A) The generator must submit a one-time notice to the Secretary, certifying compliance with the conditions of the exclusion and providing documentation as required by paragraph (c)(1)(i)(C) of this section;

(B) If the generator is a company that generates comparable/syngas fuel at more than one facility, the generator shall specify at which sites the comparable/syngas fuel will be generated;

(C) A comparable/syngas fuel generator's notification to the Secretary must contain the following items:

(1) The name, address, and RCRA ID number of the person/facility claiming the exclusion;

(2) The applicable EPA Hazardous Waste Codes for the hazardous waste;

(3) Name and address of the units, meeting the requirements of paragraph (c)(2) of this section, that will burn the comparable/syngas fuel; and

(4) The following statement is signed and submitted by the person claiming the exclusion or his authorized representative:

Under penalty of criminal and civil prosecution for making or submitting false statements, representations, or omissions, I certify that the requirements of §261.38 have been met for all waste identified in this notification. Copies of the records and information required at §261.28(c)(10) are available at the comparable/syngas fuel generator's facility. Based on my inquiry of the individuals immediately responsible for obtaining the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(ii) Public notice--Prior to burning an excluded comparable/syngas fuel, the burner must publish in a major newspaper of general circulation local to the site where the fuel will be burned, a notice entitled "Notification of Burning a Comparable/Syngas Fuel Excluded Under the Resource Conservation and Recovery Act" containing the following information:

(A) Name, address, and RCRA ID number of the generating facility;

(B) Name and address of the unit(s) that will burn the comparable/syngas fuel;

(C) A brief, general description of the manufacturing, treatment, or other process generating the comparable/syngas fuel;

(D) An estimate of the average and maximum monthly and annual quantity of the waste claimed to be excluded; and

(E) Name and mailing address of the DNREC.

(2) Burning.--The comparable/syngas fuel exclusion for fuels meeting the requirements of paragraphs (a) or (b) and (c)(1) of this section applies only if the fuel is burned in the following units that also shall be subject to Federal/State/local air emission requirements, including all applicable CAA MACT requirements:

(i) Industrial furnaces as defined in §260.10 of these regulations;

(ii) Boilers, as defined in §260.10 of these regulations, that are further defined as follows:

(A) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or

(B) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale;

(iii) Hazardous waste incinerators subject to regulation under Subpart O of Parts 264 or 265 of these regulations or applicable CAA MACT standards.

(3) Blending to meet the viscosity specification.--A hazardous waste blended to meet the viscosity specification shall:

(i) As generated and prior to any blending, manipulation, or processing meet the constituent and heating value specifications of paragraphs (a)(1)(i) and (a)(2) of this section;

(ii) Be blended at a facility that is subject to the applicable requirements of Parts 264 and 265, or §262.34 of these regulations; and

(iii) Not violate the dilution prohibition of paragraph (c)(6) of these regulations.

(4) Treatment to meet the comparable fuel exclusion specifications.--(i) A hazardous waste may be treated to meet the exclusion specifications of paragraphs (a)(1) and (2) of this section provided the treatment:

(A) Destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying hazardous constituents or materials;

(B) Is performed at a facility that is subject to the applicable requirements of Parts 264 and 265, or §262.34 of these regulations; and

(C) Does not violate the dilution prohibition of paragraph (c)(6) of this section.

(ii) Residuals resulting from the treatment of a hazardous waste listed in subpart D of this part to generate a comparable fuel remain a hazardous waste.

(5) Generation of a syngas fuel.--(i) A syngas fuel can be generated from the processing of hazardous wastes to meet the exclusion specifications of paragraph (b) of this section provided the processing:

(A) Destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying constituents or materials;

(B) Is performed at a facility that is subject to the applicable requirements of parts 264 and 265, or §262.34 of these regulations or is an exempt recycling unit pursuant to §261.6(c) of these regulations; and

(C) Does not violate the dilution prohibition of paragraph (c)(6) of these regulations.

(ii) Residuals resulting from the treatment of a hazardous waste listed in subpart D of this part to generate a syngas fuel remain a hazardous waste.

(6) Dilution prohibition for comparable and syngas fuels.--No generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a hazardous waste to meet the exclusion specifications of paragraph (a)(1)(i), (a)(2) or (b) of this section.

(7) Waste analysis plans. The generator of a comparable/syngas fuel shall develop and follow a written waste analysis plan which describes the procedures for sampling and analysis of the hazardous waste to be excluded. The waste analysis plan shall be developed in accordance with the applicable sections of the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846). The plan shall be followed and retained at the facility excluding the waste.

(i) At a minimum, the plan must specify:

(A) The parameters for which each hazardous waste will be analyzed and the rationale for the selection of those parameters;

(B) The test methods which will be used to test for these parameters;

(C) The sampling method which will be used to obtain a representative sample of the waste to be analyzed;

(D) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

(E) If process knowledge is used in the waste determination, any information prepared by the generator in making such determination.

(ii) The waste analysis plan shall also contain records of the following:

(A) The dates and times waste samples were obtained, and the dates the samples were analyzed;

(B) The names and qualifications of the person(s) who obtained the samples;

(C) A description of the temporal and spatial locations of the samples;

(D) The name and address of the laboratory facility at which analyses of the samples were performed;

(E) A description of the analytical methods used, including any clean-up and sample preparation methods;

(F) All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;

(G) All laboratory results demonstrating that the exclusion specifications have been met for the waste; and

(H) All laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in paragraph (c)(11) of this section and also provides for the availability of the documentation to the claimant upon request.

(iii) Syngas fuel generators shall submit for approval, prior to performing sampling, analysis, or any management of a syngas fuel as an excluded waste, a waste analysis plan containing the elements of paragraph (c)(7)(i) of this section to the appropriate regulatory authority. The approval of waste analysis plans must be stated in writing and received by the facility prior to sampling and analysis to demonstrate the exclusion of a syngas. The approval of the waste analysis plan may contain such provisions and conditions as the regulatory authority deems appropriate.

(8) Comparable fuel sampling and analysis. (i) General. For each waste for which an exclusion is claimed, the generator of the hazardous waste must test for all the constituents on appendix VIII to this part, except those that the generator determines, based on testing or knowledge, should not be present in the waste. The generator is required to document the basis of each determination that a constituent should not be present. The generator may not determine that any of the following categories of constituents should not be present:

(A) A constituent that triggered the toxicity characteristic for the waste constituents that were the basis of the listing of the waste stream, or constituents for which there is a treatment standard for the waste code in §268.40;

(B) A constituent detected in previous analysis of the waste;
(C) Constituents introduced into the process that generates the waste; or
(D) Constituents that are byproducts or side reactions to the process that generates the waste.

**Note to paragraph (c)(8):** Any claim under this section must be valid and accurate for all hazardous constituents; a determination not to test for a hazardous constituent will not shield a generator from liability should that constituent later be found in the waste above the exclusion specifications.

(ii) For each waste for which the exclusion is claimed where the generator of the comparable/syngas fuel is not the original generator of the hazardous waste, the generator of the comparable/syngas fuel may not use process knowledge pursuant to paragraph (c)(8)(i) of this section and must test to determine that all of the constituent specifications of paragraphs (a)(2) and (b) of this section have been met.

(iii) The comparable/syngas fuel generator may use any reliable analytical method to demonstrate that no constituent of concern is present at concentrations above the specification levels. It is the responsibility of the generator to ensure that the sampling and analysis are unbiased, precise, and representative of the waste. For the waste to be eligible for exclusion, a generator must demonstrate that:

(A) Each constituent of concern is not present in the waste above the specification level at the 95% upper confidence limit around the mean; and

(B) The analysis could have detected the presence of the constituent at or below the specification level at the 95% upper confidence limit around the mean.

(iv) Nothing in this paragraph preempts, overrides or otherwise negates the provision in §262.11 of these regulations, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(v) In an enforcement action, the burden of proof to establish conformance with the exclusion specification shall be on the generator claiming the exclusion.

(vi) The generator must conduct sampling and analysis in accordance with their waste analysis plan developed under paragraph (c)(7) of this section.

(vii) Syngas fuel and comparable fuel that has not been blended in order to meet the kinematic viscosity specifications shall be analyzed as generated.

(viii) If a comparable fuel is blended in order to meet the kinematic viscosity specifications, the generator shall:

(A) Analyze the fuel as generated to ensure that it meets the constituent and heating value specifications; and

(B) After blending, analyze the fuel again to ensure that the blended fuel continues to meet all comparable/syngas fuel specifications.

(ix) Excluded comparable/syngas fuel must be re-tested, at a minimum, annually and must be retested after a process change that could change the chemical or physical properties of the waste.

(9) Speculative accumulation. Any persons handling a comparable/syngas fuel are subject to the speculative accumulation test under §261.2(c)(4) of these regulations.

(10) Records. The generator must maintain records of the following information on-site:

(i) All information required to be submitted to the implementing authority as part of the notification of the claim:

(A) The owner/operator name, address, and RCRA facility ID number of the person claiming the exclusion;

(B) The applicable EPA Hazardous Waste Codes for each hazardous waste excluded as a fuel; and

(C) The certification signed by the person claiming the exclusion or his authorized representative.

(ii) A brief description of the process that generated the hazardous waste and process that generated the excluded fuel, if not the same;

(iii) An estimate of the average and maximum monthly and annual quantities of each waste claimed to be excluded;

(iv) Documentation for any claim that a constituent is not present in the hazardous waste as required under paragraph (c)(8)(i) of this section;

(v) The results of all analyses and all detection limits achieved as required under paragraph (c)(8) of this section;

(vi) If the excluded waste was generated through treatment or blending, documentation as required under paragraph (c)(3) or (4) of this section;

(vii) If the waste is to be shipped off-site, a certification from the burner as required under paragraph (c)(12) of this section;

(viii) A waste analysis plan and the results of the sampling and analysis that includes the following:

(A) The dates and times waste samples were obtained, and the dates the samples were analyzed;

(B) The names and qualifications of the person(s) who obtained the samples;

(C) A description of the temporal and spatial locations of the samples;

(D) The name and address of the laboratory facility at which analyses of the samples were performed;

(E) A description of the analytical methods used, including any clean-up and sample preparation methods;

(F) All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;

(G) All laboratory analytical results demonstrating that the exclusion specifications have been met for the waste; and

(H) All laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in paragraph (c)(11) of this section and also provides for the availability of the documentation to the claimant upon request; and

(ix) If the generator ships comparable/syngas fuel off-site for burning, the generator must retain for each shipment the following information on-site:

(A) The name and address of the facility receiving the comparable/syngas fuel for burning;

(B) The quantity of comparable/syngas fuel shipped and delivered;

(C) The date of shipment or delivery;

(D) A cross-reference to the record of comparable/syngas fuel analysis or other information used to make the determination that the comparable/syngas fuel meets the specifications as required under paragraph (c)(8) of this section; and

(E) A one-time certification by the burner as required under paragraph (c)(12) of this section.

(11) Records retention. Records must be maintained for the period of three years. A generator must maintain a current waste analysis plan during that three year period.

(12) Burner certification. Prior to submitting a notification to the DNREC Secretary, a comparable/syngas fuel generator who intends to ship their fuel off-site for burning must obtain a one-time written, signed statement from the burner:

(i) Certifying that the comparable/syngas fuel will only be burned in an industrial furnace or boiler, utility boiler, or hazardous waste incinerator, as required under paragraph (c)(2) of this section;

(ii) Identifying the name and address of the units that will burn the comparable/syngas fuel; and

(iii) Certifying that the state in which the burner is located is authorized to exclude wastes as comparable/syngas fuel under the provisions of this section.

(13) Ineligible waste codes. Wastes that are listed because of presence of dioxins or furans, as set out in Appendix VII of this part, are not eligible for this exclusion, and any fuel produced from or otherwise containing these wastes remains a hazardous waste subject to full RCRA hazardous waste management requirements.

(Amended April 23, 2001)

## Appendix I - Representative Sampling Methods

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the 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 D420-89 Soil-like material - ASTM Standard D1452-65

Fly Ash-like material - ASTM Standard D2234-76 [ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103]

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

Liquid waste in pits, ponds, lagoons, and similar reservoirs - "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.

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

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

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

## Appendix III - Chemical Analysis Test Methods

Note: Appropriate analytical procedures to determine whether a sample contains a given toxic constituent are specified in Chapter Two, "Choosing the Correct Procedure" found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of these regulations. Prior to final sampling and analysis method selection, the individual should consult the specific section or method described in SW-846 for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.
(Amended July 23, 1996)

## Appendix IV - [Reserved for Radioactive Waste Test Methods]

## Appendix V - [Reserved for Infectious Waste Treatment Specifications]

## Appendix VI - [Reserved for Etiologic Agents]

## 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, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane. |
| F003 | N.A. |
| F004 | Cresols and cresylic acid, nitrobenzene. |
| F005 | Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, 2-nitropropane. |
| F006 | Cadmium, hexavalent chromium, nickel, cyanide (complexed). |
| F007 | Cyanide (salts). |
| F008 | Cyanide (salts). |
| F009 | Cyanide (salts). |
| F010 | Cyanide (salts). |
| F011 | Cyanide (salts). |
| F012 | Cyanide (complexed). |
| F019 | Hexavalent chromium, cyanide (complexed). |
| F020 | Tetra- and pentachlorodibenzo-p-dioxins; tetra and pentachlorodi-benzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts. |
| F021 | Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives. |
| F022 | Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans. |
| F023 | Tetra-, and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts. |
| F024 | Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1-dichloroethane, 1,2-dichloroethane, trans-1-2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetra-chloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, |

| EPA hazardous waste No. | Hazardous constituents for which listed |
|---|---|
| | hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorbenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene. |
| F025 | Chloromethane; Dichloromethane; Trichloromethane; Carbontetrachloride; Chloroethylene; 1,1-Dichloroethane; 1,2-Dichloroethane; trans-1,2-Dichloroethylene; 1,1-Dichloroethylene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Pentachloroethane; Hexachloroethane; Allyl chloride (3-Chloropropene); Dichloropropane; Dichloropropene; 2-Chloro-1,3-butadiene; Hexachloro-1,3-butadiene; Hexachlorocyclopentadiene; Benzene; Chlorobenzene; Dichlorobenzene; 1,2,4-Trichloro-benzene; Tetrachlorobenzene; Pentachlorobenzene; Hexachlorobenzene; Toluene; Naphthalene. |
| F026 | Tetra- and pentachlorodibenzo-p-dioxins; tetra and pentachlorodi-benzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts. |
| F027 | Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts. |
| F028 | Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts. |
| F032 | Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)-anthracene, indeno(1,2,3-cd)pyrene, pentachlorophenol, arsenic, chromium, tetra-, penta-, hexa-, heptachlorodibenzo-p-dioxins, tetra-, penta-, hexa-, heptachlorodibenzofurans. |
| F034 | Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, arsenic, chromium. |
| F035 | Arsenic, chromium, lead. |
| F037 | Benzene, benzo(a)pyrene, chrysene, lead, chromium. |
| F038 | Benzene, benzo(a)pyrene, chrysene, lead, chromium. |

| EPA hazardous waste No. | Hazardous constituents for which listed |
|---|---|
| F039 | All constituents for which treatment standards are specified for multi-source leachate (wastewaters and nonwastewaters) under section 268.43(a), Table CCW, of these regulations. |
| 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 | Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene. |
| K017 | Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols. |
| K018 | 1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene. |
| K019 | Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride. |
| K020 | Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes(1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride. |

| EPA hazardous waste No. | Hazardous constituents for which listed |
|---|---|
| K021 | Antimony, carbon tetrachloride, chloroform. |
| K022 | Phenol, tars (polycyclic aromatic hydrocarbons). |
| K023 | Phthalic anhydride, maleic anhydride. |
| K024 | Phthalic anhydride, 1,4-naphthoquinone. |
| K025 | Meta-dinitrobenzene, 2,4-dinitrotoluene. |
| K026 | Paraldehyde, pyridines, 2-picoline. |
| K027 | Toluene diisocyanate, toluene-2, 4-diamine. |
| K028 | 1,1,1-trichloroethane, vinyl chloride. |
| K029 | 1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform. |
| K030 | Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride. |
| K031 | Arsenic. |
| K032 | Hexachlorocyclopentadiene. |
| K033 | Hexachlorocyclopentadiene. |
| K034 | Hexachlorocyclopentadiene. |
| K035 | Creosote, chrysene, naphthalene, fluoranthene benzo(b) fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene. |
| K036 | Toluene, phosphorodithioic and phosphorothioic acid esters. |
| K037 | Toluene, phosphorodithioic and phosphorothioic acid esters. |
| K038 | Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters. |
| K039 | Phosphorodithioic and phosphorothioic acid esters. |
| K040 | Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters. |
| K041 | Toxaphene. |
| K042 | Hexachlorobenzene, ortho-dichlorobenzene. |
| K043 | 2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol. |
| K044 | N.A. |
| K045 | N.A. |
| K046 | Lead. |
| K047 | N.A. |
| K048 | Hexavalent chromium, lead. |
| K049 | Hexavalent chromium, lead. |
| K050 | Hexavalent chromium. |
| K051 | Hexavalent chromium, lead. |
| K052 | Lead. |
| K060 | Cyanide, napthalene, phenolic compounds, arsenic. |
| K061 | Hexavalent chromium, lead, cadmium. |
| K062 | Hexavalent chromium, lead. |
| K064 | Lead, cadmium. |
| K065 | Do. |

| EPA hazardous waste No. | Hazardous constituents for which listed |
|---|---|
| K066 | Do. |
| K069 | Hexavalent chromium, lead, cadmium. |
| K071 | Mercury. |
| K073 | Chloroform, carbon tetrachloride, hexacholroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane. |
| K083 | Aniline, diphenylamine, nitrobenzene, phenylenediamine. |
| K084 | Arsenic. |
| K085 | Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride. |
| K086 | Lead, hexavalent chromium. |
| K087 | Phenol, naphthalene. |
| K088 | Cyanide (complexes). |
| K090 | Chromium. |
| K091 | Do. |
| K093 | Phthalic anhydride, maleic anhydride. |
| K094 | Phthalic anhydride. |
| K095 | 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-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 |
| K107 | 1,1-Dimethylhydrazine (UDMH) |
| K108 | 1,1-Dimethylhydrazine(UDMH) |
| K109 | 1,1-Dimethylhydrazine (UDMH) |
| K110 | 1,1-Dimethylhydrazine(UDMH) |
| K111 | 2,4-Dinitrotoluene |
| K112 | 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline |
| K113 | 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline |
| K114 | 2,4-Toluenediamine, o-toluidine, p-toluidine |
| K115 | 2,4-Toluenediamine |

| EPA hazardous waste No. | Hazardous constituents for which listed |
|---|---|
| K116 | Carbon tetrachloride, tetrachloroethylene chloroform, phosgene |
| K117 | Ethylene dibromide |
| K118 | Ethylene dibromide |
| K123 | Ethylene thiourea |
| K124 | Ethylene thiourea |
| K125 | Ethylene thiourea |
| K126 | Ethylene thiourea |
| K131 | Dimethyl sulfate, methyl bromide |
| K132 | Methyl bromide |
| K136 | Ethylene dibromide |
| K141 | Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene. |
| K142 | Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene. |
| K143 | Benzene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene. |
| K144 | Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene. |
| K145 | Benzene, benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, naphthalene. |
| K147 | Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene; indeno(1,2,3-cd)pyrene. |
| K148 | Benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene. |
| K149 | Benzotrichloride, benzyl chloride, chloroform, chloromethane, chlorobenzene, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, toluene. |
| K150 | Carbon tetrachloride, chloroform, chloromethane, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,2,4-trichlorobenzene. |
| K151 | Benzene, carbon tetrachloride, chloroform, hexachlorobenzene, pentachlorobenzene, toluene, 1,2,4,5-tetrachlorobenzene, tetrachloroethylene. |
| K156 | Benomyl, carbaryl, carbendazim, carbofuran, carbosulfan, formaldehyde, methylene chloride, triethylamine. |
| K157 | Carbon tetrachloride, formaldehyde, methyl chloride, methylene chloride, pyridine, triethylamine. |

| EPA hazardous waste No. | Hazardous constituents for which listed |
|---|---|
| K158 | Benomyl, carbendazim, carbofuran, carbosulfan, chloroform, methylene chloride. |
| K159 | Benzene, butylate, eptc, molinate, pebulate, vernolate. |
| K161 | Antimony, arsenic, metam-sodium, ziram. |
| K169 | Benzene. |
| K170 | Benzo(a)pyrene, dibenz(a,h)anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, 3-methylcholanthrene, 7,12-demethylbenz(a)anthracene. |
| K171 | Benzene, arsenic. |
| K172 | Benzene, arsenic. |

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

(Amended February 5, 1985; November 21, 1985; May 8, 1986; August 29, 1988; August 10, 1990; June 19, 1992, August 1, 1995, August 21, 1997, January 1, 1999, August 23, 1999, April 23, 2001)

## Appendix VIII -- Hazardous Constituents

| Common Name | Chemical Abstracts Name | Chemical Abstracts Number | Haz. Waste # |
|---|---|---|---|
| A2213 | Ethanimidothioic acid, 2-(dimethylamino) -N-hydroxy-2-oxo-, methyl ester | 30558-43-1 | U394 |
| Acetonitrile | Same | 75-05-8 | U003 |
| Acetophenone | Ethanone, 1-phenyl- | 98-86-2 | U004 |
| 2-Acetylaminefluarone | Acetamide, N-9H-fluoren-2-yl- | 53-96-3 | U005 |
| Acetyl chloride | Same | 75-36-5 | U006 |
| 1-Acetyl-2-thiourea | Acetamide, N-(aminothioxomethyl)- | 591-08-2 | P002 |
| Acrolein | 2-Propenal | 107-02-8 | P003 |
| Acrylamide | 2-Propenamide | 79-06-1 | U007 |
| Acrylonitrile | 2-Propenenitrile | 107-13-1 | U009 |
| Aflatoxins | Same | 1402-68-2 | |
| Aldicarb | Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime | 116-06-3 | P070 |
| Aldicarb sulfone | Propanal, 2-methyl-2- (methylsulfonyl) -, 0-[(methylamino) carbonyl] oxime | 1646-88-4 | P203 |
| Aldrin | 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-10-hexachloro-1,4,4a,5,8, 8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha;8alpha, 8abeta)- | 309-00-2 | P004 |
| Allyl alcohol | 2-Propen-1-ol | 107-18-6 | P005 |
| Allyl chloride | 1-Propane, 3-chloro | 107-18-6 | |
| Aluminum phosphide | Same | 20859-73-8 | P006 |
| 4-Aminobiphenyl | [1,1'-Biphenyl]-4-amine | 92-67-1 | |
| 5-(Aminomethyl)-3-isox azolol | 3(2H)-Isoxazolone, 5-(aminomethyl)- | 2763-96-4 | P007 |
| 4-Aminopyridine | 4-Pyridinamine | 504-24-5 | P008 |
| Amitrole | 1H-1,2,4-Triazol-3-amine | 61-82-5 | U011 |
| Ammonium vanadate | Vanadic acid, ammonium salt | 7803-55-6 | P119 |
| Aniline | Benzenamine | 62-53-3 | U012 |
| Antimony | Same | 7440-36-0 | |
| Antimony compounds, N.O.S.[1] | | | |
| Arsenic | Same | 7440-38-2 | |
| Arsenic compounds, N.O.S.[1] | | | |
| Arsenic acid | Arsenic acid $H_3AsO_4$ | 7778-39-4 | P010 |
| Arsenic pentoxide | Arsenic oxide $As_2O_5$ | 1303-28-2 | P011 |
| Arsenic trioxide | Arsenic oxide $As_2O_3$ | 1327-53-3 | P012 |
| Auramine | Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl | 492-80-8 | U014 |
| Azaserine | L-Serine, diazoacetate (ester) | 115-02-6 | U015 |
| Barban | Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester | 101-27-9 | U280 |
| Barium | Same | 7440-39-3 | |
| Barium compounds, N.O.S.[1] | | | |
| Barium cyanide | Same | 542-62-1 | P013 |

| | | | |
|---|---|---|---|
| Bendiocarb | 1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate | 22781-23-3 | U278 |
| Bendiocarb phenol | 1,3-Benzodioxol-4-ol, 2,2-dimethyl-, | 22961-82-6 | U364 |
| Benomyl | Carbamic acid, [1- [(butylamino) carbonyl]- 1H-benzimidazol-2-yl] -, methyl ester | 17804-35-2 | U271 |
| Benz[c]acridine | Same | 225-51-4 | U016 |
| Benz[a]anthracene | Same | 56-55-3 | U018 |
| Benzal chloride | Benzene, (dichloromethyl)- | 98-87-3 | U017 |
| Benzene | Same | 71-43-2 | U019 |
| Benzenearsonic acid | Arsonic acid, phenyl- | 98-05-5 | |
| Benzidine | [1,1'-Biphenyl]-4,4'-diamine | 92-87-5 | U021 |
| Benzo[b]fluoranthene | Benz[e]acephenanthrylene | 205-99-2 | |
| Benzo(k)fluoranthene | Same | 207-08-9 | |
| Benzo[a]pyrene | Same | 50-32-8 | U022 |
| Benzyl chloride | Benzene, (chloromethyl)- | 100-44-7 | P028 |
| Beryllium powder | Same | 7440-41-7 | P015 |
| Beryllium compounds, N.O.S.[1] | | | |
| Bis (pentamethylene)-thiuram tetrasulfide | Piperidine 1,1'-(tetrathiodicarbonothioyl)-bis- | 120-54-7 | |
| Bromoacetone | 2-Propanone, 1-bromo- | 598-31-2 | P017 |
| Bromoform | Methane, tribromo- | 75-25-2 | U225 |
| 4-Bromophenyl phenyl ether | Benzene, 1-bromo-4-phenoxy- | 101-55-3 | U030 |
| Brucine | Strychnidin-10-one, 2,3-dimethoxy- | 357-57-3 | P018 |
| Butyl benzyl phthalate | 1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester | 85-68-7 | |
| Butylate | Carbamothioic acid, bis (2-methylpropyl)-, S-ethyl ester | 2008-41-5 | |
| Cacodylic acid | Arsinic acid, dimethyl- | 75-60-5 | U136 |
| Cadmium | Same | 7440-43-9 | |
| Cadmium compounds, N.O.S.[1] | | | |
| Calcium chromate | Chromic acid $H_2CrO_4$, calcium salt | 13765-19-0 | U032 |
| Calcium cyanide | Calcium cyanide $Ca(CN)_2$ | 592-01-8 | P021 |
| Carbaryl | 1-Naphthalenol, methylcarbamate | 63-25-2 | U279 |
| Carbendazim | Carbamic acid, 1H-benzimidazol-2-yl, methyl ester | 10605-21-7 | U372 |
| Carbofuran | 7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate | 1563-66-2 | P127 |
| Carbofuran phenol | 7-Benzofuranol, 2,3-dihydro-2,2-dimethyl- | 1563-38-8 | U367 |
| Carbon disulfide | Same | 75-15-0 | P022 |
| Carbon oxyfluoride | Carbonic difluoride | 353-50-4 | U033 |
| Carbon tetrachloride | Methane, tetrachloro- | 56-23-5 | U211 |
| Carbosulfan | Carbamic acid, [(dibutylamino) thio] methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester | 55285-14-8 | P189 |
| Chloral | Acetaldehyde, trichloro- | 75-87-6 | U034 |
| Chlorambucil | Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]- | 305-03-3 | U035 |
| Chlordane | 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- | 57-74-9 | U036 |
| Chlordane (alpha and gamma isomers) | | | U036 |
| Chlorinated benzenes, N.O.S.[1] | | | |

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| Chlorinated ethane, N.O.S.[1] | | | |
| Chlorinated fluorocarbons, N.O.S.[1] | | | |
| Chlorinated naphthalene, N.O.S.[1] | | | |
| Chlorinated phenol, N.O.S.[1] | | | |
| Chlornaphazin | Naphthalenamine, N,N'-bis(2-chloroethyl)- | 494-03-1 | U026 |
| Chloroacetaldehyde | Acetaldehyde, chloro- | 107-20-0 | P023 |
| Chloroalkyl ethers, N.O.S.[1] | | | |
| p-Chloroaniline | Benzenamine, 4-chloro- | 106-47-8 | P024 |
| Chlorobenzene | Benzene, chloro- | 108-90-7 | U037 |
| Chlorobenzilate | Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester | 510-15-6 | U038 |
| p-Chloro-m-cresol | Phenol, 4-chloro-3-methyl | 59-50-7 | U039 |
| 2-Chloroethyl vinyl ether | Ethene, (2-chloroethoxy)- | 110-75-8 | U042 |
| Chloroform | Methane, trichloro- | 67-66-3 | U044 |
| Chloromethyl methyl ether | Methane, chloromethoxy- | 107-30-2 | U046 |
| beta-Chloronaphthalene | Naphthalene, 2-chloro- | 91-58-7 | U047 |
| o-Chlorophenol | Phenol, 2-chloro- | 95-57-8 | U048 |
| 1-(o-Chlorophenyl)thiourea | Thiourea, (2-chlorophenyl)- | 5344-82-1 | P026 |
| Chloroprene | 1,3-Butadiene, 2-chloro- | 126-99-8 | |
| 3-Chloropropionitrile | Propanenitrile, 3-chloro- | 542-76-7 | P027 |
| Chromium | Same | 7440-47-3 | |
| Chromium compounds, N.O.S.[1] | | | |
| Chrysene | Same | 218-01-9 | U050 |
| Citrus red No. 2 | 2-Naphthalenol, 1-[(2,5-dimethoxyphenyl)azo]- | 6358-53-8 | |
| Coal tar creosote | Same | 8007-45-2 | |
| Copper cyanide | Copper cyanide CuCN | 544-92-3 | P029 |
| Copper dimethyldithiocarbamate | Copper, bis(dimethylcarbamodithioato-S,S')-, | 137-29-1 | |
| Creosote | Same | | U051 |
| Cresol (Cresylic acid) | Phenol, methyl- | 1319-77-3 | U052 |
| Crotonaldehyde | 2-Butenal | 4170-30-3 | U053 |
| m-Cumenyl methylcarbamate | Phenol, 3-(methylethyl)-, methyl carbamate | 64-00-6 P202 | |
| Cyanides (soluble salts and complexes) N.O.S.[1] | | | P030 |
| Cyanogen | Ethanedinitrile | 460-19-5 | P031 |
| Cyanogen bromide | Cyanogen bromide (CN)Br | 506-68-3 | U246 |
| Cyanogen chloride | Cyanogen chloride (CN)Cl | 506-77-4 | P033 |
| Cycasin | beta-D-Glucopyranoside, (methyl-ONN-azoxy)methyl | 14901-08-7 | |
| Cycloate | Carbamothioic acid, cyclohexylethyl-, S-ethyl ester | 1134-23-2 | |
| 2-Cyclohexyl-4,6-dinitrophenol | Phenol, 2-cyclohexyl-4,6-dinitro- | 131-89-5 | P034 |

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| Cyclophosphamide | 2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide | 50-18-0 | U058 |
| 2,4-D | Acetic acid, (2,4-dichlorophenoxy)- | 94-75-7 | U240 |
| 2,4-D, salts, esters | | | U240 |
| Daunomycin | 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)- | 20830-81-3 | U059 |
| Dazomet | 2H-1,3,5-thiadiazine-2-thione, tetrahydro-3,5-dimethyl | 533-74-4 | |
| DDD | Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro- | 72-54-8 | U060 |
| DDE | Benzene, 1,1'-(dichloroethenylidene)bis[4-chloro- | 72-55-9 | |
| DDT | Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro- | 50-29-3 | U061 |
| Diallate | Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester | 2303-16-4 | U062 |
| Dibenz[a,h]acridine | Same | 226-36-8 | |
| Dibenz[a,j]acridine | Same | 224-42-0 | |
| Dibenz[a,h]anthracene | Same | 53-70-3 | U063 |
| 7H-Dibenzo[c,g]carbazole | Same | 194-59-2 | |
| Dibenzo[a,e]pyrene | Naphtho[1,2,3,4-def]chrysene | 192-65-4 | |
| 1,2-Dibromo-3-chloropropane | Propane, 1,2-dibromo-3-chloro- | 96-12-8 | U066 |
| Dibutyl phthalate | 1,2-Benzenedicarboxylic acid, dibutyl ester | 84-74-2 | U069 |
| o-Dichlorobenzene | Benzene, 1,2-dichloro- | 95-50-1 | U070 |
| m-Dichlorobenzene | Benzene, 1,3-dichloro- | 541-73-1 | U071 |
| p-Dichlorobenzene | Benzene, 1,4-dichloro- | 106-46-7 | U072 |
| Dichlorobenzene, N.O.S.[1] | Benzene, dichloro- | 25321-22-6 | |
| 3,3'-Dichlorobenzidine | [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro- | 91-94-1 | U073 |
| 1,4-Dichloro-2-butene | 2-Butene, 1,4-dichloro- | 764-41-0 | U074 |
| Dichlorodifluoromethane | Methane, dichlorodifluoro- | 75-71-8 | U075 |
| Dichloroethylene, N.O.S.[1] | Dichloroethylene | 25323-30-2 | |
| 1,1-Dichloroethylene | Ethene, 1,1-dichloro- | 75-35-4 | U078 |
| 1,2-Dichloroethylene | Ethene, 1,2-dichlrol-, (E)- | 156-60-5 | U079 |
| Dichloroethyl ether | Ethane, 1,1'oxybis[2-chloro- | 111-44-4 | U025 |
| Dichloroisopropyl ether | Propane, 2,2'-oxybis[2-chloro- | 108-60-1 | U027 |
| Dichloromethoxy ethane | Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro- | 111-91-1 | U024 |
| Dichloromethyl ether | Methane, oxybis[chloro- | 542-88-1 | P016 |
| 2,4-Dichlorophenol | Phenol, 2,4-dichloro- | 120-83-2 | U081 |
| 2,6-Dichlorophenol | Phenol, 2,6-dichloro- | 87-65-0 | U082 |
| Dichlorophenylarsine | Arsonous dichloride, phenyl- | 696-28-6 | P036 |
| Dichloropropane, N.O.S.[1] | Propane, dichloro- | 26638-19-7 | |
| Dichloropropanol, N.O.S.[1] | Propanol, dichloro- | 26545-73-3 | |
| Dichloropropene, N.O.S.[1] | 1-Propene, dichloro- | 26952-23-8 | |

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| 1,3-Dichloropropene | 1-Propene, 1,3-dichloro- | 542-75-6 | U084 |
| Dieldrin | 2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7, 7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta, 6aalpha,7beta,7aalpha)- | 60-57-1 | P037 |
| 1,2:3,4-Diepoxybutane | 2,2'-Bioxirane | 1464-53-5 | U085 |
| Diethylarsine | Arsine, diethyl- | 692-42-2 | P038 |
| 1,4-Diethyleneoxide | 1,4-Dioxane | 123-91-1 | U108 |
| Diethylhexyl phthalate | 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester | 117-81-7 | U028 |
| Diethylene glycol, dicarbamate | Ethanol, 2,2'-oxybis-, dicarbamate | 5952-26-1 | U395 |
| N,N'-Diethylhydrazine | Hydrazine, 1,2-diethyl- | 1615-80-1 | U086 |
| O,O-Diethyl S-methyl dithiophosphate | Phosphorodithioic acid, O,O-diethyl S-methyl ester | 3288-58-2 | U087 |
| Diethyl-p-nitrophenyl phosphate | Phosphoric acid, diethyl 4-nitrophenyl ester | 311-45-5 | P041 |
| Diethyl phthalate | 1,2-Benzenedicarboxylic acid, diethyl ester | 84-66-2 | U088 |
| O,O-Diethyl O-pyrazinyl phosphoro-thioate | Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester | 297-97-2 | P040 |
| Diethylstilbesterol | Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)- | 56-53-1 | U089 |
| Dihydrosafrole | 1,3-Benzodioxole, 5-propyl- | 94-58-6 | U090 |
| Diisopropylfluorophosphate (DFP) | Phosphorofluoridic acid, bis(1-methylethyl) ester | 55-91-4 | P043 |
| Dimethoate | Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester | 60-51-5 | P044 |
| 3,3'-Dimethoxybenzidine | [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy- | 119-90-4 | U091 |
| p-Dimethylaminoazo-benzene | Benzenamine, N,N-dimethyl-4-(phenylazo)- | 60-11-7 | U093 |
| 7,12-Dimethylbenz[a]-anthracene | Benz[a]anthracene, 7,12-dimethyl- | 57-97-6 | U094 |
| 3,3'-Dimethylbenzidine | [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl- | 119-93-7 | U095 |
| Dimethylcarbamoyl chloride | Carbamic chloride, dimethyl- | 79-44-7 | U097 |
| 1,1-Dimethylhydrazine | Hydrazine, 1,1-dimethyl- | 57-14-7 | U098 |
| 1,2-Dimethylhydrazine | Hydrazine, 1,2-dimethyl- | 540-73-8 | U099 |
| alpha,alpha-Dimethylphenethylamine | Benzeneethanamine, alpha,alpha-dimethyl- | 122-09-8 | P046 |
| 2,4-Dimethylphenol | Phenol, 2,4-dimethyl- | 105-67-9 | U101 |
| Dimethyl phthalate | 1,2-Benzenedicarboxylic acid, dimethyl ester | 131-11-3 | U102 |
| Dimethyl sulfate | Sulfuric acid, dimethyl ester | 77-78-1 | U103 |
| Dimetilan | Carbamic acid, dimethyl-, 1-[(dimethylamino) carbonyl] -5-methyl-1H-pyrazol-3-yl ester | 644-64-4 | P191 |
| Dinitrobenzene, N.O.S.[1] | Benzene, dinitro- | 25154-54-5 | |
| 4,6-Dinitro-o-cresol | Phenol, 2-methyl-4,6-dinitro- | 534-52-1 | P047 |
| 4,6-Dinitro-o-cresol salts | | | P047 |
| 2,4-Dinitrophenol | Phenol, 2,4-dinitro- | 51-28-5 | P048 |
| 2,4-Dinitrotoluene | Benzene, 1-methyl-2,4-dinitro- | 121-14-2 | U105 |
| 2,6-Dinitrotoluene | Benzene, 2-methyl-1,3-dinitro- | 606-20-2 | U106 |

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| Di-n-octyl phthalate | 1,2-Benzenedicarboxylic acid, dioctyl ester | 117-84-0 | U017 |
| Diphenylamine | Benzenamine, N-phenyl- | 122-39-4 | |
| 1,2-Diphenylhydrazine | Hydrazine, 1,2-diphenyl- | 122-66-7 | U109 |
| Di-n-propylnitrosamine | 1-Propanamine, N-nitroso-N-propyl- | 621-64-7 | U111 |
| Disulfiram | Thioperoxydicarbonic diamide, tetraethyl | 97-77-8 | |
| Disulfoton | Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester | 298-04-4 | P039 |
| Dithiobiuret | Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$ | 541-53-7 | P049 |
| Endosulfan | 6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide | 115-29-7 | P050 |
| Endothall | 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid | 145-73-3 | P088 |
| Endrin | 2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- | 72-20-8 | P051 |
| Endrin metabolites | | | P051 |
| Epichlorohydrin | Oxirane, (chloromethyl)- | 106-89-8 | U041 |
| Epinephrine | 1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)- | 51-43-4 | P042 |
| EPTC | Carbamothioic acid, dipropyl-, S-ethyl ester | 759-94-4 | |
| Ethyl carbamate (urethane) | Carbamic acid, ethyl ester | 51-79-6 | U238 |
| Ethyl cyanide | Propanenitrile | 107-12-0 | P101 |
| Ethyl Ziram | Zinc, bis(diethylcarbamodithioato-S,S')- | 14324-55-1 | |
| Ethylenebisdithiocarbamic acid | Carbamodithioic acid, 1,2-ethanediylbis- | 111-54-6 | U114 |
| Ethylenebisdithiocarbamic acid, salts and esters | | U114 | |
| Ethylene dibromide | Ethane, 1,2-dibromo- | 106-93-4 | U067 |
| Ethylene dichloride | Ethane, 1,2-dichloro- | 107-06-2 | U077 |
| Ethylene glycol monoethyl ether | Ethanol, 2-ethoxy- | 110-80-5 | U359 |
| Ethyleneimine | Aziridine | 151-56-4 | P054 |
| Ethylene oxide | Oxirane | 75-21-8 | U115 |
| Ethylenethiourea | 2-Imidazolidinethione | 96-45-7 | U116 |
| Ethylidene dichloride | Ethane, 1,1-dichloro- | 75-34-3 | U076 |
| Ethyl methacrylate | 2-Propenoic acid, 2-methyl-, ethyl ester | 97-63-2 | U118 |
| Ethyl methanesulfonate | Methanesulfonic acid, ethyl ester | 62-50-0 | U119 |
| Famphur | Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester | 52-85-7 | P097 |
| Ferbam | Iron, tris(dimethylcarbamodithioat-S,S')-, | 14484-64-1 | |
| Fluoranthene | Same | 206-44-0 | U120 |
| Fluorine | Same | 7782-41-4 | P056 |
| Fluoroacetamide | Acetamide, 2-fluoro- | 640-19-7 | P057 |
| Fluoroacetic acid, sodium salt | Acetic acid, fluoro-, sodium salt | 62-74-8 | P058 |
| Formaldehyde | Same | 50-00-0 | U122 |
| Formetanate | Methanimidamide, N,N-dimethyl-N'-[3- | 23422-53-9 | P198 |

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| hydrochloride | [[(methylamino) carbonyl]oxy]phenyl]-, monohydrochloride | | |
| Formic acid | Same | 64-18-6 | U123 |
| Formparanate | Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino) carbonyl]oxy]phenyl]- | 17702-57-7 | P197 |
| Glycidylaldehyde | Oxiranecarboxyaldehyde | 765-34-4 | U126 |
| Halomethanes, N.O.S.[1] | | | |
| Heptachlor | 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- | 76-44-8 | P059 |
| Heptachlor epoxide | 2,5-Methano-2H-indeno[1,2-b]oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexa- hydro-, (1aalpha,1bbeta,2alpha,5alpha, 5abeta,6beta,6aalpha)- | 1024-57-3 | |
| Heptachlor epoxide (alpha, beta, and gamma isomers) | | | |
| Heptachlorodibenzofurans | | | |
| Heptachlorodibenzo-p-dioxins | | | |
| Hexachlorobenzene | Benzene, hexachloro- | 118-74-1 | U127 |
| Hexachlorobutadiene | 1,3-Butadiene, 1,1,2,3,4,4-hexachloro- | 87-68-3 | U128 |
| Hexachlorocyclopentadiene | 1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro- | 77-47-4 | U130 |
| Hexachlorodibenzo-p-dioxins | | | |
| Hexachlorodibenzofurans | | | |
| Hexachloroethane | Ethane, hexachloro- | 67-72-1 | U131 |
| Hexachlorophene | Phenol, 2,2'-methylenebis[3,4,6-trichloro- | 70-30-4 | U132 |
| Hexachloropropene | 1-Propene, 1,1,2,3,3,3-hexachloro- | 1888-71-7 | U243 |
| Hexaethyl tetraphosphate | Tetraphosphoric acid, hexaethyl ester | 757-58-4 | P062 |
| Hydrazine | Same | 302-01-2 | U133 |
| Hydrogen cyanide | Hydrocyanic acid | 74-90-8 | P063 |
| Hydrogen fluoride | Hydrofluoric acid | 7664-39-3 | U134 |
| Hydrogen sulfide | Hydrogen sulfide $H_2S$ | 7783-06-4 | U135 |
| Indeno[1,2,3-cd]pyrene | Same | 193-39-5 | U137 |
| 3-Iodo-2-propynyl n-butylcarbamate | Caramic acid, butyl-, 3-iodo-2-propynyl ester | 54406-53-6 | |
| Isobutyl alcohol | 1-Propanol, 2-methyl- | 78-83-1 | U140 |
| Isodrin | 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)- | 465-73-6 | P060 |
| Isolan | Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester | 119-38-0 | P192 |
| Isosafrole | 1,3-Benzodioxole, 5-(1-propenyl)- | 120-58-1 | U141 |
| Kepone | 1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachloroocta hydro- | 143-50-0 | U142 |
| Lasiocarpine | 2-Butenoic acid, 2-methyl-,7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1- | 303-34-1 | 4143 |

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| | oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1 H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]- | | |
| Lead | Same | 7439-92-1 | |
| Lead compounds, N.O.S.[1] | | | |
| Lead acetate | Acetic acid, lead(2+) salt | 301-04-2 | U144 |
| Lead phosphate | Phosphoric acid, lead(2+) salt (2:3) | 7446-27-7 | U145 |
| Lead subacetate | Lead, bis(acetato-O)tetrahydroxytri- | 1335-32-6 | U146 |
| Lindane | Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6b eta)- | 58-89-9 | U129 |
| Maleic anhydride | 2,5-Furandione | 108-31-6 | U147 |
| Maleic hydrazide | 3,6-Pyridazinedione, 1,2-dihydro- | 123-33-1 | U148 |
| Malononitrile | Propanedinitrile | 109-77-3 | U149 |
| Manganese dimethyldithiocarbamat e | Manganese, bis(dimethylcarbamodithioato-S,S')-, | 15339-36-3 | P196 |
| Melphalan | L-Phenylalanine, 4-[bis(2-chloroethyl)aminol]- | 148-82-3 | U150 |
| Mercury | Same | 7439-97-6 | U151 |
| Mercury compounds, N.O.S.[1] | | | |
| Mercury fulminate | Fulminic acid, mercury(2+) salt | 628-86-4 | P065 |
| Metam Sodium | Carbamodithioic acid, methyl-, monosodium salt | 137-42-8 | |
| Methacrylonitrile | 2-Propenenitrile, 2-methyl- | 126-98-7 | U152 |
| Methapyrilene | 1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienyl methyl)- | 91-80-5 | U155 |
| Methiocarb | Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate | 2032-65-7 | P199 |
| Methomyl | Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester | 16752-77-5 | P066 |
| Methoxychlor | Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-met hoxy- | 72-43-5 | U247 |
| Methyl bromide | Methane, bromo- | 74-83-9 | U029 |
| Methyl chloride | Methane, chloro- | 74-87-3 | U045 |
| Methyl chlorocarbonate | Carbonochloridic acid, methyl ester | 79-22-1 | U156 |
| Methyl chloroform | Ethane, 1,1,1-trichloro- | 71-55-6 | U226 |
| 3-Methylcholanthrene | Benz[j]aceanthrylene, 1,2-dihydro-3-methyl- | 56-49-5 | U157 |
| 4,4'-Methylenebis (2-chloroaniline) | Benzenamine, 4,4'-methylenebis[2-chloro- | 101-14-4 | U158 |
| Methylene bromide | Methane, dibromo- | 74-95-3 | U068 |
| Methylene chloride | Methane, dichloro- | 75-09-2 | U080 |
| Methyl ethyl ketone (MEK) | 2-Butanone | 78-93-3 | U159 |
| Methyl ethyl ketone peroxide | 2-Butanone, peroxide | 1338-23-4 | U160 |
| Methyl hydrazine | Hydrazine, methyl- | 60-34-4 | P068 |
| Methyl iodide | Methane, iodo- | 74-88-4 | U138 |
| Methyl isocyanate | Methane, isocyanato- | 624-83-9 | P064 |
| 2-Methyllactonitrile | Propanenitrile, 2-hydroxy-2-methyl- | 75-86-5 | P069 |
| Methyl methacrylate | 2-Propenoic acid, 2-methyl-, methyl ester | 80-62-6 | U162 |
| Methyl | Methanesulfonic acid, methyl ester | 66-27-3 | |

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| methanesulfonate | | | |
| Methyl parathion | Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester | 298-00-0 | P071 |
| Methylthiouracil | 4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo- | 56-04-2 | U164 |
| Metolcarb | Carbamic acid, methyl-, 3-methylphenyl ester | 1129-41-5 | P190 |
| Mexacarbate | Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester) | 315-18-4 | P128 |
| Mitomycin C | Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha,8beta,8aalpha,8balpha)]- | 50-07-7 | U010 |
| MNNG | Guanidine, N-methyl-N'-nitro-N-nitroso- | 70-25-7 | U163 |
| Molinate | 1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester | 2212-67-1 | |
| Mustard gas | Ethane, 1,1'-thiobis[2-chloro- | 505-60-2 | |
| 1,4-Naphthoquinone | 1,4-Naphthalenedione | 130-15-4 | U166 |
| alpha-Naphthylamine | 1-Naphthalenamine | 134-32-7 | U167 |
| beta-Naphthylamine | 2-Naphthalenamine | 91-59-8 | U168 |
| alpha-Naphthylthiourea | Thiourea, 1-naphthalenyl- | 86-88-4 | P072 |
| Nickel | Same | 7440-02-0 | |
| Nickel compounds, N.O.S.[1] | | | |
| Nickel carbonyl | Nickel carbonyl $Ni(CO)_4$, (T-4)- | 13463-39-3 | P073 |
| Nickel cyanide | Nickel cyanide $Ni(CN)_2$ | 557-19-7 | P074 |
| Nicotine | Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)- | 54-11-5 | P075 |
| Nicotine salts | | | P075 |
| Nitric oxide | Nitrogen oxide NO | 10102-43-9 | P076 |
| p-Nitroaniline | Benzenamine, 4-nitro- | 100-01-6 | P077 |
| Nitrobenzene | Benzene, nitro- | 98-95-3 | U169 |
| Nitrogen dioxide | Nitrogen oxide $NO_2$ | 10102-44-0 | P078 |
| Nitrogen mustard | Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl- | 51-75-2 | |
| Nitrogen mustard, hydro-chloride salt | | | |
| Nitrogen mustard N-oxide | Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-, N-oxide | 126-85-2 | |
| Nitrogen mustard, N-oxide, hydrochloride salt | | | |
| Nitroglycerin | 1,2,3-Propanetriol, trinitrate | 55-63-0 | P081 |
| p-Nitrophenol | Phenol, 4-nitro- | 100-02-7 | U170 |
| 2-Nitropropane | Propane, 2-nitro- | 79-46-9 | U171 |
| Nitrosamines, N.O.S.[1] | | 35576-91-1D | |
| N-Nitrosodi-n-butylamine | 1-Butanamine, N-butyl-N-nitroso- | 924-16-3 | U172 |
| N-Nitrosodiethanolamine | Ethanol, 2,2'-(nitrosoimino)bis- | 1116-54-7 | U173 |
| N-Nitrosodiethylamine | Ethanamine, N-ethyl-N-nitroso- | 55-18-5 | U174 |
| N-Nitrosodimethylamine | Methanamine, N-methyl-N-nitroso- | 62-75-9 | P082 |
| N-Nitroso-N-ethylurea | Urea, N-ethyl-N-nitroso- | 759-73-9 | U176 |
| N-Nitrosomethylethylamine | Ethanamine, N-methyl-N-nitroso- | 10595-95-6 | |

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| N-Nitroso-N-methylurea | Urea, N-methyl-N-nitroso- | 684-93-5 | U177 |
| N-Nitroso-N-methylurethane | Carbamic acid, methylnitroso-, ethyl ester | 615-53-2 | U178 |
| N-Nitrosomethylvinylamine | Vinylamine, N-methyl-N-nitroso- | 4549-40-0 | P084 |
| N-Nitrosomorpholine | Morpholine, 4-nitroso- | 59-89-2 | |
| N-Nitrosonornicotine | Pyridine, 3-(1-nitroso-2-pyrrolidinyl)-, (S)- | 16543-55-8 | |
| N-Nitrosopiperidine | Piperidine, 1-nitroso- | 100-75-4 | U179 |
| N-Nitrosopyrrolidine | Pyrrolidine, 1-nitroso- | 930-55-2 | U180 |
| N-Nitrososarcosine | Glycine, N-methyl-N-nitroso- | 13256-22-9 | |
| 5-Nitro-o-toluidine | Benzenamine, 2-methyl-5-nitro- | 99-55-8 | U181 |
| Octamethylpyrophosphoramide | Diphosphoramide, octamethyl- | 152-16-9 | P085 |
| Osmium tetroxide | Osmium oxide $OsO_4$, (T-4)- | 20816-12-0 | P087 |
| Oxamyl | Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino)carbonyl]oxy]-2-oxo-, methyl ester | 23135-22-0 | P194 |
| Paraldehyde | 1,3,5-Trioxane, 2,4,6-trimethyl- | 123-63-7 | U182 |
| Parathion | Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester | 56-38-2 | P089 |
| Pebulate | Carbamothioic acid, butylethyl-, S-propyl ester | 1114-71-2 | |
| Pentachlorobenzene | Benzene, pentachloro- | 608-93-5 | U183 |
| Pentachlorodibenzo-p-dioxins | | | |
| Pentachlorodibenzofurans | | | |
| Pentachloroethane | Ethane, pentachloro- | 76-01-7 | U184 |
| Pentachloronitrobenzene (PCNB) | Benzene, pentachloronitro- | 82-68-8 | U185 |
| Pentachlorophenol | Phenol, pentachloro- | 87-86-5 | See F027 |
| Phenacetin | Acetamide, N-(4-ethoxyphenyl)- | 62-44-2 | U187 |
| Phenol | Same | 108-95-2 | U188 |
| Phenylenediamine | Benzenediamine | 25265-76-3 | |
| Phenylmercury acetate | Mercury, (acetato-O)phenyl- | 62-38-4 | P092 |
| Phenylthiourea | Thiourea, phenyl- | 103-85-5 | P093 |
| Phosgene | Carbonic dichloride | 75-44-5 | P095 |
| Phosphine | Same | 7803-51-2 | P096 |
| Phorate | Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester | 298-02-2 | P094 |
| Phthalic acid esters, N.O.S.[1] | | | |
| Phthalic anhydride | 1,3-Isobenzofurandione | 85-44-9 | U190 |
| Physostigmine | Pyrrolo[2,3-b]indo-5-01, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)- | 57-47-6 | P204 |
| Physostigmine salicylate | Benzoic acid, 2-hydroxy-, compd. with (3aS-cis) -1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrol o [2,3-b]indol-5-yl methylcarbamate ester (1:1) | 57-64-7 | P188 |
| 2-Picoline | Pyridine, 2-methyl- | 109-06-8 | U191 |
| Polychlorinated biphenyls, N.O.S.[1] | | | |
| Potassium cyanide | Potassium cyanide K(CN) | 151-50-8 | P098 |

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| Potassium dimethyldithiocarbamate | Carbamodithioc acid, dimethyl, potassium salt | 128-03-0 | |
| Potassium n-hydroxymethyl-n-methyl-dithiocarbamate | Carbamodithioic acid, (hydroxymethyl)methyl-, monopotassium salt | 51026-28-9 | |
| Potassium n-methyldithiocarbamate | Carbamodithioc acid, methyl-monopotassium salt | 137-41-7 | |
| Potassium pentachloro-phenate | Pentachloro-phenol, potassium salt | 7778736 | None |
| Potassium silver cyanide | Argentate(1-), bis(cyano-C)-, potassium | 506-61-6 | P099 |
| Promecarb | Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate | 2631-37-0 | P201 |
| Pronamide | Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl) - | 23950-58-5 | U192 |
| 1,3-Propane sultone | 1,2-Oxathiolane, 2,2-dioxide | 1120-71-4 | U193 |
| Propham | Carbamic acid, phenyl-, 1-methylethyl ester | 122-42-9 | U373 |
| Propoxur | Phenol, 2-(1-methylethoxy)-, methylcarbamate | 114-26-1 | U411 |
| n-Propylamine | 1-Propanamine | 107-10-8 | U194 |
| Propargyl alcohol | 2-Propyn-1-ol | 107-19-7 | P102 |
| Propylene dichloride | Propane, 1,2-dichloro- | 78-87-5 | U083 |
| 1,2-Propylenimine | Aziridine, 2-methyl- | 75-55-8 | P067 |
| Propylthiouracil | 4(1H)-Pyrimidinone, 2,3-dihydro-6-propyl-2-thioxo- | 51-52-5 | |
| Prosulfocarb | Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester | 52888-80-9 | U387 |
| Pyridine | Same | 110-86-1 | U196 |
| Reserpine | Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-smethyl ester, (3beta,16beta,17alpha,18beta,20alpha) - | 50-55-5 | U200 |
| Resorcinol | 1,3-Benzenediol | 108-46-3 | U201 |
| Saccharin | 1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide | 81-07-2 | U202 |
| Saccharin salts | | | U202 |
| Safrole | 1,3-Benzodioxole, 5-(2-propenyl)- | 94-59-7 | U203 |
| Selenium | Same | 7782-49-2 | |
| Selenium compounds, N.O.S.[1] | | | |
| Selenium dioxide | Selenious acid | 7783-00-8 | U204 |
| Selenium sulfide | Selenium sulfide $SeS_2$ | 7488-56-4 | U205 |
| Selenium, tetrakis (dimethyl-dithiocarbamate | Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid | 144-34-3 | |
| Selenourea | Same | 630-10-4 | P103 |
| Silver | Same | 7440-22-4 | |
| Silver compounds, N.O.S.[1] | | | |
| Silver cyanide | Silver cyanide Ag(CN) | 506-64-9 | P104 |
| Silvex (2,4,5-TP) | Propanoic acid, 2-(2,4,5-trichlorophenoxy)- | 93-72-1 | See F027 |
| Sodium cyanide | Sodium cyanide Na(CN) | 143-33-9 | P106 |
| Sodium dibutyldithiocarbamate | Carbamodithioic acid, dibutyl, sodium salt | 136-30-1 | |
| Sodium | Carbamodithioic acid, diethyl-, sodium | 148-18-5 | |

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| dithyldithiocarbamate | salt | | |
| Sodium dimethyldithiocarbamate | Carbamodithioic acid, dimethyl-, sodium salt | 128-04-1 | |
| Sodium pentachloro-phenate | Pentachloro-phenol, sodium salt | 131522 | None |
| Streptozotocin | D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)carbonyl]amino]- | 18883-66-4 | U206 |
| Strychnine | Strychnidin-10-one | 57-24-9 | P108 |
| Strychnine salts | | | P108 |
| Sulfallate | Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester | 95-06-7 | |
| TCDD | Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro- | 1746-01-6 | |
| Tetrabutylthiuram disulfide | Thioperoxydicarbonic diamide, tetrabutyl | 1634-02-2 | |
| 1,2,4,5-Tetrachlorobenzene | Benzene, 1,2,4,5-tetrachloro- | 95-94-3 | U207 |
| Tetrachlorodibenzo-p-dioxins | | | |
| Tetrachlorodibenzofurans | | | |
| Tetrachloroethane, N.O.S.[1] | Ethane, tetrachloro-, N.O.S. | 25322-20-7 | |
| 1,1,1,2-Tetrachloroethane | Ethane, 1,1,1,2-tetrachloro- | 630-20-6 | U208 |
| 1,1,2,2-Tetrachloroethane | Ethane, 1,1,2,2-tetrachloro- | 79-34-5 | U209 |
| Tetrachloroethylene | Ethene, tetrachloro- | 127-18-4 | U210 |
| 2,3,4,6-Tetrachlorophenol | Phenol, 2,3,4,6-tetrachloro- | 58-90-2 | See F027 |
| 2,3,4,6-tetrachloro-phenol, potassium salt | same | 53535276 | None |
| 2,3,4,6-tetrachloro-phenol, sodium salt | same | 25567559 | None |
| Tetraethyldithiopyrophosphate | Thiodiphosphoric acid, tetraethyl ester | 3689-24-5 | P109 |
| Tetraethyl lead | Plumbane, tetraethyl- | 78-00-2 | P110 |
| Tetraethyl pyrophosphate | Diphosphoric acid, tetraethyl ester | 107-49-3 | P111 |
| Tetramethylthiuram monosulfide | Bis(dimethylthiocarbamoyl) sulfide | 97-74-5 | |
| Tetranitromethane | Methane, tetranitro- | 509-14-8 | P112 |
| Thallium | Same | 7440-28-0 | |
| Thallium compounds, N.O.S.[1] | | | |
| Thallic oxide | Thallium oxide $Tl_2O_3$ | 1314-32-5 | P113 |
| Thallium(I) acetate | Acetic acid, thallium(1+) salt | 563-68-8 | U214 |
| Thallium(I) carbonate | Carbonic acid, dithallium(1+) salt | 6533-73-9 | U215 |
| Thallium(I) chloride | Thallium chloride TlCl | 7791-12-0 | U216 |
| Thallium(I) nitrate | Nitric acid, thallium(1+) salt | 10102-45-1 | U217 |
| Thallium selenite | Selenious acid, dithallium(1+) salt | 12039-52-0 | P114 |
| Thallium(I) sulfate | Sulfuric acid, dithallium(1+) salt | 7446-18-6 | P115 |
| Thioacetamide | Ethanethioamide | 62-55-5 | U218 |
| Thiodicarb | Ethanimidothioic acid | 59669-26-0 | U410 |
| Thiofanox | 2-Butanone, 3,3-dimethyl-1-(methylthio)-, 0-[(methylamino)carbonyl] oxime | 39196-18-4 | P045 |

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| Thiomethanol | Methanethiol | 74-93-1 | U153 |
| Thiophanate-methyl | Carbamic acid, [1,2-phyenylenebis (iminocarbonothioyl)] bis-, dimethyl ester | 23564-05-8 | U409 |
| Thiophenol | Benzenethiol | 108-98-5 | P014 |
| Thiosemicarbazide | Hydrazinecarbothioamide | 79-19-6 | P116 |
| Thiourea | Same | 62-56-6 | U219 |
| Thiram | Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl- | 137-26-8 | U244 |
| Tirpate | 1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, 0-[(methylamino) carbonyl] oxime | 26419-73-8 | P185 |
| Toluene | Benzene, methyl- | 108-88-3 | U220 |
| Toluenediamine | Benzenediamine, ar-methyl- | 25376-45-8 | U221 |
| Toluene-2,4-diamine | 1,3-Benzenediamine, 4-methyl- | 95-80-7 | |
| Toluene-2,6-diamine | 1,3-Benzenediamine, 2-methyl- | 823-40-5 | |
| Toluene-3,4-diamine | 1,2-Benzenediamine, 4-methyl- | 496-72-0 | |
| Toluene diisocyanate | Benzene, 1,3-diisocyanatomethyl- | 26471-62-5 | U223 |
| o-Toluidine | Benzenamine, 2-methyl- | 95-53-4 | U328 |
| o-Toluidine hydrochloride | Benzenamine, 2-methyl-, hydrochloride | 636-21-5 | U222 |
| p-Toluidine | Benzenamine, 4-methyl- | 106-49-0 | U353 |
| Toxaphene | Same | 8001-35-2 | P123 |
| Triallate | Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester | 2303-17-5 | U389 |
| 1,2,4-Trichlorobenzene | Benzene, 1,2,4-trichloro- | 120-82-1 | |
| 1,1,2-Trichloroethane | Ethane, 1,1,2-trichloro- | 79-00-5 | U227 |
| Trichloroethylene | Ethene, trichloro- | 79-01-6 | U228 |
| Trichloromethanethiol | Methanethiol, trichloro- | 75-70-7 | P118 |
| Trichloromonofluoro-methane | Methane, trichlorofluoro- | 75-69-4 | U121 |
| 2,4,5-Trichlorophenol | Phenol, 2,4,5-trichloro- | 95-95-4 | See F027 |
| 2,4,6-Trichlorophenol | Phenol, 2,4,6-trichloro- | 88-06-2 | See F027 |
| 2,4,5-T | Acetic acid, (2,4,5-trichlorophenoxy)- | 93-76-5 | See F027 |
| Trichloropropane, N.O.S.[1] | | 25735-29-9 | |
| 1,2,3-Trichloropropane | Propane, 1,2,3-trichloro- | 96-18-4 | |
| Triethylamine | Ethanamine, N,N-diethyl- | 121-44-8 | U404 |
| O,O,O-Triethyl phosphorothioate | Phosphorothioic acid, O,O,O-triethyl ester | 126-68-1 | |
| 1,3,5-Trinitrobenzene | Benzene, 1,3,5-trinitro- | 99-35-4 | U234 |
| Tris(1-aziridinyl)phosph ine sulfide | Aziridine, 1,1',1"-phosphinothioylidynetris- | 52-24-4 | |
| Tris(2,3-dibromopropyl) phosphate | 1-Propanol, 2,3-dibromo-, phosphate (3:1) | 126-72-7 | U235 |
| Trypan blue | 2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]- bis[5-amino-4-hydroxy-, tetrasodium salt. | 72-57-1 | U236 |
| Uracil mustard | 2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]- | 66-75-1 | U237 |
| Vanadium pentoxide | Vanadium oxide $V_2O_5$ | 1314-62-1 | P120 |
| Vernolate | Carbamothioc acid, dipropyl-, S-propyl ester | 1929-77-7 | |
| Vinyl chloride | Ethene, chloro- | 75-01-4 | U043 |
| Warfarin | 2H-1-Benzopyran-2-one, | 81-81-2 | U248 |

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| | 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations less than 0.3% | | |
| Warfarin | 2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations greater than 0.3% | 81-81-2 | P001 |
| Warfarin salts, when present at concentrations less than 0.3% | | | U248 |
| Warfarin salts, when present at concentrations greater than 0.3% | | | P001 |
| Zinc cyanide | Zinc cyanide $Zn(CN)_2$ | 557-21-1 | P121 |
| Zinc phosphide | Zinc phosphide $Zn_3P_2$, when present at concentrations greater than 10% | 1314-84-7 | P122 |
| Zinc phosphide | Zinc phosphide $Zn_3P_2$, when present at concentrations of 10% or less | 1314-84-7 | U249 |
| Ziram | Zinc, bis(dimethylcarbamodithioato-A,S')-, (T-4)- | 137-30-4 | P205 |

FOOTNOTE: [1]The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.
(Amended July 26, 1994, July 23, 1996, August 21, 1997, January 1, 1999, April 23, 2001)

## Appendix IX - Wastes Excluded Under §§ 260.20 and 260.22

Delaware does not have any wastes that have been excluded under §§ 260.20 and 260.22.
(Amended August 21, 1997)

# Part 262 - Standards Applicable to Generators of Hazardous Waste

## Subpart A - General

Sec.



## Subpart B - The Manifest



## Subpart C - Pre-Transport Requirements



## Subpart D - Recordkeeping and Reporting



## Subpart E - Exports of Hazardous Waste



## Subpart F - Imports of Hazardous Waste



## Subpart G - Farmers

**Subpart H--Transfrontier Shipments of Hazardous Waste for Recovery within the OECD**



**Appendices**



**Subpart A - General**

**Section 262.10 Purpose, scope, and applicability.**

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

(b) 261.5(c) and (d) must be used to determine the applicability of provisions of this part that are dependent on calculations of the quantity of hazardous waste generated per month.

(c) 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: §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, §262.70 for farmers.

(d) Any person who exports or imports hazardous waste subject to the manifesting requirements of Part 262, or subject to the universal waste management standards of Part 273, to or from the countries listed in §262.58(a)(1) for recovery must comply with Subpart H of this part.

(e) Any person who imports hazardous waste into the United States must comply with the standards applicable to generators established in this part.

(f) A farmer who generates waste pesticides which are hazardous waste and who complies with all of the requirements of §262.70 is not required to comply with other standards in this part or Parts 122, 264, 265, or 268 with respect to such pesticides.

(g) 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.

(h) 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.)

(i) Persons responding to an explosives or munitions emergency in accordance with §264.1(g)(8)(i)(D) or (iv) or §265.1(c)(11)(i)(D) or (iv), and §122.1(c)(3)(i)(D) or (iii) are not required to comply with the standards of this part.

[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, 266, 268, and 122.]
(Amended August 10, 1990; June 19, 1992, July 23, 1996, January 1, 1999)

**Section 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) For the purpose of compliance with Part 268, or if the waste is not listed in Subpart D of Part 261, the generator must then 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.

(d) If the waste is determined to be hazardous, the generator must refer to Parts 261, 264, 265, 266, 268 and 273 of these regulations for possible exclusions or restrictions pertaining to management of the specific waste.
(Amended August 10, 1990; June 19, 1992, July 23, 1996)

**Section 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 Regulated 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.

(d) A generator must submit a subsequent State of Delaware Notification of Regulated Waste Activity Form (8700-12) whenever there is a change in name, mailing address, contact person, contact address, telephone number, ownership, type of regulated waste activity, or changes in the description of regulated wastes managed or permanently ceases the regulated waste activity. This subsequent notification must be submitted to the Secretary no less than 10 days prior to implementation of the change(s).

**Subpart B - The Manifest**

**Section 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 (U.S. OMB Control Number 2050-0039) on EPA Form 8700-22 and, if necessary EPA Form 8700-22A, according to the instructions included in Appendix II of Part 262.

(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.

(e) **[Reserved]**

(f) The requirements of this subpart and §262.32(b) do not apply to transportation during an explosives or munitions emergency response or transport of military munitions as defined in §260.10 of these regulations on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right-of-way. Notwithstanding §263.10(a), the generator or transporter must comply with the requirements for transporters set forth in §263.30 and §263.31 in the event of a discharge of hazardous waste on a public or private right-of-way.

(Amended September 20, 1984, August 10, 1990, January 1, 1999)

**Section 262.21 Acquisition of manifests.**

(a) Since the Department requires the use of the Uniform National Manifest System, Generators shipping wastes into or within (from a Delaware Generator to a Delaware Disposal Facility) Delaware must use the Delaware Manifest form.

(b) Generators in Delaware who ship out-of-state must use the form of the state which will receive the waste. If the state does not supply the manifest form, the generator must use the Delaware Manifest form.

(Amended September 20, 1984)

**Section 262.22 Number of copies.**

The manifest consists of the number of copies, which provide a copy for each transporter, the generator state, 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 the facility to meet the requirements of §262.23(a)(3); §264.71(a)(5), §265.71(a)(5); or if necessary §262.23(c) and (d).

(Amended January 1, 1999)

**Section 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) Within 10 days of acceptance by the transporter 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 or portions thereof in accordance with instructions on the standard 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.

(e) For shipments of hazardous waste to a designated facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous, the generator must assure that the designated facility agrees to sign and return the manifest to the generator, and that any out-of-state transporter signs and forwards the manifest to the designated facility.

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

(Amended June 19, 1992, January 1, 1999, August 23, 1999)

## Subpart C - Pre-Transport Requirements

### Section 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.

### Section 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.

### Section 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 _____

### Section 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.

**Section 262.34 Accumulation time.**

(a) Except as provided in paragraphs (d), (e), and (f) of this section, 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:

(i) In containers and the generator complies with the applicable requirements of Subparts I, AA, BB, and CC of Part 265; and/or

(ii) In tanks and the generator complies with the applicable requirements of Subparts J, AA, BB, and CC of Part 265 except §§ 265.197(c) and 265.200; and/or

(iii) On drip pads and the generator complies with Subpart W of Part 265 and maintains the following records at the facility:

(A) A description of procedures that will be followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every 90 days; and

(B) Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal; and/or

(iv) The waste is placed in containment buildings and the generator complies with Subpart DD of Part 265, has placed its professional engineer certification that the building complies with the design standards specified in §265.1101 in the facility's operating record no later than 60 days after the date of initial operation of the unit. After February 18, 1993, PE certification will be required prior to operation of the unit. The owner or operator shall maintain the following records at the facility:

(A) A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that they are consistent with respecting the 90 day limit, and documentation that the procedures are complied with; or

(B) Documentation that the unit is emptied at least once every 90 days.

In addition, such a generator is exempt from all the requirements in Subparts G and H of Part 265, except for §§265.111 and 265.114.

(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, with §265.16, and with §268.7(a)(5).

(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 requirements 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.

(c)(1) A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in §261.33(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with paragraph (a) of this section provided he:

(i) Complies with §§265.171, 265.172, and 265.173(a) of these regulations; and

(ii) Marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

(2) A generator who accumulates either hazardous waste or acutely hazardous waste listed in §261.33(e) in excess of the amounts listed in paragraph (c)(1) of this section at or near any point of generation must, with respect to that amount of excess waste, comply immediately with paragraph (a) of this section or other applicable provisions of these regulations. The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

(d) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month may accumulate hazardous waste on-site for 180 days or less without a permit or without having interim status provided that:

(1) The quantity of waste accumulated on-site never exceeds 6000 kilograms;

(2) The generator complies with the requirements of Subpart I of Part 265 of these regulations, except for §§ 265.176 and 265.178;

(3) The generator complies with the requirements of §265.201 in Subpart J of Part 265;

(4) The generator complies with the requirements of paragraphs (a)(2) and (a)(3) of this section, the requirements of Subpart C of Part 265, the requirements of §268.7(a)(5); and

(5) The generator complies with the following requirements:

(i) At all times there must be at least one employee either on the premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in paragraph (d)(3)(iv) of this section. This employee is the emergency coordinator.

(ii) The generator must post the following information next to the telephone:

(A) The name and telephone number of the emergency coordinator;

(B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and

(C) The telephone number of the fire department, unless the facility has a direct alarm.

(iii) The generator must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies;

(iv) The emergency coordinator or his designee must respond to any emergencies that arise. The applicable responses are as follows:

(A) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;

(B) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil;

(C) In the event of a fire, explosion or other release which could threaten human health outside the facility or when the generator has knowledge that a spill has reached surface water, the generator must immediately notify the National Response Center (using their 24-hour toll free number: 800/424-8802) and the DNREC at (302) 739-5072 or (800) 662-8802 immediately. The report must include the following information:

(1) The name, address, and U.S. EPA Identification Number of the generator;

(2) Date, time, and type of incident (e.g., spill or fire);

(3) Quantity and type of hazardous waste involved in the incident;

(4) Extent of injuries, if any; and

(5) Estimated quantity and disposition of recovered materials, if any.

(e) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and who must transport his waste, or offer his waste for transportation, over a distance of 200 miles or more for off-site treatment, storage or disposal may accumulate hazardous waste on-site for 270 days or less without a permit or without having interim status provided that he complies with the requirements of paragraph (d) of this section.

(f) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and who accumulates hazardous waste in quantities exceeding 6000 kg or accumulates hazardous waste for more than 180 days (or for more than 270 days if he must transport his waste, or offer his waste for transportation, over a distance of 200 miles or more) is an operator of a storage facility and is subject to the requirements of Parts 264 and 265 and the permit requirements of Part 122 unless he has been granted an extension to the 180-day (or 270-day if applicable) period. Such extension may be granted by the DNREC Secretary if hazardous wastes must remain on site for longer than 180 days (or 270 days if applicable) 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.

(g) A generator who generates 1,000 kilograms or greater of hazardous waste per calendar month who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the EPA hazardous waste code F006, may accumulate F006 waste onsite for more than 90 days, but not more than 180 days without a permit or without having interim status provided that:

(1) The generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling;

(2) The F006 waste is legitimately recycled through metals recovery;

(3) No more than 20,000 kilograms of F006 waste is accumulated onsite at any one time; and

(4) The F006 waste is managed in accordance with the following:

(i) The F006 waste is placed:

(A) In containers and the generator complies with the applicable requirements of Subparts I, AA, BB, and CC of Part 265; and/or

(B) In tanks and the generator complies with the applicable requirements of Subparts J, AA, BB, and CC of Part 265, except §§ 265.197(c) and 265.200; and/or

(C) In containment buildings and the generator complies with Subpart DD of Part 265, and has placed its professional engineer certification that the building complies with the design standards specified in §265.1101 in the facility's operating record prior to operation of the unit. The owner or operator must maintain the following records at the facility:

(1) A written description of procedures to ensure that the F006 waste remains in the unit for no more than 180 days, a written description of the waste generation and management practices for the facility showing that they are consistent with the 180-day limit, and documentation that the generator is complying with the procedures; or

(2) Documentation that the unit is emptied at least once every 180 days.

(ii) In addition, such a generator is exempt from all the requirements in Subparts G and H of Part 265, except for §§ 265.111 and 265.114.

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

(iv) While being accumulated onsite, each container and tank is labeled or marked clearly with the words, "Hazardous Waste"; and

(v) The generator complies with the requirements for owners or operators in Subparts C and D in Part 265, with §265.16, and with §268.7(a)(5).

(h) A generator who generates 1,000 kilograms or greater of hazardous waste per calendar month who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the EPA hazardous waste code F006, and who must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more for offsite metals recovery, may accumulate F006 waste onsite for more than 90 days, but not more than 270 days without a permit or without having interim status if the generator complies with the requirements of paragraphs (g)(1) through (g)(4) of this section.

(i) A generator accumulating F006 in accordance with paragraphs (g) and (h) of this section who accumulates F006 waste onsite for more than 180 days (or for more than 270 days if the generator must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more), or who accumulates more than 20,000 kilograms of F006 waste onsite is an operator of a storage facility and is subject to the requirements of Parts 264 and 265 and the permit requirements of Part 122 unless the generator has been granted an extension to the 180-day (or 270-day if applicable) period or an exception to the 20,000 kilogram accumulation limit. Such extensions and exceptions may be granted by DNREC if F006 waste must remain onsite for longer than 180 days (or 270 days if applicable) or if more than 20,000 kilograms of F006 waste must remain onsite due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the Secretary on a case-by-case basis.

(Amended August 29, 1988; June 19, 1992, August 1, 1995, January 1, 1999, August 23, 1999, June 2, 2000, April 23, 2001)

## Subpart D Recordkeeping and Reporting

### Section 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 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.

### Section 262.41 Annual Reporting.

(a) A generator must prepare and submit a single copy of an Annual Report to the State of Delaware, Department of Natural Resources and Environmental Control by no later than March 1 for the preceding calendar year. The Annual Report must be submitted on a form prescribed by the Department according to the instructions on the form and must cover generator activities during the previous year. The Annual Report must include the following information:

(1) The EPA identification number, name, and address of the generator;

(2) The calendar year covered by the report;

(3) The EPA identification number, name, and address for each off-site treatment, storage or disposal facility within the United States to which waste was shipped during the year;

(4) The name and EPA identification number of each transporter used during the reporting year for shipments to a treatment, storage or disposal facility within the United States;

(5) A description, EPA hazardous waste number (from Part 261, Subpart C or D of these regulations), DOT hazard class, and quantity of each hazardous waste shipped off-site for shipments to a treatment, storage or disposal facility within the United States. This information must be listed by EPA identification number of each such off-site facility to which waste was shipped.

(6) A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.

(7) A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984.

(8) The certification signed by the generator or authorized representative.

(b) Any generator who treats, stores, or disposes of hazardous waste on-site must submit an Annual Report covering those wastes in accordance with the provisions of Parts 122, 264, 265, and 266. Reporting for exports of hazardous waste is not required on the Annual Report form. A separate annual report requirement is set forth at §262.56 of these regulations.

(Amended November 21, 1985; August 29, 1988; June 19, 1992, January 1, 1999)

**Section 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 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. 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.

**Section 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.

**Section 262.44 Special Requirements for Generators of Between 100 and 1000 Kilograms/Month.**

A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month is exempt from the requirements of this subpart, except for the recordkeeping requirements in paragraphs (a), (c), and (d) in §262.40, §262.42(b) exception reporting requirements, and the requirements of §262.43.

(Amended August 29, 1988; August 10, 1990)

**Subpart E - Exports of Hazardous Waste**

**Section 262.50 Applicability.**

This subpart establishes requirements applicable to exports of hazardous waste. Except to the extent §262.58 provides otherwise, a primary exporter of hazardous waste must comply with the special requirements of this subpart and a transporter transporting hazardous waste for export must comply with applicable requirements of Part 263. Section 262.58 sets forth the requirements of international agreements between the United States and receiving countries which establish different notice, export, and enforcement procedures for the transportation, treatment, storage and disposal of hazardous waste for shipments between the Unites States and those countries.

(Amended September 20, 1984; May 8, 1986; August 29, 1988)

**Section 262.51 Definitions.**

In addition to the definitions set forth at §260.10, the following definitions apply to this subpart:
**"Consignee"** means the ultimate treatment, storage or disposal facility in a receiving country to which the hazardous waste will be sent.
**"EPA Acknowledgment of Consent"** means the cable sent to EPA from the U.S. Embassy in a receiving country that acknowledges the written consent of the receiving country to accept the hazardous waste and describes the terms and conditions of the receiving country's consent to the shipment.
**"Primary Exporter"** means any person who is required to originate the manifest for a shipment of hazardous waste in accordance with Part 262, Subpart B, which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export.
**"Receiving country"** means a foreign country to which a hazardous waste is sent for the purpose of treatment, storage or disposal (except short-term storage incidental to transportation).
**"Transit country"** means any foreign country, other than a receiving country, through which a hazardous waste is transported.
(Amended August 29, 1988)

**Section 262.52 General requirements.**

Exports of hazardous waste are prohibited except in compliance with the applicable requirements of this subpart and Part 263. Exports of hazardous waste are prohibited unless:

(a) Notification in accordance with §262.53 has been provided;

(b) The receiving country has consented to accept the hazardous waste;

(c) A copy of the EPA Acknowledgment of Consent to the shipment accompanies the hazardous waste shipment and, unless exported by rail, is attached to the manifest (or shipping paper for exports by water (bulk shipment));

(d) The hazardous waste shipment conforms to the terms of the receiving country's written consent as reflected in the EPA Acknowledgment of Consent.
(Amended August 29, 1988)

**Section 262.53 Notification of intent to export.**

(a) A primary exporter of hazardous waste must notify EPA of an intended export before such waste is scheduled to leave the United States. A complete notification should be submitted sixty (60) days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a twelve (12) month or lesser period. The notification must be in writing, signed by the primary exporter, and include the following information:

(1) Name, mailing address, telephone number and EPA I.D. number of the primary exporter;

(2) By consignee, for each hazardous waste type:

(i) A description of the hazardous waste and the EPA hazardous waste number (from Part 261, Subparts C and D of these regulations), U.S. DOT proper shipping name, hazard class and I.D. number (UN/NA) for each hazardous waste as identified in 49 CFR Part 171-177;

(ii) The estimated frequency or rate at which such waste is to be exported and the period of time over which such waste is to be exported;

(iii) The estimated total quantity of the hazardous waste in units as specified in the instructions to the Uniform Hazardous Waste Manifest Form (8700-22);

(iv) All points of entry to and departure from each foreign country through which the hazardous waste will pass;

(v) A description of the means by which each shipment of the hazardous waste will be transported (e.g., mode of transportation vehicle (air, highway, rail, water, etc.), type(s) of container (drums, boxes, tanks, etc.));

(vi) A description of the manner in which the hazardous waste will be treated, stored or disposed of in the receiving country (e.g., land or ocean incineration, other land disposal, ocean dumping, recycling);

(vii) The name and site address of the consignee and any alternate consignee; and

(viii) The name of any transit countries through which the hazardous waste will be sent and a description of the approximate length of time the hazardous waste will remain in such country and the nature of its handling while there;

(b) Notifications submitted by mail should be sent to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting, and Data Division (2222A), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. Hand-delivered notifications should be sent to: Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting, and Data Division (2222A), Environmental Protection Agency, Ariel Rios Bldg., 12th St. and Pennsylvania Ave., NW., Washington, DC. In both cases, the following shall be prominently displayed on the front of the envelope: "Attention: Notification of Intent to Export." A copy of the notification must also be sent to the DNREC Secretary.

(c) Except for changes to the telephone number in paragraph (a)(1) of this section, changes to paragraph (a)(2)(v) of this section and decreases in the quantity indicated pursuant to paragraph (a)(2)(iii) of this section when the conditions specified on the original notification change (including any exceedance of the estimate of the quantity of hazardous waste specified in the original notification), the primary exporter must provide EPA with a written renotification of the change. The shipment cannot take place until consent of the receiving country to the changes (except for changes to paragraph (a)(2)(viii) of this section and in the ports of entry to and departure from transit countries pursuant to paragraph (a)(2)(iv) of this section) has been obtained and the primary exporter receives an EPA Acknowledgment of Consent reflecting the receiving country's consent to the changes.

(d) Upon request by EPA, a primary exporter shall furnish to EPA any additional information which a receiving country requests in order to respond to a notification.

(e) In conjunction with the Department of State, EPA will provide a complete notification to the receiving country and any transit countries. A notification is complete when EPA receives a notification which EPA determines satisfies the requirements of paragraph (a) of this section. Where a claim of confidentiality is asserted with respect to any notification information required by paragraph (a) of this section, EPA may find the notification not complete until any such claim is resolved in accordance with 40 CFR 260.2.

(f) Where the receiving country consents to the receipt of the hazardous waste, EPA will forward an EPA Acknowledgment of Consent to the primary exporter for purposes of §262.54(h). Where the receiving country objects to receipt of the hazardous waste or withdraws a prior consent, EPA will notify the primary exporter in writing. EPA will also notify the primary exporter of any responses from transit countries.

(Amended August 29, 1988; July 26, 1994, January 1, 1999)

**Section 262.54 Special manifest requirements.**

A primary exporter must comply with the manifest requirements of §§262.20 - 262.23 except that:

(a) In lieu of the name, site address, and EPA I.D. number of the designated permitted facility, the primary exporter must enter the name and site address of the consignee.

(b) In lieu of the name, site address and EPA I.D. number of a permitted alternate facility, the primary exporter may enter the name and site address of any alternate consignee.

(c) In Special Handling Instructions and Additional Information, the primary exporter must identify the point of departure from the United States;

(d) The following statement must be added to the end of the first sentence of the certification set forth in Item 16 of the Uniform Hazardous Waste Manifest Form: "and conforms to the terms of the attached EPA Acknowledgment of Consent";

(e) In lieu of the requirements of §262.21, the primary exporter must obtain the manifest form from the primary exporter's state if that state supplies the manifest form and requires its use. If the primary exporter's State does not supply the manifest form, the primary exporter may obtain a manifest form from any source.

(f) The primary exporter must require the consignee to confirm in writing the delivery of the hazardous waste to that facility and to describe any significant discrepancies (as defined in §264.72(a)) between the manifest and the shipment. A copy of the manifest signed by such facility may be used to confirm delivery of the hazardous waste.

(g) In lieu of the requirements of §262.20(d), where a shipment cannot be delivered for any reason to the designated or alternate consignee, the primary exporter must:

(1) Renotify EPA of a change in the conditions of the original notification to allow shipment to a new consignee in accordance with §262.53(c) and obtain an EPA Acknowledgment of Consent prior to delivery; or

(2) Instruct the transporter to return the waste to the primary exporter in the United States or designate another facility within the United States; and

(3) Instruct the transporter to revise the manifest in accordance with the primary exporter's instructions.

(h) The primary exporter must attach a copy of the EPA Acknowledgment of Consent to the shipment of the manifest which must accompany the hazardous waste shipment. For exports by rail or water (bulk shipment), the primary exporter must provide the transporter with an EPA Acknowledgment of Consent which must accompany the hazardous waste but which need not be attached to the manifest except that for exports by water (bulk shipment) the primary exporter must attach the copy of the EPA Acknowledgment of Consent to the shipping paper.

(i) The primary exporter shall provide the transporter with an additional copy of the manifest for delivery to the U. S. Customs official at the point the hazardous waste leaves the United States in accordance with §263.20(g)(4).

(Amended August 29, 1988)

**Section 262.55 Exception reports.**

In lieu of the requirements of §262.42, a primary exporter must file an exception report with the EPA Administrator with a copy to the Secretary if:

(a) 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 forty-five (45) days from the date it was accepted by the initial transporter.

(b) Within ninety (90) days from the date the waste was accepted by the initial transporter, the primary exporter has not received written confirmation from the consignee that the hazardous waste was received;

(c) The waste is returned to the United States.

(Amended August 29, 1988)

**Section 262.56 Annual reports.**

(a) Primary exporters of hazardous waste shall file with the EPA Administrator with a copy to the Secretary no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all hazardous waste exported during the previous calendar year. Such reports shall include the following:

(1) The EPA identification number, name, and mailing and site address of the exporter;

(2) The calendar year covered by the report;

(3) The name and site address of each consignee;

(4) By consignee, for each hazardous waste exported, a description of the hazardous waste, the EPA hazardous waste number (from Part 261, Subpart C or D), DOT hazard class, the name and U.S. EPA I.D. number (where applicable) for each transporter used, the total amount of waste shipped and number of shipments pursuant to each notification;

(5) Except for hazardous waste produced by exporters of greater than 100 kg but less than 1000 kg in a calendar month, unless provided pursuant to §262.41:

(i) A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated, and

(ii) A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984.

(6) A certification signed by the primary exporter which states:

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

(b) Annual reports submitted by mail should be sent to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting, and Data Division (2222A), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. Hand-delivered reports should be sent to: Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting, and Data Division (2222A), Environmental Protection Agency, Ariel Rios Bldg., 12th St. and Pennsylvania Ave., NW., Washington, DC. A copy of the Annual Report must also be sent to the DNREC Secretary.

(Amended August 29, 1988; July 26, 1994, January 1, 1999)

**Section 262.57 Recordkeeping.**

(a) For all exports a primary exporter must:

(1) Keep a copy of each notification of intent to export for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;

(2) Keep a copy of each EPA Acknowledgment of Consent for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;

(3) Keep a copy of each confirmation of delivery of the hazardous waste from the consignee for at least three years from the date the hazardous waste was accepted by the initial transporter; and

(4) Keep a copy of each annual report for a period of at least three years from the due date of the report.

(b) 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 EPA Administrator.

(Amended August 29, 1988)

**Section 262.58 International Agreements**

(a) Any person who exports or imports hazardous waste subject to manifest requirements of Part 262, or subject to the universal waste management standards of Part 273, to or from designated member countries of the Organization for Economic Cooperation and Development (OECD) as defined in paragraph (a)(1) of this section for purposes of recovery is subject to Subpart H of this part. The requirements of Subparts E and F do not apply.

(1) For the purposes of this Subpart, the designated OECD countries consist of Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States.

(2) For the purposes of this subpart, Canada and Mexico are considered OECD member countries only for the purpose of transit.

(b) Any person who exports hazardous waste to or imports hazardous waste from: a designated OECD member country for purposes other than recovery (e.g., incineration, disposal), Mexico (for any purpose), or Canada (for any purpose) remains subject to the requirements of Subparts E and F of this part.

## Subpart F - Imports of Hazardous Waste

**Section 262.60 Imports of hazardous waste.**

(a) Any person who imports hazardous waste from a foreign country into the United States must comply with the requirements of this part and the special requirements of this subpart.

(b) When importing hazardous waste, a person must meet all the requirements of §262.20(a) 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.

(c) A person who imports hazardous waste must obtain the manifest form from the consignment state if the state supplies the manifest and requires its use. If the consignment state does not supply the manifest form, then the manifest form may be obtained from any source.

(Amended August 29, 1988)

## Subpart G - Farmers

**Section 262.70 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 Part 122, 264, 265, or 268 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.

(Amended June 19, 1992)

## Subpart H - Transfrontier Shipments of Hazardous Waste for Recovery within the OECD

### Section 262.80 Applicability.

(a) The requirements of this subpart apply to imports and exports of wastes that are considered hazardous under U.S. national procedures and are destined for recovery operations in the countries listed in §262.58(a)(1). A waste is considered hazardous under U.S. national procedures if it meets the Federal definition of hazardous waste in §261.3 and it is subject to either the Federal manifesting requirements at Part 262, Subpart B or, to the universal waste management standards of Part 273.

(b) Any person (notifier, consignee, or recovery facility operator) who mixes two or more wastes (including hazardous and non-hazardous wastes) or otherwise subjects two or more wastes (including hazardous and non-hazardous wastes) to physical or chemical transformation operations, and thereby creates a new hazardous waste, becomes a generator and assumes all subsequent generator duties under RCRA and any notifier duties, if applicable, under this subpart.

### Section 262.81 Definitions.

The following definitions apply to this subpart.

(a) "Competent authorities" means the regulatory authorities of concerned countries having jurisdiction over transfrontier movements of wastes destined for recovery operations.

(b) "Concerned countries" means the exporting and importing OECD member countries and any OECD member countries of transit.

(c) "Consignee" means the person to whom possession or other form of legal control of the waste is assigned at the time the waste is received in the importing country.

(d) "Country of transit" means any designated OECD country in §262.58(a)(1) and (a)(2) other than the exporting or importing country across which a transfrontier movement of wastes is planned or takes place.

(e) "Exporting country" means any designated OECD member country in §262.58(a)(1) from which a transfrontier movement of wastes is planned or has commenced.

(f) "Importing country" means any designated OECD country in §262.58(a)(1) to which a transfrontier movement of wastes is planned or takes place for the purpose of submitting the wastes to recovery operations therein.

(g) "Notifier" means the person under the jurisdiction of the exporting country who has, or will have at the time the planned transfrontier movement commences, possession or other forms of legal control of the wastes and who proposes their transfrontier movement for the ultimate purpose of submitting them to recovery operations. When the United States (U.S.) is the exporting country, notifier is interpreted to mean a person domiciled in the U.S.

(h) "OECD area" means all land or marine areas under the national jurisdiction of any designated OECD member country in §262.58. When the regulations refer to shipments to or from an OECD country, this means OECD area.

(i) "Recognized trader" means a person who, with appropriate authorization of concerned countries, acts in the role of principal to purchase and subsequently sell wastes; this person has legal control of such wastes from time of purchase to time of sale; such a person may act to arrange and facilitate transfrontier movements of wastes destined for recovery operations.

(j) "Recovery facility" means an entity which, under applicable domestic law, is operating or is authorized to operate in the importing country to receive wastes and to perform recovery operations on them.

(k) "Recovery operations" means activities leading to resource recovery, recycling, reclamation, direct re-use or alternative uses as listed in Table 2.B of the Annex of OECD Council Decision C(88)90(Final) of 27 May 1988, (available from the Environmental Protection Agency, RCRA Information Center (RIC), 1235 Jefferson-Davis Highway, first floor, Arlington, VA 22203 (Docket # F-94-IEHF-FFFFF) and the Organization for Economic Co-operation and Development, Environment Direcorate, 2 rue Andre Pascal, 75775 Paris Cedex 16, France) which include:

R1 Use as a fuel (other than in direct incineration) or other means to generate energy
R2 Solvent reclamation/regeneration
R3 Recycling/reclamation of organic substances which are not used as solvents
R4 Recycling/reclamation of metals and metal compounds
R5 Recycling/reclamation of other inorganic materials
R6 Regeneration of acids or bases
R7 Recovery of components used for pollution control
R8 Recovery of components from catalysts
R9 Used oil re-refining or other reuses of previously used oil
R10 Land treatment resulting in benefit to agriculture or ecological improvement
R11 Uses of residual materials obtained from any of the operations numbered R1-R10
R12 Exchange of wastes for submission to any of the operations numbered R1-R11
R13 Accumulation of material intended for any operation in Table 2.B

(l) "Transfrontier movement" means any shipment of wastes destined for recovery operations from an area under the national jurisdiction of one OECD member country to an area under the national jurisdiction of another OECD member country.

**Section 262.82 General conditions.**

(a) Scope. The level of control for exports and imports of waste is indicated by assignment of the waste to a green, amber, or red list and by U.S. national procedures as defined in §262.80(a). The green, amber, and red lists are incorporated by reference in §262.89(e).

(1) Wastes on the green list are subject to existing controls normally applied to commercial transactions, except as provided below:

(i) Green-list wastes that are considered hazardous under U.S. national procedures are subject to amber-list controls.

(ii) Green-list waste that are sufficiently contaminated or mixed with amber-list wastes, such that the waste or waste mixture is considered hazardous under U.S. national procedures, are subject to amber-list controls.

(iii) Green-list wastes that are sufficiently contaminated or mixed with other wastes subject to red-list controls such that the waste or waste mixture is considered hazardous under U.S. national procedures must be handled in accordance with the red-list controls.

(2) Wastes on the amber list that are considered hazardous under U.S. national procedures as defined in §262.80(a) are subject to the amber-list controls of this subpart.

(i) If amber-list wastes are sufficiently contaminated or mixed with other wastes subject to red-list controls such that the waste or waste mixture is considered hazardous under U.S. national procedures, the wastes must be handled in accordance with the red-list controls.

(ii) **[Reserved].**

(3) Wastes on the red list that are considered hazardous under U.S. national procedures as defined in §262.80(a) are subject to the red-list controls of this subpart.

Note to paragraph (a)(3): Some wastes on the amber or red lists are not listed or otherwise identified as hazardous under RCRA (e.g., polychlorinated biphenyls) and therefore are not subject to the amber- or red-list controls of this subpart. Regardless of the status of the waste under RCRA, however, other Federal environmental statutes (e.g., the Toxic Substances Control Act) may restrict certain waste imports or exports. Such restrictions continue to apply without regard to this subpart.

(4) Wastes not yet assigned to a list are eligible for transfrontier movements, as follows:

(i) If such wastes are considered hazardous under U.S. national procedures as defined in §262.80(a), these wastes are subject to the red-list controls; or

(ii) If such wastes are not considered hazardous under U.S. national procedures as defined in §262.80(a), such wastes may move as though they appeared on the green list.

(b) General conditions applicable to transfrontier movements of hazardous waste.

(1) The waste must be destined for recovery operations at a facility that, under applicable domestic law, is operating or is authorized to operate in the importing country;

(2) The transfrontier movement must be in compliance with applicable international transport agreements; and

Note to paragraph (b)(2): These international agreements include, but are not limited to, the Chicago Convention (1944), ADR (1957), ADNR (1970), MARPOL Convention (1973/1978), SOLAS Convention (1974), IMDG Code (1985), COTIF (1985), and RID (1985).

(3) Any transit of waste through a non-OECD member country must be conducted in compliance with all applicable international and national laws and regulations.

(c) Provisions relating to re-export for recovery to a third country.

(1) Re-export of wastes subject to the amber-list control system from the U.S., as the importing country, to a third country listed in §262.58(a)(1) may occur only after a notifier in the U.S. provides notification to and obtains consent of the competent authorities in the third country, the original exporting country, and new transit countries. The notification must comply with the notice and consent procedures in §262.83 for all concerned countries and the original exporting country. The competent authorities of the original exporting country as well as the competent authorities of all other concerned countries have 30 days to object to the proposed movement.

(i) The 30-day period begins once the competent authorities of both the initial exporting country and new importing country issue Acknowledgments of Receipt of the notification.

(ii) The transfrontier movement may commence if no objection has been lodged after the 30-day period has passed or immediately after written consent is received from all relevant OECD importing and transit countries.

(2) Re-export of waste subject to the red-list control system from the original importing country to a third country listed in §262.58(a)(1) may occur only following notification of the competent authorities of the third country, the original exporting country, and new transit countries by a notifier in the original importing country in accordance with §262.83. The transfrontier movement may not proceed until receipt by the original importing country of written consent from the competent authorities of the third country, the original exporting country, and new transit countries.

(3) In the case of re-export of amber or red-list wastes to a country other than those in §262.58(a)(1), notification to and consent of the competent authorities of the original OECD member country of export and any OECD member countries of transit is required as specified in paragraphs (c)(1) and (c)(2) of this section in addition to compliance with all international agreements and arrangements to which the first importing OECD member country is a party and all applicable regulatory requirements for exports from the first importing country.

**Section 262.83 Notification and consent.**

(a) Applicability. Consent must be obtained from the competent authorities of the relevant OECD importing and transit countries prior to exporting hazardous waste destined for recovery operations subject to this subpart. Hazardous wastes subject to amber-list controls are subject to the requirements of paragraph (b) of this section; hazardous wastes subject to red-list controls are subject to the requirements of paragraph (c) of this section; and wastes not identified on any list are subject to the requirements of paragraph (d) of this section.

(b) Amber-list wastes. The export from the U.S. of hazardous wastes as described in §262.80(a) that appear on the amber list is prohibited unless the notification and consent requirements of paragraph (b)(1) or paragraph (b)(2) of this section are met.

(1) Transactions requiring specific consent:

(i) Notification. At least 45 days prior to commencement of the transfrontier movement, the notifier must provide written notification in English of the proposed transfrontier movement to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460, with the words "Attention: OECD Export Notification" prominently displayed on the envelope. This notification must include all of the information identified in paragraph (e) of this section. In cases where wastes having similar physical and chemical characteristics, the same United Nations classification, and the same RCRA waste codes are to be sent periodically to the same recovery facility by the same notifier, the notifier may submit one notification of intent to export these wastes in multiple shipments during a period of up to one year.

(ii) Tacit consent. If no objection has been lodged by any concerned country (i.e., exporting, importing, or transit countries) to a notification provided pursuant to paragraph (b)(1)(i) of this section within 30 days after the date of issuance of the Acknowledgment of Receipt of notification by the competent authority of the importing country, the transfrontier movement may commence. Tacit consent expires one calendar year after the close of the 30 day period; renotification and renewal of all consents is required for exports after that date.

(iii) Written consent. If the competent authorities of all the relevant OECD importing and transit countries provide written consent in a period less than 30 days, the transfrontier movement may commence immediately after all necessary consents are received. Written consent expires for each relevant OECD importing and transit country one calendar year after the date of that country's consent unless otherwise specified; renotification and renewal of each expired consent is required for exports after that date.

(2) Shipments to facilities pre-approved by the competent authorities of the importing countries to accept specific wastes for recovery:

(i) The notifier must provide EPA the information identified in paragraph (e) of this section in English, at least 10 days in advance of commencing shipment to a pre-approved facility. The notification should indicate that the recovery facility is pre-approved, and may apply to a single specific shipment or to multiple shipments as described in paragraph (b)(1)(i) of this section. This information must be sent to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460, with the words "OECD Export Notification--Pre-approved Facility" prominently displayed on the envelope.

(ii) Shipments may commence after the notification required in paragraph (b)(1)(i) of this section has been received by the competent authorities of all concerned countries, unless the notifier has received information indicating that the competent authorities of one or more concerned countries objects to the shipment.

(c) Red-list wastes. The export from the U.S. of hazardous wastes as described in §262.80(a) that appear on the red list is prohibited unless notice is given pursuant to paragraph (b)(1)(i) of this section and the notifier receives written consent from the importing country and any transit countries prior to commencement of the transfrontier movement.

(d) Unlisted wastes. Wastes not assigned to the green, amber, or red list that are considered hazardous under U.S. national procedures as defined in §262.80(a) are subject to the notification and consent requirements established for red-list wastes in accordance with paragraph (c) of this section. Unlisted wastes that are not considered hazardous under U.S. national procedures as defined in §262.80(a) are not subject to amber or red controls when exported or imported.

(e) Notification information. Notifications submitted under this section must include:

(1) Serial number or other accepted identifier of the notification form;

(2) Notifier name and EPA identification number (if applicable), address, and telephone and telefax numbers;

(3) Importing recovery facility name, address, telephone and telefax numbers, and technologies employed;

(4) Consignee name (if not the owner or operator of the recovery facility) address, and telephone and telefax numbers; whether the consignee will engage in waste exchange or storage prior to delivering the waste to the final recovery facility and identification of recovery operations to be employed at the final recovery facility;

(5) Intended transporters and/or their agents;

(6) Country of export and relevant competent authority, and point of departure;

(7) Countries of transit and relevant competent authorities and points of entry and departure;

(8) Country of import and relevant competent authority, and point of entry;

(9) Statement of whether the notification is a single notification or a general notification. If general, include period of validity requested;

(10) Date foreseen for commencement of transfrontier movement;

(11) Designation of waste type(s) from the appropriate list (amber or red and waste list code), descriptions of each waste type, estimated total quantity of each, RCRA waste code, and United Nations number for each waste type; and

(12) Certification/Declaration signed by the notifier that states:

I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally-enforceable written contractual obligations have been entered into, and that any applicable insurance or other financial guarantees are or shall be in force covering the transfrontier movement.

Name: _____
Signature: _____
Date: _____

Note to paragraph (e)(12): The U.S. does not currently require financial assurance; however, U.S. exporters may be asked by other governments to provide and certify to such assurance as a condition of obtaining consent to a proposed movement.

(f) Any person submitting information to EPA in accordance with the requirements of this subpart must also submit copies to the DNREC Secretary.

**Section 262.84 Tracking document.**

(a) All U.S. parties subject to the contract provisions of §262.85 must ensure that a tracking document meeting the conditions of §262.84(b) accompanies each transfrontier shipment of wastes subject to amber-list or red-list controls from the initiation of the shipment until it reaches the final recovery facility, including cases in which the waste is stored and/or exchanged by the consignee prior to shipment to the final recovery facility, except as provided in §§ 262.84(a)(1) and (2).

(1) For shipments of hazardous waste within the U.S. solely by water (bulk shipments only) the generator must forward the tracking document with the manifest to the last water (bulk shipment) transporter to handle the waste in the U.S. if exported by water, (in accordance with the manifest routing procedures at §262.23(c)).

(2) For rail shipments of hazardous waste within the U.S. which originate at the site of generation, the generator must forward the tracking document with the manifest (in accordance with the routing procedures for the manifest in §262.23(d)) to the next non-rail transporter, if any, or the last rail transporter to handle the waste in the U.S. if exported by rail.

(b) The tracking document must include all information required under §262.83 (for notification), and the following:

(1) Date shipment commenced.

(2) Name (if not notifier), address, and telephone and telefax numbers of primary exporter.

(3) Company name and EPA ID number of all transporters.

(4) Identification (license, registered name or registration number) of means of transport, including types of packaging.

(5) Any special precautions to be taken by transporters.

(6) Certification/declaration signed by notifier that no objection to the shipment has been lodged as follows:

I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally-enforceable written contractual obligations have been entered into, that any applicable insurance or other financial guarantees are or shall be in force covering the transfrontier movement, and that:

1. All necessary consents have been received; OR
2. The shipment is directed at a recovery facility within the OECD area and no objection has been received from any of the concerned countries within the 30 day tacit consent period; OR
3. The shipment is directed at a recovery facility pre-authorized for that type of waste within the OECD area; such an authorization has not been revoked, and no objection has been received from any of the concerned countries.

(delete sentences that are not applicable)

Name: _____
Signature: _____
Date: _____

(7) Appropriate signatures for each custody transfer (e.g., transporter, consignee, and owner or operator of the recovery facility).

(c) Notifiers also must comply with the special manifest requirements of §262.54(a), (b), (c), (e), and (i) and consignees must comply with the import requirements of Part 262, Subpart F.

(d) Each U.S. person that has physical custody of the waste from the time the movement commences until it arrives at the recovery facility must sign the tracking document (e.g., transporter, consignee, and owner or operator of the recovery facility).

(e) Within 3 working days of the receipt of imports subject to this Subpart, the owner or operator of the U.S. recovery facility must send signed copies of the tracking document to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460, to the competent authorities of the exporting and transit countries, and to the DNREC Secretary.

**Section 262.85 Contracts.**

(a) Transfrontier movements of hazardous wastes subject to amber or red control procedures are prohibited unless they occur under the terms of a valid written contract, chain of contracts, or equivalent arrangements (when the movement occurs between parties controlled by the same corporate or legal entity). Such contracts or equivalent arrangements must be executed by the notifier and the owner or operator of the recovery facility, and must specify responsibilities for each. Contracts or equivalent arrangements are valid for the purposes of this section only if persons assuming obligations under the contracts or equivalent arrangements have appropriate legal status to conduct the operations specified in the contract or equivalent arrangement.

(b) Contracts or equivalent arrangements must specify the name and EPA I.D. number, where available, of:

(1) The generator of each type of waste;

(2) Each person who will have physical custody of the wastes;

(3) Each person who will have legal control of the wastes; and

(4) The recovery facility.

(c) Contracts or equivalent arrangements must specify which party to the contract will assume responsibility for alternate management of the wastes if its disposition cannot be carried out as described in the notification of intent to export. In such cases, contracts must specify that:

(1) The person having actual possession or physical control over the wastes will immediately inform the notifier and the competent authorities of the exporting and importing countries and, if the wastes are located in a country of transit, the competent authorities of that country; and

(2) The person specified in the contract will assume responsibility for the adequate management of the wastes in compliance with applicable laws and regulations including, if necessary, arranging their return to the original country of export.

(d) Contracts must specify that the consignee will provide the notification required in §262.82(c) prior to re-export of controlled wastes to a third country.

(e) Contracts or equivalent arrangements must include provisions for financial guarantees, if required by the competent authorities of any concerned country, in accordance with applicable national or international law requirements.

Note to paragraph (e): Financial guarantees so required are intended to provide for alternate recycling, disposal or other means of sound management of the wastes in cases where arrangements for the shipment and the recovery operations cannot be carried out as foreseen. The U.S. does not require such financial guarantees at this time; however, some OECD countries do. It is the responsibility of the notifier to ascertain and comply with such requirements; in some cases, transporters or consignees may refuse to enter into the necessary contracts absent specific references or certifications to financial guarantees.

(f) Contracts or equivalent arrangements must contain provisions requiring each contracting party to comply with all applicable requirements of this subpart.

(g) Upon request by EPA, U.S. notifiers, consignees, or recovery facilities must submit to EPA copies of contracts, chain of contracts, or equivalent arrangements (when the movement occurs between parties controlled by the same corporate or legal entity). Information contained in the contracts or equivalent arrangements for which a claim of confidentiality is asserted accordance with 40 CFR 2.203(b) will be treated as confidential and will be disclosed by EPA only as provided in 40 CFR 260.2.

Note to paragraph (g): Although the U.S. does not require routine submission of contracts at this time, OECD Council Decision C(92)39/FINAL allows members to impose such requirements. When other OECD countries require submission of partial or complete copies of the contract as a condition to granting consent to proposed movements, EPA will request the required information; absent submission of such information, some OECD countries may deny consent for the proposed movement.

**Section 262.86 Provisions relating to recognized traders.**

(a) A recognized trader who takes physical custody of a waste and conducts recovery operations (including storage prior to recovery) is acting as the owner or operator of a recovery facility and must be so authorized in accordance with all applicable Federal laws.

(b) A recognized trader acting as a notifier or consignee for transfrontier shipments of waste must comply with all the requirements of this Subpart associated with being a notifier or consignee.

**Section 262.87 Reporting and recordkeeping.**

(a) Annual reports. For all waste movements subject to this Subpart, persons (e.g., notifiers, recognized traders) who meet the definition of primary exporter in §262.51 shall file an annual report with the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460, no later than March 1 of each year summarizing the types, quantities, frequency, and ultimate destination of all such hazardous waste exported during the previous calendar year. (If the primary exporter is required to file an annual report for waste exports that are not covered under this Subpart, he may include all export information in one report provided the following information on exports of waste destined for recovery within the designated OECD member countries is contained in a separate section). Such reports shall include the following:

(1) The EPA identification number, name, and mailing and site address of the notifier filing the report;

(2) The calendar year covered by the report;

(3) The name and site address of each final recovery facility;

(4) By final recovery facility, for each hazardous waste exported, a description of the hazardous waste, the EPA hazardous waste number (from 40 CFR Part 261, Subpart C or D), designation of waste type(s) from OECD waste list and applicable waste code from the OECD lists, DOT hazard class, the name and U.S. EPA identification number (where applicable) for each transporter used, the total amount of hazardous waste shipped pursuant to this subpart, and number of shipments pursuant to each notification;

(5) In even numbered years, for each hazardous waste exported, except for hazardous waste produced by exporters of greater than 100kg but less than 1000kg in a calendar month, and except for hazardous waste for which information was already provided pursuant to §262.41:

(i) A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and

(ii) A description of the changes in volume and toxicity of the waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984; and

(6) A certification signed by the person acting as primary exporter that states:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining 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.

(b) Exception reports. Any person who meets the definition of primary exporter in §262.51 must file an exception report in lieu of the requirements of §262.42 with the EPA Administrator if any of the following occurs:

(1) He has not received a copy of the tracking documentation signed by the transporter stating point of departure of the waste from the United States, within forty-five (45) days from the date it was accepted by the initial transporter;

(2) Within ninety (90) days from the date the waste was accepted by the initial transporter, the notifier has not received written confirmation from the recovery facility that the hazardous waste was received;

(3) The waste is returned to the United States.

(c) Recordkeeping. (1) Persons who meet the definition of primary exporter in §262.51 shall keep the following records:

(i) A copy of each notification of intent to export and all written consents obtained from the competent authorities of concerned countries for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;

(ii) A copy of each annual report for a period of at least three years from the due date of the report; and

(iii) A copy of any exception reports and a copy of each confirmation of delivery (i.e., tracking documentation) sent by the recovery facility to the notifier for at least three years from the date the hazardous waste was accepted by the initial transporter or received by the recovery facility, whichever is applicable.

(2) 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 Administrator.

(3) A copy of the exception report must be sent to the Secretary.

**Section 262.88 Pre-approval for U.S. Recovery Facilities (Reserved).**

**Section 262.89 OECD Waste Lists.**

(a) General. For the purposes of this subpart, a waste is considered hazardous under U.S. national procedures, and hence subject to this subpart, if the waste:

(1) Meets the Federal definition of hazardous waste in §261.3; and

(2) Is subject to either the manifesting requirements at Part 262, Subpart B, or to the universal waste management standards of Part 273.

(b) If a waste is hazardous under paragraph (a) of this section and it appears on the amber or red list, it is subject to amber- or red-list requirements respectively;

(c) If a waste is hazardous under paragraph (a) of this section and it does not appear on either amber or red lists, it is subject to red-list requirements.

(d) The appropriate control procedures for hazardous wastes and hazardous waste mixtures are addressed in §262.82.

(e) The OECD Green List of Wastes (revised May 1994), Amber List of Wastes and Red List of Wastes (both revised May 1993) as set forth in Appendix 3, Appendix 4 and Appendix 5, respectively, to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations) are incorporated by reference. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51 on July 11, 1996. These materials are incorporated as they exist on the date of the approval and a notice of any change in these materials will be published in the Federal Register. The materials are available for inspection at: the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC; the U.S. Environmental Protection Agency, RCRA Information Center (RIC), 1235 Jefferson-Davis Highway, first floor, Arlington, VA 22203 (Docket # F-94-IEHF-FFFFF) and may be obtained from the Organization for Economic Co-operation and Development, Environment Direcorate, 2 rue Andre Pascal, 75775 Paris Cedex 16, France.

## Appendix I - [Reserved]

## Appendix II - Uniform Hazardous Waste Manifest

## (EPA Forms 8700-22 and 8700-22A)

**STATE OF DELAWARE**
**DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL**
**HAZARDOUS WASTE MANAGEMENT BRANCH, 89 KINGS HIGHWAY**
**DOVER, DELAWARE 19901**

Please print or type. *(Form designed for use on elite (12 pitch) typewriter.)*

Form Approved. OMB No. 2050-0039

IN CASE OF EMERGENCY OR SPILL IMMEDIATELY CALL THE DELAWARE EMERGENCY RESPONSE (800) 662-8802 AND THE NATIONAL RESPONSE CENTER (800) 424-8802

## UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of | Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address

A. State Manifest Document Number **DE-A- 48037**

4. Generator's Phone ( )

B. State Generator's ID

5. Transporter 1 Company Name | 6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address | 10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|
| a. | | | | | |
| b. | | | | | |
| c. | | | | | |
| d. | | | | | |

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

a. b. c. d.

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Month Day Year

**TRANSPORTER**

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

**FACILITY**

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | Month Day Year

48037

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

**COPY 1: MUST BE COMPLETED AND RETURNED BY THE TSD FACILITY TO THE DISPOSAL STATE.** 1

Delaware Hazardous Waste Manifest and Instructions (EPA Form 8700-22 and Instructions)

General Instructions

Read all instructions before completing this form. There are 8 copies of the manifest form. The **FLOW & DISTRIBUTION OF THE FORM** identifies which party must mail or retain a copy of the form and to whom a copy must be mailed as necessary. The **FILLING OUT OF THE FORM** is conducted by the Generator, Transporter, and Treatment, Storage and Disposal Facility (TSDF). Each party must fill in the required information as discussed in that section of these instructions and sign the document upon receipt as required by the Delaware Regulations Governing Hazardous Waste.

## FLOW & DISTRIBUTION OF THE MANIFEST FORM

The Uniform Hazardous Waste Manifest (EPA Form 8700-22) is initiated by the Generator. This manifest has eight (8) copies, all of which must be totally legible. Copies 1, 2, 3, 4, and 5 are taken with the waste by the Transporter to the Treatment, Storage, and Disposal (TSD) Facility. These copies are distributed as follows:

**Copy 1:** Must be completed and returned by the TSD Facility to the Disposal State. Copy 1 is then compared by the Disposal State with Copy 6 for a match.

**Copy 2:** Must be completed and returned by the TSD Facility to the Generator State. Copy 2 is then compared by the Generator State with Copy 7 for a match.

**Copy 3:** Must be completed and returned by the TSD Facility to the Generator. Copy 3 is then compared by the Generator with Copy 8 for a match.

**Copy 4:** Retained by TSD Facility.

**Copy 5:** Retained by Transporter.

**NOTE:** If a continuing transporter is used, the Generator is responsible for supplying him with a legible copy 5 photocopy, which must contain required signatures.

**Copy 6:** The Generator sends Copy 6 to the Disposal State. The Disposal State retains Copy 6 to compare with Copy 1 as outlined above.

**Copy 7:** The Generator sends Copy 7 to the Generator State. The Generator State retains Copy 7 to compare with Copy 2 as outlined above.

**Copy 8:** The Generator, retaining Copy 8, compares it with Copy 3 as outlined above.

Public reporting burden for this collection of information is estimated to average: 37 minutes for generator, 15 minutes for transporter, 10 minutes for treatment, storage and disposal facility. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: CHIEF, INFORMATION POLICY BRANCH, PM-233, U.S. ENVIRONMENTAL PROTECTION AGENCY, 401 M STREET SW, WASHINGTON, D.C. 20460; and to the OFFICE OF INFORMATION AND REGULATORY AFFAIRS, OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, D.C. 20503.

Federal and State regulations requires Generators of hazardous waste and owners or operators of hazardous waste Treatment, Storage, and Disposal Facilities to use this form (Form 8700-22) and, if necessary, the continuation sheet (Form 8700-22A) for both inter and intra-state transportation.

**THE FILLING OUT OF THE FORM** requirements are as follows:

The Delaware manifest contains 8 copies. **ALL COPIES MUST BE LEGIBLE.** Each form is designated for use on a 12 pitch (elite) typewriter; a firm ballpoint pen may be used only if you press down HARD. The 8 copies must be filled out by the appropriate parties as they are completed.

**GENERATOR'S REQUIREMENTS.**

**Item 1.** Generator's U.S. EPA ID Number-Manifest Document Number.

Enter the Generator's U.S. EPA twelve digit identification number and the unique five digit number assigned to this manifest (e.g., 00001) by the Generator.

**Item 2.** Page 1 of _____.

Enter the total number of pages used to complete this Manifest, i.e. the first page (EPA Form 8700-22) plus the number of continuation sheets (EPA Form 8700-22A), if any.

**Item 3.** Generator's Name and Mailing Address.

Enter the name and mailing address of the Generator. The address should be the location that will manage the return Manifest forms.

**Item 4.** Generator's Phone Number.

Enter a telephone number where an authorized agent of the Generator may be reached in the event of an emergency.

**Item 5.** Transporter 1 Company Name.

Enter the company name of the first Transporter who will transport the waste.

**Item 6.** U.S. EPA ID number.

Enter the U.S. EPA twelve digit identification number of the first Transporter identified in Item 5.

**Item 7.** Transporter 2 Company Name.

If applicable, enter the company name of the second Transporter who will transport the waste. If more than two Transporters are used to transport the waste, use a Continuation Sheet(s) EPA Form 8700-22A and list the Transporters in the order they will be transporting the waste.

**Item 8.** U.S. EPA ID Number.

If applicable, enter the U.S. EPA twelve digit identification number of the second Transporter identified in Item 7.

**Note:** If more than two Transporters are used, enter each additional Transporter's company name and U.S. EPA twelve digit identification number in Items 24-27 on the Continuation Sheet (EPA Form 8700-22A). Each continuation Sheet has space to record two additional Transporters. Every Transporter used between the generator and the Designated Facility must be listed.

**Item 9.** Designated Facility Name and Site Address.

Enter the company name and site address of the Facility designated to receive the waste listed on this Manifest. The address must be the site address, which may differ from the company mailing address.

**Item 10.** U.S. EPA ID Number.

Enter the U.S. EPA twelve digit identification number of the designated facility identified on Item 9.

**Item 11.** U.S. DOT Description (Including Proper Shipping Name, Hazard Class and ID Number (UN/NA)).

Enter the U.S. DOT Proper Shipping Name, Hazard Class, and ID Number (UN/NA) for each waste as identified in 49 CFR 171 through 177.

**NOTE:** If additional space is needed for waste descriptions enter these additional descriptions in Item 28 on the Continuation Sheet (EPA Form 8700-22A).

**Item 12.** Containers (No. and Type).

Enter the number of containers for each waste and the appropriate abbreviation from Table 1 (below for the type of container).

**Table 1** = Types of Containers
**DM** = Metal drums, barrels, kegs
**DW** = Wooden drums, barrels, kegs
**DF** = Fiberboard or plastic drums, barrels, kegs
**TP** = Tanks portable
**TT** = Cargo tanks (tank trucks)
**TC** = Tank cars
**DT** = Dump truck
**CY** = Cylinders
**CM** = Metal boxes, cartons, cases
**CW** = Wooden boxes, cartons, cases
**CF** = Fiber or plastic boxes, cartons, cases
**BA** = Burlap, cloth, paper or plastic bags

**Item 13.** Total Quantity.

Enter the total quantity of waste described on each line.

**Item 14.** Unit (WT./Vol).

Enter the appropriate abbreviation from Table II (below) for the unit of measure.

**Table II** = Units of Measure
**G** = Gallons (liquids only)
**P** = Pounds
**T** = Tons (2,000 lbs.)
**Y** = Cubic yards
**L** = Liters (liquids only)
**K** = Kilograms
**M** = Metric tons (1000 kg)
**N** = Cubic meters

GENERATOR'S REQUIREMENTS

**Item 15.** Special Handling Instructions and Additional Information.

Generators may use this space to indicate special Transportation, Treatment, Storage, or Disposal information or Bill of Lading information. For international shipments, Generators must enter in this space the point of departure (City and State for those shipments destined for Treatment, Storage, or Disposal outside the jurisdiction of the United States.

**Item 16.** Generator's Certification.

The Generator must read, sign (by hand), and date the certification statement. If a mode other than highway is used, the word "highway" should be lined out and the appropriate mode (rail, water, or air) inserted in the space below. If another mode in addition to the highway mode is used, enter the appropriate additional mode (e.g., and rail) in the space below.

Primary exporters shipping hazardous waste to a facility located outside of the United States must add to the end of the first sentence of the certification the following words "and conforms to the terms of the EPA Acknowledgment of Consent to the shipment."

In signing the waste minimization certification statement, those Generators who have not been exempted by statute or regulation from the duty to make a waste minimization certification under 7 Del. C., Chapter 63 are also certifying that they have complied with the waste minimization requirements.

Generators may preprint the words, "On behalf of" in the signature block or may hand write this statement in the signature block prior to signing the generator certifications.

**NOTE:** All of the above information except the handwritten signature required in Item 16 may be reprinted.

Items A-K are not required by Federal regulations. However, Delaware requires Generators, Transporters, and Owners or Operators of Treatment, Storage, or Disposal Facilities to complete the appropriate portions of Items A-K as part of the State manifest requirements.

**Item A:** STATE MANIFEST DOCUMENT NUMBER - Number preprinted by Delaware except for the continuation sheets. Enter this number on each continuation sheet attached to or part of a manifest.

**Item B:** STATE GENERATOR'S ID NUMBER - The State Generator ID is the street address of the Generator's pick-up location. If the mailing address and the street address are the same, enter "same" in this block.

**Item C:** STATE TRANSPORTER'S PERMIT NUMBER - Enter the Delaware Hazardous Waste Hauler's permit number.

**Item D:** TRANSPORTER'S PHONE - Enter a telephone number with area code where an authorized agent of the Transporter can be reached.

**Item E:** STATE TRANSPORTER'S PERMIT NUMBER - If applicable, enter for Transporter number 2, the Delaware Hazardous Waste Hauler's permit.

**Item F:** TRANSPORTER'S PHONE - If applicable, enter for Transporters number 2, a telephone number with area code where an authorized agent of the Transporter may be reached.

**Item G:** STATE FACILITY'S ID NUMBER - Enter the Company mailing address, if different than site address in Item 9. If the mailing address and the site address are the same, enter "same" in this block.

**Item H:** FACILITY PHONE - Enter a telephone number with area code of the TSDF designated to receive the waste listed on the manifest.

**Item I:** WASTE NO. - Enter the 4 digit EPA hazardous waste number as it appears in 40 CFR Part 261 Subparts C & D.

**Item J:** ADDITIONAL DESCRIPTIONS FOR MATERIAL LISTED ABOVE

**Item K:** HANDLING CODES FOR WASTES LISTED ABOVE - The Generator must select the disposal method for each waste listed in Item 11. Only one disposal code can be entered for each waste. It should be the ultimate disposal method. Place the code letter in the box. The handling codes are:

A - Land Disposal
B - Treatment
C - Incineration
D - Resource recovery of more than 75 percent of the total material.

**TRANSPORTERS REQUIREMENTS**

**Item 17:** Transporter 1 Acknowledgment of Receipt of Materials.

Enter the name of the person accepting the waste on behalf of the first Transporter. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

**Item 18:** Transporter 2 Acknowledgment of Receipt of Materials.

Enter, if applicable, the name of the person accepting the waste on behalf of the second Transporter. That person must acknowledge acceptance of the waste described on the manifest by signing and entering the date of receipt.

**NOTE:** International Shipment - Transporter Responsibilities.

Exports - Transporters must sign and enter the date the waste left the United States in Item 15 of Form 8700-22.

Imports - Shipments of hazardous waste regulated by RCRA and transported into the State of Delaware from another country must upon entry be accompanied by the Delaware Uniform Hazardous Waste Manifest. Transporter who transport hazardous waste into the State of Delaware from another country are responsible for completing the Manifest (see 263.10(c)(1)).

**OWNERS AND OPERATORS OF TREATMENT, STORAGE, OR DISPOSAL FACILITIES REQUIREMENTS.**

**Item 19.** Discrepancy Indication Space.

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

Owners and operators of facilities located in the State of Delaware should contact DNREC Solid and Hazardous Waste Management Branch for information on State Discrepancy Report requirements.

Item 20. Facility Owner or Operator: Certification of Receipt of Hazardous Materials Covered by This Manifest Except as Noted in Item 19.

Print or type the name of the person accepting the waste on behalf of the owner or operator of the TSDF. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

**NOTE:** Generators shipping wastes to a TSD facility in Delaware must use the Delaware Manifest form. Generators in Delaware who ship out-of-state must use the form of the state which will receive the waste. If that state does not supply the manifest form the generator must use the Delaware manifest form. The above instructions hold for Interstate and Intrastate shipments. If there are any questions or clarification regarding the instructions please contact the Department of Natural Resources and Environmental Control, Solid and Hazardous Waste Management Branch, 89 Kings Highway, Dover, DE 19901 or call (302) 739-3689.

(Amended August 21, 1997)

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
HAZARDOUS WASTE MANAGEMENT BRANCH, 89 KINGS HIGHWAY
P.O. BOX 1401, DOVER, DELAWARE 19903

IN CASE OF EMERGENCY OR SPILL IMMEDIATELY CALL THE DELAWARE EMERGENCY RESPONSE 911 AND THE NATIONAL RESPONSE CENTER (800) 424-8802

Please print or type (Form designed for use on elite (12 pitch) typewriter) Form Approved. OMB No. 2050-0404

| UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet) | 21. Generator's US EPA ID No. | Manifest Document No. | 22. Page | Information in the shaded areas is not required by Federal law. |
|---|---|---|---|---|
| 23. Generator's Name | | | F. State Manifest Document Number | |
| | | | G. Generator's Phone No. | |
| 24. Transporter ____ Company Name | 25. US EPA ID Number | | H. Transporter No. 3 Phone No. | |
| 26. Transporter ____ Company Name | 27. US EPA ID Number | | I. Transporter No. 4 Phone No. | |

| 28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) | 29. Containers No. | Type | 30. Total Quantity | 31. Unit Wt/Vol | J. Waste No. |
|---|---|---|---|---|---|
| a. | | | | | |
| b. | | | | | |
| c. | | | | | |
| d. | | | | | |
| e. | | | | | |
| f. | | | | | |
| g. | | | | | |
| h. | | | | | |
| i | | | | | |

GENERATOR

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter ____ Acknowledgement of Receipt of Materials — Printed/Typed Name | Signature | Date: Month Day Year

34. Transporter ____ Acknowledgement of Receipt of Materials — Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

35. Discrepancy Indication Space

EPA Form 8700-22A (4/95)

COPY 1: MUST BE COMPLETED AND RETURNED BY THE TSD FACILITY TO THE DISPOSAL STATE. 1

## FLOW & DISTRIBUTION OF THE MANIFEST CONTINUATION SHEET

The Uniform Hazardous Waste Manifest Continuation Sheet (EPA Form 8700-22A) is initiated by the Generator. This Continuation Sheet has eight (8) copies, all of which must be totally legible. Copies 1, 2, 3, 4 and 5 are taken with the waste by the Transporter to the Treatment, Storage, and Disposal (TSD) Facility. These copies are distributed as follows:

**Copy 1:** Must be completed and returned by the TSD Facility to the Disposal State. Copy 1 is then compared by the Disposal State with Copy 6 for a match.

**Copy 2:** Must be completed and returned by the TSD Facility to the Generator State. Copy 2 is then compared by the Generator State with Copy 7 for a match.

**Copy 3:** Must be completed and returned by the TSD Facility to the Generator. Copy 3 is then compared by the Generator with Copy 8 for a match.

**Copy 4:** Retained by TSD Facility.

**Copy 5:** Retained by Transporter 3.

**NOTE:** If a continuing transporter is used, the Generator is responsible for supplying him with a legible copy 5 photocopy, which must contain required signatures.

**Copy 6:** The Generator sends Copy 6 to the Disposal State. The Disposal State retains Copy 6 to compare with Copy 1 as outlined above.

**Copy 7:** The Generator sends Copy 7 to the Generator State. The Generator State retains Copy 7 to compare with Copy 2 as outlined above.

**Copy 8:** The Generator, retaining Copy 8, compares it with Copy as outlined above.

Federal and State regulations require Generators and Transports of hazardous waste and owners or operators of hazardous waste, Treatment, Storage, and Disposal Facilities to use form (8700-22) and the continuation sheet (Form 8700-22A) for both inter and intra-state transportation.

This form must be used as a continuation sheet to EPA form 8700-22 if:

! More than two transporters are to be used to transport the waste.

! More space is required for the U.S. DOT description and related information in Item 11 of U.S. Form 8700-22.

The **FILLING OUT OF THE FORM** requirements are as follows:

The Delaware continuation sheet contains 8 copies. **ALL COPIES MUST BE LEGIBLE.** Each form is designed for use on a 12 pitch (elite) typewriter; a firm ballpoint pen may be used only if you press down HARD. The 8 copies must be filled out by the appropriate parties as they are completed.

### GENERATOR'S REQUIREMENTS

**Item 21.** Generator's U.S. EPA ID Number-Manifest Document Number.

Enter the generator's U.S. EPA twelve digit identification number and the unique five digit number assigned to this Manifest (e.g., 00001) as it appears in Item 1 on the first page of the Manifest.

**Item 22.** Page _____.

Enter the page number of this Continuation Sheet.

**Item 23.** Generator's Name.

Enter the generator's name as it appears in Item 3 on the first page of the Manifest.

**Item 24.** Transporter -- Company Name.

If additional transports are used to transport the waste described on this Manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after the work "Transporter" the order of the transporter. For example, Transport 3 Company Name. Each Continuation Sheet will record the names of two additional transporters.

**Item 25.** U.S. EPA ID Number.

Enter the U.S. EPA twelve digit identification number of the transporter described in Item 24.

**Item 26.** Transporter -- Company Name.

If additional transports are used to transport the waste described on this Manifest, enter the company name of each additional transporter in the order in which they will transport the waste. Enter after the work "Transporter" the order of the transporter. For example, Transport 4 Company Name. Each Continuation Sheet will record the names of two additional transporters.

**Item 27.** U.S. EPA ID Number.

Enter the U.S. EPA twelve digit identification number of the transporter described in Item 26.

**Item 28.** U.S. DOT Description Including Proper Shipping Name, Hazardous Class, and ID Number (UN/NA).

Refer to Item 11.

**Item 29.** Containers (No. and Type).

Refer to Item 12.

**Item 30.** Total Quantity.

Refer to Item 13.

**Item 31.** Unit (Wt./Vol.).

Refer to Item 14.

**Item 32.** Special Handling Instructions.

Generators may use this space to indicate special transportation, treatment, storage, or disposal information or Bill of Lading information. States are not authorized to require additional, new, or different information in this space.

Items F, G, H, I, and J are not required by Federal regulations for intra- or interstate transportation. However, Delaware requires Generators, Transporters, and Owners or Operators of Treatment, Storage, or Disposal Facilities to complete the appropriate portions of Items F, G, H, I, and J as part of State manifest requirements.

Item F:STATE MANIFEST DOCUMENT NUMBER.

Enter the pre-printed manifest document number from Copy 1 of the manifest Form 8700-22 on each continuation sheet attached to or part of a manifest.

Item G: GENERATOR PHONE NUMBER.

Enter the telephone number with area code where an authorized agent of the Generator can be reached.

Item H: TRANSPORTER'S PHONE NUMBER.

Enter a telephone number with area code where an authorized agent of the Transporter No. 3 can be reached.

Item I: TRANSPORTER'S PHONE.

If applicable, enter a telephone number with area code where an authorized agent of the Transporter No. 4 may be reached. In the case of shipment with more than four transporters, contact the DNREC for further details.

Item J:WASTE NO.

Enter the 4 digit EPA hazardous number as it appears in 40 CFR Part 261 Subparts C & D.

**TRANSPORTERS REQUIREMENTS**

Item 33. Transporter -- Acknowledgment of Receipt of Materials.

Enter the same number of the Transporter as identified in Item 24. Enter also the name of the person accepting the waste on behalf of the Transporter (Company Name) identified in Item 24. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

**TRANSPORTERS REQUIREMENTS**

Item 34: Transporter -- Acknowledgment of Receipt of Materials.

Enter the same number as identified in Item 26. Enter also the name of the person accepting the waste on behalf of the Transporter (Company Name) identified in Item 26. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

**OWNERS AND OPERATORS OF TREATMENT, STORAGE OR DISPOSAL FACILITIES**

Item 35. Discrepancy Indication Space - Refer to Item 19.

Items F, G, H, I, and J are not required by Federal regulations for intra- or interstate transportation. However, Delaware requires generators and owners or operators of treatment, storage, or disposal facilities to complete all of Items F, G, H, I, and J as part of State Manifest reporting requirements.

**NOTE:** Generators shipping wastes to a disposal facility in Delaware must use the Delaware Manifest Continuation Sheet. Generators in Delaware who ship out-of-state must use the sheet of the state which will receive the waste. If that state does not supply the sheet, the generator must use the Delaware Manifest Continuation Sheet. The above instructions hold for Interstate and Intrastate shipments. If there are any questions or clarification regarding the instructions please contact the Department of Natural Resources and Environmental Control, Solid and Hazardous Waste Management Branch, 89 Kings Highway, Dover, DE 19901 or call (302) 739-3689.

# Part 263 - Standards Applicable to Transporters of Hazardous Waste

**Subpart A - General**



**Subpart B - Compliance with the Manifest System and Recordkeeping**



**Subpart C - Hazardous Waste Discharges**



**Subpart D - [Reserved]**
**Subpart E - Hazardous Waste Transporter Permits**



## Subpart A - General

**Section 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 adoption of these DOT regulations ensures consistency with the requirements of DOT and thus avoids the establishment of duplicative or conflicting requirements with respect to these matters. These DNREC Regulations 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 transportation 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. DOT regulations means the most current regulations as promulgated to date in Title 49, CFR, 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.

(d) A transporter of hazardous waste subject to the manifesting requirements of Part 262, or subject to the waste management standards of Part 273, that is being imported from or exported to any of the countries listed in §262.58(a)(1) for purposes of recovery is subject to this Subpart and to all other relevant requirements of Subpart H of Part 262, including, but not limited to, §262.84 for tracking documents.

(e) The regulations in this part do not apply to transportation during an explosives or munitions emergency response, conducted in accordance with §264.1(g)(8)(i)(D) or (iv) or §265.1(c)(11)(i)(D) or (iv), and §122.1(c)(3)(i)(D) or (iii).

(f) Section 266.203 of these regulations identifies how the requirements of this part apply to military munitions classified as solid waste under §266.202.

(Amended August 10, 1990, August 1, 1995, January 1, 1999)

**Section 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 Regulated Waste Activity** form and EPA Form 8700-12. Upon receiving the request, the Secretary will assign an EPA identification number to the transporter.

(c) A transporter must submit a subsequent State of Delaware Notification of Regulated Waste Activity Form (8700-12) whenever there is a change in name, mailing address, contact person, contact address, telephone number, ownership, type of regulated waste activity, or changes in the description of regulated wastes managed or permanently ceases the regulated waste activity. This subsequent notification must be submitted to the Secretary no less than 10 days prior to implementation of the change(s).

(Amended June 19, 1992)

**Section 263.12 Transfer Facility Requirements.**

(a) A transporter consolidating and/or storing manifested shipments of hazardous waste in containers meeting the requirements of §262.30 for less than 10 days is an owner or operator of a transfer facility.

(b) A transporter commingling manifested shipments of hazardous waste in containers meeting the requirements of §262.30 is an owner or operator of a hazardous waste treatment and storage facility subject to the requirements of Parts 260-266, 268 and Parts 122 and 124 of these regulations.

(c) A transfer facility shall not be operated without prior written approval of the Secretary. No written approval shall be granted unless the owner or operator submits an application and fee, and demonstrates to the Secretary that the facility complies with §§ 264.16 and 264.112 and Part 264, Subparts C, D and I of these regulations.

(d) No written approval shall be granted unless the owner or operator demonstrates to the Secretary that the transfer facility location complies with the requirements of the Delaware Regulations Governing the Location of Hazardous Waste Storage, Treatment, and Disposal Facilities.

(e) Any hazardous waste transfer facility that ceases to operate or maintain approval status shall implement the approved closure plan within 30 days, unless an extension has been granted by the Secretary.

(f) Transfer of ownership of any hazardous waste transfer facility shall be consistent with the conditions of §122.40 of these regulations.

(g) A transfer facility owner or operator must maintain a log of the time and date on which each container or transport vehicle of hazardous waste is received or shipped, including the number from its manifest. Completed log records must be maintained on-site for a period of at least three years.

(h) Storage of manifested shipments of hazardous waste in containers or vehicles by a transporter at its own terminal for a period of 72 hours or less, provided no consolidation or commingling occurs, is exempted from the requirements of §263.12(a) through (g), provided that the transporter:

(1) notifies the Solid and Hazardous Waste Management Branch in writing prior to commencing the activity;

(2) maintains a log of the time and date on which each container or transport vehicle of hazardous waste is received or shipped, including the number from its manifest. Completed log records must be maintained on-site for a period of at least three years;

(3) does not open any containers or transport vehicles for any purpose, including adding absorbent to, or sampling, transferring, or treating hazardous waste;

(4) stores the waste in containers or transport vehicles which meet the design requirements specified by US DOT for each type of waste stored. During storage and shipment, these containers or transport vehicles must be packaged, labeled and marked in accordance with Subpart C of Part 262;

(5) does not handle or store containers or transport vehicles in a manner which would cause them to leak; and

(6) complies with the standards for hazardous waste discharges specified in §263.30.

(Amended August 10, 1990, August 1, 1995)

## Subpart B - Compliance with the Manifest System and Recordkeeping

### Section 263.20 The Manifest System.

(a) A transporter may not accept hazardous waste from a generator unless it is accompanied by a manifest signed in accordance with the provisions of §262.20. In the case of exports other than those subject to Subpart H of Part 262, a transporter may not accept such waste from a primary exporter or other person if he knows the shipment does not conform to the EPA Acknowledgment of Consent; and unless, in addition to a manifest signed in accordance with the provisions of §262.20, such waste is also accompanied by an EPA Acknowledgment of Consent which, except for shipment by rail, is attached to the manifest (or shipping paper for exports by water (bulk shipment)). For exports of hazardous waste subject to the requirements of Subpart H of Part 262, a transporter may not accept hazardous waste without a tracking document that includes all information required by §262.84.

(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. In the case of exports, the transporter must ensure that a copy of the EPA Acknowledgment of Consent also 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;

(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) and, for exports, an EPA Acknowledgment of Consent 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) and, for exports an EPA Acknowledgment of Consent accompanies the hazardous waste at all times.

(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, and

(4) Give a copy of the manifest to a U.S. Customs official at the point of departure from the United States.

(Amended August 29, 1988)

**Section 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.

**Section 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

**Section 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)-739-3689 or (800) 662-8802) or (302) 739-4580) 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.

(Amended August 10, 1990)

**Section 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.

## Subpart D - Reserved

## Subpart E - Hazardous Waste Transporter Permits

(Subpart E added by amendment May 17, 1989)

**Section 263.100 Applicability.**

Any person engaged in the managing of hazardous waste, toxic wastes or used/waste oil for transport in or through the State of Delaware is subject to the requirements of this subpart. No person shall transport the aforementioned wastes in or through the state without first obtaining a permit from this Department.

**Section 263.101 Scope of permit.**

(a) A transporter permit shall be issued for a specified period of time which will be determined by the Department. In no case, shall a permit be issued for a period greater than 5 years.

(b) A transporter may transport only those wastes for which he is specifically permitted to transport according to permit conditions;

(c) All vehicles covered by the permit shall carry at all times a copy of the approved permit and make it available for inspection upon request;

(d) A transporter shall at all times maintain insurance coverage that is in compliance with the requirements Federal DOT 49 CFR, Part 387.

(Amended June 19, 1992, August 1, 1995)

**Section 263.102 Permit modifications.**

(a) Permits may be modified, upon application, for the following reasons;

(1) addition of a waste that will be transported by the permittee;

(2) changes in vehicle information, such as;

(3) changes in operation procedures;

(4) changes in address;

(b) Permits may be amended or revoked by the Secretary for the following reasons:

(1) Noncompliance by the permittee with any conditions of the permit;

(2) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any facts at any time; or

(3) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

(c) The Secretary shall follow the applicable procedures in Part 124 in terminating any permit under this section.

(d) Change of ownership. Upon a change in ownership, the new owner shall successfully demonstrate compliance with the requirements of this subpart no more than ten (10) days after the change of ownership.

(Amended August 1, 1995)

**Section 263.103 Permit application procedures.**

(a) Any person who is required to obtain a permit for the transportation of wastes shall apply for such a permit in accordance with this subpart.

(b) Applications shall be completed and submitted on forms prescribed by the Department. The application shall contain, but not be limited to the following information;

(1) Types of waste to be transported;

(2) List of all vehicles used for the transportation of the listed wastes (both motorized and container);

(3) Demonstration of compliance with Federal DOT 49 CFR, Part 387 insurance requirements;

(4) List of authorized TSD facilities that have agreed to accept the wastes;

(5) Description of driver/handler training program;

(6) Detailed spill containment procedures that includes a narrative description of the appropriateness of the plan.

(c) A fee, developed through regulation by the Department, must accompany each application. Applications received without the application fee will be returned to the applicant.

(d) Applications for permit renewals must be submitted, along with the appropriate renewal fee at least sixty (60) days in advance of the expiration date of the existing permit.

**Section 263.104 Instruction and training.**

All vehicle drivers and employees of the transporter who may handle hazardous wastes subject to these regulations, shall successfully complete a program of instruction that teaches how to perform transportation duties in a way that ensures the safety of human health and the protection of the environment and that ensures compliance with all applicable DOT 49 CFR requirements. Such instruction program, at a minimum, shall include, but not be limited to the following:

(a) Basic knowledge of DOT's labeling, packing, placarding, and shipping requirements as set forth in 49 CFR and other applicable DOT requirements;

(b) Safe vehicle operations to avoid creating hazards to human health and environment;

(c) Knowledge of proper handling procedures for the wastes being transported;

(d) Familiarity with use of the most recent edition of the Emergency Response Guidebook for Hazardous Waste Materials published by DOT;

(e) A method to assure that the instruction program has been successfully completed (e.g., written or oral tests).

**Section 263.105 Operating requirements.**

(a) All vehicles shall be operated and maintained so as to be in compliance with all state and federal regulations and not present a hazard through unsafe vehicle conditions. The permittee is responsible for all vehicles including leased vehicles and contractor vehicles operated under his permit;

(b) All vehicles must carry safety and emergency equipment in accordance with applicable DOT regulations to ensure public safety and protection to the environment;

(c) All vehicles shall be equipped and operated to prevent leakage of wastes to the environment;

(d) All vehicles shall carry on board spill containment equipment to ensure adequate containment in the event of a release of the waste from the vehicle;

(e) Open-bodied container vehicles carrying wastes that are subject to scattering or blowing must be fully covered by a tarpaulin or other such device so as to prevent any discharge or release of the waste to the environment;

(f) A permittee shall display the full name of the transporter on both sides of each vehicle and the transporter's permit number in figures at least three inches high and of a color which contrasts with the background, in a prominent position on each side and rear of each vehicle used for activities covered by this part;

(g) The operator of any vehicle used for activities covered by this part shall remain in attendance of such vehicle while the vehicle is being loaded and unloaded;

(h) The operator of a vehicle used for the transportation of hazardous waste shall not accept any hazardous waste from a generator or from another transporter if:

(1) the hazardous waste shipment does not match the waste description contained in the manifest;

(2) waste containers are leaking or are damaged in a way that will allow leakage or otherwise pose a potential for release of the waste while in transit. These drums must be overpacked prior to loading;

(3) waste containers have not been properly labeled or marked.

(i) The operator must utilize a checklist for each shipment to ensure:

(1) familiarization with the waste load to be transported for such things as proper DOT name; labeling; hazard class; UN/NA name; placarding;

(2) that the transport vehicle has been visually inspected for safety and road worthiness prior to leaving to pick up the waste and prior to leaving the facility for the TSD;

(3) that the waste shipment has been inspected for proper labeling, placarding and marking;

(4) that drums or containers are in good condition;

(5) that drums have been counted and verified against the manifest;

(6) that drums have been properly secured so as to prevent load shift while in transit;

(7) that the proper placarding has been used on the transport vehicle; and

(8) that the manifest has been checked for accuracy against the waste being transported.

(j) All negative findings on the checklist must be corrected before the waste can be accepted for transportation.

**Section 263.106 Insurance requirements.**

All transporters must be in compliance with all motor carrier insurance requirements set by Federal DOT 49 CFR Part 387.