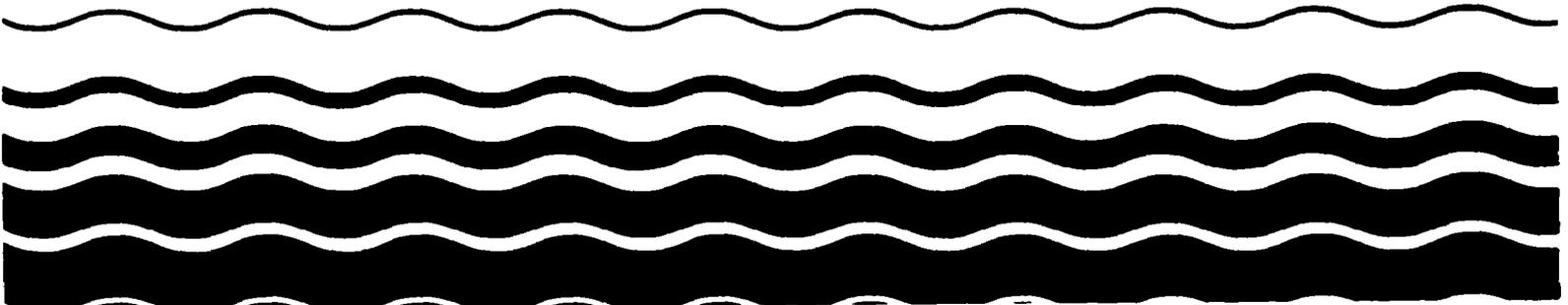

Water



RCRA Information on Hazardous Wastes for Publicly Owned Treatment Works



**RCRA Information On Hazardous Wastes
For Publicly Owned Treatment Works**

September 1985

**U.S. Environmental Protection Agency
Office of Water Enforcement and Permits
401 M Street, SW
Washington, DC 20460**

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1. INTRODUCTION

1.1 PURPOSE OF THIS MANUAL

This manual provides guidance to municipal personnel in understanding hazardous waste requirements of the Resource Conservation and Recovery Act (RCRA) and the implications of these RCRA requirements for the wastewater treatment plant operated by your municipality, for your local pretreatment program, and for local industries served by the treatment plant. This guidance manual has three purposes.

First, the RCRA notification requirement specified in the General Pretreatment Regulations is the manual's primary purpose. 40 CFR 403.8(f)(2)(iii) requires that publicly owned treatment works (commonly called POTWs) notify their industrial users (IUs) "of applicable Pretreatment Standards and any other applicable requirements under Section 204(b) and 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act." The manual focuses on Subtitle C, rather than Subtitle D, requirements. Subtitle C is directly applicable to industries since this program regulates generators, transporters, and disposers of hazardous waste. Subtitle D, on the other hand, focuses on nonhazardous solid waste management, and regulates landfills of sewage sludge as well as land application and storage lagoons for sludge and septage.

In order to fulfill the pretreatment IU notification provision, you must be familiar with RCRA itself. The manual's second purpose, then, is to provide you with a general understanding of how Federal RCRA requirements for hazardous waste affect IUs. However, it may be possible that your municipal treatment plant is subject to certain RCRA requirements (as will be explained later). Thus, the manual's third purpose is to enable you to comply with any applicable Federal requirements incumbent upon your POTW under Subtitle C of RCRA.

1.2 RELATIONSHIP OF RCRA TO PRETREATMENT

To make best use of the manual, it is first helpful to explain the basic operation of RCRA and the National Pretreatment Program and the ways in which

hazardous waste management under RCRA and the regulation of indirect discharges of toxic pollutants under the pretreatment program overlap. The distinction between "hazardous" waste and "toxic" pollutants is also important to clarify. RCRA regulates specific waste types as hazardous wastes if they either exhibit certain characteristics or are listed in the regulations, and imposes controls to ensure that designated wastes are subject to rigorous tracking and management practices. Included in the RCRA regulated community are hazardous waste generators, transporters, and treatment, storage and disposal facilities.

By contrast, the National Pretreatment Program, established under the Clean Water Act, has a different focus. It requires POTWs or States to control toxic pollutants discharged into sewerage systems that may interfere with, pass through, or otherwise upset the POTW's treatment processes. These toxic pollutants are identified in the Clean Water Act (Sections 301 and 307). In some instances, the same pollutants are considered both toxic and hazardous under the National Pretreatment Program and RCRA, respectively. To alleviate any confusion, this manual uses the term "hazardous" for those wastes which are transported, treated, or stored, and which are defined in 40 CFR Part 261, and "toxic" for those wastes discharged into POTWs and regulated under the National Pretreatment Program.

The first overlap between RCRA and pretreatment, and central to the manual's purpose, is that IUs regulated under the National Pretreatment Program may also be hazardous waste generators under RCRA. In fact, many IUs generate hazardous wastes in the course of pretreating wastewaters (e.g., electroplating wastewater treatment sludges are a listed hazardous waste). Recognizing this fact, the General Pretreatment Regulations call on POTWs to assist IUs with RCRA compliance by notifying them of applicable Subtitle C and D requirements.

Second, under RCRA's Domestic Sewage Exemption (see Section 2.2.3 of this manual), any waste generator or industry may discharge what would otherwise be considered hazardous waste into the sewer if such discharges are mixed with domestic sewage. With the RCRA amendments of November 1984, which will bring

a larger universe of waste generators under regulation, it is possible that the POTW may see an increase in toxic wastes discharged into the sewer system as more waste generators take advantage of this exemption. Thus, RCRA defers to the Clean Water Act and pretreatment program regulation to make sure that wastes released to POTWs under the Domestic Sewage Exemption are properly managed. Clearly, the overlap caused by this exemption places a special regulatory challenge on POTWs with pretreatment programs.

A third key overlap affecting municipalities is that POTWs themselves may be regulated parties subject to RCRA requirements. A POTW that generates a sludge which either fails the extraction procedure toxicity test or exhibits one of three other characteristics (ignitability, corrosivity, or reactivity) is considered a hazardous waste generator and must comply with RCRA regulations. Section 2.1.1 explains these four criteria for determining hazardous waste. POTWs which receive hazardous wastes by truck, rail, or separate pipe (where hazardous waste is not mixed with domestic sewage) are considered treatment, storage, and disposal facilities under RCRA and subject to permit-by-rule requirements (see Section 4.2 of this manual). These three overlaps between RCRA and pretreatment can directly affect how your municipality regulates the discharge of toxic pollutants.

Although RCRA charges the Federal government with responsibility to control hazardous wastes, States are authorized to take over program implementation if they have procedures and statutory and regulatory authority equivalent to those required in Federal regulations. The RCRA program uses a phased approach to delegate programmatic responsibilities to the States. Under this approach, a State first obtains interim authorization (consisting of two phases), and then final authorization. The RCRA program also gives States a degree of flexibility in the way in which they run their hazardous waste management programs. Since this manual addresses only requirements of the Federal RCRA program, it is essential that you learn about all State (and local) hazardous waste requirements that may affect the municipal treatment plant's operation. Appendix A lists State solid waste agencies that can provide you with information on hazardous waste management requirements in your State.

This manual gives you an understanding of the relevant provisions of both RCRA and the General Pretreatment Regulations which affect you and practical guidance on how you can inform industrial users of their RCRA obligations and assist them in complying with these obligations. Still, due to the Act's technical complexity, its staggered deadlines for program implementation and compliance, and the possibility that your State hazardous waste management program requirements differ from Federal regulations, some questions will undoubtedly require additional assistance beyond this manual's scope. Questions or problems not completely addressed here should be referred to your State solid waste management office or to the appropriate EPA Regional office. A list of these offices appears in Appendix A.

Further, the most recent amendments to RCRA (in November 1984) require EPA to undertake studies of and develop regulations for various provisions of the Act. For example, EPA is now reviewing the Domestic Sewage Exemption, and it is possible that the exemption may be revised, based on this review. In addition, EPA needs to develop regulations to implement the notification requirement for industrial users specified in Section 3010 of RCRA (and discussed briefly in Section 2.2.1 of this manual). Similarly, the Agency will be drafting more specific permit-by-rule and corrective action requirements than those outlined in Chapter 4 of this manual. And finally, the Agency is in the process of revising the extraction procedure toxicity test to regulate a larger number of pollutants. These ongoing EPA activities make it especially important that you keep in touch with the EPA Regional office in your area or your State waste management agency.

1.3 ORGANIZATION OF THE MANUAL

The balance of this manual is organized into the three chapters. Chapter 2 summarizes RCRA requirements for generators and transporters of hazardous waste. Chapter 3 outlines POTW requirements under the General Pretreatment Regulations and explains how POTWs must regulate discharges of toxic pollutants by industrial users into the collection system. It also provides guidance on how to inform IUs of their waste management requirements. Chapter 4 describes POTW obligations under RCRA and focuses on POTWs that accept hazardous wastes by truck, rail, or separate pipe. Chapter 4 also

explains general hazardous waste management requirements for POTWs accepting hazardous wastes under RCRA permits by rule.

The appendices contain materials that you can photocopy and use or distribute to notify IUs and waste transporters of their RCRA obligations. Specifically included are:

- Lists of hazardous wastes regulated by Federal requirements
- Selected EPA-approved forms for hazardous waste facilities to use
- RCRA Information Brochure briefly outlining the Act's impact on industries that generate or transport hazardous wastes
- EPA pamphlets summarizing information for generators of small quantities of hazardous waste.

2. RCRA OBLIGATIONS FOR GENERATORS AND TRANSPORTERS OF HAZARDOUS WASTE

Congress enacted the Resource Conservation and Recovery Act in 1976 (and subsequently amended it in 1978, 1980, and 1984) to define a Federal role in solid waste and resource management and recovery. The Act's primary goals are: (1) to protect human health and the environment from hazardous and other solid wastes; and (2) to protect and preserve natural resources through programs of resource conservation and recovery. Its principal regulatory focus is to control hazardous waste. To this end, RCRA mandates a comprehensive system to identify hazardous wastes and to trace and control their movement from generation through transport, treatment, storage, and ultimate disposal.

Extensive hazardous waste regulations have been promulgated under RCRA's authority. These regulations are codified under 40 CFR Parts 260, 261, 262, 263, 264, 265, 266, and 270. Specifically, RCRA provisions are focused in the following way:

- Part 260: General
- Part 261: Hazardous waste identification and listing
- Part 262: Hazardous waste generators
- Part 263: Hazardous waste transporters
- Parts 264-265: Owners and operators of hazardous waste facilities
- Part 266: Special requirements
- Part 270: Hazardous waste permits.

The remainder of this chapter provides an overview of hazardous waste requirements which may apply to IUs served by your POTW or to your POTW itself if it produces a sludge that displays the hazardous waste characteristics described in Section 2.1.1. It is designed to enable you to understand RCRA's general provisions. Section 2.1 describes how generators of solid waste can determine whether that waste is hazardous. Section 2.2 presents management requirements under RCRA for hazardous waste generators. Requirements for hazardous waste transporters are addressed in Section 2.3.

Appendix B contains a brochure which condenses the information presented in this chapter. For your convenience, the brochure has been designed especially to be photocopied and sent to your IUs, enabling you to satisfy the RCRA notification requirement of the General Pretreatment Regulations.

2.1 HAZARDOUS WASTE DETERMINATION

As part of a comprehensive program to regulate hazardous wastes from "cradle to grave," Section 3001 of RCRA directs EPA to establish ways to determine what waste materials are considered hazardous for regulatory purposes. The Section 3001 regulations are codified in 40 CFR Part 261. In addition, 40 CFR Part 262 requires solid waste generators to determine whether their wastes are hazardous.

If a business generates any material which is discarded or disposed of, it must determine if that material is a "solid waste," according to the regulatory definition. In January 1985, EPA proposed its final definition of solid waste. According to this definition, "solid waste" is any material that is abandoned or disposed of, burned, or incinerated -- or stored, treated, or accumulated before or in lieu of these activities. The term includes essentially all forms of waste (i.e., solids, liquids, semisolids, or contained gaseous substances).

In addition, most recycled materials are now considered solid wastes by EPA, depending on both the recycling activity itself and the nature of the recycled material. The following four types of recycling activities are potentially subject to RCRA regulation:

- Uses which actually constitute ultimate disposal (for example, land spreading of wastewater treatment sludges for fertilizer)
- Burning waste or waste fuels for energy recovery or using wastes to produce a fuel
- Reclamation -- regeneration of wastes or the recovery of material from wastes
- Speculative accumulation -- either accumulating wastes that are potentially recyclable but for which no recycling (or no feasible recycling) market exists, or accumulating wastes before recycling unless 75 percent of the accumulated material is recycled during a one-year period.

Five categories of recycled (termed secondary) materials also fall under this solid waste definition.

- Spent materials -- materials that have been used and no longer serve the purpose for which they were originally produced without being regenerated, reclaimed, or otherwise reprocessed. Examples include spent solvents and spent acids.
- Sludges -- residues from pollution control processes, such as wastewater treatment sludges and air emission control wastes.
- By-products -- residual materials resulting from industrial, commercial, mining, and agricultural operations that are not primary products, are not produced separately, and are not fit for a desired end use without substantial further processing. Examples are process residues from manufacturing or mining processes, such as distillation column residues or mining slags.
- Commercial chemical products -- products listed in 40 CFR Part 261.33 when they are recycled in ways that differ from their normal use.
- Scrap metal -- metal parts discarded after consumer use or that result from metal processing operations. Examples include scrap automobiles and scrap radiators.

Some materials, however, are NOT considered solid wastes under RCRA, including domestic sewage or any mixture of domestic sewage and other wastes that pass through a sewer system to a POTW. Also excluded are wastes regulated under other Federal laws, such as industrial wastewater discharged directly to public waters (which must be properly permitted) and many nuclear or radioactive materials (regulated by the Department of Energy and/or the Nuclear Regulatory Commission). Section 2.2.3 discusses three specific situations in which wastes are exempted from RCRA requirements.

There are two ways to know if a waste is regulated as a hazardous waste under Federal law:

- If it exhibits one or more of the following four characteristics -- ignitability, corrosivity, reactivity, and toxicity (based on EPA extraction procedures) -- it is considered a **characteristic waste** under RCRA.
- If it (or any part of it) is listed in 40 CFR 261.31-261.33, it is commonly called a **listed waste** in RCRA regulations. Appendix C contains these listed wastes.

Characteristic and listed wastes are described below. Figure 2.1 shows EPA's hazardous waste identification process.

Whether a waste is regulated as a hazardous waste may also depend on two other factors. First, as the 1984 RCRA amendments go into effect, some new wastes that previously were not regulated will be subject to the hazardous waste regulations. Second, some States apply their own hazardous waste regulations to wastes in addition to those listed in Federal regulations. Thus, if an industry is in doubt about whether its waste is regulated under Federal or State hazardous waste regulations, it should contact the State hazardous waste agency or EPA regional office.

2.1.1 Characteristic Wastes

EPA has identified four characteristics which cause a waste to be regulated as a hazardous waste:

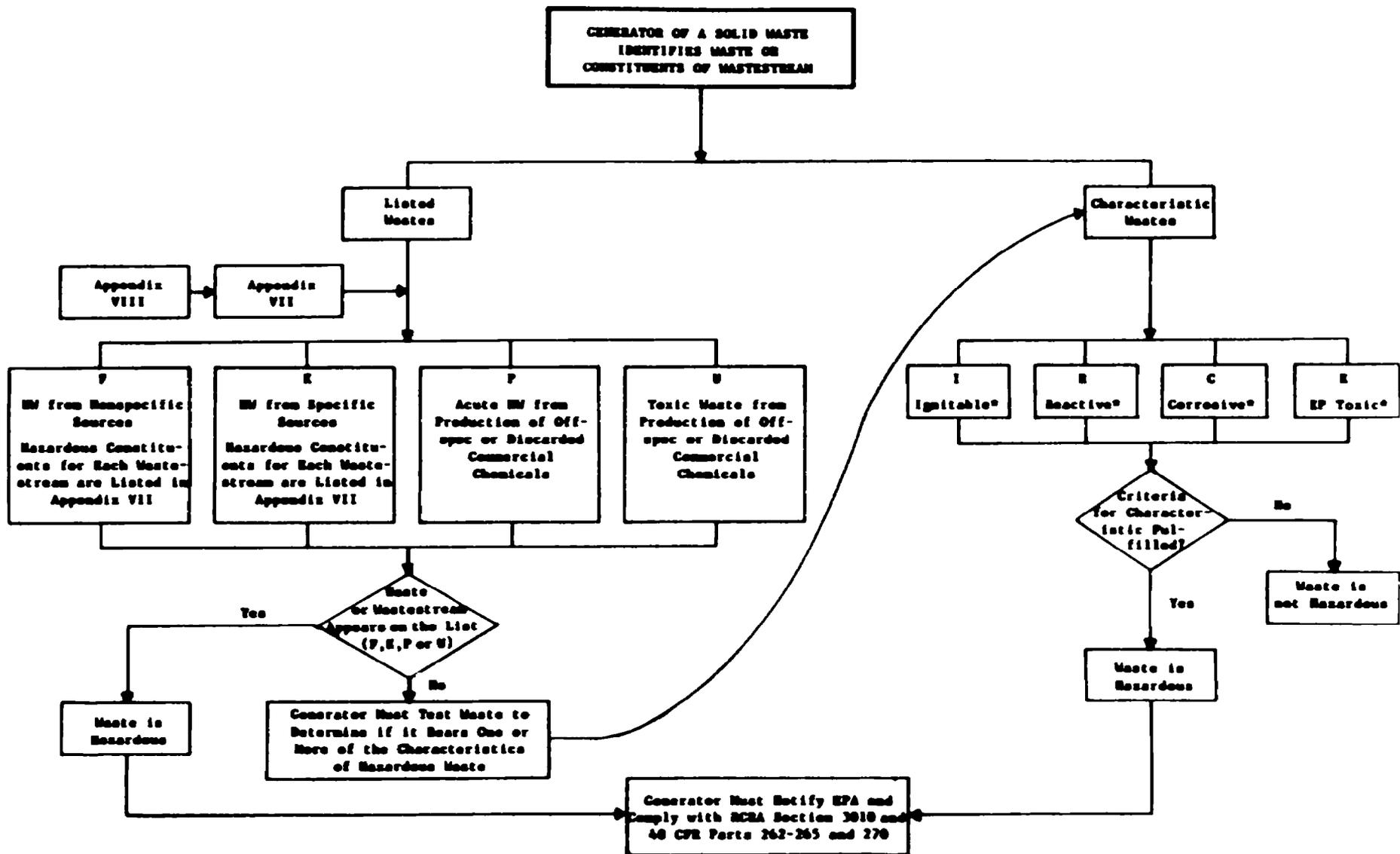
- Ignitability
- Corrosivity
- Reactivity
- Extraction procedure toxicity.

For each characteristic, EPA has developed or approved methods for determining whether a waste is hazardous. **A solid waste generator must determine whether its waste exhibits any of these four characteristics if its waste is not a listed waste** (as described in Section 2.1.2 of this Chapter). A brief description of each characteristic and applicable tests follows.

2.1.1.1 Ignitability

A waste is hazardous by virtue of being ignitable if it is:

- A liquid with a flash point less than 140°F (other than an aqueous solution containing less than 24 percent alcohol by volume)
- Not a liquid, but is capable of causing fire through friction, absorption of moisture, or spontaneous chemical changes under standard temperature and pressure conditions



*See 48 CFR Part 261 Subpart C for specific test criteria to determine characteristics of hazardous waste.

Figure 2.1 Hazardous Waste Identification Process

- An ignitable compressed gas
- An oxidizer.

If it has any of these characteristics, it is identified for regulatory purposes as EPA hazardous waste number D001.

2.1.1.2 Corrosivity

A waste is hazardous by virtue of being corrosive if it is:

- An aqueous waste with pH less than or equal to 2.0 or greater than or equal to 12.5
- A liquid which corrodes steel at a rate greater than 6.35 millimeters per year at a temperature of 55°C.

If it is corrosive, it is identified for regulatory purposes as EPA hazardous waste number D002.

2.1.1.3 Reactivity

A waste is hazardous by virtue of being reactive if it:

- Is normally unstable and readily undergoes violent change without detonating
- Reacts violently with water
- Forms potentially explosive mixtures with water
- Generates toxic gases, vapors, or fumes when mixed with water.

If it is reactive, it is identified for regulatory purposes as EPA hazardous waste number D003.

2.1.1.4 Extraction Procedure Toxicity

According to EPA regulation, a waste is hazardous by virtue of being EP toxic if it "fails" the extraction procedure (EP) toxicity test. This regulatory interpretation of fails means that when the combined liquid and extract from a representative sample contains any of eight metals or six

herbicides/pesticides at levels in excess of specified concentration values, that sample has failed the EP toxicity test and is hazardous. Table 2.1 lists the EP toxicity contaminants and their concentration values (set at 100 times the maximum contaminant levels in regulations pursuant to the Federal Safe Drinking Water Act for these fourteen contaminants). The EP toxicity test is used to determine whether leachate from disposal of a particular waste will pollute ground water to levels in excess of maximum concentration levels established under the Act.

EPA is in the process of developing a new extraction procedure that will cover significantly more pollutants, including toxic organic compounds. If you are in doubt about whether your waste or sludge is considered EP toxic or have questions regarding appropriate test procedures, contact your State hazardous waste agency or EPA Regional office for more information.

2.1.2 Listed Wastes

A waste is regulated and must be managed as a hazardous waste if it exhibits one or more of the hazardous waste characteristics of 40 CFR 261.21-261.24 or if it is listed in 40 CFR 261.31-261.33. EPA developed these lists of hazardous wastes based on what was known about specific chemicals and wastestreams. Whether or not a waste is hazardous according to the criteria for characteristic wastes, if your waste appears on any of the lists, it is a regulated hazardous waste. Thus, you must comply with the notification requirement of RCRA Section 3010 and with the requirements in 40 CFR Parts 262-266 and 270. These regulations are described in Section 2.2 and 2.3 of this manual.

Most listed wastes are considered toxic; however, some wastes appear on a list solely because they exhibit one or more of the characteristics of hazardous waste (described above in Section 2.1.1). A description of the kinds of substances included in each list is presented below. Specific substances on each list are shown in Appendix C of this manual. EPA has proposed to add additional organic wastes and acute toxics to these lists. Thus, the lists in Appendix C may be expanded in the near future.

Table 2.1**EP Toxicity Contaminants**

<u>EPA Hazardous Waste Number</u>		<u>Contaminant</u>	<u>Maximum Concentration (mg/l)</u>
D004	-	Arsenic	5.0
D005	-	Barium	100.0
D006	-	Cadmium	1.0
D007	-	Chromium	5.0
D008	-	Lead	5.0
D009	-	Mercury	0.2
D010	-	Selenium	1.0
D011	-	Silver	5.0
D012	-	Endrin	0.02
D013	-	Lindane	0.4
D014	-	Methoxychlor	10.0
D015	-	Toxaphene	0.5
D016	-	2,4-D	10.0
D017	-	2,4,5-TP (Silvex)	1.0

2.1.2.1 Hazardous Wastes from Nonspecific Sources (F-XXX)

All wastes listed in 40 CFR 261.31 (the "F" list) must be managed as hazardous wastes. These wastes are generated by activities which are not specific to a particular industry. For example, spent degreasing solvents are listed as F wastes.

2.1.2.2 Hazardous Wastes from Specific Sources (K-XXX)

All wastes listed in 40 CFR 261.32 (the "K" list) must be managed as hazardous wastes. These include wastes generated by a specific product process by a particular industry, such as distillation bottoms from nitrobenzene production by the nitration of benzene. Seventy-six hazardous wastes from 12 industry categories are listed as K wastes in the current Code of Federal Regulations; others have been promulgated since July 1984.

2.1.2.3 ACUTELY HAZARDOUS commercial chemical products, off-specification species, container residues, and spill residues (P-XXX)

Any discarded chemicals included on the "P" list [40 CFR 261.33(e)] must be handled as hazardous wastes. P wastes are acutely hazardous and include discarded chemical products manufactured or formulated for commercial or manufacturing use, and which consist 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. In listing P wastes, EPA intends to include all acutely toxic chemical products which are sometimes thrown away in pure or diluted form. Reasons for discarding these materials might be that the materials do not meet required specifications, that inventories have been changed, or that the product line has been changed.

2.1.2.4 TOXIC commercial chemical products, off-specification species, container residues, and spill residues (U-XXX)

Any discarded chemicals included on the "U" list [40 CFR 261.33(f)] must be managed as hazardous wastes. Substances appear on the "U" list because they either are chronically toxic or exhibit one or more of the characteristics of hazardous waste (ignitability, corrosivity, reactivity, or EP toxicity). U wastes include chemical products manufactured or formulated

for commercial or manufacturing use, and which consist 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.

If a waste does not appear on any of these lists, then the waste generator must determine whether its waste exhibits one or more of the characteristics of a hazardous waste, as described in Section 2.1.1.

2.2 RCRA REQUIREMENTS FOR HAZARDOUS WASTE GENERATORS

Section 3002 of RCRA gives EPA authority to regulate generators of hazardous waste in order to protect human health and the environment. These regulations, in 40 CFR Part 262, specify hazardous waste management procedures for generators, including recordkeeping, labeling, use of appropriate containers, information reporting, and use of shipping manifests. Basic requirements for generators of hazardous waste are explained below.

These requirements for hazardous waste generators are also affected by whether EPA considers that generator to be a "small quantity generator." As of August 5, 1985, EPA distinguishes three classes of small quantity generators for regulatory purposes:

- Those generating between 100 and 1,000 kilograms of nonacutely hazardous waste per calendar month
- Those generating up to 100 kilograms of nonacutely hazardous waste per calendar month
- Those generating less than one kilogram of acutely hazardous waste per calendar month.

In general, the latter two classes of small quantity generators are subject to less stringent requirements than establishments producing large quantities of hazardous waste. Section 2.2.3.3 discusses the small quantity generator exclusion in more detail. If you have questions about how these regulations apply to your operations, contact your State hazardous waste agency or EPA Regional office.

2.2.1 Notification to EPA

Any business that generates, transports, treats, stores, or disposes of hazardous wastes (and is not exempt from regulation) must notify EPA or an authorized State and obtain an identification number. Most small quantity generators are not required to notify EPA. It is important to note that many States have regulations that differ from Federal requirements. All businesses involved in hazardous waste activities should contact their appropriate State agency to determine which regulations are applicable to them.

The RCRA Amendments of 1984 extend notification requirements to "solid and dissolved materials in domestic sewage" if they contain materials that would be defined as "hazardous waste" were they not discharged to sewers. Under this provision, **IUs covered by the Domestic Sewage Exemption are required to notify EPA of any hazardous wastewaters discharged to POTWs.** However, EPA has yet to formally implement this expanded notification requirement for industries making use of the domestic sewage exemption. IUs discharging wastes to POTWs under the Domestic Sewage Exemption should periodically contact their State or EPA Region to keep abreast of these impending notification requirements. If EPA determines or agrees with an industry's argument that it cannot conduct monitoring to satisfy this provision, EPA or an authorized State can do the monitoring and pass along costs to the industry.

2.2.2 Waste Management, Shipping, and Manifest Requirements for Off-Site Disposal of Hazardous Waste

If you generate, transport, treat, store, or dispose of any hazardous wastes (and your waste activities are not exempt from regulation), you must comply with applicable Federal, State, and local hazardous waste management requirements, both when the waste remains on your premises and when it is transported off-site. The following sections explain basic requirements for the off-site disposal of hazardous wastes.

2.2.2.1 EPA Identification Number for Generator and Transporter

Most Federally regulated generators and transporters of hazardous waste must have EPA identification numbers. An EPA identification number is required prior to any transportation, treatment, storage, or disposal of

hazardous waste. A regulated generator must not deliver hazardous waste to any transporter or treatment, storage, and disposal facility without an EPA identification number. This number can be obtained by completing EPA Form 8700-12 and submitting it to the appropriate EPA Region or authorized State. A copy of form 8700-12 is included in Appendix D.

2.2.2.2 Manifests

Generators of hazardous waste are required to prepare a manifest containing the following information for each load of hazardous waste shipped off-site:

- Generator name, address, telephone number and EPA identification number
- Transporter name and EPA identification number
- Name, address, and EPA identification number of permitted facility receiving waste
- Description of hazardous wastes transported
- Waste quantities, types, and number of containers
- Certification for proper packaging, marking, labeling and transportation
- Waste minimization certification
- Manifest document number.

Special manifest requirements for small quantity generators are discussed in Section 2.2.3.3.

The waste minimization certification is a new requirement which became effective on September 1, 1985. Basically, the certification states that the generator has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable, and that the proposed method of treatment, storage, or disposal is the practicable method currently available which minimizes the present and future threat to human health and the environment. Any generator of more than 1,000 kilograms of hazardous waste per month must sign the certification by

hand. Generators of hazardous waste in quantities below those specified in 40 CFR 261.5 are exempt from this certification requirement.

The Uniform Hazardous Waste Manifest is EPA Form 8700-22 and, if necessary, 8700-22A. Copies of both forms appear in Appendix E. Some States require that their own version of this form be used. Forms should be obtained from:

- The State to which the shipment is transported (consignment State)
- The State in which the generator is located (generator State).

If neither the generator State nor the consignment State supplies the manifest, the generator must then obtain a manifest form from any source.

Each manifest should include enough copies for the generator, each transporter, and the designated facility receiving the waste, as well as a copy to be returned to the generator. Upon delivery of waste to the transporter, the generator should sign and date the manifest, have the transporter sign the manifest, retain one copy, and provide the transporter with all remaining copies. A generator who does not receive, within 35 days, a manifest copy signed by the facility designated to receive the waste must contact the transporter and designated facility to determine what happened to the waste. A generator who has not received, within 45 days, a signed manifest copy must submit an **exception report** to the EPA Region.

Before transporting any hazardous waste off-site, a generator must comply with packaging, labeling, marking, and placarding requirements. RCRA pre-transport requirements generally incorporate U.S. Department of Transportation regulations, described in 49 CFR Parts 171-172.

2.2.2.3 Follow-up on Manifests

It is the generator's responsibility to ensure that all waste shipped off-site will be acceptable to the TSDf designated on the manifest. A copy of the signed manifest must be returned by the TSDf to the generator so that the final disposition of hazardous wastes can be traced at a later date. To make

sure that wastes can be traced later, generators should follow up on each waste shipment. Generators must keep a copy of each signed manifest for at least three years, or until they receive a signed copy from the facility designated to receive the wastes. Generators must then retain this signed copy for at least three years.

Whenever deliveries to TSDFs do not match the information on the manifest forms for any shipment or whenever the generator does not receive a returned copy of the manifest from the designated TSDF, the generator should call and/or write to the TSDF to check on whether the delivery was actually received. If discrepancies cannot be resolved by phone or mail, the generator should file an **exception report** with EPA or the authorized State hazardous waste agency.

Generators must keep copies of exception reports for at least three years. Generators must also keep records of any test results, waste analyses, or other determinations made in accordance with 40 CFR 262.11 for at least three years.

2.2.2.4 Biennial Report

Generators that ship their hazardous wastes off-site must prepare and submit a report to the appropriate EPA Region by March 1 of each even-numbered year. This report covers hazardous waste generator activities during the previous odd-numbered calendar year and should be submitted on EPA Form 8700-13 (see Appendix F) or on a form specified by the State. EPA plans to revise the form to add waste minimization information items. Some States require annual reports. Generators must retain biennial reports for at least three years after they are submitted to EPA.

2.2.3 Exceptions and Exemptions to RCRA Regulations for Generators

Wastes that are normally subject to hazardous waste regulations are exempt in three specific circumstances:

- Domestic sewage exemption
- On-site treatment exemption
- Small quantity generator exclusion.

Each is described below.

2.2.3.1 Domestic Sewage Exemption

Hazardous wastes that are discharged to a POTW and are mixed with domestic sewage are excluded from RCRA control because they are not defined as "solid waste." Thus, the domestic sewage exemption covers:

- "Untreated sanitary wastes that pass through a sewer system"
- Any mixture of domestic sewage and other wastes that passes through a sewer system to a POTW for treatment.

2.2.3.2 Exemption for On-Site Treatment or Storage of Wastewaters

RCRA regulations contain an exemption for on-site treatment and storage of wastewaters. RCRA regulations governing TSDFs and RCRA permitting regulations contain provisions which exempt owners and operators of the following types of facilities, based on definitions in 40 CFR 260.10:

- Wastewater Treatment Units - Devices which: (1) are part of a wastewater treatment facility subject to regulation under Sections 307 or 402 of the Clean Water Act (i.e., direct dischargers of wastewaters); (2) receive and treat or store hazardous influent wastewater; and (3) meet the definition of a tank. EPA interprets the term "wastewater" to refer to waste which is mostly water with a few percent contaminants. A "tank" is a stationary device constructed primarily of nonearthen materials (e.g., wood, concrete, steel, plastic) which provide structural support. To determine if the unit is a tank, the unit should be evaluated as if it were free standing, and filled to its design capacity with material it is intended to hold. If the walls or shell of the unit alone provide sufficient structural support to maintain the structural integrity of the unit under these conditions, the unit can be considered a tank. Accordingly, if the unit is not capable of retaining its structural integrity without supporting earthen materials, it must be considered a surface impoundment.
- Totally Enclosed Treatment Facilities - Facilities to treat hazardous waste which are directly connected to an industrial production

process, and constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An EPA policy memorandum (July 27, 1981) states that "a totally enclosed treatment facility" must: (1) be completely contained on all sides, (2) pose negligible potential for escape of constituents to the environment, (3) be connected directly by pipeline or similar totally enclosed device to an industrial production process. The memorandum also indicates that **effluent discharged to a POTW is exempt from RCRA regulation.** However, it is subject to pretreatment regulations.

- Elementary Neutralization Units - Devices used for neutralizing waste defined as hazardous solely because it is corrosive, and which meet the definitions of tank, container, transport vehicle or vessel in 40 CFR 260.10.

These three definitions, but principally the definition of "wastewater treatment unit," create a broad exemption applying to the treatment and storage of wastewater. Taken together, the definitions of "wastewater treatment unit" and the regulatory provisions exempting owners and operators of wastewater treatment units from TSDF regulations can be construed to allow storage of wastewater treatment sludge as long as the facility meets the 40 CFR 260.10 definition of "tank" and is part of a wastewater treatment facility subject to regulations under Sections 402 or 307(b) of the Clean Water Act.

The treatment and storage exception cited above does not apply to any on-site facility which does not qualify as a wastewater treatment unit, a totally enclosed treatment facility, or an elementary neutralization unit. Consequently, **open storage facilities (e.g., waste piles or surface impoundments) and on-site disposal operations (e.g., landfills, land application, or incineration) are governed by storage and disposal facility requirements and RCRA permitting requirements.**

Federal hazardous waste regulations clearly apply to both industrial and POTW sludges, unless they are contained in a tank which is part of a wastewater treatment unit [according to RCRA Sections 1004(26A) and (27) and EPA regulatory decisions published in the Federal Register of May 19, 1980, Vol. 45, No. 98, p. 33101]. Owners or operators of industries and POTWs that generate, treat, or dispose of sludge that fits the regulatory definition of a "solid waste" are obligated, under RCRA Subtitle C, to determine whether the

sludge they generate is a hazardous waste. Definitions and procedures for this determination are contained in RCRA Section 3001 and in 40 CFR 261, and are summarized in Section 3.1 of this manual.

RCRA is designed to provide stringent regulations for open facilities, such as surface impoundments, which are more likely to result in a release of hazardous wastes, while providing somewhat more flexible regulation of enclosed or semi-enclosed systems (e.g., treatment tanks, etc.) which tend to pose less risk to the environment. The RCRA Amendments of 1984 strengthen Federal regulatory authority over all of these systems. EPA is in the process of revising regulations for these systems and developing corrective action standards for them.

EPA is also in the process of developing comprehensive sludge management regulations based on Subtitles C and D of RCRA, the Clean Water Act, the Marine Protection, Research, and Sanctuaries Act, and other Federal statutes. These comprehensive regulations will be issued by the end of 1987. For the most current information on sludge management regulations, contact your State solid or hazardous waste management agency, or EPA Regional office.

2.2.3.3 Small Quantity Generator Exclusion

Currently, EPA does not regulate generators of small quantities of hazardous waste as stringently as it regulates generators of larger quantities. This exclusion reduces the burden of paperwork on small quantity generators, State hazardous waste agencies, and EPA. The Agency now divides small quantity generators into three classes:

- Generators of less than one kilogram per month of acutely hazardous waste
- Generators of less than 100 kilograms per month of nonacutely hazardous waste
- Generators of between 100 and 1,000 kilograms per month of nonacutely hazardous waste.

The first two classes of hazardous waste generators are required only to perform a hazardous waste determination (described in Section 2.1), store, treat, or dispose of hazardous waste on-site in accordance with regulations, or ensure its delivery to an authorized hazardous or nonhazardous treatment, storage, or disposal facility.

The third class of generators, those who generate between 100 and 1,000 kilograms of hazardous waste per month, while still exempt from the bulk of RCRA requirements, are now required to accompany all off-site shipments of hazardous waste with a single copy of the Uniform Hazardous Waste Manifest (EPA Forms 8700-22 and 8700-22 A) or the State equivalent. This form must contain the following information:

- Name and address of the waste generator
- U.S. Department of Transportation description of the waste, including shipping name, hazard class, and identification number (UN/NA)
- Number and type of containers
- Quantity of waste in the shipment
- Name and address of the facility designated to receive the waste.

Although EPA does not regulate small quantity generators as stringently as large quantity generators, several States have small quantity generator requirements which are more stringent than Federal requirements. **If you have any questions about requirements for hazardous waste management, contact your State hazardous waste agency or EPA.**

2.3 RCRA REQUIREMENTS FOR TRANSPORTERS OF HAZARDOUS WASTE

EPA, the U.S. Department of Transportation, and many States regulate transportation of hazardous waste in order to protect human health and the environment from hazardous waste releases. EPA's regulatory authority for transporters is based on Section 3003 of RCRA. EPA and the Department of Transportation have jointly set standards for hazardous waste transportation, which are described in 40 CFR Parts 262 and 263, and 49 CFR Parts 171 and 172. These standards include recordkeeping, labeling, and manifest requirements, as

well as the requirement to transport hazardous wastes only to permitted facilities for treatment, storage, or disposal, as designated on hazardous waste shipping manifests. **Hazardous waste transporters hauling wastes to POTW collection systems or treatment plants must ensure that these wastes meet all local, State, and Federal pretreatment standards, in addition to RCRA requirements.**

2.3.1 Notification to EPA and EPA Identification Number

Transporters of hazardous waste must notify EPA or an authorized State hazardous waste agency and obtain an EPA identification number. Transporters must not move hazardous wastes without an EPA identification number. This number can be obtained by completing EPA form 8700-12 (Appendix D) and submitting it to the EPA Region or authorized State.

EPA Regional Offices have special procedures to issue provisional identification numbers to generators and transporters of hazardous waste under emergency or other unusual circumstances when it becomes necessary to transport the waste to an authorized hazardous waste management facility. In emergency situations, the transporter should telephone the EPA Regional Office (refer to Appendix A) and obtain a provisional identification number and additional instructions.

Transporters who store manifested shipments of hazardous waste in approved containers at a transfer facility for ten days or less are not subject to regulations for treatment, storage, and disposal facilities under 40 CFR Parts 264, 265, and 270. Transporters storing shipments for more than ten days must obtain permits as hazardous waste storage facilities.

2.3.2 Manifests and Reports

Transporters may not accept hazardous waste from generators unless each load is accompanied by a completed manifest (as described in Section 2.2.2.2 of this chapter). Prior to transporting hazardous wastes, transporters must sign and date each manifest, acknowledging that they have accepted the hazardous waste described by the manifest. A copy of each manifest must be left with the consigning generator. **The manifest must accompany the hazardous waste at all times.**

Upon delivery of the hazardous waste to another transporter or designated facility, transporters must:

- Have the new transporter or owner/operator of the designated facility sign and date the manifest
- Retain one copy of the manifest and give the remaining copies to the transporter or facility accepting the waste.

2.3.3 Transporter or Generator Agreements With Designated Facilities

In many cases, treatment, storage, and disposal facilities (including POTWs) will accept deliveries of hazardous waste only if they have standing agreements with transporters and/or generators. These agreements may designate types, strengths, and quantities of hazardous waste which the facility will accept, limit conditions of waste to be accepted (for example, "no liquid hazardous wastes"), designate times and locations for accepting deliveries, and designate treatment, storage, or disposal fees. Hazardous waste transporters are legally responsible for delivery of the entire quantity of hazardous waste accepted from a generator or another transporter to the facility designated by the manifest, or to designated alternate facilities. **Before accepting any consignment of hazardous waste for transportation, the transporter should make sure that the treatment, storage, or disposal facility designated on the manifest or an alternate designated facility will accept delivery of its waste.**

3. POTW AUTHORITY TO REGULATE TOXIC WASTE DISCHARGERS UNDER THE GENERAL PRETREATMENT REGULATIONS

The General Pretreatment Regulations (40 CFR Part 403) require that municipal treatment plants regulate nonresidential waste discharges into public sewers. These Federal requirements provide the legal framework within which your local pretreatment program can control discharges of toxic wastes. Some of these wastes may also be affected by RCRA provisions. This chapter details how the National Pretreatment Program can be used to control toxic waste discharges and explains the RCRA notification provision of the General Pretreatment Regulations.

3.1 THE NATIONAL PRETREATMENT PROGRAM

The goal of EPA's National Pretreatment Program is to protect POTWs and the environment from the adverse impact that may occur when hazardous or toxic wastes are discharged into a sewage system. This protection is achieved primarily by regulating industrial users that discharge toxic wastes or unusually strong conventional wastes. There are four major problems that can be prevented through implementation of a local pretreatment program:

- Interference with POTW operations
- Pass through of pollutants to receiving waters
- Contamination of municipal sludge
- Exposure of workers to chemical hazards.

Under the National Pretreatment Program, there are three possible ways for you to control toxic waste discharges:

- Implement prohibited discharge standards
- Enforce categorical pretreatment standards
- Require compliance with local limits.

Each type of control is summarized below.

3.1.1 Prohibited Discharge Standards

Section 403.5(a) of the General Pretreatment Regulations gives POTWs the authority to prohibit or limit discharges of any pollutant, including hazardous wastes, which could pass through the treatment process into receiving waters, interfere with treatment plant operations, or limit sludge disposal options. This prohibition applies to substances which would cause treatment process interference or pollutant pass through, either alone or in combination with other discharges or constituents in the system. More specifically, Section 403.5(b), the **prohibited discharge standards**, requires the POTW to prohibit discharges of pollutants that:

- Create a fire or explosion hazard in the sewers or treatment works
- Are corrosive (with a pH lower than 5.0)
- Obstruct flow in the sewer system or interfere with POTW operations
- Upset treatment processes or cause a violation of the POTW's discharge permit
- Increase the temperature of wastewater entering the treatment plant to above 104°F (40°C).

These provisions allow your POTW to regulate or prohibit discharges of many wastes that are ignitable, corrosive, reactive, or EP-toxic and termed "characteristic" wastes under RCRA. (Characteristic wastes were described in greater detail in Chapter 2.)

3.1.2 Categorical Pretreatment Standards

To complement the prohibited discharge standards which apply to all industrial and commercial establishments connected to POTWs, the General Pretreatment Regulations also establish **categorical pretreatment standards**. Categorical standards regulate industrial discharges in specific industrial categories determined to be the most significant sources of toxic pollutants to POTWs. Each standard contains limits for pollutants commonly discharged by a specific industrial category. These standards are technology-based; pollutant limits specified in the standards apply at the end of the regulated manufacturing process. All firms falling within particular category are

required to comply with applicable standards, no matter where they are located in the country. To date, EPA has proposed 27 specific categorical standards of which 22 standards are final. Many industries regulated by categorical pretreatment standards generate hazardous wastes regulated by RCRA as well.

3.1.3 Local Limits

The General Pretreatment Regulations give POTWs the responsibility to develop, implement, and enforce **local limits**. Local limits are developed to prevent interference, pass through, and sludge contamination. POTWs must establish and enforce local effluent limits if:

- A categorical industry discharges pollutants harmful to the treatment system and EPA has not yet promulgated categorical standards for that industry
- Categorical standards are not sufficient to protect treatment plant operations
- The POTW considers them necessary to protect its operational integrity.

Local limits are a third way in which hazardous waste dischargers can be regulated under your pretreatment program.

3.2 ELEMENTS OF A LOCAL PRETREATMENT PROGRAM

A local pretreatment program blends legal authority, technical information, and administrative procedures to effectively control nondomestic discharges to the POTW, including toxic wastes and wastes discharged under the Domestic Sewage Exemption. **Legal authority** means that the POTW is able to apply and enforce Federal pretreatment requirements and any other State or local regulations to control industrial users. Permits or contracts are commonly used to implement a POTW's legal authority. **Technical information** consists of the data obtained by the POTW to identify and characterize nondomestic discharges to its treatment system. These data are used to establish local effluent limits that protect the treatment plant's operation, its receiving water quality, and its sludge quality.

The third element of a local pretreatment program is its **administrative procedures**. According to 40 CFR 403.8(f)(2), the POTW must establish procedures to:

- Notify industrial users of applicable standards and requirements
- Receive and analyze self-monitoring reports and other notices from industrial users
- Randomly sample and analyze industrial effluents
- Investigate instances of noncompliance
- Comply with public participation requirements.

Section 403.8(f)(2)(iii) states that the POTW shall notify industrial users of applicable pretreatment requirements and other applicable requirements under both Sections 204(b) and 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

3.3 NOTIFICATION OF TOXIC WASTE DISCHARGERS BY POTWS

The requirement that POTWs notify their industrial users of applicable provisions under Subtitles C and D of RCRA ensures that those users that produce hazardous wastes are informed of their hazardous waste management obligations under Federal law. Although these users may discharge toxic substances into the public sewers and thereby be exempt from certain RCRA requirements, the same wastes disposed of by other means may be subject to Subtitles C and D requirements. Firms in this situation may not be aware of their RCRA requirements.

Further, under the 1984 RCRA Amendments, any industry that generates more than 100 kilograms (about half of a 55 gallon drum) of hazardous waste per month will soon be subject to RCRA regulations as a hazardous waste generator. As a result of these recent amendments, the number of businesses subject to RCRA regulations will increase from about 15,000 to roughly about 175,000. Many of these hazardous waste generators may not be aware of what these requirements entail. Since most local hazardous waste generators are also customers of your POTW, your notification that they may be subject to State

and Federal hazardous waste regulations will greatly assist them in complying with such regulations.

If industries and other toxic waste generators are not adequately informed about RCRA and State waste management regulations, they may not understand these regulations because of their complexity. They may take advantage of RCRA's domestic sewage exemption and discharge additional toxic wastes to your POTW. Therefore, it is important for your users to understand how hazardous waste management regulations affect them.

3.4 PRACTICAL GUIDELINES FOR POTWS

This section suggests steps that your staff may wish to take in order to notify IUs of applicable RCRA requirements. Each POTW has its own ways of classifying nondomestic users and its own ways of communicating with them. Thus, these suggested steps are general in nature and you should feel free to modify them to meet your POTW's unique conditions.

3.4.1 How to Inform IUs

If you want to make sure that your users know about local, State, and Federal hazardous waste management regulations, here are some possible steps POTW staff can take.

3.4.1.1 **Contact Your State or Local Hazardous Waste Agency**

As a first step, you can contact the agency administering RCRA plus any other State hazardous waste regulations about special State requirements for hazardous waste generators, storage facilities, and transporters in the area served by your POTW. A list of the appropriate State agencies is contained in Appendix A of this manual. POTWs located in States or territories without authorized hazardous waste programs should contact the waste management division at the appropriate EPA Region. States will often have information packets containing State hazardous waste management requirements, like the Federal RCRA regulations, which they can send to you. By contacting your State or EPA Regional waste management division, you may also be able to obtain a list of local industries that generate, handle, or dispose of

hazardous waste. Such a list will be very helpful since it identifies those industries subject to RCRA requirements.

3.4.1.2 Review List of POTW Industrial Users

Your next step is to review the original list of IUs compiled as part of your industrial waste survey for the pretreatment program. Because some industries which might not be classified as IUs under your pretreatment program discharge substances regulated by RCRA, it is important to go back to the original list of industries possibly subject to pretreatment requirements, rather than using a list representing pretreatment industries only. For example, commercial establishments, warehouses, railroad yards, auto repair shops, and radiator shops may not be covered by your local pretreatment program, but can generate, handle, or transport hazardous wastes, and thus should be notified about applicable RCRA provisions.

From the original IU list, you can determine which industries may be subject to RCRA requirements. To make this determination, you may have to call local industries or otherwise determine precisely what processes they operate. Alternatively, you may want to develop a simple questionnaire to send to these industrial and commercial facilities that will enable you to determine which generate, handle, and transport hazardous waste. Your efforts in this step should result in a list of industries potentially regulated by RCRA.

3.4.1.3 Notify Your Industrial Users

Notification of your IUs may take several forms. At a minimum, you may simply wish to send a letter with the sewer service bill stating that the IU may be subject to hazardous waste requirements under RCRA Subtitles C and D. A copy of such a letter can be seen in Appendix G. If you want to send more detailed information, Appendix B of this manual may be copied and mailed to local industries. In addition, two pamphlets describing small quantity hazardous waste generators are available from EPA Headquarters. A copy of each appears in Appendix H. These pamphlets as well could be sent to your IUs.

To supplement this written material, you may wish to schedule an informational meeting with representatives of industrial users so that Federal and State hazardous waste requirements can be explained to your customers. A representative of EPA or the State could speak at this meeting and inform IUs of relevant RCRA or State hazardous waste regulations.

3.4.2 Checklist for Notification of Industrial Users

The checklist in Table 3.1 is provided to assist you in taking necessary steps to notify your industrial users of their hazardous waste management requirements under Federal, State, and local regulations. Some items may not apply to your particular situation and the checklist can be modified accordingly.

Table 3.1 Notification Checklist

<u>Task</u>	<u>Check when done, if applicable</u>
1. Determine whether your State has been authorized to administer hazardous waste regulations required under RCRA. (Call appropriate EPA Region, if necessary.)	_____
2. Determine whether any local jurisdictions served by your POTW have additional regulations for hazardous waste generators and transportors.	_____
3. Contact State (and local, if applicable) hazardous waste regulatory authorities to clarify any variations on Federal RCRA regulations that apply in your POTW's service area.	_____
4. Review State and local hazardous waste management regulations received from State and local authorities, or EPA Region.	_____
5. Modify forms in appendices of this manual to reflect State requirements or obtain examples of State forms to use or revise.	_____
6. Compile a list of industrial users which may be subject to local, State, and Federal pretreatment requirements.	_____
7. Add any other users suspected of discharging hazardous/toxic substances to the POTW, if desired.	_____
8. To provide basic information on RCRA applicability, send some form of short notice to all industrial users on the list described in 7 and 8, above.	_____
9. To provide additional information, send notification packets described in Chapter 3 to all users on the second list.	_____
10. Follow up with informational meetings on hazardous waste regulations, if desired.	_____

4. RCRA REQUIREMENTS FOR POTWs

4.1 OVERVIEW OF POTW REQUIREMENTS

ALL POTWS THAT RECEIVE HAZARDOUS WASTE BY TRUCK, RAIL, OR PIPE (WHEN THE WASTE IS NOT MIXED WITH DOMESTIC SEWAGE) ARE SUBJECT TO SOME RCRA HAZARDOUS WASTE MANAGEMENT REQUIREMENTS because EPA considers these POTWs to be TSDFs. The first step to ascertain if your POTW is a hazardous waste TSDF is to determine whether or not your facility receives, by truck, train, or dedicated pipe, wastes defined as hazardous under RCRA (see Chapter 2 for information on hazardous waste definitions). If a generator discharges hazardous wastes to your POTW through a pipe that does not carry domestic sewage and does not mix with domestic sewage before the treatment plant headworks, then the domestic sewage exemption does not apply. In this situation, your POTW becomes a hazardous waste TSDF. Check with your State hazardous waste authority or EPA to determine your plant's situation.

In general, POTWs that receive hazardous waste and that comply with their NPDES permits are covered by "permits by rule," according to 40 CFR 270.60(c). Section 4.2 describes permit-by-rule requirements.

If your POTW does not receive hazardous waste (according to the definitions of hazardous waste in Chapter 2 of this manual), then it is not a TSDF and does not need to comply with RCRA hazardous waste treatment regulations. If your POTW only receives substances described in Section 2.1 through a sewer or mixed with domestic sewage, then it is not a TSDF and does not need to comply with many RCRA regulations.

Some POTWs receiving these wastes only through sewers or mixed with domestic sewage still generate sludge which States or EPA may regulate as a characteristic hazardous waste. Although sludge from most POTWs is not a hazardous waste, States do regulate the disposal of POTW sludge with high concentrations of certain toxic constituents as hazardous waste. Since State hazardous waste program requirements may be more stringent than Federal

regulations, you should check with your State discharge permitting authority or your State solid waste authority to find out how management of your POTW's sludge is regulated. In some areas, storage and disposal of sludge with high metal or other toxicant content is regulated in the same way as would be any other hazardous waste.

4.2 BASIC REQUIREMENTS FOR POTWS WITH RCRA PERMITS BY RULE

A POTW that receives hazardous wastes and is subject to a permit by rule must comply with the requirements described below, according to 40 CFR 270.60(c).

1. **The POTW owner or operator must have a NPDES permit, issued by EPA or a delegated State.**
2. **The POTW must comply with the conditions of its NPDES permit or State discharge permit.**
3. **The hazardous waste received by the POTW must meet all Federal, State, and local pretreatment requirements which would apply to the waste if it were discharged into the POTW through a sewer. This means that POTWs under RCRA permits by rule may only accept types of waste or waste with pollutant concentrations that would be permissible under the General Pretreatment Regulations, including prohibited discharge standards, categorical standards (if the waste is from a categorical industry) and/or local limits. Wastes that are prohibited by any pretreatment standard may not be transported or discharged to the POTW treatment plant or collection system. Industrial monitoring criteria for sewerage wastes regulated by the pretreatment program also may apply to hazardous wastes transported by truck, train, or separate pipe to the POTW treatment plant or collection system.**
4. **The POTW must apply for and obtain an EPA hazardous waste facility identification number from the appropriate State or EPA Region Waste Management Division.**
5. **The POTW operator must use the hazardous waste manifest system for recordkeeping and reporting by TSDFs, as described in 40 CFR 264.71. According to these regulations, operators of POTWs receiving hazardous waste must fill out the TSDF portions of the EPA/U.S. Department of Transportation uniform manifest form or the equivalent State form.**

Any delivery of hazardous waste to the POTW treatment plant or collection system by truck or rail must be accompanied by a hazardous waste manifest form. The POTW operator accepting the hazardous waste delivery should make sure that the generators' and transporters'

sections of all manifest forms are properly filled out. The POTW operator should complete the treatment/storage/disposal sections of the manifests, and do the following things:

- Sign and date each copy of the manifest, certifying that the POTW received the hazardous waste covered by the manifest.
 - Note all significant discrepancies in the manifest on each copy of the manifest. Significant discrepancies include differences between the amount or type of hazardous waste described on the manifest and the amount or type of waste the POTW actually received. A significant difference is greater than 10 percent by weight for bulk waste, or any difference in the number, size, or total volume of containers for batch waste. Discrepancies in type can be discovered by quick inspection or by waste analysis. They include instances such as the substitution of a solvent for an acid, or the presence of toxic constituents not reported on the manifest. It is not necessary for the operator to analyze the waste before signing the manifest. The operator must report unexplained discrepancies later, however.
 - Immediately give the transporter at least one copy of the signed manifest.
 - Send a copy of each signed manifest to the generator named on the manifest, within 30 days after delivery.
 - File a copy of each manifest at the treatment facility and retain these manifests for at least three years from their delivery dates.
 - The POTW operator should not accept hazardous waste delivered by train or boat unless the waste description and quantity sections of the manifest or shipping paper have been properly filled out. If the manifest or shipping paper does not have the necessary EPA hazardous waste generator and transporter numbers, generator's certification, and signatures, the POTW operator must still fill out the TSDF sections of the manifest or shipping paper, and immediately give the train or boat transporter at least one copy. If the POTW operator does not receive a complete copy of the manifest within 30 days, the operator should send a signed and dated copy of the shipping paper back to the generator to certify that the POTW received the waste. The POTW should not accept hazardous waste deliveries from generators of greater than 100 kilograms but less than 1000 kilograms (during one calendar month) without an accompanying manifest.
6. **If the POTW operator accepts hazardous waste without a manifest or shipping paper, the operator must send a report to the authorized State agency or EPA Regional Waste Management Division. The report must be sent within 15 days after the waste is received.**

7. **The POTW operator must keep a written operating record at the facility.** This information must be recorded as it becomes available and maintained in the facility's permanent operating record. Generally, the records necessary to comply with NPDES permits also fulfill many RCRA requirements. Operators must also record the following information:
 - A description of the quantity of each hazardous waste received
 - Method(s) and date(s) of its treatment, storage or disposal including sludge disposal.

8. **The POTW owner or operator must submit a report to the authorized State agency or EPA Region Waste Management Division by March 1 of each even-numbered year.** One copy of this biennial report must be submitted on EPA form 8700-13B or State equivalent. A copy of EPA form 8700-13B is included in Appendix I of this booklet. The report must cover treatment plant activities during the previous odd-numbered calendar year and must include:
 - POTW's EPA hazardous waste identification number and facility address
 - Calendar year covered by the report
 - EPA hazardous waste identification number for each hazardous waste generator from which hazardous waste was received
 - Descriptions and quantities of each hazardous waste received during the year, listed by each generator's EPA identification number
 - Method of treatment or storage for each hazardous waste, if there is any variation in these at the POTW
 - Signature/certification of the POTW owner or operator.

4.3 CORRECTIVE ACTION REQUIREMENTS FOR POTWS WITH RCRA PERMITS BY RULE

*** NOTICE ***

All RCRA permits issued to TSDFs after November 8, 1984 must require corrective action for all releases of hazardous waste or constituents to any environmental media from solid waste management units regardless of when the hazardous waste was accepted. EPA is currently developing a regulatory strategy for POTWs affected by this provision (those that accept hazardous waste by truck, rail, or dedicated pipe). POTWs and IUs that discharge hazardous wastes to POTWs are advised to contact appropriate State or EPA hazardous waste officials to stay abreast of new developments in this area.

4.4 ALTERNATIVES TO CURRENT PERMITS BY RULE

There are three alternatives open to POTWs accepting hazardous waste not covered by the domestic sewage exemption, by truck or train, under the new RCRA requirements:

- The POTW may choose to no longer accept delivery of any hazardous waste, by truck, train, or separate pipe, separate from domestic sewage
- The POTW may obtain a regular RCRA permit as a treatment, storage, or disposal facility
- At a later date, EPA expects to establish a regulatory scheme that may provide for POTW corrective action requirements in a national RCRA permit by rule.

You may wish to weigh the advantages of each option according to the situation of your own POTW.

Appendix A
Regional and State Contacts

REGIONAL ORGANIZATION AND STAFF
(August 1985)

Region	Regional Administrator	Division Director	(RCRA) Branch Chief	(RCRA) Enforcement Contact
I	Michael R. Deland John F. Kennedy Bldg. Boston, MA 02203 FTS 8-223-7210 (617) 223-7210	Merrill S. Hohman Waste Management Division FTS 8-223-5186 (617) 223-5186	Dennis Huebner State Waste Program Branch FTS 8-223-6883 (617) 223-6883	Gerald Levy, Chief Compliance Monitoring and Enforcement Section FTS 8-223-1591 (617) 223-2591
II	Christopher J. Daggett (2RA RM 900) 26 Federal Plaza New York, NY 10278 FTS 8-264-2525 (212) 264-2525	Conrad Simon (2AWM-SW RM 1000) Air and Waste Management Division FTS 8-264-2302 (212) 264-2302	Rich Walka (2AWM-SW RM 905) Solid Waste Branch FTS 8-264-0504/5 (212) 264-0504/5	Stan Siegel (2AWM-SW RM 905) Compliance and Enforcement FTS 8-264-9638 (212) 264-9638
III	James M. Seif (3RA00) 841 Chestnut Street Philadelphia, PA 19107 FTS 8-597-9814 (215) 597-9814	Stephen R. Wassersug Hazardous Waste Management Division (3HW00) FTS 8-597-8131 (215) 597-8131	Robert Allen Waste Management Branch (3HW30) FTS 8-597-0980 (215) 597-0980	Bruce Smith, Chief Hazardous Waste Enforcement Branch (3HW10) FTS 8-597-1720 (215) 597-1720
IV	Jack E. Ravan 345 Courtland St., N.E. Atlanta, GA 30365 FTS 8-257-4727 (404) 881-4727	Tom Devine Waste Management Division FTS 8-257-3454 (404) 882-3454	James H. Scarbrough Residuals Management Branch FTS 8-257-4298 (404) 881-3016	Allan Antley, Chief Waste Compliance Section FTS 8-257-4298 (404) 881-3016
I	Valdas V. Adamkus 230 So. Dearborn St. Chicago, IL 60604 (5RA14) FTS 8-353-2000 (312) 353-2000	Bill Constantelos Waste Management Division (5H13) FTS 8-886-7579 (312) 886-7579	Karl J. Klepitsch Solid Waste Branch (5HS13) FTS 8-886-7435 (312) 886-7435	Bill Miner, Chief Hazardous Waste Enforcement Branch (5HE13) FTS 8-886-4658 (312) 886-4658

Region	Regional Administrator	Division Director	(RCRA) Branch Chief	(RCRA) Enforcement Contact
VI	Dick Whittington, PE 1201 Elm Street (6RA) InterFirst Two Bldg. Dallas, TX 75270 FTS 8-729-2600 (214) 767-2600	Allyn M. Davis Air and Hazardous Materials Division (6AW) FTS 8-729-2730 (214) 767-2730	William Rhea Hazardous Materials Branch (6AW-H) FTS 8-729-2645 (214) 767-	Bill Taylor, Chief Enforcement Section (6AW-HE) Hazardous Materials Branch FTS 8-729-9730 (214) 767-9730
VII	Morris Kay 726 Minnesota Avenue Kansas City, KS 66101 FTS 8-757-2800	David Wagoner Waste Management Division FTS 8-758-6529 (816) 374-6529	Mike Sanderson RCRA Branch FTS 8-758-5082 (816) 247-5082	Mike Sanderson, Acting Chief Compliance Section (816) 374-5082
VIII	John Welles 1860 Lincoln Street Denver, CO 80295 FTS 8-564-1603 (303) 293-1603	Robert L. Duprey Waste Management Division FTS 8-564-1719 (303) 293-1719	Louis W. Johnson Waste Management Branch FTS 8-564-1519 (303) 293-1519	Diana Shannon, Chief RCRA Compliance Section FTS 8-564-1500 (303) 293-1500
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Appendix B
RCRA Information Brochure

To assemble this brochure, copy both sides of the four pages which comprise it. By stapling the middle of all pages together, you will have a brochure of roughly 4 inches by 5 inches. By completing the address spaces on the front, the brochure can be sent out.

RCRA Information Brochure

From: _____



To: _____

RCRA INFORMATION BROCHURE

This brochure is designed to give you an understanding of the Resource Conservation and Recovery Act (RCRA) and how the Act affects you as an industry that generates or transports "hazardous" wastes. The brochure's intent is to provide you with basic guidance about applicable RCRA provisions. However, due to the Act's technical complexity, its staggered deadline for program implementation and compliance, and the potential for your State hazardous waste management program requirements to differ from Federal regulations, questions will undoubtedly arise that require assistance beyond the brochure's scope. Questions or problems not completely addressed here should be referred to your State solid waste management office or the appropriate EPA Regional office.

Congress enacted the Resource Conservation and Recovery Act in 1976 (and subsequently amended it in 1978, 1980, and 1984) to define a Federal role in solid waste and resource management and recovery. The Act's primary goals are: (1) to protect human health and the environment from hazardous and other solid wastes; and (2) to protect and preserve natural resources through programs of resource conservation and recovery. Its principal regulatory focus is to control hazardous waste. To this end, RCRA mandates a comprehensive system to identify hazardous wastes and to trace and control their movement from generation through transport, treatment, storage, and ultimate disposal.

Extensive hazardous waste regulations have been promulgated under RCRA's authority. These regulations are codified under 40 CFR Parts 260, 261, 262, 263, 264, 265, 266, and 270. Specifically, RCRA provisions are focused in the following way:

- Part 260: General
- Part 261: Hazardous waste identification and listing
- Part 262: Hazardous waste generators
- Part 263: Hazardous waste transporters
- Parts 264-265: Owners and operators of hazardous waste facilities
- Part 266: Special requirements
- Part 270: Hazardous waste permits.

This brochure briefly outlines 40 CFR Parts 261, 262, and 263.

HOW TO DETERMINE IF YOUR WASTE IS HAZARDOUS

As part of a comprehensive program to regulate hazardous wastes from "cradle to grave," Section 3001 of RCRA directs EPA to establish ways to determine what waste materials are considered hazardous for regulatory purposes. The Section 3001 regulations are codified in 40 CFR Part 261. In addition, 40 CFR Part 262 requires solid waste generators to determine whether their wastes are hazardous.

If your business generates any material which is discarded or disposed of, you must determine if that material is a "solid waste," according to the regulatory definition. In January 1985, EPA proposed its final definition of solid waste. According to this definition, "solid waste" is any material that is abandoned or being disposed of, burned, or incinerated -- or stored, treated, or accumulated before or in lieu of these activities. The term includes essentially all forms of waste (i.e., solids, liquids, semisolids, or contained gaseous substances).

In addition, most recycled materials are now considered solid wastes by EPA, depending on both the recycling activity itself and the nature of the recycled material. The following four types of recycling activities are potentially subject to RCRA regulation:

- o Uses which actually constitute ultimate disposal (for example, land spreading of wastewater treatment sludges for fertilizer)
- o Burning waste or waste fuels for energy recovery or using wastes to produce a fuel
- o Reclamation -- regeneration of wastes or the recovery of material from wastes
- o Speculative accumulation -- either accumulating wastes that are potentially recyclable but for which no recycling (or no feasible recycling) market exists, or accumulating wastes before recycling unless 75 percent of the accumulated material is recycled during a one-year period.

to transport the waste to an authorized hazardous waste management facility. In emergency situations, the transporters should telephone the EPA Regional Office and obtain a provisional identification number and additional instructions.

Manifests and Reports

Transporters may not accept hazardous waste from generators unless each load is accompanied by a completed manifest. The manifest must accompany the hazardous waste at all times. Upon delivery of the hazardous waste to another transporter or designated facility, transporters must:

- o Have the new transporter or owner/operator of the designated facility sign and date the manifest
- o Retain one copy of the manifest and give the remaining copies to the transporter or facility accepting the waste.

Transporter or Generator Agreements With Designated Facilities

In many cases, treatment, storage, and disposal facilities (including POTWs) will accept deliveries of hazardous waste only if they have agreements with transporters and/or generators. These agreements may designate types, strengths, and quantities of hazardous waste which the facility will accept, limit conditions of waste to be accepted (for example, "no liquid hazardous wastes"), designate times and locations for accepting deliveries, and designate treatment, storage, or disposal fees. Hazardous waste transporters are legally responsible for delivery of the entire quantity of hazardous waste accepted from a generator or another transporter to the facility designated by the manifest, or to designated alternate facilities. Before accepting any consignment of hazardous waste for transportation, you should make sure that the treatment, storage, or disposal facility designated on the manifest or an alternate designated facility will accept delivery of your waste.

Five categories of recycled (termed secondary) materials also fall under this solid waste definition:

- o Spent materials -- materials that have been used and no longer serve the purpose for which they were originally produced without being regenerated, reclaimed, or otherwise reprocessed. Examples include spent solvents and spent acids.
- o Sludges -- residues from pollution control processes, such as wastewater treatment sludges and air emission control wastes.
- o By-products -- residual materials resulting from industrial, commercial, mining, and agricultural operations that are not primary products, are not produced separately, and are not fit for a desired end use without substantial further processing. Examples are process residues from manufacturing or mining processes, such as distillation column residues or mining slags.
- o Commercial chemical products -- products listed in 40 CFR Part 261.33 when they are recycled in ways that differ from their normal use.
- o Scrap metal -- metal parts discarded after consumer use or that result from metal processing operations. Examples include scrap automobiles and scrap radiators.

Some materials, however, are NOT considered solid wastes under RCRA, including domestic sewage or any mixture of domestic sewage and other wastes that pass through a sewer system to a POTW. Also excluded are wastes regulated under other Federal laws, such as industrial wastewater discharged directly to public waters (which must be properly permitted) and many nuclear or radioactive materials (regulated by the Department of Energy and/or the Nuclear Regulatory Commission).

There are two ways to know if your waste is regulated as a hazardous waste under Federal law:

- o If it exhibits one or more of the following four characteristics -- ignitability, corrosivity, reactivity, and toxicity (based on EPA extraction procedures) -- it is considered a characteristic waste under RCRA.
- o If it (or any part of it) is listed in 40 CFR 261.31-261.33, it is commonly called a listed waste in RCRA regulations. EPA developed these lists of hazardous wastes based on what was known about specific chemicals and wastestreams. Whether or not a waste is hazardous

according to the characteristic wastes criteria, if your firm's waste appears on any of the lists, it is considered a listed hazardous waste. Thus, your firm must comply with the notification requirement of RCRA Section 3010 and with the requirements outlined in 40 CFR 262-266 and 270-271 (described below). Most listed substances are considered toxic; however, some wastes or substances appear on the list solely because they exhibit one or more of the characteristics of hazardous waste.

Whether a waste is regulated as a hazardous waste may also depend on two other factors. First, as 1984 RCRA amendments go into effect, some new wastes that previously were not regulated will come under hazardous waste regulations. Second, some States apply their own hazardous waste regulations to wastes in addition to those listed in Federal regulations. Thus, if you are in doubt about whether your waste is regulated under Federal or State hazardous waste regulations, you should contact the State hazardous waste agency or EPA Regional office.

RCRA REQUIREMENTS APPLICABLE IF YOUR INDUSTRY GENERATES HAZARDOUS WASTE

Section 3002 of RCRA gives EPA authority to regulate generators of hazardous waste in order to protect human health and the environment. These regulations, in 40 CFR 262, specify hazardous waste management procedures for generators, including recordkeeping, labeling, use of appropriate containers, information reporting, and use of shipping manifests. Basic requirements for generators of hazardous waste are explained below.

These requirements for hazardous waste generators are also affected by whether EPA considers your facility to be a "small quantity generator." As of August 5, 1985, EPA distinguishes three classes of small quantity generators for regulatory purposes:

- o Those generating between 100 and 1,000 kilograms of nonacutely hazardous waste per calendar month
- o Those generating up to 100 kilograms of nonacutely hazardous waste per calendar month
- o Those generating less than one kilogram of acutely hazardous waste per calendar month.

- Name and address of the waste generator
- U.S. Department of Transportation description of the waste, including shipping name, hazard class, and identification number (UN/NA)
- Number and type of containers
- Quantity of waste in the shipment
- Name and address of the facility designated to receive the waste.

Although EPA does not regulate small quantity generators as stringently as large quantity generators, several States have small quantity generator requirements which are more stringent than Federal requirements. Thus, if you have any questions about requirements for hazardous waste management, you should contact the State hazardous waste agency or EPA.

RCRA REQUIREMENTS APPLICABLE IF YOUR INDUSTRY TRANSPORTS HAZARDOUS WASTE

EPA, the U.S. Department of Transportation, and many States regulate transportation of hazardous waste in order to protect human health and the environment from hazardous waste releases. EPA's regulatory authority for transporters is based on Section 3003 of RCRA. EPA and the Department of Transportation have jointly set standards for hazardous waste transportation, which are described in 40 CFR Parts 262 and 263, and 49 CFR Parts 171 and 172. These standards include recordkeeping, labeling, and manifest requirements, as well as the requirement to transport hazardous wastes only to permitted facilities for treatment, as designated on hazardous waste shipping manifests. Hazardous waste transporters hauling wastes to POTW collection systems or treatment plants must ensure that these wastes meet all local, State, and Federal pretreatment standards, in addition to RCRA requirements.

Notification to EPA and EPA Identification Number

If your firm transports hazardous waste, you must notify EPA or an authorized State hazardous waste agency and obtain an EPA identification number. Transporters must not move hazardous wastes without an EPA identification number. EPA Regional Offices have special procedures to issue provisional identification numbers to generators and transporters of hazardous waste under emergency or other unusual circumstances when it becomes necessary

meets the definitions of tank, container, transport vehicle or vessel in 40 CFR 260.10.

The treatment and storage exception cited above does not apply to any on-site facility which does not qualify as a wastewater treatment unit, a totally enclosed treatment facility, or an elementary neutralization unit. Consequently, open storage facilities (e.g., waste piles or surface impoundments) and on-site disposal operations (e.g., landfills, land application, or incineration) are governed by storage and disposal facility requirements and RCRA permitting requirements.

RCRA is designed to provide stringent regulations for open facilities, such as surface impoundments, which are more likely to result in a release of hazardous wastes, while providing somewhat more flexible regulation of enclosed or semi-enclosed systems (e.g., treatment tanks, etc.) which tend to pose less risk to the environment. The RCRA Amendments of 1984 strengthen Federal regulatory authority over all of these systems. EPA is in the process of revising regulations for these systems and developing standards for corrective action for them. For more complete and current information, you should contact your State hazardous waste agency or EPA Region.

- o **Small Quantity Generator Exclusion.** EPA does not currently regulate generators of small quantities of hazardous waste as stringently as it regulates generators of larger quantities. Small quantity generators are exempt from notification, generator, transporter, TSD, and RCRA permitting requirements. The Agency now divides small quantity generators into three classes:

- Generators of less than one kilogram per month of acutely hazardous waste
- Generators of less than 100 kilograms per month of nonacutely hazardous waste
- Generators of between 100 and 1,000 kilograms per month of nonacutely hazardous waste.

The first two classes of hazardous waste generators are required only to perform a hazardous waste determination, store, treat, or dispose of hazardous waste on-site in accordance with regulations, or ensure its delivery to an authorized hazardous or nonhazardous treatment, storage, or disposal facility.

The third class of generators, those who generate between 100 and 1,000 kilograms of hazardous waste per month, while still exempt from the bulk of RCRA requirements, are now required to accompany all off-site shipments of hazardous waste with a single copy of the Uniform Hazardous Waste Manifest (EPA Forms 8700-22 and 8700-22 A) or the State equivalent. This form must contain the following information:

In general, the latter two classes of small quantity generators are subject to less stringent requirements than establishments producing large quantities of hazardous waste. The small quantity generator exclusion is discussed in more detail below. If you have questions about how these regulations apply, contact your State hazardous waste agency or EPA Regional office.

Notify EPA

If your facility generates, transports, treats, stores, or disposes of hazardous wastes and is not exempt from regulation, you must notify EPA or an authorized State and obtain an identification number. Most small quantity generators are not required to notify EPA. It is important to note that many States have regulations that differ from Federal requirements. If your business is involved in hazardous waste activities, you should contact the appropriate State agency to determine which regulations are applicable to you.

The RCRA Amendments of 1984 extend notification requirements to industries covered by the Domestic Sewage Exemption, that is industries which discharge "solid and dissolved materials in domestic sewage" that would be defined as "hazardous waste" were they not mixed with domestic sewage and discharged to sewers. EPA has yet to formally implement this expanded notification requirement. If you fall under this exemption, you should periodically contact your State or EPA Region to keep abreast of these impending notification requirements.

Off-Site Disposal of Hazardous Wastes

If you generate, transport, treat, store or dispose of any hazardous wastes (and your waste activities are not exempt from regulation), you must comply with applicable Federal, State, and local hazardous waste management requirements, both when the waste remains on your premise and when it is transported off-site. Basic requirements for the off-site disposal of hazardous wastes include:

- Obtain EPA Identification Number -- Most Federally regulated generators and transporters of hazardous waste must have EPA identification numbers. An EPA identification number is required prior to any transportation, treatment, storage, or disposal of hazardous waste. A generator must not deliver hazardous waste to any transporter or TSDF without an EPA identification number.
- Complete Manifests -- Generators of hazardous waste are required to prepare a manifest containing the following information for each load of hazardous waste transported:
 - Generator name, address, telephone number and EPA identification number
 - Transporter name and EPA identification number
 - Name, address, and EPA identification number of permitted facilities receiving waste
 - Description of hazardous wastes transported
 - Waste quantities, types and number of containers
 - Certification for proper packaging, marking, labeling and transportation
 - Waste minimization certification
 - Manifest document number.

Upon delivery of waste to the transporter, the generator should sign and date the manifest, have the transporter sign the manifest, retain one copy, and provide the transporter with all remaining copies. A generator who does not receive, within 35 days, a manifest copy signed by the facility designated to receive the waste must contact the transporter or designated facility to determine what happened to the waste. A generator who has not received, within 45 days, a signed manifest copy must submit an exception report to the EPA Region.

It is important to remember that, before transporting any hazardous waste off-site, a generator must comply with packaging, labeling, marking, and placarding requirements. RCRA pretransport requirements generally incorporate U.S. Department of Transportation regulations, described in 49 CFR Parts 171-172. In addition, all generators must keep records of any test results, waste analyses, or other determinations made in accordance with 40 CFR Part 262.11 for at least three years.

- Prepare Biennial Report -- Generators that ship hazardous wastes off-site must prepare and submit a report to the appropriate EPA Region by March 1 of each even-numbered year. This report covers hazardous waste generator activities during the previous odd-numbered calendar year. Some States require annual reports.

Exceptions and Exemptions to RCRA Regulations for Generators

If the wastes your business generates would normally be subject to hazardous waste regulations, they may be exempt in three specific circumstances:

- Domestic Sewage Exemption. In order to regulate hazardous waste generators under 40 CFR 261.4(a), materials which would normally be subject to hazardous waste regulations are exempt because they are not defined as "solid waste." Thus, the domestic sewage exemption covers:
 - "Untreated sanitary wastes that pass through a sewer system"
 - Any mixture of domestic sewage and other wastes that passes through a sewer system to a POTW for treatment.
- On-site Treatment or Disposal Exemption. RCRA regulations contain a broad exemption for the on-site treatment and storage of wastewaters, including the following types of facilities:
 - Wastewater Treatment Units -- Devices which: (1) are part of a wastewater treatment facility subject to regulation under Sections 307 or 402 of the Clean Water Act (i.e., direct dischargers of wastewaters); (2) receive and treat or store hazardous influent wastewater, or generate and accumulate a hazardous wastewater treatment sludge, or treat or store hazardous wastewater treatment sludge; and (3) meet the EPA definition of a tank.
 - Totally Enclosed Treatment Facilities -- Facilities to treat hazardous waste which are directly connected to an industrial production process, and constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. EPA states that "a totally enclosed treatment facility" must: (1) be completely contained on all sides, (2) pose negligible potential for escape of constituents to the environment, (3) be connected directly by pipeline or similarly totally enclosed device to an industrial production process. The Agency also indicates that effluent discharged to a POTW is exempt from RCRA regulation. However, it is subject to pretreatment regulations.
 - Elementary Neutralization Units -- Devices used for neutralizing waste defined as hazardous solely because it is corrosive and which

Appendix C
EPA Listed Hazardous Waste

HAZARDOUS WASTE FROM NONSPECIFIC SOURCES (F LIST)

40 CFR PART 261.31

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, and sludges from the recovery of these solvents in degreasing operations	(T)
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, and trichlorofluoromethane, and the still bottoms from the recovery of these solvents.	(T)
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol, and the still bottoms from the recovery of these solvents.	(I)
F004	The following spent non-halogenated solvents: creosote and cresylic acid and nitrobenzene, and the still bottoms from the recovery of these solvents.	(T)
F006	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, and pyridine, and the still bottoms from the recovery of these solvents.	(I, T)
F008	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 bases) 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 maling of aluminum	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum	(T)
F007	Spent Cyanide plating bath solutions from electroplating operations	(R, T)
F008	Plating sludges 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 wastewater treatment sludges from metal heat treating operations where cyanides are used in the process	(T)
F024	Wastes, including, but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (This listing does not include light ends, spent filters and filter aids, spent desiccants, wastewater treatment sludges, spent catalysts, and wastes listed in §261.32)	(T)
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol)	(H)
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol or of intermediates used to produce its derivatives	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol)	(H)
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 hexachlorobenzenes under alkaline conditions	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulation 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)

[261.31 amended by 45 FR 47833, July 18, 1980; revised by 45 FR 74880, November 12, 1980; 46 FR 4617, January 16, 1981; 46 FR 27478, May 20, 1981; 48 FR 5312, February 10, 1984; 50 FR 661, January 4, 1985; 50 FR 1999, January 14, 1985]

HAZARDOUS WASTE FROM SPECIFIC SOURCES (K LIST)

40 CFR PART 261.32

Industry and EPA Hazardous waste No.	Hazardous waste	Hazard code
Waste Preservation		
K001	Bottom sediment sludge from the treatment of wastewaters from wood greening processes that use cresols and/or pentachlorophenol	3
Inorganic Pigments		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	3
K003	Wastewater treatment sludge from the production of molybdate orange pigments	3
K004	Wastewater treatment sludge from the production of zinc yellow pigments	3
K005	Wastewater treatment sludge from the production of chrome green pigments	3
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated)	3
K007	Wastewater treatment sludge from the production of iron blue pigments	3
K008	Oven residue from the production of chrome oxide green pigments	3
Organic Chemicals		
K009	Distillation bottoms from the production of acetaldehyde from ethylene	3
K010	Distillation side cuts from the production of acetaldehyde from ethylene	3
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	3
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	3
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	3
K015	Sulf bottoms from the distillation of benzyl chloride	3
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	3
K017	Heavy ends (sulf bottoms) from the purification column in the production of epichlorohydrin	3
K018	Heavy ends from the fractionation column in vinyl chloride production	3
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	3
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	3
K021	Aqueous spent anionic catalyst waste from fluoromethane production	3
K022	Distillation bottom tars from the production of phenyl acetone from cumene	3
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	3
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	3
K025	Distillation light ends from the production of phthalic anhydride from ortho-xylene	3
K026	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	3
K027	Stripping still tails from the production of methyl ethyl pyridine	3
K028	Carbonyl and distillation residues from toluene diisocyanate production	3
K029	Spent catalyst from the hydrochlorination reactor in the production of 1,1,1-trichloroethane	3
K030	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	3
K031	Distillation bottoms from the production of 1,1,1-trichloroethane	3
K032	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	3
K033	Column bottoms or heavy ends from the combined production of isochlorobenzene and perchlorobenzene	3
K034	Distillation bottoms from aniline production	3
K103	Process residues from aniline extraction from the production of aniline	3
K104	Combined wastewater streams generated from nitrobenzene/aniline production	3
K088	Distillation or fractionation column bottoms from the production of chlorobenzene	3
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzene	3
Inorganic Chemicals		
K071	Brown purification muds from the mercury cell process in chlorine production, where separately prepared lime is not used	3
K073	Chromated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	3
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	3
Pesticides		
K031	By-product salts generated in the production of MSMA and cacodylic acid	3
K032	Wastewater treatment sludge from the production of chlordane	3
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	3
K034	Filtrate from the filtration of hexachlorocyclopentadiene in the production of chlordane	3
K037	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	3
K038	Wastewater treatment sludges generated in the production of cresote	3
K039	Sulf bottoms from toluene reclamation distillation in the production of deulfolan	3
K040	Wastewater treatment sludges from the production of deulfolan	3
K041	Wastewater from the washing and stripping of phorate production	3
K042	Filtrate from the filtration of diethylphosphorothioic acid in the production of phorate	3
K043	Wastewater treatment sludge from the production of phorate	3
K044	Wastewater treatment sludge from the production of toluene	3
K045	Untreated process wastewater from the production of toluene	3
K046	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	3
K047	2,6-Dichlorophenol waste from the production of 2,4-D	3
K048	Untreated wastewater from the production of 2,4-D	3
Explosives		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	3
K045	Spent carbon from the treatment of wastewater containing explosives	3
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based blasting compounds	3
K047	Printed water from TNT operations	3
Petroleum Refining		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	3
K049	Slip of emulsion solids from the petroleum refining industry	3
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	3
K051	API separator sludge from the petroleum refining industry	3
K052	Tank bottoms (loaded) from the petroleum refining industry	3
Iron and Steel		
K051	Emission control dust sludge from the primary production of steel in electric furnaces	3
K052	Spent pickle liquor from steel finishing operations	3
Secondary Lead		
K109	Emission control dust sludge from secondary lead smelting	3
K108	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting	3
Veterinary Pharmaceuticals		
K109	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from esters or organo-arsenic compounds	3
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from esters or organo-arsenic compounds	3
K102	Residue from the use of activated carbon for decoloration in the production of veterinary pharmaceuticals from esters or organo-arsenic compounds	3
ink Formulation		
K055	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tanks and equipment used in the formulation of ink from pigments, dyes, soaps, and diluents containing chromium and lead	3
Coating		
K055	Ammonia salt line sludge from coating operations	3
K057	Decanter tank tar sludge from coating operations	3

[261.32 amended by 45 FR 47833, July 16, 1980; 45 FR 72039, October 10, 1980; revised by 45 FR 74980, November 12, 1980; 46 FR 4617, January 16, 1981; 46 FR 27476, May 20, 1981]

**DISCARDED COMMERCIAL CHEMICAL PRODUCTS, OFF-SPECIFICATION SPECIES
CONTAINER RESIDUES, AND SPILL RESIDUES IDENTIFIED AS ACUTE HAZARDOUS WASTES (P LIST)
40 CFR PART 261.33(e)**

Hazardous waste No	Substance	Hazardous waste No	Substance	Hazardous waste No	Substance
P023	Acetaldehyde, choro-	P060	Endosulfan	P044	Phosphorothioic acid, O,O-dimethyl S-(2-methylamino)-2-oxoethyl ester
P024	Acetamide, N-(aminophenyl)-	P068	Endosulfan	P043	Phosphorofluoric acid bis(methylamyl ester)
P027	Acetamide, 2-fluoro-	P051	Endrin	P094	Phosphorothioic acid, O,O-dimethyl S-(methylamino)ethyl ester
P058	Acetic acid, fluoro- sodium salt	P042	Espinaphene	P089	Phosphorothioic acid, O,O-dimethyl S-(phenyl)ethyl ester
P068	Acetamide, N-((methylcarbamoyloxy)imino)-methyl ester	P046	Ethionazine, 1,1-dimethyl-2-phenyl-	P040	Phosphorothioic acid, O,O-dimethyl O-pyrazinyl ester
P001	3-(alpha-acetonylbenzyl)-4-hydroxycoumarin and salts, when present at concentrations greater than 0.3%	P084	Ethionazine, N-methyl-N-nitroso-	P097	Phosphorothioic acid, O,O-dimethyl O-(p-10-methylamino)-sulfanyloxyphenyl ester
	[P001 amended by 48 FR 19923 May 10, 1984]	P101	Ethyl cyanide	P110	Phosphoric acid, hexamethyl ester
		P054	Ethyleneimine	P098	Potassium cyanide
		P087	Fenitrothion	P099	Potassium silver cyanide
		P068	Fluorine	P070	Propenal, 2-methyl-2-((methylamino)-[[methylamino]carbonyl]oxime)
		P087	Fluorocarbamide	P101	Propenone
		P068	Fluorocetic acid, sodium salt	P027	Propenone, 3-chloro-
		P068	Fuming acid, mercury(II) salt (R,T)	P088	Propenone, 2-hydroxy-2-methyl-
		P068	Heptachlor	P061	1,2,3-Propenone trimerate, (R)
		P061	1,2,3,4,10,10-Hexachloro-8,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo-1,4,5,8-dimethanonaphthalene	P017	2-Propenone, 1-bromo-
		P037	1,2,3,4,10,10-Hexachloro-8,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo-1,4,5,8-dimethanonaphthalene	P102	Propargyl alcohol
		P080	1,2,3,4,10,10-Hexachloro-1,4,4a,5,6,8a-hexahydro-1,4,5,8-endo-endo-dimethanonaphthalene	P003	2-Propenal
		P004	1,2,3,4,10,10-Hexachloro-1,4,4a,5,6,8a-hexahydro-1,4,5,8-endo-endo-dimethanonaphthalene	P005	2-Propen-1-ol
		P080	Hexachlorocyclopentadiene	P067	2-Propenamine
		P082	Hexachlorocyclopentadiene	P102	2-Propyn-1-ol
		P118	Hydrazine, methyl-	P008	4-Pyridamine
		P068	Hydrocyanic acid	P075	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)- and salts
		P063	Hydrogen cyanide	P111	Dyphosphoric acid, tetraethyl ester
		P068	Hydrogen phosphide	P103	Selenic acid
		P084	Isocyanic acid, methyl ester	P104	Silver cyanide
		P007	3(2H)-isoxazolinone, 5-(aminomethyl)-	P105	Sodium azide
		P092	Mercury, (acetato-O)phenyl-	P106	Sodium cyanide
		P065	Mercury fulminate (R,T)	P107	Selenium sulfide
		P016	Methane, carbonylchloro-	P108	Synchrocin-10-one and salts
		P112	Methane, tetrahydro-	P108	Synchrocin-10-one, 2,3-dimethoxy-
		P118	Methanethiol, trichloro-	P108	Synchrocin and salts
		P058	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-hexachloro-3a,4,7,7a-tetrahydro-	P115	Sulfuric acid, thallium(I) salt
		P068	Methanol	P109	Tetraethylthiopyrophosphate
		P087	2-Methylaziridine	P110	Tetraethyl lead
		P088	Methyl hydrazine	P111	Tetraethylphosphophosphate
		P084	Methyl isocyanate	P112	tetrahydrothiophene (R)
		P088	2-Methylacrylonitrile	P062	Tetrahydrothiophene (R)
		P071	Methyl parathion	P113	Tetrahydrothiophene (R)
		P072	alpha-Naphthylthiourea	P114	Thallium(I) azide
		P073	Nickel carbonyl	P115	Thallium(I) sulfide
		P074	Nickel cyanide	P045	Thionol
		P074	Nickel(II) cyanide	P048	Thionocarbonic chloride
		P073	Nickel tetracarbonyl	P014	Thiophenol
		P075	Nocotine and salts	P116	Thiosemicarbazide
		P078	Nitric oxide	P028	Thiourea, (2-chlorophenyl)-
		P077	p-Nitroaniline	P072	Thiourea, 1-naphthyl-
		P078	Nitrogen dioxide	P083	Thiourea, phenyl-
		P078	Nitrogen(II) oxide	P123	Toxaphene
		P078	Nitrogen(IV) oxide	P118	Trichloromethane
		P081	Nitroglycerine (R)	P119	Vanadic acid, ammonium salt
		P082	N-Nitrosodimethylamine	P120	Vanadium pentoxide
		P084	N-Nitrosodimethylamine	P120	Vanadium(V) oxide
		P080	5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfate	P001	Warfarin, when present at concentrations greater than 0.3%
		P088	Octamethylpyrophosphoramide		[P001 amended by 48 FR 19923 May 10, 1984]
		P087	Osmium tetroxide		
		P087	Osmium tetroxide	P121	Zinc cyanide
		P088	7-Octylsulfate(2,2,1)heptane-2,3-dicarboxylic acid	P122	Zinc phosphide, when present at concentrations greater than 10%
		P088	Parathion		[P122 amended by 48 FR 19923 May 10, 1984]
		P034	Phenol, 2-cyclohexyl-4,6-dinitro-		
		P048	Phenol, 2,4-dinitro-		
		P047	Phenol, 2,4-dinitro-6-methyl-		
		P020	Phenol, 2,4-dinitro-6-(1-methylpropyl)-		
		P008	Phenol, 2,4,6-trinitro- ammonium salt (R)		
		P038	Phenyl dichloroarsine		
		P082	Phenylmercuric acetate		
		P083	N-Phenylthiourea		
		P084	Phenol		
		P088	Phosgene		
		P088	Phosphine		
		P041	Phosphoric acid, diethyl p-trophenyl ester		

**DISCARDED COMMERCIAL CHEMICAL PRODUCTS, OFF-SPECIFICATION SPECIES,
CONTAINER RESIDUES, AND SPILL RESIDUES IDENTIFIED AS TOXIC WASTES (U LIST)
40 CFR PART 261.33(f)**

Hazardous Waste No	Substance				
		U24	Bis(2-chloroethoxy) methane	U108	1,4-Dichloro dioxin
		U27	Bis(2-chloroisopropyl) ether	J088	N,N-Diethylhydrazine
		U244	Bis(dimethylthiocarbonyl) disulfide	U087	O,O-Diethyl-S-methyl-dithiophosphate
U005	Acetamide, N,N-di-fluorenyl-2-yl-	U028	Bis(2-ethylhexyl) phosphite	J086	Diethyl phosphite
U112	Acetic acid, ethyl ester (1)	U248	Bromine cyanide	J089	Diethyl phosphite
U144	Acetic acid, lead salt	U225	Bromotolene	U148	1,2-Dihydro-3,6-pyridinedione
U214	Acetic acid, methyl salt	U030	4-Bromophenyl phenyl ether	J080	Dihydrostrolone
U002	Acetone (1)	U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	J081	3,3-Dimethylaziridine
J003	Acetone (1)	U172	1-Butanamine, N-butyl-N-nitroso-	J082	Dimethylamine (1)
U004	Acetophenone	U035	Butanoic acid, 4-(bis(2-chloroethyl)amino) benzene-	J083	Dimethylarsine dibenzene
J005	2-Acetylaminofluorene		1-Butanol (1)	U084	7,12-Dimethylbenz(a)anthracene
J006	Acetyl chloride (R,T)	U031	2-Butanol (1,T)		
J007	Acrylamide	U159	2-Butanone (1,T)		
J008	Acrylic acid (1)	U160	2-Butanone peroxide (R,T)		
U009	Acrylonitrile	U053	2-Butene		
U150	Alanine, 3-(p-bis(2-chloroethyl)amino) phenyl- (1)	U074	2-Butene, 1,4-dichloro- (1,T)		
J011	Amerose	U031	n-Butyl alcohol (1)		
J012	Aniline (1,T)	U136	Calcodylic acid		
J248	3-(alpha-Acetylbenzyl)-4-hydroxy- coumarin and salts when present at concentrations of 0.3% or less	J032	Calcium chromate		
U014	Auramine	U238	Carbamic acid, ethyl ester		
U015	Azaxane	U178	Carbamic acid, methylthio- ethyl ester		
U010	Azmatol 2,3,4-epoxy-1,2-azindole-4,7-dione-6-amino-8-((aminocarbonyl) dimethyl) 1,1,2,6,8a,8b-hexahydro-8a-methoxy-5-methyl-	U178	Carbamide, N-ethyl-N-nitroso-		
		U177	Carbamide, N-methyl-N-nitroso-		
		U219	Carbamide, thi-		
		J087	Carbamoyl chloride, dimethyl-		
		U215	Carbonic acid, diethyl(1) salt		
		U156	Carbonochloric acid, methyl ester (1,T)		
U157	Benz(1)aceanthrylene, 1,2-dihydro-3-methyl-	U033	Carbon oxyfluoride (R,T)		
J016	Benz(c)acridine	U211	Carbon tetrachloride		
J016	3,4-Benzazepine	J033	Carbonyl fluoride (R,T)		
J017	Benzyl chloride	U034	Chloral		
J018	Benz(a)anthracene	U036	Chloroacetal		
J016	1,2-Benzanthracene	U038	Chloroacetic acid		
J084	1,2-Benzanthracene, 7,12-dimethyl-	U028	Chloroacetylene		
J012	Benzazepine (1,T)	U037	Chlorobenzene		
J014	Benzazepine, 4,4'-carbonbis(bis(N,N-di-methyl-	U038	4-Chloro-m-cresol		
		U041	1-Chloro-2,3-epoxypropene		
		U042	2-Chloroethyl vinyl ether		
J048	Benzazepine, 4-chloro-2-methyl-	J044	Chloroform		
J088	Benzazepine, N,N-dimethyl-4-phenylazo-	U046	Chloromethyl methyl ether		
J158	Benzazepine, 4,4'-methylenebis(2-chloro-	J047	beta-Chloroacrylonitrile		
J222	Benzazepine, 2-methyl, hydrochloride	J048	o-Chlorophenol		
U181	Benzazepine, 2-methyl-5-nerol	U048	4-Chloro-p-toluidine, hydrochloride		
J019	Benzene (1,T)	U032	Chromic acid, calcium salt		
J036	Benzeneacetic acid, 4-chloro-alpha-(4-chloro-phenyl)-alpha-hydroxy, ethyl ester	J060	Chrysene		
J030	Benzene, 1-bromo-4-phenacyl-	J061	Cresols		
J037	Benzene, chloro-	J062	Cresote		
J190	1,2-Benzenedicarbonylic acid anhydride	J052	Cresylic acid		
J026	1,2-Benzenedicarbonylic acid, (bis(2-ethyl-hexyl) ester	U063	Crotonaldehyde		
J086	1,2-Benzenedicarbonylic acid, dibutyl ester	U056	Cumene (1)		
J086	1,2-Benzenedicarbonylic acid, diethyl ester	U246	Cyanogen bromide		
U102	1,2-Benzenedicarbonylic acid, dimethyl ester	U187	1,4-Cyclohexadiene		
U107	1,2-Benzenedicarbonylic acid, di-n-octyl ester	J056	Cyclohexane (R)		
J070	Benzene, 1,2-dichloro-	J067	Cyclohexane (R)		
J071	Benzene, 1,3-dichloro-	U130	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa-chloro-		
J072	Benzene, 1,4-dichloro-	U058	Cyclophosphoramide		
J017	Benzene (dichloromethyl)-	U240	2,44-D, salts and esters		
U221	Benzene, 1,3-dicyanodimethyl- (R,T)	U059	Daunorubicin		
J236	Benzene, dimethyl-(1,T)	U060	DDT		
U201	1,3-Benzeneisoxal	J061	DDT		
U127	Benzene, hexachloro-	U142	Decachlorocyclohexane-1,3,4-methene-2H-cyclobutyl(,s)-pentane-2-one		
J056	Benzene, hexahydro- (1)	U062	Deftate		
U188	Benzene, hydroxy-	U133	Demene (R,T)		
U220	Benzene, methyl-	U221	Demeton-sulfone		
U109	Benzene, 1-methyl-1,2,4-dinitro-	U063	Dibenz(a,h)anthracene		
U106	Benzene, 1-methyl-2,6-dinitro-	U063	1,2,5,6-Dibenzanthracene		
U203	Benzene, 1,2-methylenedioxy-4-ethyl-	U064	1,2,7,8-Dibenzofluorene		
U141	Benzene, 1,2-methylenedioxy-4-propenyl-	U064	Dibenz(a,j)pyrene		
U090	Benzene, 1,2-methylenedioxy-5-propyl-	U066	1,2-Dibromo-3-chloropropane		
J055	Benzene, (1-methylsilyl)- (R) —	J069	Diethyl phosphite		
U189	Benzene, nitro- (1,T)	U062	S-(2,3-Dichloroethyl) diisopropylthiocarbamate		
U183	Benzene, pentachloro-	J070	o-Dichlorobenzene		
U185	Benzene, pentachloro-nitro-	U071	m-Dichlorobenzene		
J020	Benzenesulfonic acid chloride (C,R)	J072	p-Dichlorobenzene		
J020	Benzenesulfonyl chloride (C,R)	U073	3,3-Dichlorobenzene		
U207	Benzene, 1,2,4,5-tetrachloro-	U074	1,4-Dichloro-2-butene (1,T)		
U223	Benzene, trichloromethyl-(C,R,T)	U075	Dichlorodifluoromethane		
U234	Benzene, 1,3,5-trinitro- (R,T)	U182	3,3-Dichloro-N-(1,1-dimethyl-2-propenyl) benzamide		
J021	Benzidine		Dichloro diphenyl dichloroethane		
U202	1,2-Benzothiazolone, 3-one, 1,1-dioxide	J080	Dichloro diphenyl trichloroethane		
U20	Benzof(a)fluorene	J061	1,1-Dichloroethylene		
U222	Benzof(a)pyrene	J078	1,2-Dichloroethylene		
U222	3,4-Benzopyrene	J079	Dichloroethyl ether		
U187	p-Benzothiazolone	J025	2,4-Dichlorophenol		
U223	Benzotrichloride (C,R,T)	J061	2,6-Dichlorophenol		
J050	1,2-Benzothiazanthrene	U062	2,4-Dichlorobenzenesulfonic acid, salts		
J065	2,2-Bisoxane (1,T)	U240	1,2-Dichlorobenzene		
J021	(1,1-Biphenyl)-4,4'-diamine		1,3-Dichlorobenzene		
J073	(1,1-Biphenyl)-4,4'-diamine, 3,3-dichloro-	J083	1,3-Dichlorobutane (1,T)		
J091	(1,1-Biphenyl)-4,4'-diamine, 3,3-dimethoxy-	J084			
J095	(1,1-Biphenyl)-4,4'-diamine, 3,3-dimethyl-	J085			

Hazardous Waste No.	Substance	Hazardous Waste No.	Substance	Hazardous Waste No.	Substance
U085	3,3-Dimethylbutane	U148	Melanerite	J087	Phosphorodithioic acid, O,O-dithio-, S-methyl ester
U086	alpha, alpha-Dimethylbenzylhydroperoxide (R)	U150	Melphalan	U188	Phosphorus sulfide (R)
U087	Dimethylcarbamoyl chloride	U151	Mercury	U190	Phthalic anhydride
U088	1,1-Dimethylhydrazine	U152	Methacrylonitrile (I, T)	U191	2-Picoline
U089	1,2-Dimethylhydrazine	U088	Methanamine, N-methyl- (I)	U192	Pronamide
U101	2,4-Dimethylphenol	U045	Methane, bromo-	U194	1-Propylamine (I, T)
U102	Dimethyl phthalate	U048	Methane, chloro- (I, T)	U110	1-Propylamine, N-propyl-, (I)
U103	Dimethyl sulfate	U088	Methane, chloromethoxy-	J088	Propene, 1,2-dibromo-3-chloro-
U105	2,4-Dinitrotoluene	U088	Methane, dibromo-	U148	Propene, diene
U106	2,6-Dinitrotoluene	U075	Methane, dichlorodifluoro-	U171	Propene, 2-nitro- (I)
U107	Di-n-octyl phthalate	U138	Methane, iodo-	J027	Propene, 2,2-dicyclo(2-chloro-)
U108	1,4-Dioxane	U119	Methanesulfonic acid, ethyl ester	U183	3-Propene sulfone
U108	1,2-Diphenylhydrazine	U211	Methane, tetrachloro-	U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U110	Dipropylamine (I)	U121	Methane, trichloro-	U126	1-Propanol, 2,3-epoxy-
U111	Di-N-propylnitrosamine	U153	Methane, trichlorofluoro-	U140	1-Propanol, 2-methyl- (I, T)
U001	Ethanol (I)	U225	Methane, tribromo-	J002	2-Propanol (I)
U174	Ethanamine, N-ethyl-N-nitroso-	U044	Methane, trichloro-	J007	2-Propenamide
U087	Ethane, 1,2-dibromo-	U121	Methane, trichlorofluoro-	U084	Propene, 1,3-dichloro-
U078	Ethane, 1,1-dichloro-	U123	Methanolic acid (C, T)	U243	1-Propene, 1,1,2,3,3,3-hexachloro-
U077	Ethane, 1,2-dichloro-	U038	4,7-Methanotriene, 1,2,4,5,6,7,8-octa-chloro-3a,4,7a-tetrahydro-	U008	2-Propenamine
U114	1,2-Ethanedithiocarbonyldithioic acid	U154	Methanol (I)	U153	2-Propenamine, 2-methyl- (I, T)
U131	Ethane, 1,1,1,2,2,2-hexachloro-	U156	Methapyrene	U008	2-Propenoic acid (I)
U084	Ethane, 1,1-(methylmercapto)bis(2-chloro-	U247	Methoxychlor	U113	2-Propenoic acid, ethyl ester (I)
U088	Ethanenitrile (I, T)	U154	Methyl alcohol (I)	U118	2-Propenoic acid, ethyl ester, ethyl ester (I)
U117	Ethane, 1,1'-oxybis- (I)	U029	Methyl bromide	U182	2-Propenoic acid, 2-methyl-, methyl ester (I)
U088	Ethane, 1,1'-oxybis(2-chloro-	U188	1-Methylbutadiene (I)	See FO27	Propionic acid, 2-(2,4,5-trichlorophenyl)-
U184	Ethane, perchloro-	J046	Methyl chloride (I, T)	U184	Propylene carbonate
U208	Ethane, 1,1,1,2-tetrachloro-	J156	Methyl chloroformate (I, T)	Pyridine	
U208	Ethane, 1,1,2,2-tetrachloro-	J226	Methylchloroform	Pyridine, 2,2,2-trimethyl-, 2-methyl-, 3-methyl-	
U218	Ethanedithioamide	U157	3-Methylcholanthrene	U179	Pyridine, tetrahydro-, hexahydro-
U247	Ethane, 1,1,1-trichloro-2,2-bis(methoxy-phenyl)-	U158	4,4-Methylenbis(2-chloroaniline)	U191	Pyridine, 2-methyl-
U227	Ethane, 1,1,2-trichloro-	U132	2,2-Methylenbis(3,4,6-trichlorophenyl)	U184	1,1'-Pyromethene, 1,3-dithio-, 6-methyl-, 2-thio-
U043	Ethane, chloro-	J088	Methylene bromide	U180	Pyrene, tetrahydro-, N-nitroso-
U042	Ethane, 2-chloromethoxy-	J080	Methylene chloride	U200	Reserpine
U078	Ethane, 1,1-dichloro-	U122	Methylene oxide	U201	Resorcinol
U079	Ethane, trans-1,2-dichloro-	U158	Methyl ethyl ketone (I, T)	U202	Saccharin and salts
U210	Ethane, 1,1,2,2-tetrachloro-	J138	Methyl iodide	U203	Saralose
U179	Ethanol, 2,2'-nitrosodimino-	U161	Methyl isobutyl ketone (I)	U204	Selenic acid
U004	Ethanone, 1-phenyl-	U162	Methyl methacrylate (I, T)	U204	Selenium oxide
U008	Ethanoyl chloride (C, R, T)	U163	N-Methyl-N-nitro-N-nitrosoguanidine	U205	Selenium disulfide (R, T)
U112	Ethyl acetate (I)	U184	4-Methyl-2-pentanone (I)	J015	Serine, N-acetate ester
U113	Ethyl acrylate (I)	U010	Methylthiouracil	See FO27	Silver
U238	Ethyl carbamate (urethan)	U058	Metomycan C	U088	4,4'-Sulfobenzaldehyde, alpha, alpha'-dithio-
U038	Ethyl 4,4'-dichlorobenzate	5,12-Naphthoquinone, (8S-cis)-6-acetyl-10-[[[3-amino-2,3,6-indolizyl-alpha-L-lysine-5-pyridinyl]oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-	U208	Siroquinolone	
U114	Ethylenebis(dithiocarbamic acid)	U188	Naphthalene	U136	Sulfur hydride
U087	Ethylene dibromide	J047	Naphthalene, 2-chloro-	U100	Sulfuric acid, dimethyl ester
U077	Ethylene dichloride	J188	1,4-Naphthalenedione	U188	Sulfur phosphide (R)
U118	Ethylene oxide (I, T)	J238	2,7-Naphthalenedisulfonic acid, 3,3'-((3,3'-dimethyl-(1,1'-biphenyl)-4,4'-diyl)-bis (azobis(5-amino-4-hydroxy)- tetrasodium salt	U206	Sulfur sesquioxide (R, T)
U117	Ethyl ether (I)	U168	1,4-Naphthoquinone	See FO27	2,4,5-T
U078	Ethyldene dichloride	U167	1-Naphthylamine	U307	1,2,4,5-Tetrachlorobenzene
U118	Ethylmethacrylate	U188	2-Naphthylamine	U308	1,1,1,2-Tetrachloroethane
U119	Ethyl methanesulfonate	U187	alpha-Naphthylamine	U308	1,1,2,2-Tetrachloroethane
U138	Femic dextran	U188	beta-Naphthylamine	U210	Tetrachloroethylene
U120	Fluoranthene	U028	2-Naphthylamine, N,N'-bis(2-chloromethyl)-	See FO27	2,3,4,6-Tetrachlorophenol
U122	Formaldehyde	U188	Nitrobenzene (I, T)	U213	Tetrahydrofuran (I)
U123	Formic acid (C, T)	J170	p-Nitrophenol	U214	Thallium(I) acetate
U124	Furan (I)	J171	2-Nitrophenol (I)	U216	Thallium(I) carbonate
U125	2-Furancarboxaldehyde (I)	J172	N-Nitrosodimethylamine	U216	Thallium(I) chloride
U147	2,5-Furandione	J173	N-Nitrosodethylamine	U217	Thallium(I) nitrate
U213	Furan, tetrahydro- (I)	J174	N-Nitroso-N-propylamine	U218	Thioacetamide
U125	Furfural (I)	U176	N-Nitroso-N-ethylurea	U153	Thiomethanol (I, T)
U124	Furfuran (I)	J177	N-Nitroso-N-methylurea	U219	Thiourea
U208	D-Glucopyranose, 2-deoxy-2(3-methyl-3-nitro-souredo)-	U178	N-Nitroso-N-methylurethane	U244	Thiram
U126	Glyoxyaldehyde	U179	N-Nitrosopiperidine	U250	Toluene
U183	Guandine, N-nitroso-N-methyl-N-nitro-	U180	N-Nitrosopyrrolidine	U221	Toluenediamine
U127	Hexachlorobenzene	U181	5-Nitro- α -louridine	U222	Toluene diisocyanate (R, T)
U128	Hexachlorobutadiene	U183	1,2-Oxatholene, 1,2-dioxide	U222	O-Toluidine hydrochloride
U129	Hexachlorocyclohexane (gamma isomer)	U058	2H-1,3,2-Oxazaphosphorine, 2-bis(2-chloro-ethylamino)tetrahydro-, oxide, 2-	U011	1H-1,2,4-Triazol-3-amine
U130	Hexachlorocyclopentadiene	U115	Oxirane (I, T)	U228	1,1,1-Trichloroethane
U131	Hexachloroethane	U041	Oxirane, 2-(chloromethyl)-	U227	1,1,2-Trichloroethane
U132	Hexachlorophene	U182	Paraldehyde	U228	Trichloroethane
U243	Hexachloropropene	U183	Pentachlorobenzene	U228	Trichloroethylene
U130	Hydrazine (R, T)	U184	Pentachloroethane	U228	Trichloromonofluoromethane
U088	Hydrazine, 1,2-diethyl-	U185	Pentachloronitrobenzene	U228	2,4,5-Trichlorophenol
U088	Hydrazine, 1,1-dimethyl-	See FO27	Pentachlorophenol	Do	2,4,6-Trichlorophenol
U088	Hydrazine, 1,2-dimethyl-	U188	1,3-Pentadiene (I)	Do	2,4,5-Trichlorophenylsulfonic acid
U108	Hydrazine, 1,2-diphenyl-	U187	Phenacetin	U234	sym-Tetrachlorobenzene (R, T)
U134	Hydrofluoric acid (C, T)	U188	Phenol	U182	1,3,5-Triazine, 2,4,5-trimethyl-
U134	Hydrogen fluoride (C, T)	U187	Phenol, 4-chloro-	U238	Tri(2,3-dibromopropyl) phosphite
U135	Hydrogen sulfide	U188	Phenol, 4-chloro-3-methyl-	U238	Trypan blue
U088	Hydroperoxide, 1-methyl-1-phenylethyl- (R)	U188	Phenol, 2,4-dichloro-	U237	Uracil, 5-(bis(2-chloromethylamino)-
U138	Hydroxydimethylsilane oxide	U188	Phenol, 2,6-dichloro-	U237	Uracil mustard
U118	2-Imidazolidinone	U188	Phenol, 2,4-dimethyl-	U043	Vinyl chloride
U137	Indeno(1,2,3-cd)pyrene	U170	Phenol, 4-nitro-	U248	Warfarin, when present at concentrations of 0.3% or less
U138	Iron dextran	See FO27	Phenol, pentachloro-		
U140	Isobutyl stearate (I, T)	Do	Phenol, 2,3,4,6-tetrachloro-	U238	Xylene (I)
U141	Isocitrate	Do	Phenol, 2,4,5-trichloro-	U300	Yohimbin-16-carboxylic acid, 11,17-dimethoxy-18-((3,4,5-trimethoxy-benzoyloxy)-methyl ester
U142	Kapone	Do	Phenol, 2,4,6-trichloro-		
U143	Lactocarpine	U137	1'-O-(1,2-dimethyl-2-propenyl)pyrene		
U144	Lead acetate	U145	Phosphoric acid, Lead salt		
U148	Lead phosphite				
U148	Lead subacetate				
U129	Lindane				
U147	Maleic anhydride				
U148	Maleic hydrazide				

Appendix D
Notification of Hazardous
Waste Activity
(EPA Form 8700-12)

**From EPA pamphlet entitled "Notification of Hazardous Waste Activity."
Prepared by the Office of Solid Waste and Emergency Response, 1985.**

How To Notify U.S. EPA of Your Waste Activities

I. How To Decide If You Handle A Regulated Hazardous Waste:

Persons who generate, transport, treat, store, or dispose of solid wastes must decide if their solid waste is a hazardous waste regulated under the *Resource Conservation and Recovery Act (RCRA)*. In addition, persons who recycle secondary materials must also determine whether those materials are solid and hazardous wastes under the provisions of *RCRA*. If you need help making this determination after reading these instructions, contact the addressee listed for your State in Section III(C).

You will need to refer to 40 *CFR* Part 261 of the *Code of Federal Regulations* (copy enclosed) to help you decide if the waste you handle is regulated under *RCRA*.

To determine if you are regulated under *RCRA*, ask yourself the following questions:

A) Do I Handle A Solid Waste?

Section 261.2 of the *Code of Federal Regulations* (hereafter referred to as *CFR*) defines "solid waste" as any discarded material that is not excluded under Section 261.4(a) or that is not excluded by variance granted under Sections 260.30 and 260.31. A discarded material is any material which is:

- 1) abandoned, as explained in 261.2(b), or
- 2) recycled, as explained in 261.2(c), or
- 3) considered inherently waste-like as explained in 261.2(c)

For a more complete discussion of the "Definition of Solid Waste" refer to the *Federal Register* of January 4, 1985. (Excerpts of that notice are included in this package for your reference.)

B) Has My Waste Been Excluded From The Regulations?

The list of exclusions can be found in Section 261.4 of the *CFR*. If the solid waste that you handle has been excluded or exempted, then you do not need to notify U.S. EPA for that waste.

If your solid waste was not excluded from the regulations, you need to decide if it is a hazardous waste that U.S. EPA regulates. The U.S. EPA regulates hazardous waste two ways: 1) by specifically listing the waste and assigning it a unique EPA Waste Code Number; or 2) by regulating it because it possesses any of four hazardous characteristics and assigning it a generic EPA Waste Code Number.

C) Is My Solid Waste Specifically Listed As A Hazardous Waste?

Sections 261.31 — 261.33 of the *CFR* identify certain solid wastes that U.S. EPA has specifically listed as hazardous. Persons who handle listed hazardous waste are subject to regulation and must notify U.S. EPA of their activities. Refer to this section of the *CFR* (enclosed) to see if your waste is included as a "listed waste."

D) Does My Solid Waste Possess A Hazardous Characteristic?

Even if your waste is not specifically listed as a hazardous waste, it may still be hazardous because it exhibits certain hazardous characteristics. These characteristics are 1) Ignitability; 2) Corrosivity; 3) Reactivity; and 4) Extraction Procedure Toxicity. Section 261.20 through 261.24 of the *CFR* explains what each of the characteristics are and outlines the testing procedures you should use to determine if your waste meets these characteristics. Persons who handle characteristic waste that is regulated must notify U.S. EPA of their activities.

**Many States have requirements that vary from the Federal regulations. These State regulations may be more strict than the Federal requirements by identifying additional wastes as hazardous, or may not yet include all wastes currently regulated under RCRA. It is your responsibility to comply with all regulations that apply to you. For more information on state requirements, you are strongly urged to contact the appropriate addressee listed for your State in Section III(C) of these instructions.*

E) Has My Waste Been Exempted From The Regulations?

The list of exemptions can be found in 261.5 and 261.6(a)(3) of Part 40 of the *CFR*. If the hazardous waste that you handle has been exempted, then you do not need to notify U.S. EPA for that waste.

II. How To File Form 8700-12, "Notification of Hazardous Waste Activity"

If your waste activity is regulated under *RCRA* by the U.S. EPA, you must notify the U.S. EPA of your activities and obtain a U.S. EPA Identification Number. You can satisfy both of these requirements by completing and signing the enclosed notification form and mailing it to the appropriate address listed in Part C of this section for your State.

A) How Many Forms Should I File?

A person who generates hazardous waste, or owns or operates a facility that treats, stores or disposes of hazardous waste needs to submit one notification form per site or location. If you conduct hazardous waste activities at more than one location, you must submit a separate form for each location.

If you only transport hazardous waste and do not generate, treat, store or dispose of these wastes, you may submit one form which covers all transportation activities your company conducts. This form should be sent to the appropriate address (listed in Part C) that serves the State where your company has its headquarters. However, if you are a transporter who also generates, treats, stores, or disposes of hazardous wastes, you must complete and submit separate notification forms to cover each location.

B) Can I Request That This Information Be Kept Confidential?

All information you submit in a notification can be released to the public, according to the *Freedom of Information Act* unless it is determined to be confidential by U.S. EPA pursuant to 40 *CFR* Part 2. Since notification information is very general, the U.S. EPA believes it is unlikely that any information in your notification could qualify to be protected from release. However, you may make a claim of confidentiality by printing the word "CONFIDENTIAL" on both sides of the Notification Form and on any attachments.

EPA will take action on the confidentiality claims in accordance with 40 *CFR* Part 2.

C) Where Should I Send My Completed Form?

Listed alphabetically below are the names, addresses and phone numbers of the proper contacts in each State where you can get additional information, more forms and where you should mail your completed forms.

As shown here, the U.S. EPA and many States have arranged for the States to answer your questions and receive your completed forms. In a few instances the workload is shared between U.S. EPA and the State, or handled by U.S. EPA alone. To avoid delay and confusion, follow the directions for your State very carefully.

Alphabetized State Listing Of Hazardous Waste Contacts

Alabama

Land Division
Alabama Department of Environmental Management
State Capitol
Montgomery AL 36130
(205) 271-7730

Alaska

EPA Region IX
Waste Management Branch
MS-530
1200 Sixth Avenue
Seattle WA 98101
(206) 442-2777

American Samoa

To Obtain Information or Forms Contact

American Samoa Government
Department of Public Works
Pago Pago, American Samoa 96799
(Commercial Call 633 4116)

Mail Your Completed Forms To

U.S. EPA Region IX
Toxics and Waste Management Division
215 Fremont Street
San Francisco CA 94105

Arizona

To Obtain Information or Forms Contact

Arizona Department of Health Services
2005 N. Central, Room 301
Phoenix AZ 85005
(602) 257-0022

Mail Your Completed Forms To

U.S. EPA Region IX
Toxics and Waste Management Division
215 Fremont Street
San Francisco CA 94105

Arkansas

Arkansas Department of Pollution Control
Solid and Hazardous Materials
P.O. Box 9583
Little Rock AR 72219
(501) 562-7444

California

To Obtain Information or Forms Contact

California Department of Health Services
Toxic Substances Control Division
714 P Street
Sacramento CA 95814
(916) 324-1781

Mail Your Completed Forms To

U.S. EPA Region IX
Toxics and Waste Management Division
215 Fremont Street
San Francisco CA 94105

Colorado

Colorado Department of Health
Waste Management Division
4210 E 11th Ave
Denver CO 80220
(303) 320-8333

Commonwealth of North Mariana Islands

To Obtain Information or Forms Contact

Department of Public Health and Environmental Services
Division of Environmental Quality
Saipan, Mariana Islands 96950

Overseas Operator: 6984
Cable address: GOV NMI Saipan

Mail Your Completed Forms To

U.S. EPA Region IX
Toxics and Waste Management Division
215 Fremont Street
San Francisco CA 94105

Connecticut

Connecticut Department of Environmental Protection
Hazardous Materials Management Unit
State Office Building
165 Capitol Ave
Hartford CT 06106
(203) 566 5712

Delaware

Delaware Department of Natural Resources and Environment
Solid Waste Management Branch
P.O. Box 1401
Dover DE 19901
(302) 736 4781

District Of Columbia

Department of Environmental Services
Pesticides and Hazardous Materials Division
5000 Overlook Ave S.W.
Washington DC 20032
(202) 767 8422

Florida

Solid Waste Section
Florida Department of Environmental Regulation
Twin Towers Office Bldg Rm 421
2600 Blair Stone Road
Tallahassee FL 32301
(904) 488-0300

Georgia

Land Protection Branch
Environmental Protection Division
Georgia Department of Natural Resources
270 Washington St S.W.
Room 824
Atlanta GA 30334
(404) 656-2833

Guam

To Obtain Information or Forms Contact

Jim Branch, Administrator
Guam EPA
P.O. Box 2999
Agana, GU 96910
(Overseas Operator) 646-8863

Mail Your Completed Forms To

U.S. EPA Region IX
Toxics and Waste Management Division
215 Fremont Street
San Francisco CA 94105

Hawaii*To Obtain Information or Forms Contact:*

Hawaii Department of Health
Environmental Protection and Health Services Division
Noise and Radiation Branch
P O Box 3378
Honolulu, HI 96801
(808) 458-3075

Mail Your Completed Forms To:

U S EPA Region IX
Toxics and Waste Management Division
215 Fremont Street
San Francisco, CA 94106

Idaho

EPA Region X
Waste Management Branch
MS 530
1200 Sixth Avenue
Seattle, WA 98101
(206) 442-2777

Illinois*To Obtain Information or Forms Contact:*

Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Springfield, IL 62706
(217) 782-6761

Mail Your Completed Forms To:

RCRA Activities
U S EPA Region V
Waste Management Division
P O Box A3587
Chicago, IL 60690

Indiana

RCRA Activities
U S EPA Region V
Waste Management Division
P O Box A3587
Chicago, IL 60690
(312) 886-6148

Iowa

U S EPA Region VII
RCRA Branch
726 Minnesota Avenue
Kansas City, KS 66101
(816) 374-6534

Kansas

Kansas Department of Health and Environment
Bureau of Waste Management
Forbes Field, Bldg. 321
Topeka, KS 66620
(913) 862-9360

Kentucky

Division of Waste Management
Kentucky Department for Environmental Protection
Fort Boone Plaza, Building No. 2
18 Reilly Road
Frankfort, KY 40601
(502) 564-6716

Louisiana*

Louisiana Department of Environmental Quality
Solid Waste Management Division
P O Box 94307
Baton Rouge, LA 70804
(504) 342-1227

**If you dispose of RCRA listed or characteristic waste in Louisiana you must have an EPA ID Number*

Maine

Maine Department of Environmental Protection
Bureau of Oil and Hazardous Materials Control
Division of Licensing and Enforcement
State House—Station 17
Augusta, ME 04333
(207) 289-2651

Maryland

Maryland Department of Health and Mental Hygiene
Waste Management Administration
201 West Preston St.
Baltimore, MD 21201
(301) 383-5740

Massachusetts

Massachusetts Department of Environmental Quality
Division of Solid and Hazardous Waste
One Winter Street
Boston, MA 02108
(617) 292-5851

Michigan

RCRA Activities
U S EPA Region V
Waste Management Division
P O Box A3587
Chicago, IL 60690
(312) 886-6148

Minnesota*To Obtain Information or Forms Contact:*

Minnesota Pollution Control Agency
Solid and Hazardous Waste Division
1935 West County Rd., B-2
Roseville, MN 55113
(612) 297-1779

Mail Your Completed Forms To:

RCRA Activities
U S EPA Region V
Waste Management Division
P O Box A3587
Chicago, IL 60690

Mississippi

Division of Solid and Hazardous Waste Management
Mississippi Department of Natural Resources
P O Box 10386
Jackson, MS 39209
(601) 961-5078

Missouri

Missouri Department of Natural Resources
Waste Management Program
P O Box 1368
Jefferson City, MO 65102
(314) 751-3241

Montana

Montana Department of Health and Environmental Sciences
Solid and Hazardous Waste Bureau
Cogswell Building, Room B201
Helena, MT 59620
(406) 444-2821

Nebraska

Nebraska Department of Environmental Control
Hazardous Waste Management Section
P O Box 94877
Lincoln, NE 68509
(402) 471-2186

Nevada*To Obtain Information Or Forms Contact*

Nevada Department of Conservation and Natural Resources
Division of Environmental Protection
Capitol Complex
Carson City, NV 89701

(702) 885-4670

Mail Your Completed Forms To

U S EPA Region IX
Toxics and Waste Management Division
215 Fremont Street
San Francisco, CA 94105

New Hampshire

New Hampshire Department of Health and Welfare
Office of Waste Management
Health and Welfare Building
Hazen Drive
Concord, NH 03301

(603) 271-4608

New Jersey*To Obtain Information or Forms Contact:*

New Jersey Department of Environmental Protection
Division of Waste Management
Hazardous Waste Advisory Program
32 E Hanover Street
P O Box CN028
Trenton, NJ 08625

(609) 292-8341

Mail Your Completed Forms To

U S EPA Region II
Air and Waste Management Division
26 Federal Plaza
New York, NY 10278

New Mexico

Hazardous Waste Section
New Mexico Environmental Improvement Division
P O Box 968
Santa Fe, NM 87504-0968

(505) 984-0020 Ext 340

New York*To Obtain Information or Forms Contact:*

New York Department of Environmental Conservation
Division of Solid and Hazardous Waste
Manifest Section
50 Wolf Rd, Room 209
Albany, NY 12233-0001

(518) 457-0530

Mail Your Completed Forms To

U S EPA Region II
Air and Waste Management Division
26 Federal Plaza
New York, NY 10278

North Carolina

Solid and Hazardous Waste Management Branch
Environmental Health Section
Department of Human Resources
Division of Health Services
306 North Wilmington Street
P O Box 2091
Raleigh, NC 27602-2091

(919) 733-2178

North Dakota

North Dakota Department of Health
Division of Hazardous Waste
Management and Special Studies
1200 Missouri Ave, Room 302
Bismarck, ND 58501

(701) 224-2368

Ohio

RCRA Activities
U S EPA Region V
Waste Management Division
P O Box A3587
Chicago, IL 60690

(312) 886-6148

Oklahoma

U S EPA Region VI
Air and Hazardous Materials Division
1201 Elm Street
Inter-First Two Building
Dallas, TX 75270

(214) 767-9885

Oregon

EPA Region X
Waste Management Branch
MS 530
1200 Sixth Avenue
Seattle, WA 98101

(206) 442-2777

For Information On State Requirements:

Oregon Department of Environmental Quality
Hazardous and Solid Waste Management Division
P O Box 1760
Portland, OR 97207

(503) 229-5913

Pennsylvania

U S EPA Region III
Waste Management Branch
MS 3HW 34
841 Chestnut Street
Philadelphia, PA 19107

(215) 597-7354

Puerto Rico*To Obtain Information Or Forms Contact:*

Environmental Quality Board
Land Pollution Control Area
P O Box 11488
Sanjurjo, PR 00010-1488

(809) 722-0439

Mail Your Completed Forms To:

U S EPA Region II
Air and Waste Management Division
26 Federal Plaza
New York, NY 10278

Rhode Island

Rhode Island Department of Environmental Management
Division of Air and Hazardous Materials
204 Cannon Bldg.
75 Davis Street
Providence, RI 02908

(401) 277-2797

South Carolina

Bureau of Solid and Hazardous Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

(803) 758-5681

South Dakota

South Dakota Department of Water and Natural Resources
Office of Air Quality and Solid Waste
Joe Foss Building
Pierre, SD 57501

(605) 773-3329

Tennessee

Division of Solid Waste Management
Tennessee Department of Health and Environment
Customs House, 4th Floor
701 Broadway
Nashville, TN 37203

(615) 741-3424, 2577, 3959

Texas*Commercial, Municipal, Federal, State, Handlers Contact*

Texas Department of Health
Bureau of Solid Waste Management
1100 West 49th Street T-602
Austin, TX 78756

(512) 458-7271

Industrial Handlers Contact

Texas Department of Water Resources
Industrial Solid Waste Section
P O Box 13087
Capital Station
Austin, TX 78711

(512) 475-2014

Utah

Utah Department of Health
Bureau of Solid and Hazardous Waste
State Office Building, Room 4231
P O Box 45500
Salt Lake City, UT 84145-0500

(801) 533-4145

Vermont

Vermont Agency of Environmental Conservation
Air and Solid Waste Programs
State Office Building
79 River Street
Montpelier, VT 05602

(802) 828-3395

Virgin Islands*To Obtain Information Or Forms Contact*

Division of Natural Resources Management
Hazardous Waste Program
Department of Conservation and Cultural Affairs
P O Box 4340
Charlotte Amalie
St. Thomas, VI 00801

(809) 774-3320

Mail Your Completed Forms To

U S EPA Region II
Air and Waste Management Division
26 Federal Plaza
New York, NY 10278

Virginia

Virginia Department of Health
Division of Solid and Hazardous Waste Management
Madison Building
109 Governor Street
Richmond, VA 23219

(804) 786-5271

Washington

U S EPA Region X
Waste Management Branch
MS 530
1200 Sixth Avenue
Seattle, WA 98101

(206) 442-2777

For Information on State Requirements

Washington Department of Ecology
Hazardous Waste Section
Olympia, WA 98504

(206) 459-6300

West Virginia

West Virginia Department of Natural Resources
Division of Water Resources
1201 Greenbrier Street
East Charleston, WV 25311

(304) 384-5935

Wisconsin*To Obtain Information or Forms Contact*

Wisconsin Department of Natural Resources
Bureau of Solid Waste Management
P O Box 7921
Madison, WI 53707

(608) 266-2111

Mail Your Completed Forms to

RCRA Activities
U S EPA Region V
Waste Management Division
P O Box A3587
Chicago, IL 60690

Wyoming

EPA Region VIII
Waste Management Division (8HWM-ON)
One Denver Place
Suite 1300
999 18th Street
Denver, CO 80202-2413

(303) 293-1502

Please print or type with ELITE type (12 characters/inch) in the unshaded areas only

EPA	U.S. ENVIRONMENTAL PROTECTION AGENCY NOTIFICATION OF HAZARDOUS WASTE ACTIVITY	INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law (Section 3010 of the Resource Conservation and Recovery Act).
I. INSTALLATION'S EPA I.D. NO.	PLEASE PLACE LABEL IN THIS SPACE	
II. BASE OF INSTALLATION		
III. LOCATION OF INSTALLATION		

FOR OFFICIAL USE ONLY

COMMENTS

INSTALLATION'S EPA I.D. NUMBER	APPROVED	DATE RECEIVED (Day, Mo., & Year)

I. NAME OF INSTALLATION

--

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX			
CITY OR TOWN		ST.	ZIP CODE

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER			
CITY OR TOWN		ST.	ZIP CODE

IV. INSTALLATION CONTACT

NAME AND TITLE (Last, First, & Job Title)	PHONE NO. (area code & no.)

V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER

--

B. TYPE OF OWNERSHIP (enter the appropriate letter in the box) F - FEDERAL N - NON-FEDERAL	VI. TYPE OF HAZARDOUS WASTE ACTIVITY (enter "X" in the appropriate box(es)) <table style="width:100%;"> <tr> <td><input type="checkbox"/> A. GENERATION</td> <td><input type="checkbox"/> B. TRANSPORTATION (complete item VII)</td> </tr> <tr> <td><input type="checkbox"/> C. TREAT/STORE/DIPOSE</td> <td><input type="checkbox"/> D. UNDERGROUND INJECTION</td> </tr> </table>	<input type="checkbox"/> A. GENERATION	<input type="checkbox"/> B. TRANSPORTATION (complete item VII)	<input type="checkbox"/> C. TREAT/STORE/DIPOSE	<input type="checkbox"/> D. UNDERGROUND INJECTION
<input type="checkbox"/> A. GENERATION	<input type="checkbox"/> B. TRANSPORTATION (complete item VII)				
<input type="checkbox"/> C. TREAT/STORE/DIPOSE	<input type="checkbox"/> D. UNDERGROUND INJECTION				

VII. MODE OF TRANSPORTATION (transporters only - enter "X" in the appropriate box(es))

<input type="checkbox"/> A. AIR	<input type="checkbox"/> B. RAIL	<input type="checkbox"/> C. HIGHWAY	<input type="checkbox"/> D. WATER	<input type="checkbox"/> E. OTHER (specify):
---------------------------------	----------------------------------	-------------------------------------	-----------------------------------	--

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA I.D. Number in the space provided below.

<input type="checkbox"/> A. FIRST NOTIFICATION	<input type="checkbox"/> B. SUBSEQUENT NOTIFICATION (complete item C)	C. INSTALLATION'S EPA I.D. NO.
--	---	--------------------------------

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

III. Line-By-Line Instructions For Completing EPA Form 8700-12

Type or print in black ink all items except Item X, "Signature," leaving a blank box between words. When typing, hit the space bar once between characters and three times between words. If you must use additional sheets, indicate clearly the number of the item on the form to which the information on the separate sheet applies.

ITEMS I-III — Name, Mailing Address, and Location of Installation:

Complete Items I — III. Please note that the address you give for Item III — "Location of Installation" must be a physical address, not a post office box or route number. If the mailing address and physical facility location are the same, you can print "SAME" in box for Item III.

ITEM IV — Installation Contact:

Enter the name, title and business telephone number of the person who should be contacted regarding information submitted on this form.

ITEM V — Ownership:

A) Enter the name of the legal owner of the installation. Use additional sheets if necessary to list more than one owner.

B) Enter an "F" in the box if the installation is owned by a Federal Agency. An installation is Federally-owned if the owner is the Federal Government, even if it is operated by a private contractor. If the facility is not owned by the Federal Government leave the box blank.

ITEM VI — Type of Hazardous Waste Activity:

Mark "X" in the appropriate box(es) to show which hazardous waste activities are going on at this installation.

A) Generation: Mark an "X" in this box if you generate a hazardous waste identified or listed in 40 CFR Part 261.

For Small Quantity Generators (Less Than 1000 Kilograms/Month):

If the total amount of hazardous waste that you generate is less than 1000 kilograms in each calendar month, please mark an "X" in the GENERATOR box and print the words "SMALL QUANTITY GENERATOR" across the top of the Notification Form (Form 8700-12).

B) Transportation: If you move hazardous waste by air, rail, highway, or water then mark an "X" in this box. All transporters must complete Item VII. Transporters do not have to complete Item IX of this form, but must sign the certification in Item X. Refer to Part 263 of the CFR for an explanation of the Federal regulations for hazardous waste transporters.

C) Treat/Store/Dispose: If you treat, store or dispose of regulated hazardous waste, then mark an "X" in this box. You are reminded to contact the appropriate addressee listed for your State in Section III(C) of this package to request Part A of the RCRA Permit Application. Refer to Parts 264 and 265 of the CFR for an explanation of the Federal regulations for hazardous waste facility owners/operators.

D) Underground Injection: Persons who generate and/or treat, store, or dispose of hazardous waste must place an "X" in Box D if an injection well is located at their installation. An injection well is defined as any hole in the ground, including septic tanks, that is deeper than it is wide and that is used for the subsurface placement of fluids.

ITEM VII — Mode Of Transportation:

Complete this item only if you transport hazardous waste. Mark an "X" in the box to indicate the method(s) of transportation you use.

ITEM VIII — First Or Subsequent Notification:

Place an "X" in the appropriate box to indicate whether this is your first or a subsequent notification. If you have filed a previous notification, enter your EPA Identification Number in the boxes provided.

NOTE: When the owner of a facility changes, the new owner must notify U.S. EPA of the change, even if the previous owner already received a U.S. EPA Identification Number. Because the U.S. EPA ID Number is "site-specific," the new owner will keep the existing ID number.

If the facility moves to another location, the owner/operator must notify EPA of this change. In this instance a new U.S. EPA Identification Number will be assigned, since the facility has changed locations.

ITEM IX — Description Of Hazardous Waste:*

You will need to refer to Title 40 CFR Part 261 (enclosed) in order to complete this section. Part 261 identifies those wastes that EPA defines as hazardous. If you need help completing this section, please contact the appropriate addressee for your state as listed in Section III(C) of this package.

Section A — If you handle hazardous wastes that are listed in the "nonspecific sources" category in Part 261.31, enter the appropriate 4-digit numbers in the boxes provided.

Section B — If you handle hazardous wastes that are listed in the "specific industrial sources" category in Part 261.32, enter the appropriate four-digit numbers in the boxes provided.

Section C — If you handle any of the "commercial chemical products" listed as wastes in Part 261.33, enter the appropriate four-digit numbers in the boxes provided.

Section D — Disregard, since EPA has not yet published infectious waste regulations.

Section E — If you handle hazardous wastes which are not listed in any of the categories above, but do possess a hazardous characteristic, you should describe these wastes by their hazardous characteristic (An explanation of each characteristic is found at Part 261.21—261.24.) Place an "X" in the box next to the characteristic of the wastes that you handle.

ITEM X — Certification:

This certification must be signed by the owner/operator or an authorized representative of your installation. An "authorized representative" is a person responsible for the overall operation of the facility (i.e., a plant manager or superintendent, or a person of equal responsibility). All notifications must include this certification to be complete.

*Transporters requesting a U.S. EPA Identification Number do not need to complete this item, but must sign the "Certification" in Item X.

IV. Definitions

The following definitions are included to help you to understand and complete the Notification Form:

Act or RCRA means the *Solid Waste Disposal Act*, as amended by the *Resource Conservation and Recovery Act of 1976*, as amended by the *Hazardous and Solid Waste Amendments of 1984*, 42 U.S.C. Section 6901 et seq.

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

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.

EPA Identification (I.D.) Number means the number assigned by EPA to each generator, transporter, and treatment, storage, or disposal facility.

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

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

Hazardous Waste means a hazardous waste as defined in 40 CFR Part 261

Operator means the person responsible for the overall operation of a facility

Owner means a person who owns a facility or part of a facility.

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.

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

Transporter means a person engaged in the off-site transportation of hazardous waste by air, rail, highway, or water.

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 nonhazardous, or less hazardous; safer to transport, store or dispose of, or amenable for recovery, amenable for storage, or reduced in volume

Appendix E
Uniform Hazardous Waste Manifest
(EPA Forms 8700-22 and 8700-22A)

U.S. EPA Form 8700-22

Read all instructions before completing this form.

This form has been designed for use on a 12-pitch (elite) typewriter; a firm point pen may also be used—press down hard.

Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, and disposal

facilities to use this form (8700-22) and, if necessary, the continuation sheet (Form 8700-22A) for both inter and intrastate transportation.

Federal regulations also require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage and disposal facilities to complete the following information:

.

GENERATORS

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 returned Manifest forms.

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 Number		B. State Generator's ID No	
4 Generator's Phone ()		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		9 Designated Facility Name and Site Address		10 US EPA ID Number		E. State Transporter's ID			
								F. Transporter's Phone			
								G. State Facility's ID			
								H. Facility's Phone			
11 US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12 Containers		13 Total		14 Unit	
						No		Type		Quantity	
a.											
b.											
c.											
d.											
15 Special Handling Instructions and Additional Information						16 Handling Code for Waste Listed Above					
<p>18 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.</p> <p>Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also 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 I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.</p>											
Printed/Typed Name				Signature				Month		Day Year	
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	
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	

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 in 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 I (below) for the type of container.

Table I—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 (including roll-offs)
- 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 (2000 lbs)
- Y = Cubic yards
- L = Liters (liquids only)
- K = Kilograms
- M = Metric tons (1000 kg)
- N = Cubic meters

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. States may not require additional, new, or different information in this space. 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.

Note.—All of the above information except the handwritten signature required in item 16 may be preprinted.

TRANSPORTERS

Item 17. Transporter 1 Acknowledgement 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 Acknowledgement 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 Shipments—
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 United States from another country must upon entry be accompanied by the U.S. EPA Uniform Hazardous Waste Manifest. Transporters who transport hazardous waste into the United States from another country are responsible for completing the Manifest (40 CFR 263.10(c)(1)).

Owners and Operators of Treatment, Storage, or Disposal Facilities

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 unauthorized States (i.e., the U.S. EPA administers the hazardous waste management program) who cannot resolve significant discrepancies within 15 days of receiving the waste must submit to their Regional Administrator (see list below) a letter with a copy of the Manifest at issue describing the discrepancy and attempts to reconcile it (40 CFR 264.72 and 265.72).

Owners and operators of facilities located in authorized States (i.e., those States that have received authorization from the U.S. EPA to administer the hazardous waste program) should contact their State agency for information on State Discrepancy Report requirements.

EPA Regional Administrators

**Regional Administrator, U.S. EPA
Region I, J.F. Kennedy Fed. Bldg.,
Boston, MA 02203**

**Regional Administrator, U.S. EPA
Region II, 26 Federal Plaza, New York,
NY 10278**

**Regional Administrator, U.S. EPA
Region III, 6th and Walnut Sts.,
Philadelphia, PA 19106**

**Regional Administrator, U.S. EPA
Region IV, 345 Courtland St., NE,
Atlanta, GA 30305**

**Regional Administrator, U.S. EPA
Region V, 230 S. Dearborn St.,
Chicago, IL 60604**

**Regional Administrator, U.S. EPA
Region VI, 1201 Elm Street, Dallas, TX
75270**

**Regional Administrator, U.S. EPA
Region VII, 324 East 11th Street,
Kansas City, MO 64108**

**Regional Administrator, U.S. EPA
Region VIII, 1680 Lincoln Street,
Denver, CO 80295**

**Regional Administrator, U.S. EPA
Region IX, 215 Fremont Street, San
Francisco, CA 94105**

**Regional Administrator, U.S. EPA
Region X, 1200 Sixth Avenue, Seattle,
WA 98101**

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 facility. That person must acknowledge acceptance of the waste described on the Manifest by signing and entering the date of receipt.

Items A-K are not required by Federal regulations for intra- or interstate transportation. However, States may require generators and owners or operators of treatment, storage, or disposal facilities to complete some or all of items A-K as part of State manifest reporting requirements. Generators and owners and operators of treatment, storage, or disposal facilities are advised to contact State officials for guidance on completing the shaded areas of the Manifest.

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				L. State Manifest Document Number		
				M. State Generator's ID		
24. Transporter Company Name		25. US EPA ID Number		N. State Transporter's ID		
				O. Transporter's Phone		
26. Transporter Company Name		27. US EPA ID Number		P. State Transporter's ID		
				Q. Transporter's Phone		
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		29. Containers		30. Total Quantity	31. Units (kg, lbs)	R. Waste No.
		No.	Type			
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						
8. Additional Descriptions for Materials Listed Above				7. Handling Codes for Wastes Listed Above		
32. Special Handling Instructions and Additional Information						
33. Transporter Acknowledgment of Receipt of Materials				Date		
Printed/Typed Name		Signature		Month	Day	Year
34. Transporter Acknowledgment of Receipt of Materials				Date		
Printed/Typed Name		Signature		Month	Day	Year
35. Discrepancy Indication Space						

Instructions—Continuation Sheet, U.S. EPA Form 8700-22A

Read all instructions before completing this form.

This form has been designed for use on a 12-pitch (elite) typewriter; a firm point pen may also be used—press down hard.

This form must be used as a continuation sheet to U.S. 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. EPA Form 8700-22.

Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, or disposal facilities to use the uniform hazardous waste manifest (EPA Form 8700-22) and, if necessary, this continuation sheet (EPA Form 8700-22A) for both inter- and intrastate transportation.

GENERATORS

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 transporters 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 word "Transporter" the order of the transporter. For example, Transporter 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 transporters 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 word "Transporter" the order of the transporter. For example, Transporter 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.

TRANSPORTERS

Item 33. Transporter — Acknowledgement 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.

Item 34. Transporter — Acknowledgement 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 L-R are not required by Federal regulations for intra- or interstate transportation. However, States may require generators and owners or operators of treatment, storage, or disposal facilities to complete some or all of items L-R as part of State manifest reporting requirements. Generators and owners and operators of treatment, storage, or disposal facilities are advised to contact State officials for guidance on completing the shaded areas of the manifest.

Editor's note: In a separate notice, the Environmental Protection Agency February 26, 1980, published a notification form to be used by generators, transporters, and operators involved in hazardous waste activities (45 FR 12746). That form and the instructions for completing it are reprinted here for the convenience of subscribers.

**Appendix F
Generator Annual Report
(EPA Form 8700-13)**

GENERAL INSTRUCTIONS: UNMANIFESTED WASTE REPORT (EPA Form 8700-13 & 13B)

GENERAL INFORMATION

Included with these instructions is a detachable copy of EPA Form 8700-13, Hazardous Waste Report and EPA Form 8700-13B, Facility Report—Parts B & C (*forms are printed back-to-back*). In addition to these General Instructions and the Summary of Specific Instructions, a partial reproduction of applicable instructions originally printed in the Federal Register, Volume 45, No. 98, pages 33228, 33256, & 33257 is included. Ignore all shaded instructions and form sections because they do not apply to Unmanifested Waste Reports.

WHO MUST FILE

Any hazardous waste treatment, storage, or disposal facility that accepts wastes from an off-site source without an accompanying manifest must file an Unmanifested Waste Report.

WHAT TO FILE

An Unmanifested Waste Report consists of two forms:

- (1) The Hazardous Waste Report, EPA Form 8700-13, as a cover sheet, with
- (2) The Facility Report—Parts B & C, EPA Form 8700-13B.

The Hazardous Waste Report asks general information, such as the name and address of the facility.

The Facility Report—Parts B & C, asks more detailed information. The Facility Report is used both as part of the Annual Report (*Part B*), and as an Unmanifested Waste Report (*Part C*). To use this form as an Unmanifested Waste Report, you must read all the directions for Parts B & C, and follow the special instructions for Part C.

WHEN TO FILE

The owner or operator must prepare and submit the Unmanifested Waste Report within 15 days after receiving an unmanifested waste (*see 40 CFR 265.76*).

WHERE TO FILE

Mail this report to the Regional Office that serves your State. Please use Table 1 to determine the address of the appropriate Regional Office.

SUMMARY OF SPECIFIC INSTRUCTIONS

Section I—Part C

Please enter the date that the unmanifested waste was received at the facility. Parts A and B of this Section do not apply to the Unmanifested Waste Report.

Sections II through VI

Complete as instructed in the Specific Instructions that follow.

Sections VI and VIII

Ignore these sections.

Section IX

Complete as instructed in the Specific Instructions that follow.

Section XVI

When using this form as an Unmanifested Waste Report, put an "X" in the box marked Part C.

Sections XVII through XXI

Complete as instructed in the Specific Instructions that follow.

Section XXII: IMPORTANT

Facilities accepting an unmanifested hazardous waste shipment must supply EPA with information which clearly identifies the transporter of such shipment, as required in the Subpart C Specific Instructions relating to this section. Additionally, facilities should include here any information known regarding the generators of the wastes included in the unmanifested shipment.

SPECIFIC INSTRUCTIONS FOR EPA FORM 8700-13 (*ignore shaded areas*) (Reproduced from the Federal Register, Volume 45, No. 98, pages 33256 & 33257.)

IMPORTANT: Read all instructions before completing this form.

Section I: Type of Hazardous Waste Report

PART A: GENERATOR ANNUAL REPORT

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

NOTE: Generators who ship hazardous waste off-site to a facility which they do not own or operate must complete the facility (*Part B*) report instead of the Part A report.

PART B: FACILITY ANNUAL REPORT

For owners or operators of on-site or off-site facilities that treat, store, or dispose of hazardous waste; fill in the reporting year for this report (*e.g., 1982*).

PART C: UNMANIFESTED WASTE REPORT

For facility owners or operators who accept for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest; fill in the date the waste was received at the facility (*e.g., April 12, 1982*).

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

If you received a preprinted label from EPA, attach it in the space provided and leave Sections II through IV blank. If there is an error or omission on the label, cross out the incorrect information and fill in the appropriate item(s). If you did not receive a preprinted label, complete Section II through Section IV.

Section V: Location of Installation

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

Section VI: Installation Contact

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

Section VII: Transportation Services Used (for Part A Reports Only)

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

Section VIII: Cost Estimates for Facilities (for Part B Reports Only)

A. Enter the most recent cost estimate for facility closure in dollars. See Subpart H of 40 CFR parts 264 or 265 for more detail.

B. For disposal facilities only, enter the most recent cost estimate for post closure monitoring and maintenance. See Subpart H of 40 CFR parts 264 or 265 for more detail.

Section IX: Certification

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

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

PART B SPECIFIC INSTRUCTIONS FOR EPA FORM 8700-13B (ignore shaded areas)

Facility Annual Report for owners or operators of on-site or off-site facilities that treat, store, or dispose of hazardous waste

NOTE: Generators who ship hazardous waste off-site to a facility they own or operate must complete this Part B report instead of the Generator (Part A) Annual report

IMPORTANT: Read all instructions before completing this form.

Section XVI: Type of Report

Put an "X" in the box marked Part B

Section XVII: Facility's EPA Identification Number

Enter the EPA identification number for your facility

Example

XVII. FACILITY'S EPA I.D. NO.											
1	2	3	4	5	6	7	8	9	10	11	12
G	M	A	D	3	8	3	1	2	6	4	8
7	1										

Section XVIII: Generator's EPA Identification Number

Enter the EPA identification number of the generator of the waste described under Section XXI which was received by your facility during the reporting year. A separate sheet must be used for each generator. If the waste came from a foreign generator, enter the EPA identification number of the importer in this section and enter the name and address of the foreign generator in Section XXII, Comments. If the waste was generated and treated, stored, or disposed of at the same installation, leave this section blank.

Section XIX: Generator's Name

Enter the name of the generator corresponding to the generator's EPA identification number in Section XVIII.

If the waste was generated and treated, stored, or disposed of at the same installation, enter "ON-SITE."

If the waste came from a foreign generator, enter the name of the importer corresponding to the EPA identification number in Section XVIII.

Section XX: Generator's Address

Enter the address of the generator corresponding to the generator's EPA identification number in Section XVIII. If the waste was generated and treated, stored, or disposed of at the same installation, leave this section blank. If the waste came from a foreign generator, enter the address of the importer corresponding to the EPA identification number in Section XVIII.

Section XXI: Waste Identification

All information in this section must be entered by line number. A separate line entry is required for each different waste or mixture of wastes that your facility received during the reporting year. The handling code applicable to that waste at the end of the reporting year should be reported. If a different handling code applies to portions of the same waste, (e.g., part of the waste stored while the remainder was "chemically fixed" during the year), use a separate line entry for each portion. See example below.

NOTE: When filing an Unmanifested Waste Report, enter information regarding the specific shipment being reported, as opposed to annual aggregates

XXI WASTE IDENTIFICATION																			
LINE NUMBER	A DESCRIPTION OF WASTE	B EPA HAZARDOUS WASTE NUMBER (see instructions)				C HANDLING METHOD (enter code)	D AMOUNT OF WASTE					E UNIT OF MEASURE (enter code)							
		1	2	3	4		1	2	3	4	5								
1	Steel Finishing Sludge	K	0	6	0	K	0	6	1	S	0	2	2	5	0	0	0	T	
2	Steel Finishing Sludge	K	0	6	0	K	0	6	1	T	2	1	1	5	7	2	4	5	T

Section XXI-A: Description of Waste

For hazardous wastes that are listed under 40 CFR Part 261, Subpart D, enter the EPA listed name, abbreviated if necessary. Where mixtures of listed wastes were received, enter the description which you believe best describes the waste.

For unlisted hazardous waste identified under 40 CFR Part 261, Subpart C, enter the description which you believe best describes the waste. Include the specific manufacturing or other process generating the waste (e.g., green sludge from widget manufacturing) and if known, the chemical or generic chemical name of the waste.

Section XXI-B: EPA Hazardous Waste Number

For listed waste, enter the four digit EPA Hazardous Waste Number from 40 CFR Part 261, Subpart D, which identifies the waste.

For a mixture of more than one listed waste enter each of the applicable EPA Hazardous Waste Numbers.

Four spaces are provided. If more space is needed, continue on the next line(s) and leave all other information on that line blank. See example below.

XXI WASTE IDENTIFICATION																				
LINE NUMBER	A DESCRIPTION OF WASTE	B EPA HAZARDOUS WASTE NUMBER (see instructions)				C HANDLING METHOD (enter code)	D AMOUNT OF WASTE					E UNIT OF MEASURE (enter code)								
		1	2	3	4		1	2	3	4	5									
1	Steel Finishing Sludge	K	0	6	0	K	0	6	1	T	2	1	2	9	1	7	4	5	5	T
2		K	0	6	4															

For unlisted hazardous wastes, enter the EPA Hazardous Waste Numbers from 40 CFR Part 261, Subpart C, applicable to the waste. If more than four spaces are required, follow the procedure described above.

Section XXI-C: Handling Code

Enter one EPA handling code for each waste line entry. Where several handling steps have occurred during the year, report only the handling code representing the waste's status at the end of the reporting year or its final disposition. EPA handling codes are given in Table 2 which follows these instructions.

PART B SPECIFIC INSTRUCTIONS FOR EPA FORM 8700-13B — Continued

Section XXI—D: Amount of Waste

Enter the total amount of waste described on this line which you received during this reporting year.

Section XXI—E: Unit of Measure

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

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

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

Section XXII: Comments

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

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

Where required by 40 CFR 264 or 265, Subparts F or R, attach ground-water monitoring data to this report.

PART C SPECIFIC INSTRUCTIONS: UNMANIFESTED WASTE REPORT

Unmanifested Waste Report for facility owners or operators who accept for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest.

IMPORTANT Read all instructions before completing this form.

For the Unmanifested Waste Report, EPA Forms 8700-13 and 8700-13B must be filled out according to the directions for the Part B Facility Annual Report except that

(1) Blocks for which information is not available to the owner or operator of the reporting facility may be marked "UNKNOWN," and

(2) The following special instructions apply

Section VIII: Cost Estimates for Facilities

Do not enter closure or post closure cost estimates.

Section XVI: Type of Report

Put an "X" in the box marked Part C

Section XXI—A: Description of Waste

Use as many line numbers as are needed to describe the waste

Section XXI- C: Handling Code

Enter the handling code which describes the status of the waste on the date the report is filed. (See Table 2, attached.)

Section XXI- D: Amount of Waste

Enter the amount of waste received, rather than a total annual aggregate

Section XXII: Comments

a Enter the EPA Identification number, name, and address of the transporter, if known. If the transporter is not known to you, enter the name and chauffeur license number of the driver and the State and license number of the transporting vehicle which presented the waste to your facility, if known.

b Enter an explanation of how the waste movement was presented to your facility, why you believe the waste is hazardous, and how your facility plans to manage the waste. Continue on a separate blank sheet of paper if additional space is needed

NOTE: Include here any information known regarding the generators of wastes included in the unmanifested shipment

TABLE 1 — REGIONAL MAILING ADDRESSES AND AREAS SERVED

Address each to Regional Administrator Attn: RCRA Unmanifested Waste Report	Regional Mailing Address	Regional Mailing Address	Areas Served
REGION I U.S. Environmental Protection Agency John F. Kennedy Building Boston, Massachusetts 02203	REGION I Connecticut, Maine, Massachusetts, New Hampshire, Rhode Is- land, Vermont	REGION VI U.S. Environmental Protection Agency First International Building 1201 Elm Street Dallas, Texas 75270	Arkansas, Louisiana, New Mexico, Okla- homa, Texas
REGION II U.S. Environmental Protection Agency 26 Federal Plaza New York, New York 10007	REGION II New Jersey, New York, Virgin Islands, Puerto Rico	REGION VII U.S. Environmental Protection Agency 324 East 11th Street Kansas City, Missouri 64106	Iowa, Kansas, Missou- ri, Nebraska
REGION III U.S. Environmental Protection Agency 6th & Walnut Streets Philadelphia, Pennsylvania 19106	REGION III Delaware, District of Columbia, Maryland, Pennsylvania, Virgini- a, West Virginia	REGION VIII U.S. Environmental Protection Agency 1816 Lincoln Street Denver, Colorado 80203	Colorado, Montana, North Dakota, South Dakota, Utah, Wyo- ming
REGION IV U.S. Environmental Protection Agency 345 Courtland Street, N.E. Atlanta, Georgia 30365	REGION IV Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Caro- lina, Tennessee	REGION IX U.S. Environmental Protection Agency 215 Fremont Street San Francisco, California 94105	Arizona, California, Hawaii, Nevada, Guam, American Samoa, Trust Terri- tories
REGION V U.S. Environmental Protection Agency 230 South Dearborn Street Chicago, Illinois 60604	REGION V Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin	REGION X U.S. Environmental Protection Agency 1200 6th Avenue Seattle, Washington 98101	Alaska, Idaho, Ore- gon, Washington

TABLE 2 – HANDLING CODES

(Reproduced from the Federal Register, Volume 45, No. 98, page 33228.)

Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received

1. Storage

- S01 Container (barrel, drum, etc.)
- S02 Tank
- S03 Waste pile
- S04 Surface impoundment
- S05 Other (specify)

2. Treatment

(a) THERMAL TREATMENT

- T06 Liquid injection incinerator
- T07 Rotary kiln incinerator
- T08 Fluidized bed incinerator
- T09 Multiple hearth incinerator
- T10 Infrared furnace incinerator
- T11 Molten salt destructor
- T12 Pyrolysis
- T13 Wet air oxidation
- T14 Calcination
- T15 Microwave discharge
- T16 Cement kiln
- T17 Lime kiln
- T18 Other (specify)

(b) CHEMICAL TREATMENT

- T19 Absorption mound
- T20 Absorption field
- T21 Chemical fixation
- T22 Chemical oxidation
- T23 Chemical precipitation
- T24 Chemical reduction
- T25 Chlorination
- T26 Chlorinolysis
- T27 Cyanide destruction
- T28 Degradation
- T29 Detoxification
- T30 Ion exchange
- T31 Neutralization
- T32 Ozonation
- T33 Photolysis
- T34 Other (specify)

(c) PHYSICAL TREATMENT

(1) Separation of Components

- T35 Centrifugation
- T36 Clarification
- T37 Coagulation
- T38 Decanting
- T39 Encapsulation
- T40 Filtration
- T41 Flocculation
- T42 Flotation
- T43 Foaming
- T44 Sedimentation
- T45 Thickening
- T46 Ultrafiltration
- T47 Other (specify)

(2) Removal of Specific Components

- T48 Adsorption-molecular sieve
- T49 Activated carbon
- T50 Blending
- T51 Catalysis
- T52 Crystallization
- T53 Dialysis
- T54 Distillation
- T55 Electrodialysis
- T56 Electrolysis
- T57 Evaporation
- T58 High gradient magnetic separation
- T59 Leaching
- T60 Liquid ion exchange
- T61 Liquid extraction
- T62 Reverse osmosis
- T63 Solvent recovery
- T64 Stripping
- T65 Sand filter
- T66 Other (specify)

(d) BIOLOGICAL TREATMENT

- T67 Activated sludge
- T68 Aerobic lagoon
- T69 Aerobic tank
- T70 Anaerobic lagoon
- T71 Composting
- T72 Septic tank
- T73 Spray irrigation
- T74 Thickening filter
- T75 Trickling filter
- T76 Waste stabilization pond
- T77 Other (specify)
- T78-79 (Reserved)

3. Disposal

- D80 Underground injection
- D81 Landfill
- D82 Land treatment
- D83 Ocean disposal
- D84 Surface impoundment (to be closed as a landfill)
- D85 Other (specify)

Appendix G
Draft Letter to IUs

Dear [POTW Customer]:

We are writing to you to advise you that your facility, [insert name], may be subject to solid or hazardous waste management requirements pursuant to the Federal Resource Conservation and Recovery Act (PL 94-580 as amended) and State hazardous waste management regulations.

The enclosed general material describes Federal [and State] requirements for hazardous waste generators and transporters. This packet includes descriptions of hazardous waste management requirements which may apply to your operation, if it involves generating or transporting hazardous waste. It also contains EPA-approved [or State-approved] forms which you will need to fulfill these requirements.

In order to ensure that your operations comply with Federal, State, and local hazardous waste management regulations, please consult [name, address, and phone number of local, State, or EPA Regional hazardous waste authority] to determine all specific requirements that apply to your operation.

Sincerely yours,

[Responsible POTW Official]

Appendix H
EPA Pamphlets on
Small Quantity Generators



EPA Requirements for Small Quantity Hazardous Waste Generators

Questions and Answers

In 1976, Congress enacted the Resource Conservation and Recovery Act (RCRA) to protect human health and the environment from improper waste management practices. In issuing hazardous waste regulations under RCRA, the Environmental Protection Agency (EPA) first focused on those large generators who produce the greatest portion of the hazardous waste. Regulations EPA published on May 19, 1980, exempted "small quantity generators" from most of the hazardous waste requirements. But amendments to RCRA signed into law November 8, 1984, mandate several new requirements for small quantity generators. Here are answers to basic questions arising as a result of the 1984 amendments.

Q. What is a small quantity generator?

A. A "small quantity generator" is a business or organization that produces hazardous waste in quantities less than 1,000 kilograms (approximately 2,200 pounds) per calendar month. There are 600,000 to 650,000 such establishments currently operating in the United States.

Q. Are all small quantity generators affected by the new law?

A. No. The new law will initially affect about 175,000 generators who produce 100 to 1000 kilograms of hazardous waste per month. Generators who produce less than 100 kilograms per month will not be immediately affected by the amendments.

Q. How much hazardous waste is produced by small quantity generators?

A. Altogether, generators of less than 1000 kilograms per month produce about 940,000 metric tons of hazardous waste per year. Generators affected by the new law account for an estimated 700,000 metric tons per year.

Q. What kinds of businesses are likely to be small quantity generators?

A. An EPA survey indicated that nearly 85 percent of the small quantity generators are in nonmanufacturing industries. Vehicle maintenance and construction establishments are the largest

categories covered. Other nonmanufacturing establishments affected include laundries and dry cleaners, photographic processors, equipment repair shops, laboratories, and schools. The other 15 percent of small quantity generators are in manufacturing, primarily metal manufacturing, but also including printing, chemical manufacturing and formulating, furniture manufacturing, and textile manufacturing establishments.

This information is based on a survey conducted by EPA. The survey covered 22 industry categories that were likely to contain a significant number of small quantity generators. EPA estimates that approximately two-thirds of all small quantity generators fall into these 22 industry groups.

Q. What kinds of waste do small quantity generators produce?

A. Some of the most common wastes produced by small quantity generators are:

- spent solvents and chemicals
- chemical wastes produced during manufacturing or industrial processes
- discarded chemical products
- chemical containers and chemical spill residues
- used lead-acid batteries.

Q. How have requirements for small quantity generators changed?

A. Under the May 1980 hazardous waste regulations, small quantity generators have been required only to determine whether or not they produce hazardous waste, and to see that the waste is sent to facilities approved by EPA or a state to manage solid or hazardous waste.

In the 1984 amendments to RCRA, however, Congress directed EPA to publish by March 31, 1986, regulations covering generators of more than 100 but less than 1,000 kilograms of hazardous waste per month. In these regulations, EPA must, at a minimum, require these small quantity generators to see that their hazardous waste is managed at an approved hazardous waste facility.

The new law also specifies that by August 5, 1985, generators of 100 to 1,000 kilograms of hazardous waste per month will be required to complete parts of the Uniform Hazardous Waste

Manifest to accompany hazardous waste they ship off their premises. The Manifest is a specific form EPA requires all regulated hazardous waste generators to use when they ship hazardous waste. Use of the Manifest also satisfies Department of Transportation (DOT) requirements for shipment of hazardous materials.

As of August 5, 1985, affected small quantity generators will be required to complete the following information on the Manifest:

- name, address, and signature of the generator
- DOT shipping name, hazard class, and waste identification number
- number and type of containers
- quantity of hazardous waste being transported
- name and address of facility designated to receive the hazardous waste.

Q. What if EPA does not promulgate final regulations by the March 31, 1986, deadline?

A. The 1984 amendments include a number of provisions that will automatically become effective April 1, 1986, if EPA does not publish final rules before that date:

- Generators of 100 to 1,000 kilograms of waste per calendar month must continue to complete the Uniform Manifest and include the name of the waste transporter in addition to the other information required.
- Treatment, storage, and disposal of waste produced by these generators must occur at a "Subtitle C facility"—that is, a facility authorized under Subtitle C by EPA or a state to treat, store, or dispose of hazardous waste.
- A copy of each manifest must be signed by the facility designated to receive the waste, and returned to the generator, who must keep it on file for 3 years.
- Manifest Exception Reports must be filed with EPA twice a year. A generator who has not received a signed copy of the Uniform Manifest from the designated facility confirming its receipt of a waste shipment must list such "lost shipments" on the manifest Exception Report.

These provisions do not necessarily reflect the standards that EPA is required to develop for small

quantity generators under the 1984 amendments. Those regulations will be proposed in the *Federal Register* in the summer of 1985.

Q. Do provisions taking effect August 5, 1985, require the use of approved hazardous waste transporters or disposal facilities by affected small quantity generators?

A. No. The August 1985 requirement for these generators to complete parts of the Uniform Hazardous Waste Manifest still allows them to send wastes to either an authorized hazardous waste facility or to a facility approved by the state to manage nonhazardous solid waste, such as a sanitary landfill. In reality, however, small quantity generators may find that only hazardous waste transporters and hazardous waste facilities are willing to accept waste that is accompanied by a Manifest. If this is the case, state hazardous waste offices should be able to provide lists of licensed transporters and hazardous waste facilities to help small quantity generators locate these services.

By March 31, 1986, or by the date that new regulations issued by EPA become effective, small quantity generators will be required to treat, store or dispose of their hazardous waste at an authorized hazardous waste (Subtitle C) facility. (Certain wastes, principally used lead-acid batteries, will continue to remain exempt from most RCRA requirements if they are recycled.)

Q. How can small quantity generators determine if they produce the kinds or quantities of waste that make them subject to the 1984 amendments?

A. Generators must first determine whether they produce hazardous waste. EPA considers a waste hazardous if (1) it has any one of four characteristics (ignitability, reactivity, corrosivity, toxicity) that make it dangerous to human health and the environment after it is discarded; or (2) it is listed among the approximately 400 substances EPA has determined to be hazardous.

EPA's hazardous waste regulations are explained in detail in the *Code of Federal Regulations (CFR)* at 40 CFR Parts 260-266. If the *Code of Federal Regulations* is not available for reference, contact one or more of the following for information:

- EPA's RCRA Hotline: 800-424-9346 (382-3000 in the Washington, DC, area)
- EPA's Small Business Hotline: 800-368-5888
- EPA Regional Offices (see list below)
- national or regional trade associations

In ALL cases, generators should contact their state agency responsible for hazardous waste management for information on state requirements.

Q. How can generators obtain copies of the Uniform Manifest?

A. Small quantity generators should first check with their state agency responsible for hazardous waste management since 22 states require use of their own versions of the Uniform Manifest and may require additional information, such as generator identification numbers or the name of the waste hauler. EPA regional offices (see list below) may be able to assist small quantity generators in obtaining the proper manifest form. If no state manifest is required, the manifest may be photocopied from the *Federal Register* of March 20, 1984, or purchased from some commercial printers.

Q. What requirements do states impose on small quantity generators?

A. State requirements may be stricter than federal requirements for small quantity generators. For example, 15 states (California, Illinois, Kansas, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Missouri, New Hampshire, New Jersey, Rhode Island, South Carolina, Vermont, and Washington) already require generators of under 1,000 kilograms per calendar month to manifest their waste and ship it only to authorized hazardous waste management facilities. Four states (California, Louisiana, Minnesota, and Rhode Island) have no small quantity generator exemptions and, therefore, currently regulate all generators of hazardous waste. Other states have differing exclusion levels. Firms that think they may be generators of hazardous waste are strongly encouraged to contact their state hazardous waste management agency for information on the requirements.

Q. Where can small quantity generators get further information or assistance?

A. Generators should contact their state hazardous waste offices for information on requirements they must meet.

For questions on the RCRA amendments or federal hazardous waste regulations in general, generators may contact their EPA regional office (see list below) or EPA's toll-free RCRA Hotline, 800-424-9346; in Washington, DC, 382-3000. Small quantity generators may also wish to contact EPA's Small Business Hotline: 800-368-5888.

EPA Regional Offices

EPA Region 1

JFK Federal Building
Boston, MA 02203
(617) 223-7210
Connecticut, Massachusetts,
Maine, New Hampshire,
Rhode Island, Vermont

EPA Region 2

26 Federal Plaza
New York, NY 10007
(212) 264-2525
New Jersey, New York,
Puerto Rico, Virgin Islands

EPA Region 3

6th and Walnut Streets
Philadelphia, PA 19106
(215) 597-9800
Delaware, Maryland,
Pennsylvania, Virginia,
West Virginia, District of Columbia

EPA Region 4

345 Courtland Street NE
Atlanta, GA 30365
(404) 881-4727
Alabama, Florida, Georgia,
Kentucky, Mississippi,
North Carolina, South
Carolina, Tennessee

EPA Region 5

230 South Dearborn Street
Chicago, IL 60604
(312) 353-2000
Illinois, Indiana,
Michigan, Minnesota,
Ohio, Wisconsin

EPA Region 6

1201 Elm Street
Dallas, TX 75270
(214) 767-2600
Arkansas, Louisiana,
New Mexico, Oklahoma,
Texas

EPA Region 7

726 Minnesota Avenue
Kansas City, MO 66101
(913) 236-2600
Iowa, Kansas, Missouri,
Nebraska

EPA Region 8

1800 Lincoln Street
Denver, CO 80295
(303) 837-3895
Colorado, Montana,
North Dakota, South
Dakota, Utah, Wyoming

EPA Region 9

215 Fremont Street
San Francisco, CA 94105
(415) 974-8153
Arizona, California, Hawaii,
Nevada, American Samoa, Guam,
Trust Territories of the Pacific

EPA Region 10

1200 Sixth Avenue
Seattle, WA 98101
(206) 442-5810
Alaska, Idaho, Oregon,
Washington

EPA **Small Quantity
Hazardous Waste
Generators**

**The
New RCRA
Requirements**

On November 8, 1984, amendments were enacted strengthening the Resource Conservation and Recovery Act (RCRA), the federal law which protects human health and the environment from improper waste management practices. This new legislation—the Hazardous and Solid Waste Amendments—makes many changes in the national program which regulates hazardous waste from the time it is generated to its final disposition. The program is administered by the U.S. Environmental Protection Agency (EPA) through its Office of Solid Waste.

One of the new RCRA provisions directs EPA to promulgate regulations for the generators of small quantities of hazardous waste. Previously, EPA regulated only those establishments generating more than 1,000 kilograms (2,200 pounds) of hazardous waste per month. Under the new law, establishments that generate 100 kilograms (220 pounds, or roughly half a 55-gallon drum) but less than 1,000 kilograms in a calendar month will have to comply with those requirements which cover the transportation and disposal of hazardous waste.

Newly Regulated Businesses

EPA estimates that the new RCRA will increase the number of federally regulated generators from about 15,000 to well over 100,000 firms. An EPA survey released in March 1985 suggested that more than half of these small quantity generators fall into one of five categories:

- Vehicle maintenance
- Manufacturing and finishing of metals
- Printing
- Photography
- Laundries and dry cleaners

Other industrial categories with a substantial number of small quantity generators are: wood preserving, analytical and clinical laboratories, construction, and pesticide applicators.

The new federal requirements will have their greatest impact on the waste management practices of firms not now regulated by state hazardous waste laws. At least 22 states currently impose some degree of regulation on small quantity generators.

August 1985 Requirements

Starting in August 1985, small quantity generators who ship their hazardous waste off their premises must obtain and fill out parts of a Uniform Hazardous Waste Manifest. This is a form that EPA and the Department of Transportation (DOT) currently require all regulated hazardous waste generators to use when they ship hazardous waste. The manifest provides a way to track a shipment of hazardous waste from its origin to its final disposal.

The manifest must accompany shipments of hazardous waste made after August 5, 1985. The manifest must include:

- The generator's name, address, and signature.
- The DOT description of the waste, including the shipping name, hazard classification, and identification number.
- The number and type of containers.
- The quantity of waste being transported.
- The name and address of the facility designated to receive the waste.

March 31, 1986 Deadline

By March 31, 1986, EPA must issue final regulations that protect human health and environment from small quantities of hazardous waste. At a minimum, the new regulations must:

- Require that hazardous waste from generators of more than 100 kilograms per month must be treated, stored, or disposed of at an approved hazardous waste facility.
- Allow small quantity generators to store waste on the premises of the establishment for up to 180 days without the need for a storage permit. The period may be extended to 270 days for waste that must be transported more than 200 miles, provided that no more than 6,000 kilograms are stored.

If EPA fails to issue final regulations by March 31, 1986, hazardous waste from small quantity generators automatically becomes subject to these minimum requirements.

In addition, for waste shipped off-site, small quantity generators will be required to:

- Include the name of the transporter on the manifest.

-
- Retain manifests signed by the hazardous waste facility for at least 3 years. (The facility will be required to return a copy of the signed manifest to the generator.)
 - Notify EPA at least twice a year of any manifests that are not returned by the facility.

Education/Assistance Program

Because the new RCRA provisions regulate a large number of companies for the first time, EPA is conducting an education/assistance program to alert small quantity generators to their responsibilities under federal law. The program is in two phases, paralleling the two phases in which the new RCRA will be implemented.

For the provisions that must be implemented by August 1985, EPA will:

- Identify potential small quantity generators.
- Provide information—through EPA regional offices, states and trade associations—to help small quantity generators determine if they are affected by the new regulations. This information will identify wastes by product trade names, chemical and slang names, or general descriptions; and will correlate the waste with the appropriate Department of Transportation identification number wherever possible.
- Inform small quantity generators of the need to prepare a Uniform Hazardous Waste Manifest to accompany any waste they ship, and explain how and where to obtain the appropriate manifest form.

For the final regulations—to be issued by March 31, 1986, or that take effect automatically on April 1, 1986, if EPA does not issue final regulations on time—EPA must:

- Alert the small quantity generators to the new regulations and the additional requirements.
- Provide them with complete instructions and industry-specific information that will help them in complying.

To help in carrying out this education/assistance program, EPA is working closely with trade associations, small business organizations, and state and local government organizations.

Appendix I
Biennial Hazardous Waste Report
(EPA Form 8700-13B)

NOTE: As of press time, this 1983 biennial report form was the most current used by EPA. Contact your appropriate State or Regional office with any questions.

**U.S. Environmental Protection Agency
Hazardous Waste
Treatment, Storage, and
Disposal Facility
Report for
1983**

**THIS BOOKLET CONTAINS FORMS AND INSTRUCTIONS FOR COMPLETING
THE 1983 RCRA FACILITY BIENNIAL HAZARDOUS WASTE REPORT.
A RESPONSE IS REQUIRED BY LAW.**

INSTRUCTIONS FOR COMPLETING THE FACILITY
(TSD) BIENNIAL HAZARDOUS WASTE REPORT
(EPA Form 8700-13B)

IMPORTANT: READ ALL INSTRUCTIONS CAREFULLY BEFORE COMPLETING THE BIENNIAL HAZARDOUS WASTE REPORT FORM.

GENERAL INSTRUCTIONS

Who Must File

Owners or operators of facilities that treated, stored, or disposed of federally regulated quantities of hazardous waste at any time during the 1983 calendar year must file a biennial report with EPA. The information requested in this report is required by law (Section 3004 of RCRA).

If your facility did not treat, store, or dispose of regulated quantities of hazardous waste at any time during the 1983 calendar year, you must still file page one of the biennial report form to notify EPA of your non-regulated status (pursuant to Section 3007 of RCRA).

If your installation generated or accumulated regulated quantities of hazardous waste (pursuant to 40 CFR §262.34) during the 1983 calendar year but did not treat, store (for more than 90 days), or dispose of any portion of that waste on-site, you must complete the Generator Report instead of this Facility Report. However, if you filed a Part A permit application with EPA, you must still file page one of this facility report to indicate your non-regulated status (see instructions for Section I). You must complete both a Facility and Generator Report if your installation shipped hazardous waste off-site (or stored for less than 90 days waste generated on-site) and also treated, stored (for more than 90 days), or disposed of hazardous waste on-site. (If you did not receive a copy of the generator report form, it may be obtained by contacting the appropriate EPA Regional Office.)

When and Where To File

The biennial report must be submitted to the appropriate EPA Regional Office (see list of addresses following these instructions) no later than March 1, 1984, and cover activities during the 1983 calendar year (see 48 FR 3977, January 28, 1983). You are subject to enforcement action if you do not file by this date.

What Must Be Reported

All regulated quantities of hazardous waste that were treated, disposed of, or that were received for (or placed in) storage between January 1 and December 31, 1983 must be reported by individual generator on the facility form. The total quantity of waste in storage at your facility as of December 31, 1983, must be reported, by storage method, in Section XIII. Total Waste In Storage.

Only wastes or portions of waste shipments that are regulated as either characteristic or listed hazardous wastes should be reported. The characteristic and listed hazardous wastes are identified in the Appendix that was sent to you along with the biennial report forms. Do not report any wastes that are not regulated as hazardous under the Federal hazardous waste regulations, even if manifested (e.g., PCBs, asbestos, etc.).

If any or all of the waste handled by your facility was delisted (see 40 CFR §§260.20 and 260.22) at some time during the 1983 calendar year, you must still report those wastes for the portion of the year in which they were regulated. Please indicate in the comment section the line numbers of any such waste(s).

Note: If you have not received a RCRA Permit from the USEPA and are located in a State that has received interim authorization to operate its own hazardous waste program, you must comply with State reporting requirements in lieu of the Federal requirements. However, if you have a USEPA RCRA Permit, you must comply with all applicable State and permit requirements. You may be required by a State to report additional wastes or quantities beyond those that are Federally regulated.

INSTRUCTIONS BY SECTION

(Page 1 of Form)

SECTION I. NON-REGULATED STATUS

Complete this section only if your facility did not treat, store (for more than 90 days), or dispose of regulated quantities of hazardous waste on-site at any time during the 1983 calendar year.

Place an X in the box indicating that the facility identified in Section II did not treat, store, or dispose of regulated quantities of hazardous waste during the calendar year 1983. Indicate in the space provided the

reason(s) your facility is no longer subject to regulation (e.g. closed prior to the beginning of the reporting year, do not handle hazardous wastes, etc.).

If you complete Section I, you must also complete Sections II, III, IV, V, VI, and VIII and return the first page of the form to the appropriate EPA Regional Office. Leave all other sections blank.

SECTION II. FACILITY USEPA IDENTIFICATION (I.D.) NUMBER

Enter your facility's 12 digit USEPA identification number here.

SECTION III. NAME OF FACILITY

Enter the name of your facility here.

SECTION IV. FACILITY MAILING ADDRESS

Enter the mailing address of your facility here.

SECTION V. LOCATION OF FACILITY

Enter the location of your facility here, if different from mailing address.

SECTION VI. FACILITY CONTACT

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

SECTION VII. COST ESTIMATES FOR FACILITIES

A. Enter the most recent cost estimate for facility closure in dollars. See Subpart H of 40 CFR Parts 264 or 265 for more detail.

B. For disposal facilities only, enter the most recent cost estimate for post-closure monitoring and maintenance. See Subpart H of 40 CFR Parts 264 or 265 for more detail.

SECTION VIII. CERTIFICATION

The owner or operator of the facility or his authorized representative (in accordance with 40 CFR 260.10) must sign and date the certification where indicated. The printed or typed name and title of the person signing the report must also be included where indicated.

Note: A separate sheet must be used for each generator from whom wastes were received during 1983. If the number of wastes for a given generator exceeds 12, use a separate sheet to report additional wastes. Reproduce additional sheets before making any entries on the form.

SECTION IX. FACILITY'S USEPA (I.D.) NUMBER

Enter the USEPA I.D. number for your facility, again, and on each additional page submitted.

SECTION X. GENERATOR'S USEPA (I.D.) NUMBER

Enter the USEPA identification number of the generator of the waste described under Section XIV which was received by your facility during the 1983 calendar year. If the waste came from a foreign generator, enter the USEPA identification number of the importer in this section and enter the name and address of the foreign generator in Section (XV), Comments. If the waste was generated and treated, stored, or disposed of at the same installation (your facility), enter your USEPA ID number, again.

SECTION XI. GENERATOR'S NAME

Enter the name of the generator corresponding to the generator's USEPA identification number in Section X.

If the waste was generated and treated, stored, or disposed of at the same installation (your facility) enter your facility's name and place an X in the box marked ON-SITE.

If the waste came from a foreign generator, enter the name of the importer corresponding to the USEPA identification number in Section X.

SECTION XII. GENERATOR'S ADDRESS

Enter the address (including Zip Code) of the generator corresponding to the generator's USEPA identification number in Section X. If the waste was generated and treated, stored, or disposed of at the same installation (your facility), leave this section blank. If the waste came from a foreign generator, enter the address of the importer corresponding to the USEPA identification number in Section X.

SECTION XIII. TOTAL WASTE IN STORAGE ON DECEMBER 31, 1983
 (To be completed only once)

For each of the handling codes identified in this section, enter the total quantity of hazardous waste, from all sources, that was in storage at the facility on December 31, 1983. This includes wastes placed into storage both prior to and during the 1983 reporting year. A description of the handling codes for storage (S01, S02, S03, S04, S05) are provided in the table immediately following these instructions. Enter the appropriate unit of measure (UOM) code from the table on page 7 of these instructions. **COMPLETE THIS SECTION ONLY ONCE. DO NOT REPEAT ON SUPPLEMENTAL SHEETS.**

SECTION XIV. WASTE IDENTIFICATION

A separate line entry is required for each different waste or waste mixture that your facility treated, stored, or disposed of during the 1983 calendar year for the generator identified in Section X (or at your facility if on-site).

A. DESCRIPTION OF WASTE

For hazardous wastes that are listed under 40 CFR Part 261, Subpart D (see Appendix), enter the USEPA listed name, abbreviated if necessary. Where mixtures of listed wastes were received, enter the description which you believe best describes the waste.

For unlisted hazardous waste identified by characteristic (i.e., ignitable, corrosive, reactive, or EP Toxic), under 40 CFR Part 261, Subpart C, please include the following: (1) the description from the list of characteristics in the Appendix which you believe best describes the waste; (2) the specific manufacturing or other process generating the waste; and (3) the chemical or generic chemical name of the waste, if known.

Example:

XII. WASTE IDENTIFICATION

Line #	A. Description of Waste	B. EPA Hazardous Waste No. (see instructions)	C. Handling Method	D. Amount of Waste	E. Unit of Measure
1	Ignitable spent solvent used in widget production; mixture of mineral spirits and kerosene	D 0 0 1	T 0 3	2 4 1 5	T
2					

B. EPA HAZARDOUS WASTE NUMBER

For listed waste, enter the four-digit USEPA Hazardous Waste Number from 40 CFR Part 261, Subpart D (see Appendix) which identifies the waste. For unlisted wastes which exhibit hazardous characteristics, enter the four-digit USEPA Hazardous Waste Number from 40 CFR Part 261, Subpart C (see Appendix) which is applicable to the waste.

If the waste contains more than one listed or unlisted waste, enter all of the relevant USEPA Hazardous Waste Numbers. Four spaces are provided for this on each waste line. If more space is needed, continue on the next line(s) and leave all other items on that line blank, as shown by the example below.

Example:

XII. WASTE IDENTIFICATION

Line #	A Description of Waste	B EPA Hazardous Waste No <small>(see instructions)</small>	C Handling Method	D Amount of Waste	E Unit of Measure
1	Chlorinated distillation residues	K016K018 K019K020	T03	14950	T
2		K030			

C. HANDLING CODE

Enter one USEPA handling code for each waste line entry. Where several handling steps have occurred during the year, report only the handling code representing the waste's final disposition or its status at the end of the reporting year, at your facility. For example, a waste intended for eventual land disposal that is in storage at the close of the calendar year should be reported as in storage. Conversely, a waste that was in storage at the beginning of the calendar year but was land disposed at some time during the year should be reported by its disposal code. If a different handling code applies to portions of the same waste (e.g., part of the waste is stored while the remainder was incinerated during the year), use a separate line entry for each portion, as shown in the example below. USEPA handling codes which must be used for this report are contained in the Table immediately following these instructions.

Example:

XII. WASTE IDENTIFICATION

Line #	A. Description of Waste	B. EPA Hazardous Waste No. (see instructions)						C. Handling Method	D. Amount of Waste	E. Unit of Measure
		33	36	37	40	44	45			
1	Ignitable spent solvent used in widget production; mixture of mineral spirits and kerosene	D	0	0	1			T 0 3	2 3 0 0	T
2	Ignitable spent solvent used in widget production; mixture of mineral spirits and kerosene	D	0	0	1			S 0 1	1 1 5	T

D. AMOUNT OF WASTE

Enter the total quantity of the waste or waste mixture described on this line that was received from the generator identified in Section X during this reporting year. "Right justify" your entries. (This means the number you enter in the boxes should be put in the boxes as far to the right as possible.) The example shown above illustrates this form of entry.

E. UNIT OF MEASURE

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

Units of Measure	Code
Pounds.....	P
Short tons (2,000 lbs.).....	T
Kilograms.....	K
Metric Tonnes (1,000 kg.).....	M
Gallons*.....	G
Liters*.....	L

* If these codes are used, you must provide the density (rounded off to the nearest tenth) of each waste, by line number, in the comment section of the page on which that waste is identified.

SECTION XV. COMMENTS

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

NOTE: Enter the page number of each sheet as well as the total number of pages in the lower right hand corner of each page. If the facility receives wastes from various generators, or receives more than 12 wastes from any one generator, additional pages will be required. Reproduce additional pages before making any entries on the form.

REMEMBER TO SIGN THE CERTIFICATION STATEMENT (ITEM VIII).

HANDLING CODES FOR TREATMENT, STORAGE,
AND DISPOSAL METHODS

1. Storage

- S01 Container (barrel, drum, etc.)
- S02 Tank
- S03 Waste Pile
- S04 Surface Impoundment
- S05 Other (specify in comment section)

2. Treatment

- T01 Tank
- T02 Surface Impoundment
- T03 Incinerator
- T04 Other (Use for thermal, biological, chemical, or physical treatment not occurring in tanks, surface impoundments, or incinerators. Specify in comment section.)

3. Disposal

- D79 Injection Well
 - D80 Landfill
 - D81 Land Application
 - D82 Ocean Disposal
 - D83 Surface Impoundment
 - D84 Other (specify in comment section)
-

Claims of Business Confidentiality

You may not withhold information from the Administrator or his authorized representatives because it is confidential. However, when the Administrator is requested to consider information confidential, he is required to treat it accordingly if disclosure would divulge methods or processes entitled to protection as trade secrets. EPA's regulations concerning confidentiality of business information are contained in Title 40 of the Code of Federal Regulations, Part 2, Subpart B. These regulations provide that a business may, if it desires, assert a claim of business confidentiality covering all or part of the information furnished to EPA. Section 2.203(b) tells how to assert a claim. The Agency will treat information covered by such a claim in accordance with the procedures set forth in the Subpart B regulations. If someone requests release of information covered by a claim of confidentiality or if the Agency otherwise decides to make a determination as to whether such information is entitled to confidential treatment, we will notify the business. EPA will not disclose information as to when a claim of confidentiality has been made except to the extent and in accordance with 40 CFR Part 2, Subpart B. If, however, the business does not claim confidentiality when it furnishes information to EPA, we may make the information available to the public without notice to the business.

FOR ADDITIONAL INFORMATION, CONTACT:

U.S. EPA Region II
Permits Administration Branch
Room 432 2PM-P A-H
26 Federal Plaza
New York, New York 10007
(212) 264-0503

RCRA Activities
EPA Region V
P.O. Box A-3587
Chicago, Illinois 60690
(312) 886-6148

EPA Region VIII
Waste Management Branch (8AW-WM)
1860 Lincoln St.
Denver, Colorado 80295
(303) 837-6238 or 837-6258

U.S. EPA
Region 9, T-2-2
215 Fremont Street
San Francisco, Calif. 94105
(415) 974-7472

EPA Region 10, M/S 530
1200 6th Ave.
Seattle, Washington 98101
(206) 442-2859

RCRA/Superfund Hotline: (800) 424-9346 (toll-free) or
(202) 382-3000 (in Washington, D.C.)

Do not make entries in shaded areas

ENVIRONMENTAL PROTECTION AGENCY

Facility Biennial Hazardous Waste Report for 1983 (cont.)

This report is for the calendar year ending December 31, 1983.

Date rec'd: _____ Rec'd by: _____

XI. GENERATOR NAME (specify generator from whom all wastes on this page were received)

IX. FACILITY'S EPA I.D. NO. _____ TAG

ON-SITE

F1 _____ 13 14 15

XII. GENERATOR ADDRESS

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

G1 _____ 16 _____ 28

XIII. TOTAL WASTE IN STORAGE ON DECEMBER 31, 1983 (complete this section only once for your facility)

S01 _____ AMOUNT OF WASTE UOM S02 _____ AMOUNT OF WASTE UOM S03 _____ AMOUNT OF WASTE UOM
 S04 _____ AMOUNT OF WASTE UOM S05 _____ AMOUNT OF WASTE UOM

XIV. WASTE IDENTIFICATION

LINE #	A Description of Waste	B EPA Hazardous Waste No. (see instructions)			C Handling Method	D Amount of Waste	E Unit of Measure
		33 36 37 40	41 44 45 48 49 51 52	60 61			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

XV. COMMENTS (enter information by section number—see instructions)