United States
Environmental Protection
Agency

Solid Waste and
Emergency Response
(5305)

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September 1986

EPA

Understanding the Small Quantity Generator Hazardous Waste Rules:

A Handbook for Small Business

In 1976, Congress passed the Resource Conservation and Recovery Act (RCRA) which directed the U.S. Environmental Protection Agency (EPA) to develop and implement a program to protect human health and the environment from improper hazardous waste management practices. The program is designed to control the management of hazardous waste from its generation to its ultimate disposal—from "cradle-to-grave."

EPA first focused on large companies, which generate the greatest portion of hazardous waste. Business establishments producing less than 1000 kilograms (2,200 pounds) of hazardous waste in a calendar month (known as small quantity generators) were exempted from most of the hazardous waste management regulations published by EPA in May 1980.

In recent years, however, public attention has been focused on the potential for environmental and health problems that may result from mismanaging even small quantities of hazardous waste. For example, small amounts of hazardous waste dumped on the land may seep into the earth and contaminate underground water that supplies drinking water wells.

In November 1984, the Hazardous and Solid Waste Amendments to RCRA were signed into law. With these amendments, Congress directed EPA to establish new requirements that would bring small quantity generators who generate between 100 and 1000 kilograms (kg) of hazardous waste in a calendar month into the hazardous waste regulatory system. EPA issued final regulations for these 100 to 1000 kg/mo generators on March 24, 1986. Most of the requirements are effective September 22, 1986.

PAY ATTENTION TO THESE DATES!

September 22, 1986

Most of the new rules for small quantity generators of hazardous waste become effective. Noncompliance may lead to fines and legal action.

March 24, 1987

Small quantity generators that decide to store hazardous waste for longer than six months, perform certain kinds of waste treatment, or dispose of hazardous waste on their property must apply for a RCRA permit and comply with additional rules. (See Chapter 4)

ABOUT THIS HANDBOOK

This handbook was prepared by the U.S. Environmental Protection Agency (EPA) to help small business owners and managers understand how the federal hazardous waste management laws may affect their businesses.

The information in this handbook will help you determine whether your business is a regulated small quantity generator of hazardous waste. Specific information is provided to help you understand how to:

- Obtain a U.S. EPA Identification Number.
- Use the Uniform Hazardous Waste Manifest system when shipping hazardous waste off-site.
- Select hazardous waste transporters who have U.S. EPA Identification Numbers.
- Accumulate hazardous waste on-site for no more than 180 days, or 270 days if the waste is to be shipped more than 200 miles, without obtaining a hazardous waste storage permit.
- Ensure that hazardous waste is managed at a hazardous waste facility with interim status or a permit under RCRA.

The chapters in this handbook describe these new requirements, and provide some step-by-step instructions to help you meet your responsibilities as a small quantity generator of hazardous wastes.

This handbook presents a description of the federal regulations only. You should be sure to contact your state hazardous waste management agency for additional help and information on state requirements. Telephone numbers for state hazardous waste management agencies are listed in Appendix A.

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DOES YOUR BUSINESS GENERATE HAZARDOUS WASTE?

What is a Hazardous Waste?

A waste is any solid, liquid, or contained gaseous material that you no longer use, and either recycle, throw away, or store until you have enough to treat or dispose of.

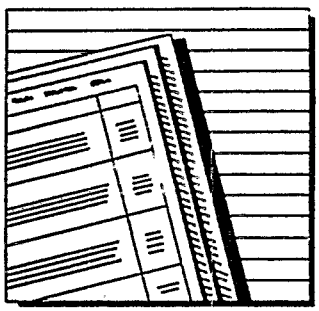
As a result of doing business, a company may generate wastes that can cause serious problems if not handled and disposed of carefully. Such wastes could:

- cause injury or death; or
- damage or pollute land, air, or water.

These wastes are considered ***hazardous,*** and they are currently regulated by federal and state public health and environmental safety laws.

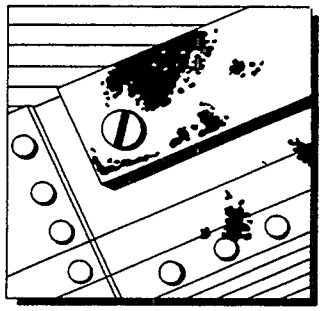
There are two ways a waste may be brought into the hazardous waste regulatory system: ***listing,*** and identification through ***characteristics.***

- ***Listed wastes.*** Your waste is considered hazardous if it appears on any one of the four lists of hazardous wastes contained in the RCRA regulations. These wastes have been listed because they either exhibit one of the characteristics described below or contain any number of toxic constituents that have been shown to be harmful to health and the environment. The regulations list over 400 hazardous wastes, including wastes derived from manufacturing processes and discarded commercial chemical products. Many of the listed hazardous wastes that you are likely to generate are included in Appendix B of this handbook.



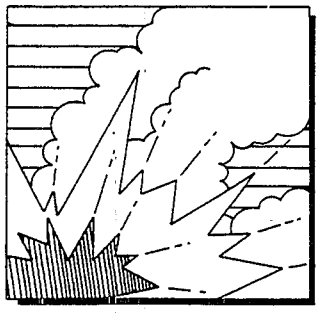
- ***Characteristic wastes.*** Even if a waste does not appear on one of the EPA lists, it is considered hazardous if it has one or more of the following characteristics:

It is easily combustible or flammable. This is called an ***ignitable*** waste. Examples are paint wastes, certain degreasers, or other solvents.

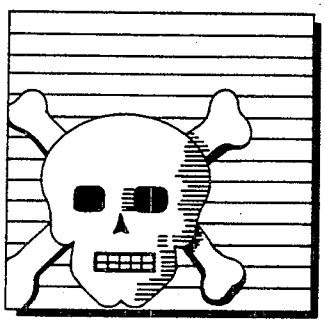


It dissolves metals, other materials, or burns the skin. This is called a ***corrosive*** waste. Examples are waste rust removers, waste acid or alkaline cleaning fluids, and waste battery acid.

It is unstable or undergoes rapid or violent chemical reaction with water or other materials. This is called a ***reactive*** waste. Examples are cyanide plating wastes, waste bleaches, and other waste oxidizers.



A waste sample is tested and shows EP (extraction procedure) toxicity. Wastes are ***EP toxic*** if an extract from the waste is tested and found to contain high concentrations of heavy metals (such as mercury, cadmium, or lead) or specific pesticides that could be released into the ground water.



Your industry may generate other hazardous wastes beyond the examples mentioned above. It is **your responsibility** to determine whether your wastes are hazardous. If you need assistance, call one of the sources of information listed below in Table 1. A list of the typical hazardous wastes for your industry is also provided in Table 2.

See Appendix A for a complete list of EPA regional offices and state hazardous waste management agencies.

TABLE 1

While the rules and regulations for managing hazardous waste are complex, help is available.

For more information, call:

- Your state hazardous waste management agency (See Appendix A)
- Your EPA regional office (See Appendix A)
- The RCRA/Superfund Hotline – 1-800-424-9346 (In Washington, D.C.: 382-3000)
- EPA's Small Business Ombudsman Hotline – 1-800-368-5888 (In Washington, D.C.: 557-1938)
- Your national trade association or its local chapter

Acutely Hazardous Wastes

Some wastes are considered to be "acutely hazardous." These are wastes that EPA has determined to be so dangerous in small amounts that they are regulated the same way as are large amounts of other hazardous wastes. Acutely hazardous wastes, for example, may be generated using certain pesticides. They also include dioxin-containing wastes.

Wastes that appear in Appendix B with an asterisk (*) have been designated acutely hazardous. If your business generates more than 1 kg (approximately 2.2 pounds) of acutely hazardous wastes in a calendar month or stores more than that amount for any period of time, you are subject to all of the regulations that apply to generators that generate more than 1000 kilograms of hazardous waste per calendar month. Contact one of the sources of information listed in Appendix A for more information about acutely hazardous wastes.

TABLE 2

TYPICAL WASTE STREAMS GENERATED BY SMALL QUANTITY GENERATORS*

Type of Business	Types of Hazardous Wastes Generated
Building Cleaning and Maintenance	Acids/Bases Solvents
Chemical Manufacturers	Acids/Bases Cyanide Wastes Heavy Metals/Inorganics Ignitable Wastes Reactives Solvents
Cleaning Agents and Cosmetics	Acids/Bases Heavy Metals/Inorganics Ignitable Wastes Pesticides Solvents
Construction	Acids/Bases Ignitable Wastes Solvents
Educational and Vocational Shops	Acids/Bases Ignitable Wastes Pesticides Reactives Solvents
Equipment Repair	Acids/Bases Ignitable Wastes Solvents
Formulators	Acids/Bases Cyanide Wastes Heavy Metals/Inorganics Ignitable Wastes Pesticides Reactives Solvents
Funeral Services	Solvents Formaldehyde
Furniture/Wood Manufacturing and Refinishing	Ignitable Wastes Solvents

**Additional information on typical waste streams is found in Appendix B of this handbook.*

TABLE 2

TYPICAL WASTE STREAMS GENERATED BY SMALL QUANTITY GENERATORS*

(continued)

Type of Business	Types of Hazardous Wastes Generated
Laboratories	Acids/Bases Heavy Metals/Inorganics Ignitable Wastes Reactives Solvents
Laundries and Dry Cleaners	Dry Cleaning Filtration Residues Solvents
Metal Manufacturing	Acids/Bases Cyanide Wastes Heavy Metals/Inorganics Ignitable Wastes Reactives Solvents Spent Plating Wastes
Motor Freight Terminals and Railroad Transportation	Acids/Bases Heavy Metals/Inorganics Ignitable Wastes Lead-Acid Batteries Solvents
Other Manufacturing: 1) Textiles 2) Plastics 3) Leather	Heavy Metals/Inorganics Solvents
Pesticide End Users and Application Services	Heavy Metals/Inorganics Pesticides Solvents
Printing and Allied Industries	Acids/Bases Heavy Metals/Inorganics Ink Sludges Spent Plating Wastes Solvents
Vehicle Maintenance	Acids/Bases Heavy Metals/Inorganics Ignitable Wastes Lead-Acid Batteries Solvents
Wood Preserving	Preserving Agents

**Additional information on typical waste streams is found in Appendix B of this handbook.*

Categories of Hazardous Waste Generators

In March 1986, the federal rules for hazardous waste management were modified to bring businesses that generate small amounts of hazardous waste into the regulatory system. Previously, these small quantity generators that generate less than 1000 kilograms (or about 2,200 pounds) of hazardous waste in a calendar month had been exempt from most hazardous waste regulations.

The 1986 rules set new requirements specifically for those generators that generate between 100 and 1000 kilograms of hazardous waste in a calendar month. Consequently, there are three categories of hazardous waste generators, shown in Table 3: (1) generators of no more than 100 kilograms/month (also known as conditionally-exempt small quantity generators); (2) 100 to 1000 kilograms/month (kg/mo) small quantity generators; and (3) generators of 1000 kilograms or more in a month.

Determining Your Generator Category

To determine which category of hazardous waste generator your business falls into—and what requirements you must meet—you must measure or "count" the hazardous wastes your business generates in a calendar month. In general, you must add up the weight of all the hazardous wastes your business generates during a month; the total weight will determine your generator category. Table 4 summarizes the kinds of wastes you must count and wastes you do not count when you determine your generator status.

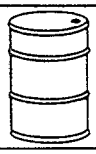
When you begin to count your hazardous wastes each month, it may be confusing at first to determine what kinds of hazardous wastes you generate and how much. If you have questions, call the EPA RCRA/Superfund Hotline or your state hazardous waste management agency listed in Appendix A.

If you decide to accumulate hazardous waste until you have collected enough to make transport to a licensed hazardous waste management facility more economical, make sure that:

- You accumulate no more than 6000 kg of hazardous waste **in any 180 day period** (270 days are allowed if you must transport your waste over 200 miles to a licensed hazardous waste facility) if you are a 100-1000 kg/mo generator. Otherwise, you will need to obtain a special storage permit.
- You accumulate no more than 1000 kg of hazardous waste **at any time** if you are a generator of no more than 100 kg/mo.

TABLE 3

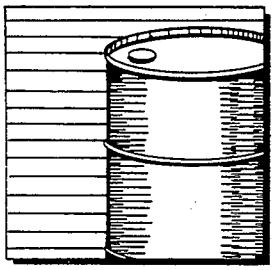
CATEGORIES OF HAZARDOUS WASTE GENERATORS

KEY:  *= 1 barrel = about 200 kilograms of hazardous waste which is about 55 gallons*

Generators of No More Than 100 kg/mo

If you generate no more than 100 kilograms (about 220 pounds or 25 gallons) of hazardous waste and no more than 1 kg (about 2 pounds) of acutely hazardous waste in any calendar month, you are a conditionally-exempt small quantity generator and the federal hazardous waste laws require you to:

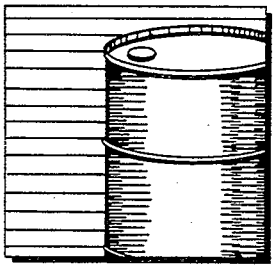
- Identify all hazardous waste you generate.
- Send this waste to a hazardous waste facility, or a landfill or other facility approved by the state for industrial or municipal wastes.
- Never accumulate more than 1000 kg of hazardous waste on your property. (If you do, you become subject to all the requirements applicable to 100-1000 kg/mo generators explained in this handbook.)

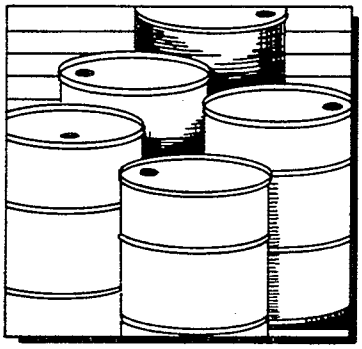


100-1000 kg/mo Generators

If you generate more than 100 and less than 1000 kg (between 220 and 2,200 pounds or about 25 to under 300 gallons) of hazardous waste and no more than 1 kg of acutely hazardous waste in any month, you are a 100-1000 kg/mo generator and the federal hazardous waste laws require you to:

- Comply with the 1986 rules for managing hazardous waste, including the accumulation, treatment, storage, and disposal requirements described in this handbook.





Generators of 1000 kg/mo or More

If you generate 1000 kg (about 2,200 pounds or 300 gallons) or more of hazardous waste, or more than 1 kg of acutely hazardous waste in any month, you are a generator of 1000 kg/mo or more and the federal hazardous waste laws require you to:

- Comply with *all* applicable hazardous waste management rules.

TABLE 4

COUNTING YOUR HAZARDOUS WASTE

Do Count	Don't Count
You do count all quantities of "Listed" and "Characteristic" hazardous wastes as defined on page 2 that you: ▶ Accumulate on-site for any period of time prior to subsequent management. ▶ Package and transport off-site. ▶ Place directly in a regulated on-site treatment or disposal unit. ▶ Generate as still bottoms or sludges and remove from product storage tanks.	You do not have to count wastes that: ▶ Are specifically exempted from counting. Examples of these exempted wastes are: • spent lead-acid batteries that will be sent off-site for reclamation. • used oil that has not been mixed with hazardous waste. ▶ May be left in the bottom of containers that have been completely emptied through conventional means, for example, by pouring or pumping. Containers that held an acute hazardous waste must be more thoroughly cleaned. ▶ Are left as residue in the bottom of product storage tanks, if the residue is not removed from the product tank. ▶ You reclaim continuously on-site without storing the waste prior to reclamation, such as dry cleaning solvents. (You *do* have to count any residue removed from the machine as well as spent cartridge filters.) ▶ You manage in an elementary neutralization unit, a totally enclosed treatment unit, or a wastewater treatment unit. An elementary neutralization unit is a regulated tank, container, or transport vehicle (including ships) which is designed to contain and neutralize corrosive wastes. ▶ Are discharged directly to a publicly-owned treatment works (POTW) without being stored or accumulated first. This discharge to a POTW must comply with the Clean Water Act. POTWs are public utilities, usually owned by the city, county, or state, that treat industrial and domestic sewage for disposal. ▶ You have already counted once during the calendar month, and treated on-site or reclaimed in some manner, and used again.

Changing Generator Categories

Under the federal hazardous waste management system, you may be regulated under different rules at different times, depending on the amount of hazardous waste you generate in a given month. For example, if in June, you generate 100 kg or less of hazardous waste, you would be a conditionally-exempt small quantity generator for June. If, in July, your waste totals more than 100 kg but less than 1000 kg, your status changes and your July wastes would be subject to the requirements for 100-1000 kg/mo generators. If in September you generate 1000 kg or more of hazardous waste, your September waste would be subject to all applicable hazardous waste management regulations, as would all other hazardous waste you generated in previous months and mixed with your September wastes.

If, after counting your wastes, you have determined that you never generate more than 100 kg/mo of hazardous waste, you need not read the following chapters. As a conditionally-exempt small quantity generator, you must:

- Identify your wastes as hazardous.
- Dispose of them in a hazardous waste facility, or a landfill or other facility approved by the State for industrial or municipal wastes.
- Never accumulate more than 1000 kg of hazardous waste at your facility, or you become subject to all of the requirements for 100-1000 kg/mo generators.

If, however, you **do** generate between 100 and 1000 kg of hazardous waste in a month, the remainder of this handbook will explain what you must do to handle your hazardous wastes **safely** and **legally**.

Remember, many states have different generator categories and requirements. If you have any questions about your generator status, call your state agency (See Appendix A) for assistance.

OBTAINING A U.S. EPA IDENTIFICATION NUMBER

THE THREE MOST IMPORTANT THINGS YOU SHOULD KNOW ABOUT OBTAINING YOUR EPA ID NUMBER

1. ***Call your state agency or EPA regional office to get a notification form.***
2. ***Fill out the form and sign it.***
3. ***Send the form to the hazardous waste contact listed for your state.***

If your business generates more than 100 kg of hazardous waste in any calendar month, you will need to obtain a U.S. EPA Identification Number. Transporters and facilities that store, treat, or dispose of regulated quantities of hazardous waste must also have U.S. EPA Identification Numbers. These twelve-character identification numbers used by EPA and states are part of a national data base on hazardous waste activities.

To obtain your U.S. EPA Identification Number:

▶ Call or write your state hazardous waste management agency or EPA regional office (see Appendix A) and ask for a copy of EPA Form 8700-12, "Notification of Hazardous Waste Activity." You will be sent a booklet containing the two-page form and instructions for filling it out. Figure 1 provides a sample copy of a completed notification form to show you the kind of information required. (Note: A few states use a form that is different from the form shown in Figure 1. Your state will send you the appropriate form to complete.)

▶ Fill in the form with the same kinds of information shown in the sample form in Figure 1. This information covers your "installation" (your business site) and your hazardous wastes. To complete Item X of the form, you need to identify your hazardous waste by the EPA hazardous waste number. **Appendix B** contains some common waste types generated by small quantity generators, along with their EPA hazardous waste numbers. If you do not understand the information in Appendix B, or if you cannot match your wastes with those listed, seek help from one of the sources listed in Appendix A.

▶ Complete one copy of the form for each of your plant sites or business locations where you generate or handle hazardous wastes. Each site or location will receive its own U.S. EPA Identification Number.

▶ Make sure your form is filled out completely and correctly and sign the certification in Item XI. Send the form to your state hazardous waste contact. This address is listed in the information booklet you received with the form.

This information will be recorded by EPA and the state, and you will be assigned a U.S. EPA Identification Number. This number will be unique to the site identified on your form. Use this number on all hazardous waste shipping papers.

The U.S. EPA Identification Number will stay with the business site or location. If you move your business to another location, you must notify EPA or the state of your new location and submit a new form. If hazardous waste was previously handled at the new location, and it already has a U.S. EPA Identification Number, you will be assigned that number for the site after you have notified EPA.

FIGURE 1

SAMPLE "NOTIFICATION OF HAZARDOUS WASTE ACTIVITY" FORM*

Form Approved OMB No 2050-0028 Expires 9-30-88
GSA No 0246-EPA-OT

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

United States Environmental Protection Agency
Washington, DC 20460

EPA **Notification of Hazardous Waste Activity**

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

For Official Use Only

Comments

C
C

Installation's EPA ID Number	Approved	Date Received (yr. mo. day)
C F T/A C 1		

I. Name of Installation

GENERAL METAL PROCESSING CO

II. Installation Mailing Address

Street or P.O. Box

C 3 501 MAIN ST

City or Town	State	ZIP Code
C 4 SMALLTOWN	VA	23000

III. Location of Installation

Street or Route Number

C 5 501 MAIN ST

City or Town	State	ZIP Code
C 6 SMALLTOWN	VA	23000

IV. Installation Contact

Name and Title *(last, first, and job title)*	Phone Number *(area code and number)*
C 2 JONES WILLIAM MANGR	804 555 0509

V. Ownership

A. Name of Installation's Legal Owner	B. Type of Ownership *(enter code)*
C R DOE JOSEPHINE	P

VI. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions.)*

A. Hazardous Waste Activity

- [X] 1a. Generator
- [X] 1b. Less than 1,000 kg/mo.
- [ ] 2. Transporter
- [ ] 3. Treater/Storer/Disposer
- [ ] 4. Underground Injection
- [ ] 5. Market or Burn Hazardous Waste Fuel *(enter 'X' and mark appropriate boxes below)*
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [ ] c. Burner

B. Used Oil Fuel Activities

- [ ] 6. Off-Specification Used Oil Fuel *(enter 'X' and mark appropriate boxes below)*
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [ ] c. Burner
- [ ] 7. Specification Used Oil Fuel Marketer *(or On site Burner)* Who First Claims the Oil Meets the Specification

VII. Waste Fuel Burning: Type of Combustion Device *(enter 'X' in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.)*

[ ] A. Utility Boiler [ ] B. Industrial Boiler [ ] C. Industrial Furnace

VIII. Mode of Transportation *(transporters only — enter 'X' in the appropriate box(es)*

[ ] A. Air [ ] B. Rail [ ] C. Highway [ ] D. Water [ ] E. Other *(specify)*

IX. 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 ID Number in the space provided below.

[X] A. First Notification [ ] B. Subsequent Notification *(complete item C)*

C. Installation's EPA ID Number

EPA Form 8700-12 (Rev. 11-85) Previous edition is obsolete.

Continue on reverse

**Instructions for filling out this form are provided, along with the form, by EPA. Additional information is found in Appendix B of this handbook.*

FIGURE 1

SAMPLE "NOTIFICATION OF HAZARDOUS WASTE ACTIVITY" FORM*

(Continued)

ID — For Official Use Only			
C		T/A	C
W			1

X. Description of Hazardous Wastes *(continued from front)*

A. Hazardous Wastes from Nonspecific Sources. Enter the four-digit number from 40 *CFR* Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
F008	F011				
7	**8**	**9**	**10**	**11**	**12**

B. Hazardous Wastes from Specific Sources. Enter the four-digit number from 40 *CFR* Part 261.32 for each listed hazardous waste from specific sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
K069					
19	**20**	**21**	**22**	**23**	**24**
25	**26**	**27**	**28**	**29**	**30**

C. Commercial Chemical Product Hazardous Wastes. Enter the four-digit number from 40 *CFR* Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	**38**	**39**	**40**	**41**	**42**
43	**44**	**45**	**46**	**47**	**48**

D. Listed Infectious Wastes. Enter the four-digit number from 40 *CFR* Part 261.34 for each hazardous waste from hospitals, veterinary hospitals, or medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles *(See 40 CFR Parts 261.21 — 261.24)*

- [X] 1. Ignitable *(D001)*
- [ ] 2. Corrosive *(D002)*
- [ ] 3. Reactive *(D003)*
- [ ] 4. Toxic *(D000)*

XI. Certification

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

Signature	Name and Official Title *(type or print)*	Date Signed
Josephine K. Doe	JOSEPHINE DOE OWNER	6/1/86

EPA Form 8700-12 (Rev. 11-85) Reverse

**Instructions for filling out this form are provided, along with the form, by EPA. Additional information is found in Appendix B of this handbook.*

MANAGING HAZARDOUS WASTE ON-SITE

THE THREE MOST IMPORTANT THINGS YOU SHOULD KNOW ABOUT MANAGING YOUR HAZARDOUS WASTES ON-SITE

1. Comply with storage time, quantity, and handling requirements for containers and tanks.

2. Obtain a storage, treatment, or disposal permit if you store, treat, or dispose of your hazardous waste on-site in a manner requiring a permit.

3. Take adequate precautions to prevent accidents, and be prepared to handle them properly in the event that they do occur.

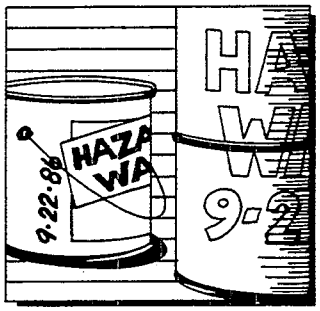
Storing Hazardous Waste On-Site

You may store no more than 6000 kg of hazardous waste on your site for up to 180 days, or for up to 270 days if the waste must be shipped to a treatment, storage, or disposal facility that is located over 200 miles away. If you exceed these time or quantity limits, you will be considered a storage facility and you must obtain a storage permit (see below) and meet all of the RCRA storage requirements. These time limits on storage are longer than the 90 days allowed generators of 1000 kg/mo or more. You are allowed to store your waste for as long as 180 or 270 days so that you will have time to accumulate enough hazardous waste to ship it off-site for treatment or disposal economically.

You can store hazardous waste in 55-gallon drums, tanks, or other containers suitable for the type of waste generated if you follow certain common sense rules that are meant to protect human health and the environment, **and** reduce the likelihood of damages or injuries caused by leaks or spills of hazardous wastes.

If you store your hazardous waste in ***containers,*** you must:

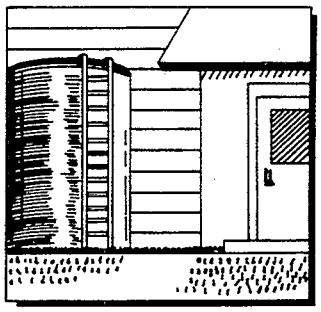
- Clearly mark each container with the words "HAZARDOUS WASTE," and with the date you began to collect waste in that container.



- Keep containers in good condition, handle them carefully, and replace any leaking ones.
- Not store hazardous waste in a container if it may cause rupture, leaks, corrosion, or other failure.
- Keep containers closed except when you fill or empty them.
- Inspect the container for leaks or corrosion every week.
- Make sure that if you are storing ignitable or reactive wastes, containers are placed as far as possible from your facility property line to create a buffer zone.
- NEVER store wastes in the same container that could react together to cause fires, leaks, or other releases.
- Make sure that the stored waste is taken off-site or treated on-site within 180 (or 270) days.

If you store your waste in ***tanks,*** you must follow similar common sense rules:

- Do not store hazardous waste in a tank if it may cause rupture, leaks, corrosion, or otherwise cause the tank to fail.



- Keep a tank covered or provide at least two feet of freeboard (space at the top of the tank) in uncovered tanks.
- If your tanks have equipment that allow the waste to flow into them continuously, provide waste feed cutoff or bypass systems to stop the flow in case of problems.
- Inspect any monitoring or gauging systems on each operating day and inspect the tanks themselves for leaks or corrosion every week.
- Use the National Fire Protection Association's (NFPA) buffer zone requirements for tanks containing ignitable or reactive wastes. These requirements specify distances considered as safe buffer zones for various liquids based on the characteristics of all combustible and flammable liquids. Call your local fire department or EPA regional office (see Appendix A) if you need help.
- Make sure that the stored waste is taken off-site or treated on-site within 180 (or 270) days.

Treating Hazardous Waste On-Site

You may treat your hazardous wastes on your site without a special permit providing:

- You treat the accumulated hazardous waste within 180 (or 270) days.
- You comply with the container and tank regulations described above.
- You take steps to prepare for and prevent accidents as described below.

If you do not meet each of these requirements and you treat your hazardous wastes on your site, you must obtain a hazardous waste treatment permit as described below.

Disposing of Hazardous Waste On-Site

You **may not** dispose of your hazardous waste on your site unless you have obtained a disposal permit as described below. Under certain circumstances, it may be legal to dispose of certain types of hazardous waste on your site without a permit: Farmers may dispose of their own waste pesticide provided they triple rinse the empty pesticide container and dispose of the pesticide residue on their own farm in a manner consistent with the instructions on the pesticide label. Even if you are not a farmer, you may be allowed to dispose of certain hazardous wastes by discharging them directly into your sewer drain. However, this is not considered good management practice and in many communities it may be illegal. For more information concerning wastes which may be disposed of in this manner, contact your local wastewater or sewage treatment office or your state hazardous waste management agency (see Appendix A).

Obtaining a Permit to Store, Treat, or Dispose of Hazardous Waste On-Site

If you store, treat, or dispose of your hazardous waste on-site in any manner other than those permissible ones described above, you must obtain a permit. Obtaining a permit to store, treat, or dispose of your hazardous wastes on your site can be a costly and time consuming process. The process is described in Title 40 of the Code of Federal Regulations (40 CFR) Part 270. To obtain such a permit you must:

- Notify EPA or your state of your hazardous waste activity.
- Complete Part A of the permit application.
- Comply with the interim status standards as described in 40 CFR Part 265.
- Complete Part B of the permit application.
- Comply with the standards described in 40 CFR Parts 264 and 266.

If you are not sure whether you need such a permit, or if you are interested in finding out more about it, call your state hazardous waste management agency or EPA regional office (see Appendix A) for help.

Preparing for and Preventing Accidents

Whenever you generate hazardous waste and store it on-site, you must take the precautions and steps necessary to prevent any sudden or accidental release to the environment. This means that you must carefully operate and maintain your facility to reduce the possibility of fire, explosion, or release of hazardous waste.

Your facility must have appropriate types of emergency communication and fire equipment for the kinds of waste handled at your site. You must also attempt to make arrangements with local fire, police, or hospital officials as needed to ensure that they will be able to respond to any potential emergencies that could arise. Some of the steps you may need to take to prepare for emergencies at your facility include:

- Installing and maintaining emergency equipment such as an alarm, a telephone or a two-way portable radio, fire extinguishers (using water, foam, inert gas, or dry chemicals as appropriate to your waste type), hoses, automatic sprinklers, or spray equipment in your plant so that it is immediately available to your employees if there is an emergency.
- Providing enough room for emergency equipment and response teams to get into any area in your facility in the event of an emergency.
- Writing to local fire, police, and hospital officials or state or local emergency response teams explaining the types of wastes you handle and asking for their cooperation and assistance in handling emergency situations.

Planning for Emergencies

A contingency plan is a plan that attempts to look ahead and prepare for any accidents that could possibly occur. It can be thought of as a set of answers to a series of "what if" questions. For example: "*What if* there is a fire in the area where hazardous waste is stored?" or "*What if* I have a spill of hazardous waste or one of my containers leaks?" Emergency procedures are the steps you should follow if you have an emergency, that is, if one of the "contingencies" or "what ifs" occurs. While a specific written contingency plan is not required, it may be a good idea to make a list of these questions and answer them on paper. This also may be helpful in informing your employees about their responsibilities in the event of an emergency.

If you have an emergency in your plant:

1. In the event of a **fire**, call the fire department or attempt to extinguish it using the appropriate type of fire extinguisher.
2. In the event of a **spill**, contain the flow of hazardous waste to the extent possible and notify the National Response Center. The Center operates a 24-hour toll free number: 800-424-8802, or in Washington, D.C.: 426-2675. As soon as possible, clean up the hazardous waste and any contaminated materials or soil.
3. In the event of a **fire, explosion, or other release**, immediately notify the National Response Center as required by Superfund regulations. (Superfund is the law that deals with the cleanup of spills and leaks of hazardous waste at abandoned hazardous waste sites.)

Emergency phone numbers and locations of emergency equipment must be posted near telephones and all employees must know proper waste handling and emergency procedures. You must appoint an employee to act as **emergency coordinator** to ensure that emergency procedures are carried

out in the event an emergency arises. The responsibilities of the emergency coordinator are generally that he/she be available 24 hours a day (at the facility or by phone) and know whom to contact and what steps to follow in an emergency. For most small businesses, the owner or operator may already perform these functions. Thus, it is not intended nor is it likely that you will need to hire a new employee to fill this role.

It is important to avoid potential risks in this area. If you have a serious emergency and you have to call your local fire department or you have a spill that extends outside your plant or that could reach surface waters, IMMEDIATELY CALL THE NATIONAL RESPONSE CENTER (800-424-8802) AND GIVE THEM THE INFORMATION THEY ASK FOR. If you didn't need to call, they will tell you so. BUT ANYONE WHO WAS SUPPOSED TO CALL AND DOES NOT IS SUBJECT TO A $10,000 FINE, A YEAR IN JAIL, OR BOTH. An owner or manager of a business who fails to report a release also may have to pay for the entire cost of repairing any damage, even if the facility was not the single or the main cause of the damage.

SHIPPING HAZARDOUS WASTE OFF-SITE

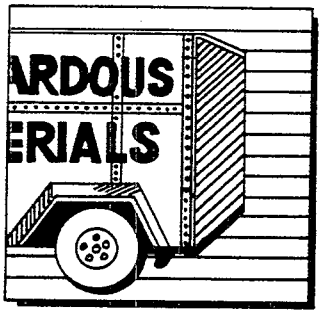
THE THREE MOST IMPORTANT THINGS YOU SHOULD REMEMBER ABOUT SHIPPING YOUR HAZARDOUS WASTE OFF-SITE

1. ***Choose a hauler and facility which have EPA identification numbers.***
2. ***Package and label your wastes for shipping.***
3. ***Prepare a hazardous waste manifest.***

Under federal regulations, if you are a 100-1000 kg/mo generator, you are allowed to accumulate your hazardous wastes on your premises without a permit for up to 180 days (or 270 days if you must ship it more than 200 miles) as long as you never accumulate more than 6000 kilograms. These limits are set so that a small business can accumulate enough waste to make shipping and disposal more economical.

Choosing a Hazardous Waste Hauler and Designated Waste Management Facility

Carefully choosing a hauler and designating a waste management facility is important. The hauler will be handling your wastes beyond your control while **you are still responsible** for their proper management. Similarly, the waste management facility will be the final destination of your hazardous waste for treatment, storage, or disposal. Before choosing a hauler or designating a facility, check with the following sources:



- Your friends and colleagues in business who may have used a specific hazardous waste hauler or designated facility in the past.
- Your trade association(s) which may keep a file on companies that handle hazardous wastes.
- Your Better Business Bureau or Chamber of Commerce to find out if any complaints have been registered against a hauler or facility.
- Your state hazardous waste management agency or EPA regional office, which will be able to tell you whether or not a company has a U.S. EPA Identification Number, and may know whether or not the company has had any problems.

After checking these sources, contact the hauler and designated hazardous waste management facility directly to verify that they have U.S. EPA Identification Numbers, and that they can and will handle your waste. Also make sure that they have the necessary permits and insurance, and that the hauler's vehicles are in good condition. Checking sources and choosing a hauler and designated facility may take some time—try to begin checking well ahead of the time you will need to ship your waste. Careful selection is very important.

Preparing Your Hazardous Wastes for Shipment

When you prepare hazardous wastes for shipment, you must put the wastes in containers acceptable for transportation and make sure the containers are properly labeled. Your hauler should be able to assist you. If you need additional information, you may wish to consult the requirements for packaging and labeling hazardous wastes found in the Department of Transportation (DOT) regulations (49 CFR Part 172). To find out what these requirements are for your wastes, you should contact your state hazardous waste management agency for the name and telephone number of your state transportation agency. Your state transportation agency, your hauler, or your designated facility can help you understand the DOT requirements.

The Uniform Hazardous Waste Manifest

A hazardous waste manifest is a multicopy shipping document that you must fill out and use to accompany your hazardous waste shipments.[1]

The manifest form is designed so that shipments of hazardous waste can be tracked from their point of generation to their final destination—the so-called "cradle-to-grave" system. The hazardous waste generator, the hauler, and the designated facility must each sign this document and keep a copy. The designated facility operator also must send a copy back to you, so that you can be sure that your shipment arrived. You must keep this copy, which will be signed by the hauler and designated facility, on file for three years.

If you do not receive a signed copy from the designated hazardous waste management facility within 30 days, it is a good idea for you to find out why and, if necessary, let the state or EPA know. **REMEMBER:** Just because you have shipped the hazardous waste off your site and it is no longer in your possession, your liability has not ended. You are potentially liable under Superfund for any mismanagement of your hazardous waste. The manifest will help you to track your waste during shipment and make sure it arrives at the proper destination.

You can obtain blank copies of the manifest from several sources. To determine which source you should use, use this system:

1. If the state to which you are shipping your waste has its own manifest, use that manifest form. Contact the hazardous waste management agency of that state (see Appendix A), your hauler, or the designated facility you intend to use for manifest forms.
2. If the state to which you are shipping your waste does not have its own manifest, use the manifest of the state in which your waste was generated. Contact your hauler or your state hazardous waste agency for blank forms.
3. If neither state requires a state-specific manifest, you may use the "general" Uniform Hazardous Waste Manifest—EPA Form 8700-22. Copies are available from some haulers and designated hazardous waste management facilities, or may be purchased from some commercial printers.

A sample copy of a hazardous waste manifest has been filled out for you in Figure 2. When you sign the certification in ITEM 16 you are personally confirming that:

- The manifest is complete and accurately describes the shipment.
- The shipment is ready for transport.
- You have considered whether, given your budget, your waste management arrangements are the best to reduce the amount and hazardous nature of your wastes.

States, haulers, recyclers, and designated facilities may require additional information; check with them before you prepare a hazardous waste shipment. Your hazardous waste hauler often will be the best source for packaging and shipping information and will help in completing the manifest. EPA has also prepared some industry-specific information to help you in completing the manifest. This industry-specific information is available from EPA Regional Offices and a number of trade associations. If you have any trouble obtaining, filling out, or using the manifest, ask your hauler, your designated facility operator, or one of the contacts listed in Appendix A for help.

Federal regulations allow you to haul your hazardous waste to a designated facility yourself. You must, however, obtain an EPA transporter identification number and comply with applicable DOT requirements for packaging, labeling, mark-

[1] There is an exception to this requirement. You may be able to use a contract recycling agreement instead of a manifest. For more information about this, contact one of the information sources identified in Appendix A.

FIGURE 2

SAMPLE "UNIFORM HAZARDOUS WASTE MANIFEST" FORM*

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2000-0404 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: VAD001234567 — Manifest Document No.: 000001

2 Page 1 of

Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
GENERAL METAL PROCESSING CO.
501 MAIN ST.
SMALLTOWN, VA 23000

4 Generator's Phone (804) 555-0509

A. State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: SAFETY HAULER

6 US EPA ID Number: VAD008912345

C. State Transporter's ID

D. Transporter's Phone

7 Transporter 2 Company Name

8 US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9 Designated Facility Name and Site Address
DISPOS-ALL, INC
1800 NORTH AVE
FRIENDLY TOWN, VA 23000

10 US EPA ID Number: VAD006789123

G. State Facility's ID

H. Facility's Phone

GENERATOR

11 US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12 Containers No	Type	13 Total Quantity	14 Unit Wt Vol	I. Waste No.
a. HAZARDOUS WASTE, LIQUID OR SOLID, NOS ORM-E, NA9189	002	DM	00110	GAL	
b. WASTE CYANIDE SOLUTION, NOS UN1935	001	DM	00055	GAL	
c. WASTE FLAMMABLE LIQUID, NOS UN1993	001	DM	00055	GAL	
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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.

Printed/Typed Name: JOSEPHINE K. DOE — Signature: Josephine K. Doe — Month Day Year: 08 30 86

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19 Discrepancy Indication Space

20 Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete.

**Information in the shaded areas is not required by Federal law, but this or other additional information may be required by your state.*

ing, and placarding your shipment. There are also financial responsibility and liability requirements under the Federal Motor Carrier Act, but you may be exempt from these if you:

1. Use a vehicle with a Gross Vehicle Weight Rating of less than 10,000 pounds (van or pick-up truck).
2. Transport your wastes for commerce within your state in non-bulk shipments (i.e. containers with capacities of less than 3,500 gallons).
3. Transport hazardous wastes which meet the "limited quantity exclusion" requirements of Section 172.101 of the DOT regulations.

If you decide to transport your own hazardous wastes, call your state hazardous waste management agency (See Appendix A) to find out what state regulations apply to you. Not all states will allow you to transport your own hazardous wastes. You should also note that if you have an accident during transport, you are responsible for the clean-up.

"GOOD HOUSEKEEPING" AND A SAFE ENVIRONMENT

THE FOUR MOST IMPORTANT THINGS YOU SHOULD REMEMBER ABOUT MANAGING YOUR WASTES PROPERLY

1. ***Reduce the amount of your hazardous waste.***
2. ***Conduct your own self-inspection.***
3. ***Cooperate with state and local inspectors.***
4. ***Call your state hazardous waste management agency or the U.S. EPA with your questions.***

Good hazardous waste management can be thought of simply as using "good housekeeping" practices such as: using and reusing materials as much as possible; recycling or reclaiming waste; treating waste to reduce its hazards; or reducing the amount of waste you generate. To reduce the amount of waste you generate:

- Do not mix nonhazardous wastes with hazardous ones. For example, do not put nonhazardous cleaning agents or rags in the same container as a hazardous solvent or the entire contents becomes subject to the hazardous waste regulations.
- Avoid mixing several different hazardous wastes. Doing so may make recycling very difficult, if not impossible, or make disposal more expensive.
- Avoid spills or leaks of hazardous products. (The materials used to clean up such spills or leaks also will become hazardous.)
- Make sure the original containers of hazardous products are completely empty before you throw them away. Use **ALL** the product.
- Avoid using more of a hazardous product than you need. For example, use no more degreasing solvent or pesticide than you need to do the job. Also, do not throw away a container with unused solvent or pesticide in it.

Reducing your hazardous waste means saving money on raw materials and reducing the costs to your business for managing and disposing of your hazardous wastes.

Another aspect of "good housekeeping" is cooperating with inspection agencies and using a visit by an inspector as an opportunity to identify and correct problems. Accompanying state or local inspectors on a tour of your facility will enable you to ask any questions you may have and receive advice on more effective ways of handling your hazardous products and wastes. In addition, guiding the inspectors through your property and explaining your operations may help them to be more sensitive to the particular problems or needs of your business. Inspectors can also serve as a valuable source of information on recordkeeping, manifests, and safety requirements specific to your facility.

The best way to prepare for a visit from an inspector is to conduct your own self-inspection. This handbook can serve as a basic guide to developing a self-inspection checklist. Make sure you can answer correctly the following questions, and make sure you have met the requirements described in the handbook:

- ☑ Do you have some documentation on the **AMOUNTS** and **KINDS** of hazardous waste you generate and on how you determined that they are hazardous?
- ☑ Do you have a **U.S. EPA IDENTIFICATION NUMBER?**
- ☑ Do you **SHIP** waste **OFF-SITE?** If so, by which **HAULER** and to which **DESIGNATED HAZARDOUS WASTE MANAGEMENT FACILITY?**
- ☑ Do you have copies of **MANIFESTS** used to ship your hazardous waste off-site? Are they filled out correctly? Have they been signed by the designated facility?

- ☑ Is your hazardous waste stored in the PROPER CONTAINERS?
- ☑ Are the containers properly DATED and MARKED?
- ☑ Have you designated an EMERGENCY COORDINATOR?
- ☑ Have you posted EMERGENCY TELEPHONE NUMBERS and the location of EMERGENCY EQUIPMENT?
- ☑ Are your EMPLOYEES thoroughly FAMILIAR with proper waste handling and emergency procedures?
- ☑ Do you understand when you may need to contact the NATIONAL RESPONSE CENTER?

Remember: If you are still uncertain about how to handle your hazardous waste, or have any questions concerning the rules for 100-1000 kg/mo generators, there are several sources listed in Appendix A that you can contact for answers. Taking responsibility for proper handling of hazardous waste will not only ensure a safer environment and workplace for everyone, but will save your business money. So write or call your state hazardous waste management agency or the U.S. EPA with your questions today.

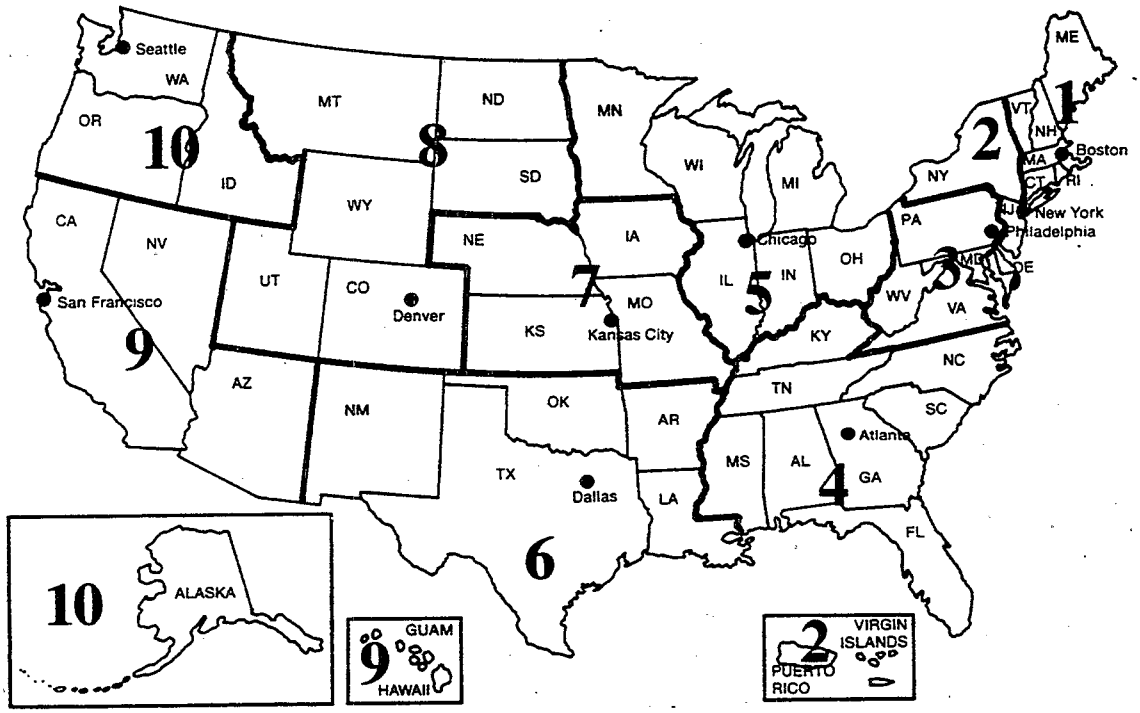
APPENDIX A

EPA AND STATE HAZARDOUS WASTE CONTACTS FOR ASSISTANCE

RCRA/Superfund Hotline
1-800-424-9346
(In Washington, D.C.:382-3000)

EPA Small Business Ombudsman
Hotline 1-800-368-5888
(In Washington, D.C.:557-1938)

National Response Center
1-800-424-8802
(In Washington, D.C.:426-2675)



Regions

4 — Alabama
10 — Alaska
9 — Arizona
6 — Arkansas
9 — California
8 — Colorado
1 — Connecticut
3 — Delaware
3 — D.C.
4 — Florida
4 — Georgia
9 — Hawaii
10 — Idaho
5 — Illinois

Regions

5 — Indiana
7 — Iowa
7 — Kansas
4 — Kentucky
6 — Louisiana
1 — Maine
3 — Maryland
1 — Massachusetts
5 — Michigan
5 — Minnesota
4 — Mississippi
7 — Missouri
8 — Montana
7 — Nebraska

Regions

9 — Nevada
1 — New Hampshire
2 — New Jersey
6 — New Mexico
2 — New York
4 — North Carolina
8 — North Dakota
5 — Ohio
6 — Oklahoma
10 — Oregon
3 — Pennsylvania
1 — Rhode Island
4 — South Carolina
8 — South Dakota

Regions

4 — Tennessee
6 — Texas
8 — Utah
1 — Vermont
3 — Virginia
10 — Washington
3 — West Virginia
5 — Wisconsin
8 — Wyoming
9 — American Samoa
9 — Guam
2 — Puerto Rico
2 — Virgin Islands

U.S. EPA REGIONAL OFFICES

EPA Region I
State Waste Programs Branch
JFK Federal Building
Boston, Massachusetts 02203
(617) 223-3468

Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont

EPA Region II
Air and Waste Management Division
26 Federal Plaza
New York, New York 10278
(212) 264-5175

New Jersey, New York, Puerto Rico, Virgin Islands

EPA Region III
Waste Management Branch
841 Chestnut Street
Philadelphia, Pennsylvania 19107
(215) 597-9336

Delaware, Maryland, Pennsylvania, Virginia, West Virginia, District of Columbia

EPA Region IV
Hazardous Waste Management Division
345 Courtland Street, N.E.
Atlanta, Georgia 30365
(404) 347-3016

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

EPA Region V
RCRA Activities
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-2000

Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

EPA Region VI
Air and Hazardous Materials Division
1201 Elm Street
Dallas, Texas 75270
(214) 767-2600

Arkansas, Louisiana, New Mexico, Oklahoma, Texas

EPA Region VII
RCRA Branch
726 Minnesota Avenue
Kansas City, Kansas 66101
(913) 236-2800

Iowa, Kansas, Missouri, Nebraska

EPA Region VIII
Waste Management Division (8HWM-ON)
One Denver Place
999 18th Street, Suite 1300
Denver, Colorado 80202-2413
(303) 293-1502

Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

EPA Region IX
Toxics and Waste Management Division
215 Fremont Street
San Francisco, California 94105
(415) 974-7472

Arizona, California, Hawaii, Nevada, American Samoa, Guam, Trust Territories of the Pacific

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

Alaska, Idaho, Oregon, Washington

STATE HAZARDOUS WASTE MANAGEMENT AGENCIES

ALABAMA
Alabama Department of
Environmental Management
Land Division
1751 Federal Drive
Montgomery, Alabama 36130
(205) 271-7730

ALASKA
Department of Environmental
Conservation
P.O. Box 0
Juneau, Alaska 99811
Program Manager: (907) 465-2666
Northern Regional Office
(Fairbanks): (907) 452-1714
South-Central Regional Office
(Anchorage): (907) 274-2533
Southeast Regional Office
(Juneau): (907) 789-3151

AMERICAN SAMOA
Environmental Quality Commission
Government of American Samoa
Pago Pago, American Samoa 96799
Overseas Operator
(Commercial Call (684) 663-4116)

ARIZONA
Arizona Department of
Health Services
Office of Waste and Water Quality
2005 North Central Avenue
Room 304
Phoenix, Arizona 85004
Hazardous Waste Management:
(602) 255-2211

ARKANSAS
Department of Pollution Control
and Ecology
Hazardous Waste Division
P.O. Box 9583
8001 National Drive
Little Rock, Arkansas 72219
(501) 562-7444

CALIFORNIA
Department of Health Services
Toxic Substances Control Division
714 P Street, Room 1253
Sacramento, California 95814
(916) 324-1826

State Water Resources Control Board
Division of Water Quality
P.O. Box 100
Sacramento, California 95801
(916) 322-2867

COLORADO
Colorado Department of Health
Waste Management Division
4210 E. 11th Avenue
Denver, Colorado 80220
(303) 320-8333 Ext. 4364

CONNECTICUT
Department of Environmental
Protection
Hazardous Waste Management
Section
State Office Building
165 Capitol Avenue
Hartford, Connecticut 06106
(203) 566-8843, 8844

Connecticut Resource Recovery
Authority
179 Allyn Street, Suite 603
Professional Building
Hartford, Connecticut 06103
(203) 549-6390

DELAWARE
Department of Natural Resources
and Environmental Control
Waste Management Section
P.O. Box 1401
Dover, Delaware 19903
(302) 736-4781

DISTRICT OF COLUMBIA
Department of Consumer and
Regulatory Affairs
Pesticides and Hazardous Waste
Materials Division
Room 114
5010 Overlook Avenue, S.W.
Washington, D.C. 20032
(202) 767-8414

FLORIDA
Department of Environmental
Regulation
Solid and Hazardous Waste Section
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301
RE: SQG's
(904) 488-0300

GEORGIA
Georgia Environmental Protection
Division
Hazardous Waste Management
Program
Land Protection Branch
Floyd Towers East, Suite 1154
205 Butler Street, S.E.
Atlanta, Georgia 30334
(404) 656-2833
Toll Free: (800) 334-2373

GUAM
Guam Environmental Protection
Agency
P.O. Box 2999
Agana, Guam 96910
Overseas Operator
(Commercial Call (671) 646-7579)

HAWAII
Department of Health
Environmental Health Division
P.O. Box 3378
Honolulu, Hawaii 96801
(808) 548-4383

IDAHO
Department of Health and Welfare
Bureau of Hazardous Materials
450 West State Street
Boise, Idaho 83720
(208) 334-5879

ILLINOIS
Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road, #24
Springfield, Illinois 62706
(217) 782-6761

INDIANA
Department of Environmental Management
Office of Solid and Hazardous Waste
105 South Meridian
Indianapolis, Indiana 46225
(317) 232-4535

IOWA
U.S. EPA Region VII
Hazardous Materials Branch
726 Minnesota Avenue
Kansas City, Kansas 66101
(913) 236-2888
Iowa RCRA Toll Free:
(800) 223-0425

KANSAS
Department of Health and Environment
Bureau of Waste Management
Forbes Field, Building 321
Topeka, Kansas 66620
(913) 862-9360 Ext. 292

KENTUCKY
Natural Resources and Environmental Protection Cabinet
Division of Waste Management
18 Reilly Road
Frankfort, Kentucky 40601
(502) 564-6716

LOUISIANA
Department of Environmental Quality
Hazardous Waste Division
P.O. Box 44307
Baton Rouge, Louisiana 70804
(504) 342-1227

MAINE
Department of Environmental Protection
Bureau of Oil and Hazardous Materials Control
State House Station #17
Augusta, Maine 04333
(207) 289-2651

MARYLAND
Department of Health and Mental Hygiene
Maryland Waste Management Administration
Office of Environmental Programs
201 West Preston Street, Room A3
Baltimore, Maryland 21201
(301) 225-5709

MASSACHUSETTS
Department of Environmental Quality Engineering
Division of Solid and Hazardous Waste
One Winter Street, 5th Floor
Boston, Massachusetts 02108
(617) 292-5589
(617) 292-5851

MICHIGAN
Michigan Department of Natural Resources
Hazardous Waste Division
Waste Evaluation Unit
Box 30028
Lansing, Michigan 48909
(517) 373-2730

MINNESOTA
Pollution Control Agency
Solid and Hazardous Waste Division
1935 West County Road, B-2
Roseville, Minnesota 55113
(612) 296-7282

MISSISSIPPI
Department of Natural Resources
Division of Solid and Hazardous Waste Management
P.O. Box 10385
Jackson, Mississippi 39209
(601) 961-5062

MISSOURI
Department of Natural Resources
Waste Management Program
P.O. Box 176
Jefferson City, Missouri 65102
(314) 751-3176
Missouri Hotline:
(800) 334-6946

MONTANA
Department of Health and Environmental Sciences
Solid and Hazardous Waste Bureau
Cogswell Building, Room B-201
Helena, Montana 59620
(406) 444-2821

NEBRASKA
Department of Environmental Control
Hazardous Waste Management Section
P.O. Box 94877
State House Station
Lincoln, Nebraska 68509
(402) 471-2186

NEVADA
Division of Environmental Protection
Waste Management Program
Capitol Complex
Carson City, Nevada 89710
(702) 885-4670

NEW HAMPSHIRE
Department of Health and Human Services
Division of Public Health Services
Office of Waste Management
Health and Welfare Building
Hazen Drive
Concord, New Hampshire 03301-6527
(603) 271-4608

NEW JERSEY
Department of Environmental Protection
Division of Waste Management
32 East Hanover Street, CN-028
Trenton, New Jersey 08625
Hazardous Waste Advisement Program: (609) 292-8341

NEW MEXICO
Environmental Improvement Division
Ground Water and Hazardous Waste Bureau
Hazardous Waste Section
P.O. Box 968
Santa Fe, New Mexico 87504-0968
(505) 827-2922

NEW YORK
Department of Environmental Conservation
Bureau of Hazardous Waste Operations
50 Wolf Road, Room 209
Albany, New York 12233
(518) 457-0530
SQG Hotline: (800) 631-0666

NORTH CAROLINA
Department of Human Resources
Solid and Hazardous Waste Management Branch
P.O. Box 2091
Raleigh, North Carolina 27602
(919) 733-2178

NORTH DAKOTA
Department of Health
Division of Hazardous Waste Management and Special Studies
1200 Missouri Avenue
Bismarck, North Dakota 58502-5520
(701) 224-2366

NORTHERN MARIANA ISLANDS, COMMONWEALTH OF
Department of Environmental and Health Services
Division of Environmental Quality
P.O. Box 1304
Saipan, Commonwealth of Mariana Islands 96950
Overseas call (670) 234-6984

OHIO
Ohio EPA
Division of Solid and Hazardous Waste Management
361 East Broad Street
Columbus, Ohio 43266-0558
(614) 466-7220

OKLAHOMA
Waste Management Service
Oklahoma State Department of Health
P.O. Box 53551
Oklahoma City, Oklahoma 73152
(405) 271-5338

OREGON
Hazardous and Solid Waste Division
P.O. Box 1760
Portland, Oregon 97207
(503) 229-6534
Toll Free: (800) 452-4011

PENNSYLVANIA
Bureau of Waste Management
Division of Compliance Monitoring
P.O. Box 2063
Harrisburg, Pennsylvania 17120
(717) 787-6239

PUERTO RICO
Environmental Quality Board
P.O. Box 11488
Santurce, Puerto Rico 00910-1488
(809) 723-8184

–or–

EPA Region II
Air and Waste Management Division
26 Federal Plaza
New York, New York 10278
(212) 264-5175

RHODE ISLAND
Department of Environmental Management
Division of Air and Hazardous Materials
Room 204, Cannon Building
75 Davis Street
Providence, Rhode Island 02908
(401) 277-2797

SOUTH CAROLINA
Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste Management
2600 Bull Street
Columbia, South Carolina 29201
(803) 734-5200

SOUTH DAKOTA
Department of Water and Natural Resources
Office of Air Quality and Solid Waste
Foss Building, Room 217
Pierre, South Dakota 57501
(605) 773-3153

TENNESSEE
Division of Solid Waste Management
Tennessee Department of Public Health
701 Broadway
Nashville, Tennessee 37219-5403
(615) 741-3424

TEXAS
Texas Water Commission
Hazardous and Solid Waste Division
Attn: Program Support Section
1700 North Congress
Austin, Texas 78711
(512) 463-7761

UTAH
Department of Health
Bureau of Solid and Hazardous Waste Management
P.O. Box 16700
Salt Lake City, Utah 84116-0700
(801) 538-6170

VERMONT
Agency of Environmental
Conservation
103 South Main Street
Waterbury, Vermont 05676
(802) 244-8702

VIRGIN ISLANDS
Department of Conservation and
Cultural Affairs
P.O. Box 4399
Charlotte Amalie, St. Thomas
Virgin Islands 00801
(809) 774-3320
—or—
EPA Region II
Air and Waste Management Division
26 Federal Plaza
New York, New York 10278
(212) 264-5175

VIRGINIA
Department of Health
Division of Solid and Hazardous
Waste Management
Monroe Building, 11th Floor
101 North 14th Street
Richmond, Virginia 23219
(804) 225-2667
Hazardous Waste Hotline:
(800) 552-2075

WASHINGTON
Department of Ecology
Solid and Hazardous Waste Program
Mail Stop PV-11
Olympia, Washington 98504-8711
(206) 459-6322
In-State: 1-800-633-7585

WEST VIRGINIA
Division of Water Resources
Solid and Hazardous Waste/
Ground Water Branch
1201 Greenbrier Street
Charleston, West Virginia 25311

WISCONSIN
Department of Natural Resources
Bureau of Solid Waste Management
P.O. Box 7921
Madison, Wisconsin 53707
(608) 266-1327

WYOMING
Department of Environmental Quality
Solid Waste Management Program
122 West 25th Street
Cheyenne, Wyoming 82002
(307) 777-7752
—or—
EPA Region VIII
Waste Management Division
(8HWM-ON)
One Denver Place
999 18th Street
Suite 1300
Denver, Colorado 80202-2413
(303) 293-1502

APPENDIX B

EPA HAZARDOUS WASTE NUMBERS FOR WASTE STREAMS COMMONLY GENERATED BY SMALL QUANTITY GENERATORS

The Environmental Protection Agency recognizes that generators of small quantities of hazardous waste, many of which are small businesses, may not be familiar with the manner in which hazardous waste materials are identified. This Appendix has been assembled to aid 100-1000 kg/mo small quantity generators in determining the EPA Hazardous Waste Numbers for their wastes. These numbers are needed to complete the "Notification of Hazardous Waste Activity," Form 8700-12.

This Appendix contains lists of EPA Hazardous Waste Numbers for each waste stream identified in Table 2 in Chapter 1 of the handbook. Note that acutely hazardous wastes are identified with an asterisk (*).

To Use This Appendix

1. Locate your business type in Table 2 in Chapter 1. This will help you to identify the waste streams common to your activities.
2. Find each of the waste streams that you identified in Table 2 in the more detailed descriptions in this Appendix. Review the more detailed descriptions of typical wastes to determine which waste streams actually result from your activities.
3. If you determine that you actually do generate a particular waste stream, report the four-digit EPA Hazardous Waste Number in Item X of Form 8700-12, "Notification of Hazardous Waste Activity."

The specific instructions for completing Item X (Description of Hazardous Wastes) of the notification form are included in the notification package. You should note, however, that specific EPA Hazardous Waste Numbers beginning with:

- "F" should be entered in Item X, Section A.
- "K" should be entered in Item X, Section B.
- "P" or "U" should be entered in Item X, Section C.
- "D" should be entered in Item X, Section E.

The industries and waste streams described here do not provide a comprehensive list, but rather serve as a guide to potential small quantity generators in determining which of their wastes, if any, are hazardous. Except for the pesticide and wood preserving categories, this Appendix does not include EPA Hazardous Waste Numbers for commercial chemical products that are hazardous when discarded unused. These chemicals and their EPA Hazardous Waste Numbers are listed in Title 40 of the Code of Federal Regulations (40 CFR) in Section 261.33.

If the specific EPA Hazardous Waste Number that should be applied to your waste stream is unclear, please refer to 40 CFR Part 261, reprinted in the Notification Form 8700-12 package. In those cases where more than one EPA Hazardous Waste Number is applicable, all should be used. If you have any questions, or if you are unable to determine the proper EPA Hazardous Waste Numbers for your wastes, contact your state hazardous waste management agency, or the RCRA/Superfund Hotline (see Appendix A).

Solvents:

Solvents, spent solvents, solvent mixtures, or solvent still bottoms are often hazardous. This includes solvents used in degreasing (identified as **F001**) and paint brush cleaning and distillation residues from reclamation. The following are some commonly used hazardous solvents (also see ignitable wastes for other hazardous solvents, and 40 CFR 261.31 for most listed hazardous waste solvents):

Benzene	**F005**
Carbon Disulfide	**F005**
Carbon Tetrachloride	**F001**
Chlorobenzene	**F002**
Cresols	**F004**
Cresylic Acid	**F004**
O-Dichlorobenzene	**F002**
Ethanol	**D001**
2-Ethoxyethanol	**F005**
Ethylene Dichloride	**D001**
Isobutanol	**F005**

Isopropanol	D001
Kerosene	D001
Methyl Ethyl Ketone	F005
Methylene Chloride	F001 F002
Naphtha	D001
Nitrobenzene	F004
2-Nitropropane	F005
Petroleum Solvents (Flashpoint less than 140°F)	D001
Pyridine	F005
1,1,1-Trichloroethane	F001 F002
1,1,2-Trichloroethane	F002
Tetrachloroethylene (Perchloroethylene)	F001 F002
Toluene	F005
Trichloroethylene	F001 F002
Trichlorofluoromethane	F002
Trichlorotrifluoroethane (Valclene)	F002
White Spirits	D001

Acids/Bases:

Acids, bases, or mixtures having a pH less than or equal to 2 or greater than or equal to 12.5, are considered corrosive (for a complete description of corrosive wastes, see 40 CFR 261.22, Characteristic of corrosivity). All corrosive materials and solutions have the EPA Hazardous Waste Number **D002**. The following are some of the more commonly used corrosives:

Acetic Acid	Nitric Acid
Ammonium Hydroxide	Oleum
Chromic Acid	Perchloric Acid
Hydrobromic Acid	Phosphoric Acid
Hydrochloric Acid	Potassium Hydroxide
Hydrofluoric Acid	Sodium Hydroxide
	Sulfuric Acid

Dry Cleaning Filtration Residues:

Cooked powder residue (perchloroethylene plants only), still residues, and spent cartridge filters containing perchloroethylene or valclene are hazardous and have the EPA Hazardous Waste Number **F002**.

Still residues containing petroleum solvents with a flashpoint less than 140°F are considered hazardous and have the EPA Hazardous Waste Number **D001**.

Heavy Metals/Inorganics:

Heavy metals and other inorganic waste materials exhibit the characteristic of EP Toxicity and are considered hazardous if the extract from a representative sample of the waste has any of the specific constituent concentrations as shown in 40 CFR 261.24, Table 1. This may include dusts, solutions, wastewater treatment sludges, paint wastes, waste inks, and other such materials which contain heavy metals/inorganics (note that wastewater treatment sludges from electroplating operations are identified as F006). The following are EP Toxic:

Arsenic	D004
Barium	D005
Cadmium	D006
Chromium	D007
Lead	D008
Mercury	D009
Selenium	D010
Silver	D011

Ignitable Wastes:

Ignitable wastes include any liquids that have a flashpoint less than 140°F, any non-liquids that are capable of causing a fire through friction, absorption of moisture, or spontaneous chemical change, or any ignitable compressed gas as described in 49 CFR 173.300 (for a complete

description of ignitable wastes, see 40 CFR 261.21, Characteristic of ignitability). Examples are spent solvents (see also solvents), solvent still bottoms, ignitable paint wastes (paint removers, brush cleaners and stripping agents), epoxy resins and adhesives (epoxies, rubber cements and marine glues), and waste inks containing flammable solvents. Unless otherwise specified, all ignitable wastes have the EPA Hazardous Waste Number of **D001.**

Some commonly used ignitable compounds are:

Acetone	**F003**
Benzene	**F005**
n-Butyl Alcohol	**F003**
Chlorobenzene	**F002**[1]
Cyclohexanone	**F003**
Ethyl Acetate	**F003**
Ethylbenzene	**F003**
Ethyl Ether	**F003**
Ethylene Dichloride	**D001**
Methanol	**F003**
Methyl Isobutyl Ketone	**F003**
Petroleum Distillates	**D001**
Xylene	**F003**

Ink Sludges Containing Chromium and Lead:

This includes solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead. All ink sludges have the EPA Hazardous Waste Number **K086.**

[1] Chlorobenzene is listed by EPA as a hazardous waste due to its toxicity and has been assigned EPA Hazardous Waste Number F002. It has a flashpoint, however, of less than 140°F and is therefore included here as an ignitable waste.

Lead-Acid Batteries:

Used lead-acid batteries should be reported on the notification form *only* if they are not recycled. Used lead-acid batteries that *are* recycled do not need to be counted in determining the quantity of waste that you generate per month, nor do they require a hazardous waste manifest when shipped off your premises. (Note: Special requirements do apply if you recycle your batteries on your own premises—see 40 CFR Part 266.)

Lead Dross	**D008**
Spent Acids	**D002**
Lead-Acid Batteries	**D008**

Pesticides:

The pesticides listed below are hazardous. Wastes marked with an asterisk (*) have been designated acutely hazardous. For a more complete listing, see 40 CFR 261.32 and 261.33 for specific listed pesticides, and other wastes, wastewaters, sludges, and by-products from pesticide formulators. (Note that while many of these pesticides are no longer in common use, they are included here for those cases where they may be found in storage.)

*Aldicarb	**P070**
*Aldrin	**P004**
Amitrole	**U011**
*Arsenic Pentoxide	**P011**
*Arsenic Trioxide	**P012**
Cacodylic Acid	**U136**
Carbamic Acid, Methylnitroso-, Ethyl Ester	**U178**
Chlordane	**U036**
*Copper Cyanides	**P029**
1,2-Dibromo-3-chloropropane	**U066**
1,2-Dichloropropane	**U083**
1,3-Dichloropropene	**U084**
2,4-Dichlorophenoxy Acetic Acid	**U240**
DDT	**U061**
*Dieldrin	**P037**
Dimethylcarbamoyl Chloride	**U097**

Pesticides *(Continued)*:

*Dinitrocresol	P047
*Dinoseb	P020
Disodium Monomethanearsenate	D004
*Disulfoton	P039
*Endosulfan	P050
*Endrin	P051
Ethylmercuric Chloride	D009
*Famphur	P097
*Heptachlor	P059
Hexachlorobenzene	U127
Kepone	U142
Lindane	U129
2-Methoxy Mercuric Chloride	D009
Methoxychlor	D014
*Methyl Parathion	P071
Monosodium Methanearsenate	D004
*Nicotine	P075
*Parathion	P089
Pentachloronitrobenzene	U185
Pentachlorophenol	U242
Phenylmercuric Acetate	D009
*Phorate	P094
*Strychnine	P108
2,4,5-Trichlorophenoxy Acetic Acid	U232
2-(2,4,5-Trichlorophenoxy)-Propionic Acid	U233
*Thallium Sulfate	P115
Thiram	U244
*Toxaphene	P123
Warfarin	U248

Reactives:

Reactive wastes include reactive materials or mixtures which are unstable, react violently with or form explosive mixtures with water, generate toxic gases or vapors when mixed with water (or when exposed to pH conditions between 2 and 12.5 in the case of cyanide or sulfide bearing wastes), or are capable of detonation or explosive reaction when heated or subjected to shock (for a complete description of reactive wastes, see 40 CFR 261.23, Characteristic of reactivity). Unless otherwise specified, all reactive wastes have the EPA Hazardous Waste Number **D003**. The following materials are commonly considered to be reactive:

Acetyl Chloride	Organic Peroxides
Chromic Acid	Perchlorates
Cyanides	Permanganates
Hypochlorites	Sulfides

Spent Plating and Cyanide Wastes:

Spent plating wastes contain cleaning solutions and plating solutions with caustics, solvents, heavy metals, and cyanides. Cyanide wastes may also be generated from heat treatment operations, pigment production, and manufacturing of anti-caking agents. Plating wastes are generally Hazardous Waste Numbers **F006-F009**, with **F007-F009** containing cyanide. Cyanide heat treating wastes are generally Hazardous Waste Numbers **F010-F012**. See 40 CFR 261.32 for a more complete description of plating wastes.

Wood Preserving Agents:

The wastewater treatment sludges from wastewater treatment operations are considered hazardous (EPA Hazardous Waste Number **K001**—bottom sediment sludges from the treatment of wastewater processes that use creosote and pentachlorophenol). In addition, unless otherwise indicated, specific wood preserving compounds are:

Chromated Copper Arsenate	D004
Creosote	U051
Pentachlorophenol	F027

*U.S. GOVERNMENT PRINTING OFFICE: 1986-621-735:605-3

NOTE: This handbook was intended to avoid the need for you to obtain, read, and understand the actual regulatory requirements for small quantity generators contained in the *Code of Federal Regulations* (CFR). However, if you wish to obtain a copy of the actual regulations, you may do so by requesting a copy of the March 24, 1986 ***Federal Register*** from one of the sources in Appendix A. The requirements for small quantity generators are contained in Parts 261 and 262 of the hazardous waste regulations.