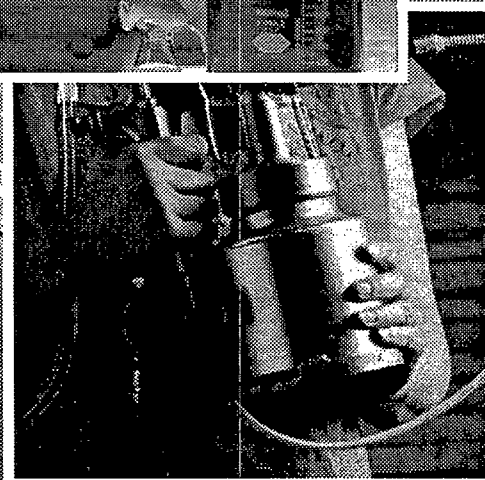
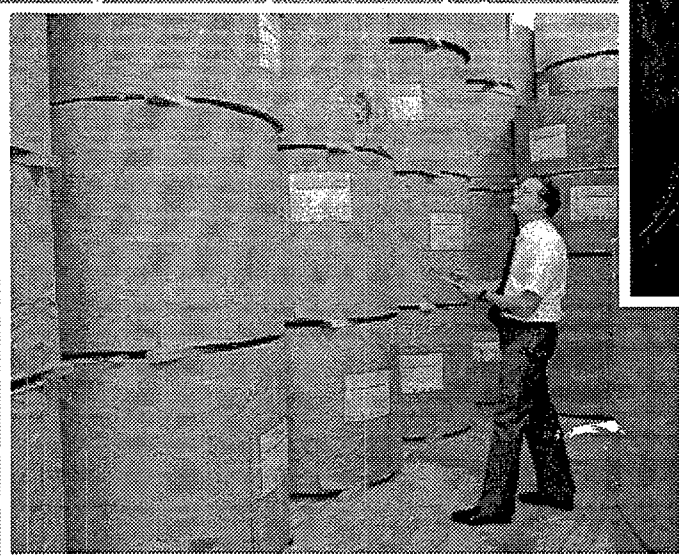
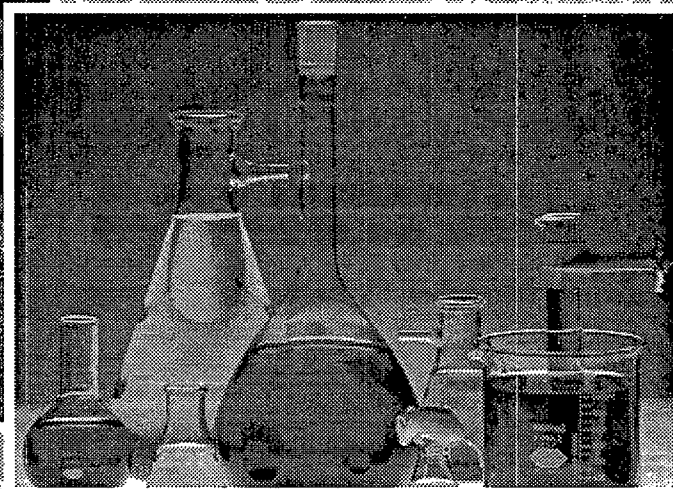
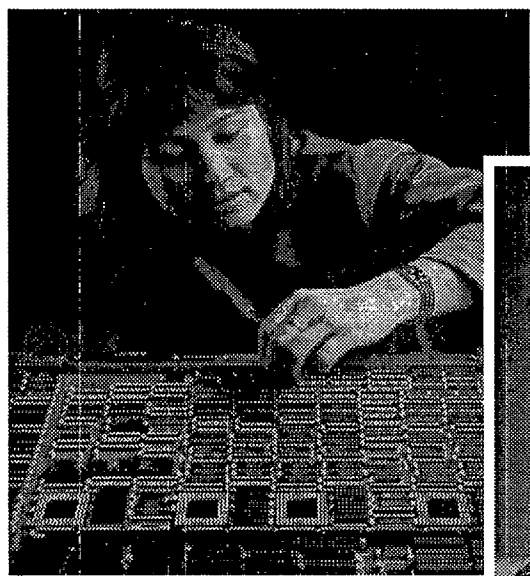




# Understanding the Hazardous Waste Rules

## A Handbook for Small Businesses—1996 Update



# TABLE OF CONTENTS

- 1 INTRODUCTION**
- 2 DECIDING WHETHER HAZARDOUS WASTE REGULATIONS APPLY TO YOU**
  - 2 Defining Hazardous Waste**
  - 3 Identifying Your Waste**
  - 4 Finding Your Generator Category**
- 6 REQUIREMENTS FOR CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS**
- 7 REQUIREMENTS FOR SMALL QUANTITY GENERATORS**
  - 7 Obtaining an EPA Identification Number**
- 10 Managing Hazardous Waste On Site**
  - 10 Accumulating Your Waste**
  - 12 Treating Your Waste to Meet the Land Disposal Restrictions**
  - 13 Preventing Accidents**
  - 13 Responding to Emergencies**
- 15 Shipping Waste Off Site**
  - 15 Selecting a Treatment, Storage, and Disposal Facility**
  - 15 Labeling Waste Shipments**
  - 16 Preparing Hazardous Waste Manifests**
  - 17 Land Disposal Restrictions Reporting Requirements**
  - 17 Export Notification**
- 18 SUMMARY OF REQUIREMENTS FOR LARGE QUANTITY GENERATORS**
- 19 WHERE TO GET MORE HELP**
  - 19 Appendix A: State Hazardous Waste Management Agencies**
  - 24 Appendix B: EPA and Other Federal Resource Centers**
  - 25 Appendix C: EPA Regional Contacts**

# INTRODUCTION

**D**oes your business generate hazardous waste? Many small businesses do. If you need help understanding which federal hazardous waste management regulations apply to your business, this handbook is for you. It has been prepared by the U.S. Environmental Protection Agency (EPA) to help small business owners and operators understand how best to comply with federal hazardous waste management regulations. This handbook provides an overview of the regulations to give you a basic understanding of your responsibilities. It is not a complete description of the hazardous waste management requirements and should not be used as a substitute for the actual regulations. All of the federal hazardous waste regulations are located in Title 40 of the Code of Federal Regulations (CFR), Parts 260 to 299.

EPA defines three categories of hazardous waste generators based upon the quantity of hazardous waste they generate per month:

- (1) Conditionally exempt small quantity generators (CESQGs), which generate less than 220 lbs (100 kg) per month.
- (2) Small quantity generators (SQGs), which generate between 220 lbs (100 kg) and 2,200 (1,000 kg) per month.
- (3) Large quantity generators (LQGs), which generate more than 2,200 lbs (1,000 kg) per month.

Each category of generator must comply with the hazardous waste rules specific to that category. This handbook is intended primarily for businesses that generate a small quantity of hazardous waste (SQGs and CESQGs) to help them learn about regulations that apply to them.

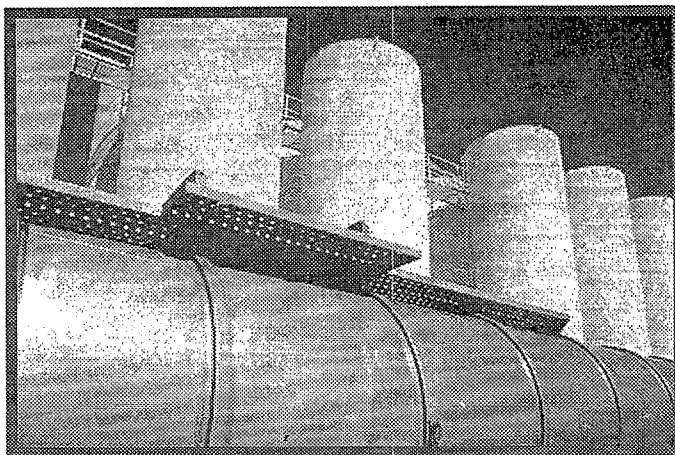
This handbook only explains the *federal* requirements for hazardous waste management. Many *states* have their own hazardous waste regulations based on the federal hazardous waste regulations. In some of these states, the requirements are the same as the federal standards and definitions. Other states, however, have developed more stringent requirements than the federal program. If this is the case in your state, you must comply with the state regulations. To become familiar with your state's requirements, consult your state hazardous waste agency listed on pages 19-23.

## TIP

**Y**ou can look up unfamiliar words or phrases on a list of definitions found on the inside back cover of this booklet.

## FOR MORE INFORMATION

If you have questions about any part of this book, or the federal hazardous waste regulations, call the RCRA Hotline at 703 412-9810 or TDD 703 412-3323 in the Washington, DC, area or at 800 424-9346 or TDD 800 533-7672 from other locations.



# DECIDING WHETHER HAZARDOUS WASTE REGULATIONS APPLY TO YOU

Federal hazardous waste management regulations apply to most businesses that generate hazardous waste. To determine if these regulations apply to your business, you must first determine if you even generate hazardous waste.

- ☑ Determine if you generate hazardous waste in the first place.
- ☑ Measure the amount of hazardous waste that you produce per month.
- ☑ Determine your generator category to learn the management requirements that apply to you.

## Defining Hazardous Waste

**A** waste is any solid, liquid, or contained gaseous material that is discarded by being disposed of, burned or incinerated, or recycled. (There are some exceptions for recycled materials.) It can be the by-product of a manufacturing process or simply a commercial product that you use in your business—such as a cleaning fluid or battery acid—that is being disposed of. Even materials that are recyclable or can be reused in some way (such as burning used oil for fuel) may be considered waste.

**Hazardous waste** can be one of two types:

- **Listed waste.** Your waste is considered hazardous if it appears on one of four lists published in the Code of Federal Regulations (40 CFR Part 261). Currently, more than 400 wastes are listed. Wastes are listed as hazardous because they are known to be harmful to human health and the environment when not managed properly.

Even when managed properly, some listed wastes are so dangerous that they are called **acutely hazardous wastes**. Examples of acutely hazardous wastes include wastes generated from some pesticides that can be fatal to humans even in low doses.

- **Characteristic wastes.** If your waste does not appear on one of the hazardous waste lists, it still might be considered hazardous if it demonstrates one or more of the following characteristics:

- ◆ It catches fire under certain conditions. This is known as an **ignitable** waste. Examples are paints and certain degreasers and solvents.



## TIP

**O**ne way to help determine if your waste exhibits a characteristic is to check the Material Safety Data Sheet (MSDS) that comes with all products containing hazardous materials. In addition, your national trade association or its local chapter might be able to help you.

- ◆ It corrodes metals or has a very high or low pH. This is known as a **corrosive** waste. Examples are rust removers, acid or alkaline cleaning fluids, and battery acid.



- ◆ It is unstable and explodes or produces toxic fumes, gases, and vapors when mixed with water or under other conditions such as heat or pressure. This is known as a **reactive** waste. Examples are certain cyanides or sulfide-bearing wastes.

- ◆ It is harmful or fatal when ingested or absorbed, or it leaches toxic chemicals into the soil or ground water when disposed of on land. This is known as a **toxic** waste. Examples are wastes that contain high concentrations of heavy metals, such as cadmium, lead, or mercury.



You can determine if your waste is toxic by having it tested using the Toxicity Characteristic Leaching Procedure (TCLP), or by simply knowing that your waste is hazardous or that your processes generate hazardous waste.

## Identifying Your Waste

To help you identify some of the waste streams common to your business, consult the table below to find a list of typical hazardous wastes generated by small businesses. Use the insert in the middle of this handbook for a more detailed listing of the EPA waste codes associated

with these waste streams to determine if your waste is hazardous. Commercial chemical products that are discarded might also become hazardous waste. For a complete listing of hazardous waste codes, consult with 40 CFR Part 261.

If your waste is hazardous, you will need to manage it according to appropriate federal regulations.

## TYPICAL HAZARDOUS WASTE GENERATED BY SMALL BUSINESSES

TYPE OF BUSINESS TYPICAL	HOW GENERATED	TYPES OF WASTES	WASTE CODES
Drycleaning and Laundry Plants	Commercial drycleaning processes	Still residues from solvent distillation, spent filter cartridges, cooked powder residue	D001, D039, F002
Furniture/Wood Manufacturing and Refinishing	Wood cleaning and wax removal, refinishing/stripping, staining, painting, finishing, brush cleaning and spray brush cleaning	Ignitable wastes, toxic wastes, solvent wastes, paint wastes	D001, F001-F005
Construction	Paint preparation and painting, carpentry and floor work, other specialty contracting activities, heavy construction, wrecking and demolition, vehicle and equipment maintenance for construction activities	Ignitable wastes, toxic wastes, solvent wastes, paint wastes, used oil, acids/bases	D001, D002, F001-F005
Laboratories	Diagnostic and other laboratory testing	Spent solvents, unused reagents, reaction products, testing samples, contaminated materials	D001, D002, D003, F001-F005, U211
Vehicle Maintenance	Degreasing, rust removal, paint preparation, spray booth, spray guns, brush cleaning, paint removal, tank cleanout, installing lead-acid batteries	Acids/bases, solvents, ignitable wastes, toxic wastes, paint wastes, batteries	D001, D002, D006, D008, F001-F005
Printing and Allied Industries	Plate preparation, stencil preparation for screen printing, photoprocessing, printing, cleanup	Acids/bases, heavy metal wastes, solvents, toxic wastes, ink	D002, D006, D008, F001-F005
Equipment Repair	Degreasing, equipment cleaning, rust removal, paint preparation, painting, paint removal, spray booth, spray guns, and brush cleaning	Acids/bases, toxic wastes, ignitable wastes, paint wastes, solvents	D001, D002, D006, D008, F001-F005
Pesticide End-Users/Application Services	Pesticide application and cleanup	Used/unused pesticides, solvent wastes, ignitable wastes, contaminated soil (from spills), contaminated rinsewater, empty containers	D001, F001-F005, U129, U136, P094, P123
Educational and Vocational Shops	Automobile engine and body repair, metalworking, graphic arts-plate preparation, woodworking	Ignitable wastes, solvent wastes, acids/bases, paint wastes	D001, D002, F001-F005



## Finding Your Generator Category

**O**nce you know that you generate hazardous waste, you need to measure the amount of waste you produce per month. The amount of hazardous waste you generate determines your generator category.

Many hazardous wastes are liquids and are measured in gallons—not pounds. In order to measure your liquid wastes, you will need to convert from gallons to pounds. To do this, you must know the density of the liquid. A rough guide is that 30 gallons (about half of a 55-gallon drum) of waste with a density similar to water

weighs about 220 pounds; 300 gallons of a waste with a density similar to water weighs about 2,200 lbs (1,000 kg).

EPA has established three generator categories, as follows, each of which is regulated differently:

### **CESQGs:**

#### **Conditionally Exempt Small**

**Quantity Generators:** You are considered a CESQG if you generate no more than 220 lbs (100 kg) per month of hazardous waste. You are exempt from hazardous waste management regulations provided that you comply with the basic requirements described on page 6.

### **SQGs:**

**Small Quantity Generators:** You are considered an SQG if you generate between 220 and 2,200 lbs (100 and 1,000 kg) per month of hazardous waste. SQGs must comply with EPA requirements for managing hazardous waste described in this document.

## WHAT IS YOUR GENERATOR CATEGORY?

**D**epending on your type of business, you might be regulated under different rules at different times. If, for example, you generate less than 220 lbs (100 kg) of hazardous waste during the month of June, you would be considered a CESQG for June and your June waste would be subject to the hazardous waste management requirements for CESQGs. If, in July, you generate between 220 and 2,200 lbs (100 kg to 1,000 kg) of hazardous waste, your generator status would change, and you would be considered an SQG for July. Your July waste would then be subject to the management requirements for SQGs.

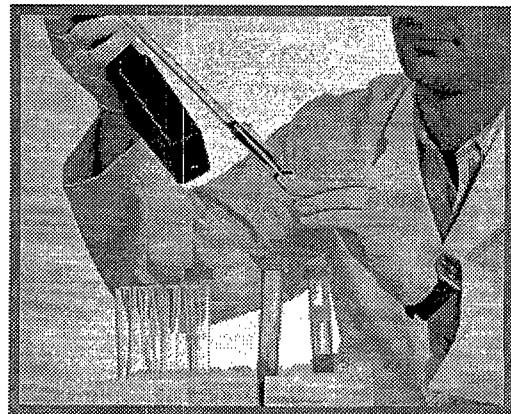
## TIP

**I**n many cases, small businesses that fall into different generator categories at different times choose to satisfy the more stringent requirements to simplify compliance.

### **LQGs:**

**Large Quantity Generators:** You are considered an LQG if you generate more than 2,200 lbs (1,000 kg) per month of hazardous waste. LQGs must comply with more extensive hazardous waste rules than those summarized in this handbook. See page 18 for an overview.

If you are a CESQG and you generate no more than 2.2 lbs (1 kg) of **acutely hazardous waste** (or 220 lbs (100 kg) of acutely hazardous waste spill residues) in a calendar month, and never store more than that amount for any period of time, you may manage the acutely hazardous waste according to the CESQG requirements. If you generate more than 2.2 lbs (1kg) of acutely hazardous waste, you must manage it according to the LQG requirements.



# WHAT DO YOU MEASURE TO DETERMINE YOUR GENERATOR CATEGORY?

## DO MEASURE:

All quantities of listed and characteristic hazardous wastes that are:

- Accumulated on the property for any period of time before disposal or recycling. (Dry cleaners, for example, must count any residue removed from machines, as well as spent cartridge filters.)
- Packaged and transported away from your business.
- Placed directly in a regulated treatment or disposal unit at your place of business.
- Generated as still bottoms or sludges and removed from product storage tanks.

## DO NOT MEASURE:

Wastes that:

- Are specifically exempted from counting. Examples include lead-acid batteries that will be reclaimed, scrap metal that will be recycled, used oil managed under the used oil provisions of 40 CFR 279, and universal wastes (e.g., batteries, pesticides, and thermostats) managed under 40 CFR 273.
- Might be left in the bottom of containers that have been thoroughly emptied through conventional means such as pouring or pumping.
- Are left as residue in the bottom of tanks storing products, if the residue is not removed from the product tank.
- Are reclaimed continuously on site without storing prior to reclamation, such as drycleaning solvents.

- Are managed in an "elementary neutralization unit," a "totally enclosed treatment unit," or a "wastewater treatment unit," without being stored first. (See definitions for an explanation of these types of units.)
- Are discharged directly to publicly owned treatment works (POTWs) 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.
- Have already been counted once during the calendar month, and are treated on site or reclaimed in some manner, and used again.
- Are regulated under the universal waste rule or have other special requirements. The federal regulations contain special, limited requirements for managing certain commonly generated wastes. These wastes can be managed following the less burdensome requirements listed below instead of the usual hazardous waste requirements. Check with your state agency to determine if your state has similar regulations.

**Used oil**—40 CFR Part 279

**Lead-acid batteries** that are reclaimed—40 CFR Part 266, Subpart G

**Scrap metal** that is recycled—40 CFR 261.6 (a)(3)

**Universal wastes** (e.g., certain batteries, recalled and collected pesticides, mercury-containing thermostats)—40 CFR Part 273



## REQUIREMENTS FOR CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS

If you generate no more than 220 lbs (100 kg) of hazardous waste per month, you are a Conditionally Exempt Small Quantity Generator (CESQG). You must comply with three basic waste management requirements to remain exempt from the full hazardous waste regulations that apply to generators of larger quantities (SQGs and LQGs).

(Note: there are different quantity limits for acutely hazardous waste.)

**F**irst, you must identify all hazardous waste that you generate. Second, you may not store more than 2,200 lbs (1,000 kg) of hazardous waste on site at any time. Finally, you must ensure delivery of your hazardous waste to an offsite treatment or disposal facility that is one of the following, or, if you treat or dispose of your hazardous waste on site, your facility also must be:

- A state or federally regulated hazardous waste management treatment, storage, or disposal facility.
- A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste.
- A facility that uses, reuses, or legitimately recycles the waste (or treats the waste prior to use, reuse, or recycling).
- A universal waste handler or destination facility subject to the universal waste requirements of 40 CFR Part 273. (Universal wastes are wastes such as certain batteries, recalled and collected pesticides, or mercury-containing thermostats.)

## STATE REQUIREMENTS

**S**ome states have additional requirements for CESQGs. For example, some states require CESQGs to follow some of the SQG requirements such as obtaining an EPA identification number, or complying with storage standards. See page 10 for SQG storage requirements.

### Suggestion:

It's a good idea to call the appropriate state agency to verify that the treatment, storage, and disposal facility (TSDF) you have selected has any necessary permits, etc. You also may want to see that the facility fits into one of the above categories. (It's a good idea to document such calls for your records.)

- ✓ Identify your hazardous waste.
- ✓ Comply with storage quantity limits.
- ✓ Ensure proper treatment and disposal of your waste.





# **OBTAINING AN EPA IDENTIFICATION NUMBER**

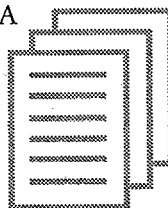
If your business generates between 220 lbs (100 kg) and 2,200 lbs (1,000 kg) of hazardous waste per month, you are an SOG, and you must obtain and use an EPA Identification Number. EPA and states use these 12-character numbers to monitor and track hazardous waste activities. You will need to use your identification number when you send waste off site to be managed.

**T**o obtain an EPA ID number, you should:

- Call or write your state hazardous waste management agency or the hazardous waste division of your EPA Regional office and ask for a copy of EPA Form 8700-12, "Notification of Hazardous Waste Activity." (State and EPA Regional offices are listed on pages 19-25.) You will be sent a booklet that contains a form with instructions and those portions of the regulations that will help you identify your waste. A sample copy of a completed notification form is shown on pages 8-9. (Note: A few states use a form that is different from the one shown. Your state agency will send you the appropriate form to complete.)



- Fill in the form as shown in the example. To complete Item IX of the form, you will need to identify your hazardous waste by its EPA Hazardous Waste Code. A list of common hazardous wastes and their waste codes can be found on the insert in this handbook; for a complete list of waste codes, you should consult 40 CFR Part 261, or call your state or regional EPA office or the RCRA Hotline. The form you receive from your state might contain an additional sheet that provides more space for waste codes. Complete one copy of the form for each business site where you generate or handle hazardous waste. Each site will receive its own EPA Identification Number. Make sure you sign the certification in Item X.



- Send the completed form to your state hazardous waste contact. This address is listed in the information booklet that you will receive with the form.



EPA records the information on the form and assigns an EPA Identification Number to the site identified on your form. The EPA number stays with the property when ownership changes. If you move your business, you must notify EPA or the state of your new location and submit a new form. If another business previously handled hazardous waste at this location and obtained an EPA Identification Number, you will be assigned the same number after you have notified EPA that you have moved to this location. Otherwise, EPA will assign you a new identification number.

- ✓ Call your state agency to determine if you need an EPA identification number.
- ✓ If you do, obtain a copy of EPA Form 8700-12.
- ✓ Fill in the form completely.
- ✓ Send the form to your STATE hazardous waste contact.

## SAMPLE "NOTIFICATION OF REGULATED WASTE ACTIVITY" FORM

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

Form Approved, OMB No. 2030-0028 Expires 9-30-86  
GSA No. 0246-EPA-07

**EPA** Notification of Regulated Waste Activity  
United States Environmental Protection Agency

Date Received (For Official Use Only)

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).

**I. Installation's EPA ID Number (Mark 'X' in the appropriate box)**

☒ A. First Notification ☐ B. Subsequent Notification (Complete item C)

C. Installation's EPA ID Number

**II. Name of Installation (Include company and specific site name)**

GENERAL METAL PROCESSING CO.

**III. Location of Installation (Physical address not P.O. Box or Route Number)**

Street  
501 MAIN STREET

Street (Continued)

City or Town SMALLTOWN State VA Zip Code 23000-

County Code County Name

**IV. Installation Mailing Address (See instructions)**

Street or P.O. Box  
501 MAIN STREET

City or Town SMALLTOWN State VA Zip Code 23000-

**V. Installation Contact (Person to be contacted regarding waste activities at site)**

Name (Last) JONES (First) WILLIAM

Job Title MANAGER Phone Number (Area Code and Number) 804-555-0509

**VI. Installation Contact Address (See instructions)**

A. Contact Address Location Mailing Other ☒ B. Street or P.O. Box

501 MAIN STREET

City or Town SMALLTOWN State VA Zip Code 23000-

**VII. Ownership (See instructions)**

A. Name of Installation's Legal Owner  
JOSEPHINE DOE

Street, P.O. Box, or Route Number  
234 BROAD STREET

City or Town SMALLTOWN State VA Zip Code 23000-

Phone Number (Area Code and Number) 804-555-1234

B. Land Type ☐ C. Owner Type ☐ D. Change of Owner Indicator (Date Changed) Yes ☐ No ☒ Month Day Year

EPA Form 8700-12 (Rev. 11-30-93) Previous edition is obsolete. Continued on Reverse

# SAMPLE "NOTIFICATION OF REGULATED WASTE ACTIVITY" FORM (Continued)

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only. Form Approved, OMB No. 2060-0028 Expires 9-30-96 GSA No. 0248-EPA-07

ID - For Official Use Only									

## VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes; Refer to Instructions)

A. Hazardous Waste Activity		B. Used Oil Recycling Activities
<p>1. Generator (See Instructions)</p> <p><input type="checkbox"/> a. Greater than 1000kg/mo (2,200 lbs.)</p> <p><input type="checkbox"/> b. 100 to 1000 kg/mo (200-2,200 lbs.)</p> <p><input checked="" type="checkbox"/> c. Less than 100 kg/mo (220 lbs.)</p> <p>2. Transporter (Indicate Mode in boxes 1-5 below)</p> <p><input type="checkbox"/> a. For own waste only</p> <p><input type="checkbox"/> b. For commercial purposes</p> <p>Mode of Transportation</p> <p><input type="checkbox"/> 1. Air</p> <p><input type="checkbox"/> 2. Rail</p> <p><input type="checkbox"/> 3. Highway</p> <p><input type="checkbox"/> 4. Water</p> <p><input type="checkbox"/> 5. Other - specify _____</p>	<p><input type="checkbox"/> 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity; see Instructions.</p> <p>4. Hazardous Waste Fuel</p> <p><input type="checkbox"/> a. Generator Marketing to Burner</p> <p><input type="checkbox"/> b. Other Marketers</p> <p><input type="checkbox"/> c. Boiler and/or Industrial Furnace</p> <p><input type="checkbox"/> 1. Smelter Refractory</p> <p><input type="checkbox"/> 2. Small Quantity Exemption</p> <p>Indicate Type of Combustion Device(s)</p> <p><input type="checkbox"/> 1. Utility Boiler</p> <p><input type="checkbox"/> 2. Industrial Boiler</p> <p><input type="checkbox"/> 3. Industrial Furnace</p> <p><input type="checkbox"/> 5. Underground Injection Control</p>	<p>1. Used Oil Fuel Marketer</p> <p><input type="checkbox"/> a. Marketer Directs Shipment of Used Oil to Off-Specification Burner</p> <p><input type="checkbox"/> b. Marketer Who First Claims the Used Oil Meets the Specifications</p> <p>2. Used Oil Burner - Indicate Type(s) of Combustion Device(s)</p> <p><input type="checkbox"/> a. Utility Boiler</p> <p><input type="checkbox"/> b. Industrial Boiler</p> <p><input type="checkbox"/> c. Industrial Furnace</p> <p>3. Used Oil Transporter - Indicate Type(s) of Activity(ies)</p> <p><input type="checkbox"/> a. Transporter</p> <p><input type="checkbox"/> b. Transfer Facility</p> <p>4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)</p> <p><input type="checkbox"/> a. Process</p> <p><input type="checkbox"/> b. Re-refine</p>

## IX. Description of Hazardous Wastes. (Use additional sheets if necessary)

**A. 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 261.20 - 261.24)

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic (List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**B. Listed Hazardous Wastes.** (See 40 CFR 261.31 - 33; See Instructions if you need to list more than 12 waste codes.)

1 F001	2 F001	3 K001	4 F001	5 F001	6 F001
7 F001	8 F001	9 K001	10 F001	11 F001	12 F001

**C. Other Wastes.** (State or other wastes requiring a handler to have an I.D. number; See Instructions.)

1 F001	2 F001	3 K001	4 F001	5 F001	6 F001
-----------	-----------	-----------	-----------	-----------	-----------

## X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature <i>Josephine R. Doe</i>	Name and Official Title (Type or print) JOSEPHINE DOE, OWNER	Date Signed 12/11/96
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## XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)



## MANAGING HAZARDOUS WASTE ON SITE

Most small businesses accumulate some hazardous waste on site for a short period of time and then ship it off site to a treatment, storage, or disposal facility (TSDF).

### Accumulating Your Waste

**A**ccumulating hazardous waste on site can pose a threat to human health and the environment, so you may only keep it for a short time without a permit. Before shipping the waste for disposal or recycling, you are responsible for its safe management, which includes safe storage, safe treatment, preventing accidents, and responding to emergencies in accordance with federal regulations.

SQGs can accumulate no more than 13,228 lbs (6,000 kg) of hazardous waste on site for up to 180 days without a permit. You can accumulate this amount of waste for up to 270 days if you must transport it more than 200 miles away for recovery, treatment, or disposal. Limited extensions may be granted by the state director or the regional EPA administrator. If you exceed these limits, you are considered a TSDF and must obtain an operating permit. Special storage requirements apply to liquid hazardous wastes containing polychlorinated biphenyls (PCBs).

SQGs must accumulate waste in tanks or containers, such as 55-gallon drums. Your storage tanks and containers must be managed according to EPA requirements summarized below:

- ☑ Accumulate wastes according to limits established by EPA for SQGs.
- ☑ Follow the storage and handling procedures required by EPA for SQGs.
- ☑ Follow EPA requirements for equipment testing and maintenance, access to communications or alarms, aisle space, and emergency arrangements with local authorities.

## TIP

**I**t is a good practice never to mix wastes. Mixing wastes can create an unsafe work environment and lead to complex and expensive cleanups and disposal.

### For containers, you must:

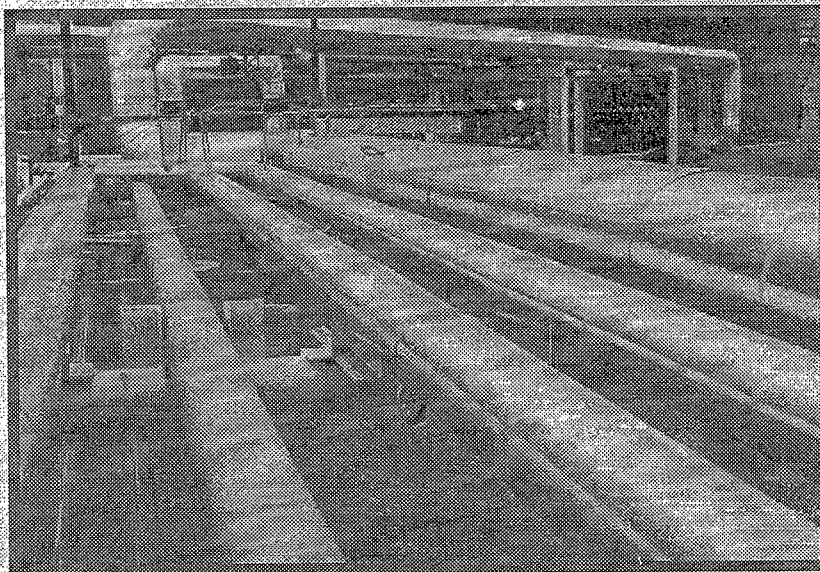
- Label each container with the words "HAZARDOUS WASTE," and mark each container with the date the waste was generated.
- Use a container made of, or lined with, a material that is compatible with the hazardous waste to be stored. (This will prevent the waste from reacting with or corroding the container.)
- Keep all containers holding hazardous waste closed during storage, except when adding or removing waste. Do not open, handle, or store (stack) containers in a way that might rupture them, cause them to leak, or otherwise fail.
- Inspect areas where containers are stored at least weekly. Look for leaks and for deterioration caused by corrosion or other factors.
- Maintain the containers in good condition. If a container leaks, put the hazardous waste in another container, or contain it in some other way that complies with EPA regulations.
- Do not mix incompatible wastes or materials unless precautions are taken to prevent certain hazards.



## WASTE MINIMIZATION: THE KEY TO BETTER WASTE MANAGEMENT

**T**he easiest and most cost-effective way of managing any waste is not to generate it in the first place. You can decrease the amount of hazardous waste your business produces by developing a few "good housekeeping" habits. Good housekeeping procedures generally save businesses money, and they prevent accidents and waste. To help reduce the amount of waste you generate, try the following practices at your business.

- **Do not mix wastes.** Do not mix nonhazardous waste with hazardous waste. Once you mix nonhazardous waste with hazardous waste, you may increase the amount of hazardous waste created, as the whole batch may become hazardous. Mixing waste can also make recycling very difficult, if not impossible. A typical example of mixing wastes would be putting nonhazardous cleaning agents in a container of used hazardous solvents.
- **Recycle and reuse manufacturing materials.** Many companies routinely put useful components back into productive use rather than disposing of them. Items such as oil, solvents, acids, and metals are commonly recycled and used again. In addition, some companies have taken waste minimization actions such as using fewer solvents to do the same job, using solvents that are less toxic, or switching to a detergent solution.
- **Change materials, processes, or both.** Businesses can save money and increase efficiency by replacing a material or a process with another that produces less waste. For example, you could use plastic blast media for paint stripping of metal parts rather than conventional solvent stripping.
- **Safely store hazardous products and containers.** You can avoid creating more hazardous waste by preventing spills or leaks. Store hazardous product and waste containers in secure areas, and inspect them frequently for leaks. When leaks or spills occur, materials used to clean them up also become hazardous waste.

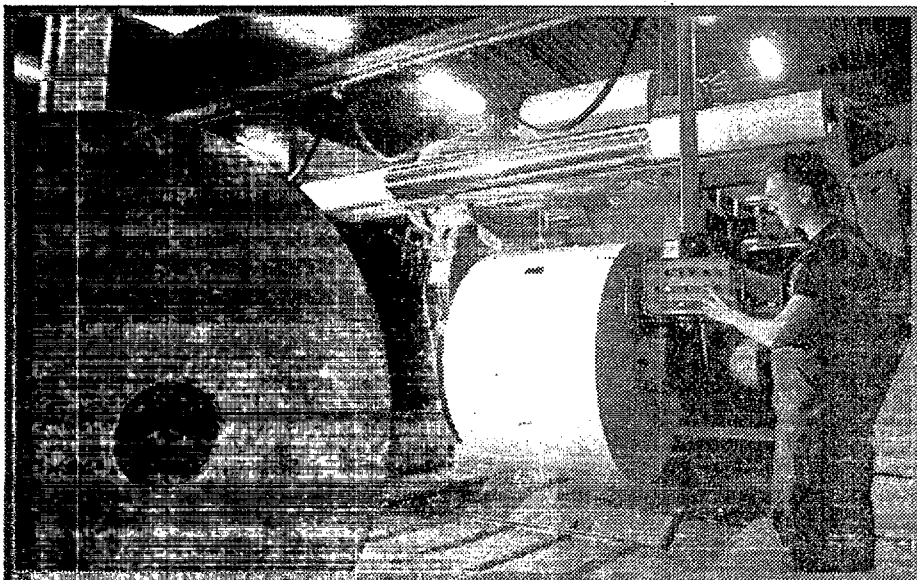


## For tanks, you must:

- Label each tank with the words "HAZARDOUS WASTE."
- Store only waste that will not cause the tank or the inner liner of the tank to rupture, leak, corrode, or fail.
- Equip tanks that have an automatic waste feed with a waste feed cutoff system, or a bypass system for use in the event of a leak or overflow.
- Inspect discharge control and monitoring equipment and the level of waste in uncovered tanks at least once each operating day. Inspect the tanks and surrounding areas for leaks or other problems (such as corrosion) at least weekly.
- Use the National Fire Protection Association's (NFPA's) buffer zone requirements for covered tanks containing ignitable or reactive wastes. These requirements specify distances considered to be safe buffer zones for various ignitable or reactive wastes. You can reach the NFPA at 617 770-3000.
- Do not mix incompatible wastes or materials unless precautions are taken to prevent certain hazards.
- Do not place ignitable or reactive wastes in tanks unless certain precautions are taken.
- Provide at least two feet (60 centimeters) of freeboard (space at the top of each tank) in uncovered tanks, unless the tank is equipped with a containment structure, a drainage control system, or a standby tank with adequate capacity.

## Treating Your Waste to Meet the Land Disposal Restrictions (LDRs)

**M**ost hazardous wastes may not be land disposed unless they meet "treatment standards." The Land Disposal Restrictions (LDR) program requires that the waste is treated to reduce the hazardous constituents to levels set by EPA, or that the waste is treated using a specific technology. It is your responsibility to ensure that your waste is treated to meet LDR treatment standards before it is land disposed. (See page 17 for a description of required LDR notices.) Most SQGs probably will have their designated TSDF do this treatment. If you choose to treat your waste yourself to meet LDR treatment standards, there are additional requirements including waste analysis plans, notifications, and certifications. To learn about these requirements call the RCRA Hotline, your state agency, or EPA Regional office, and consult 40 CFR Part 268.



## Preventing Accidents

**W**henver you store hazardous waste on site, you must minimize the potential risks from fires, explosions, or other accidents.

All SQGs that store hazardous waste on site must be equipped with:

- An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to all personnel.
- A device, such as a telephone (immediately available at the scene of operations) or a hand-held, two-way radio, capable of summoning emergency assistance from local police and fire departments or emergency response teams.
- Portable fire extinguishers, fire control devices (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control materials, and decontamination supplies.
- Water at adequate volume and pressure to supply water hose streams, foam-producing equipment, automatic sprinklers, or water spray systems.

## IF YOU THINK YOU HAVE AN EMERGENCY, IMMEDIATELY CALL THE NATIONAL RESPONSE CENTER AT 800 424-8802.

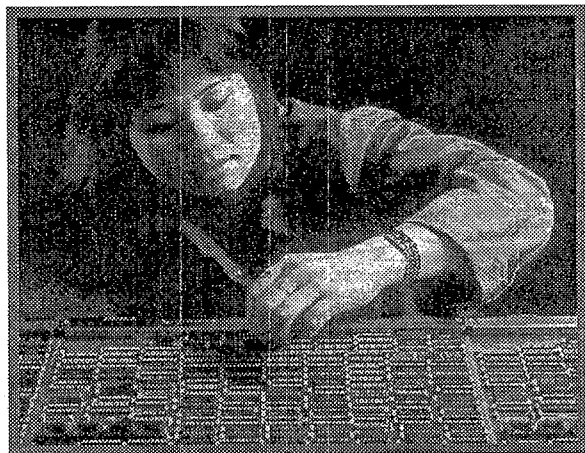
**I**n the event of a fire, explosion, or other release of hazardous waste that could threaten human health outside the facility, or if you think that a spill has reached surface water, call the National Response Center to report the emergency. The Response Center will evaluate the situation and help you make appropriate emergency decisions. In many cases, you will find that the problem you faced was not a true emergency, but **it is better to call if you are not sure.** Stiff penalties exist for failing to report emergencies.

You must test and maintain all equipment to ensure proper operation. Allow sufficient aisle space to permit the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation. Attempt to secure arrangements with fire departments, police, emergency response teams, equipment suppliers, and local hospitals, as appropriate, to provide services in the event of an emergency. Ensure that personnel handling hazardous waste have immediate access to an alarm or emergency communications device.

## Responding to Emergencies

**Y**ou must be prepared for an emergency at your facility. One way is to develop a contingency plan. A contingency plan usually answers a set of "what if" questions. For example: "What if there is a fire in the area where hazardous waste is stored?" or "What if I spill hazardous waste, or one of my hazardous waste containers leaks?" Although EPA does not require SQGs to develop a written contingency plan, in case of a fire, explosion, or toxic release, having such a plan would provide an organized and coordinated course of action. EPA does require SQGs to establish basic safety guidelines and response procedures to follow in the event of an emergency.

Worksheets 1 and 2 (on page 14) can help you set up these procedures. The information on Worksheet 1 must be posted near your phone. You must ensure that employees are familiar with these procedures.



## WORKSHEET 1

FILL IN AND POST THIS INFORMATION NEXT TO YOUR TELEPHONE.

### EMERGENCY RESPONSE INFORMATION

Emergency Coordinator

Name: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fire Extinguisher

Location(s): \_\_\_\_\_

Spill Control Materials

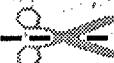
Location(s): \_\_\_\_\_

Fire Alarm (if present)

Location(s): \_\_\_\_\_

Fire Department

Telephone: \_\_\_\_\_



## WORKSHEET 2

FILL IN AND POST THIS INFORMATION NEXT TO YOUR TELEPHONE. MAKE SURE ALL EMPLOYEES READ AND ARE FAMILIAR WITH ITS CONTENTS.

### EMERGENCY RESPONSE PROCEDURES

In the event of a spill:

Contain the flow of hazardous waste to the extent possible, and as soon as is possible, clean up the hazardous waste and any contaminated materials or soil.

In the event of a fire:

Call the fire department and, if safe, attempt to extinguish the fire using a fire extinguisher.

In the event of a fire, explosion, or other release that could threaten human health outside the facility, or if you know that the spill has reached surface water:

Call the National Response Center at its 24-hour number (800 424-8802). Provide the following information:

Our company name: \_\_\_\_\_

Our address: \_\_\_\_\_

Our U.S. EPA identification number: \_\_\_\_\_

Date of accident \_\_\_\_\_

Time of accident \_\_\_\_\_

Type of accident (e.g., spill or fire) \_\_\_\_\_

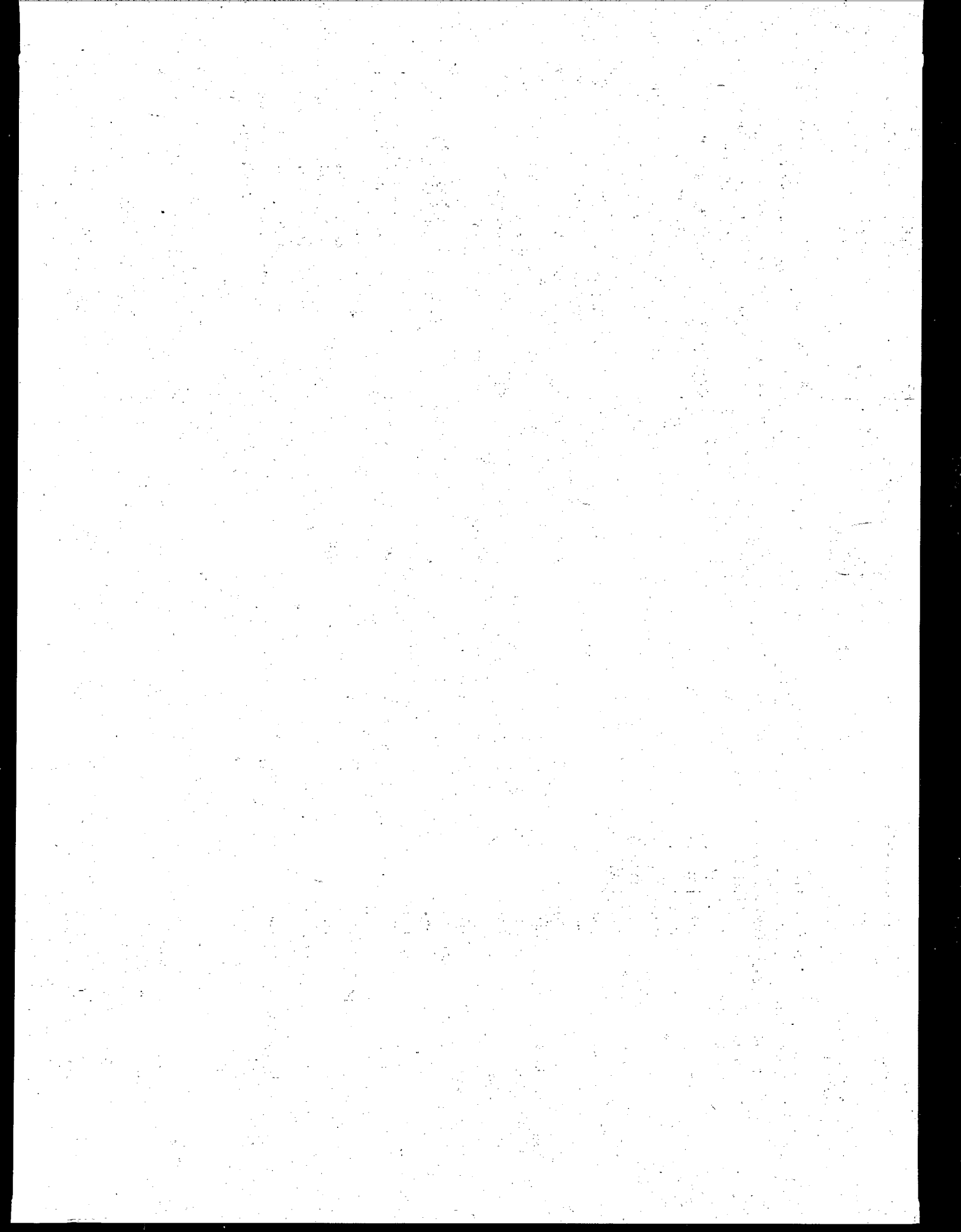
Quantity of hazardous waste involved \_\_\_\_\_

Extent of injuries, if any \_\_\_\_\_

Estimated quantity and disposition of recovered materials, if any \_\_\_\_\_







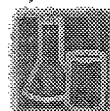
## Solvents:



Solvents, spent solvents, solvent mixtures, or solvent still bottoms are often hazardous. 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	Toluene	F005
Carbon Disulfide	F005	Trichloroethylene	F001, F002
Carbon Tetrachloride	F001	Trichlorofluoromethane	F002
Chlorobenzene	F002	Trichlorotrifluoroethane	F002
Cresols	F004	(Valclene)	
Cresylic Acid	F004	White Spirits	D001
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-Nitrobenzene	F004		
Petroleum Solvents	D001		
(Flashpoint less than 140°F)			
Pyridine	F005		
1,1,1-Trichloroethane	F001, F002		
1,1,2-Trichloroethane	F002		
Tetrachloroethylene	F001, F002		
(Perchloroethylene)			

## Acids:



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). All corrosive materials and solutions have the waste code D002. The following are some of the more

## Ignitable Wastes:

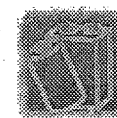


Ignitable wastes are any liquids that have a flashpoint less than 140°F, any non-liquids that are capable of causing a fire through friction, absorption of moisture, or spontaneous chemical change, or any ignitable compressed gas as described in 49 CFR 173.300 (for a complete description of ignitable wastes, see 40 CFR 261.21). Examples are spent solvents, solvent still bottoms, epoxy resins and adhesives, and waste inks containing flammable solvents. Unless otherwise specified, all ignitable wastes have the waste code D001.

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

# EPA HAZARDOUS WASTE CODES FOR WASTE STREAMS COMMONLY GENERATED BY SMALL QUANTITY

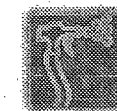
## Lead-Acid Batteries:



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. 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:

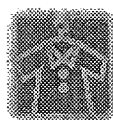


The pesticides listed below are hazardous. Wastes marked with an asterisk (\*) have been designated acutely hazardous.

For a more complete listing, see 40 CFR

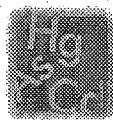
Hydrobromic Acid  
 Hydrochloric Acid  
 Hydrofluoric Acid  
 Nitric Acid  
 Perchloric Acid  
 Phosphoric Acid  
 Potassium Hydroxide  
 Sodium Hydroxide  
 Sulfuric Acid

## 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 waste code **F002**. Still residues containing petroleum solvents with a flashpoint less than 140°F are considered hazardous and have the waste code **D001**.

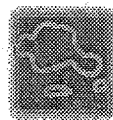
## Heavy Metals/Inorganics:



Heavy metals and other inorganic waste materials are considered hazardous if the extract from a representative sample of the waste has any of the specific constituents concentrations as shown in 40 CFR 262.24, Table 1. Materials may include dusts, solutions, wastewater treatment sludges, paint wastes, and waste inks. The following are common heavy metals/inorganics:

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

## Ink Sludges Containing Chromium and Lead:

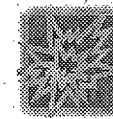


This category includes solvent washes and sludges, caustic washes and sludges, and water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead. All ink sludges have the waste code **K086**.

This list can be used as a guide for small quantity generators to determine which of their wastes, if any, are hazardous, and to determine the EPA waste codes associated with each waste. It is not intended to provide a comprehensive list of all waste codes and waste streams that small businesses could generate. Except for the pesticide and wood preserving categories, this list does not include waste codes for commercial chemical products that are hazardous when discarded unused. These wastes, as well as all others not listed here, can be found in Title 40 of the Code of Federal Regulations (40 CFR) Part 261. If you have any questions, contact your state agency or the RCRA Hotline at 703 412-9810 or TDD 703 412-3323 in the Washington, DC, area or at 800 424-9346 or TDD 800 533-7672 from other locations.

Aldicarb	P076
Amitrole	U011
1,2-Dichloropropene	U084
*Heptachlor	P059
Lindane	U129
*Methyl Parathion	P071
*Parathion	P089
*Phorate	P094

## Reactives:

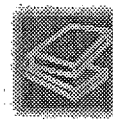


Reactive wastes include materials or mixtures that are unstable, react violently with or form explosive mixtures with water, generate toxic gases or vapors when mixed with water (or when exposed to pH conditions between 2 and 12.5 in the case of

cyanide or sulfide bearing wastes), or are capable of detonation or explosive reaction when heated or subject to shock (for a complete description of reactive wastes, see 40 CFR 261.23). Unless otherwise specified, all reactive wastes have the waste code **D003**. The following materials are commonly considered to be reactive:

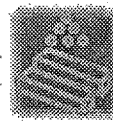
Acetyl Chloride	Cyanides	Organic Peroxides	Permanganates
Chromic Acid	Hypochlorites	Perchlorates	Sulfides

## Spent Plating and Cyanide Wastes:



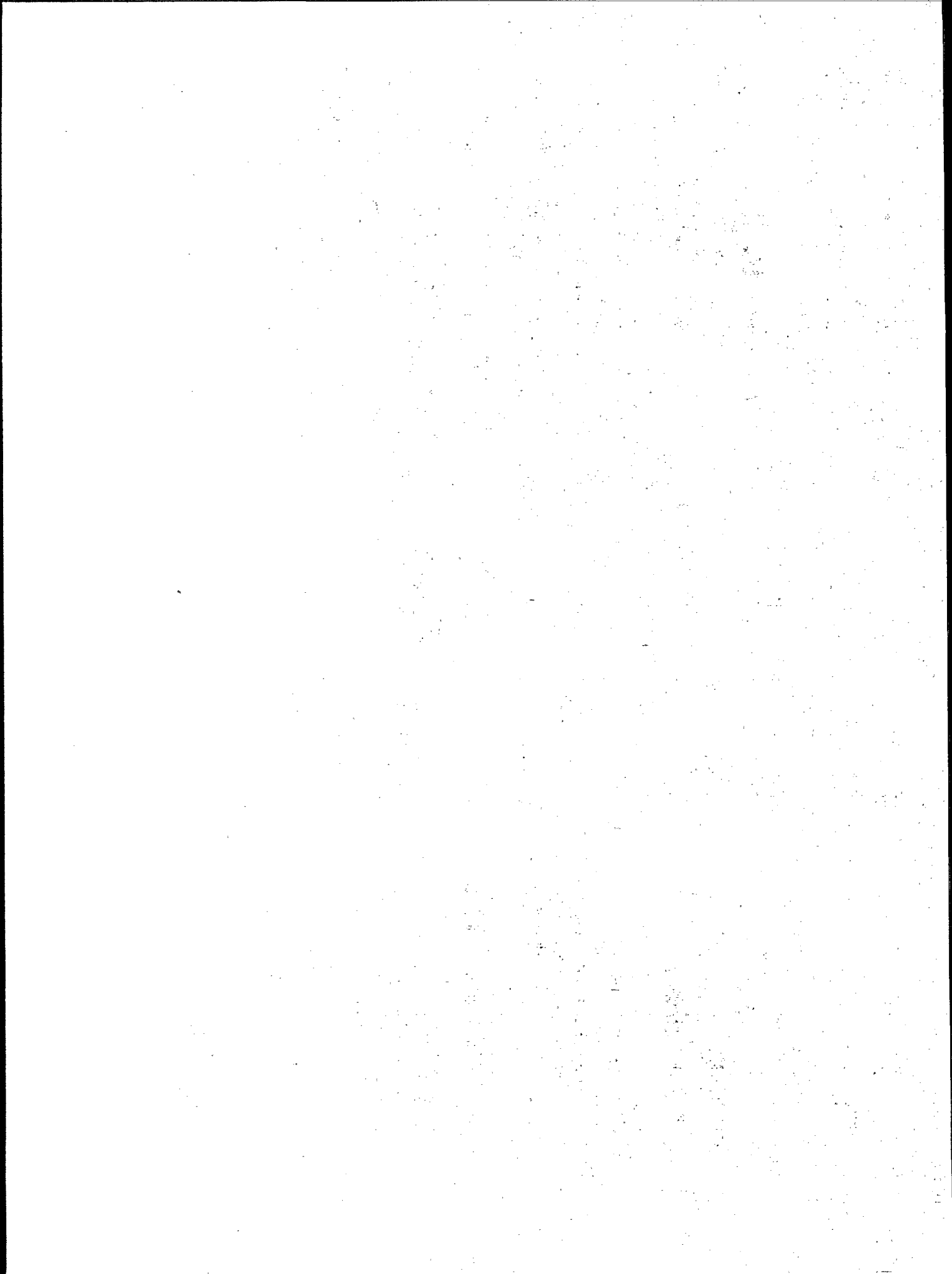
Spent plating wastes contain cleaning solutions and plating solutions with caustics, solvents, heavy metals, and cyanides. Cyanide wastes may also be generated from heat treatment operations, pigment production, and manufacturing of anti-caking agents. Plating wastes generally have the waste codes **F006-F009**, with F007 and F009 containing cyanide. Cyanide heat treating wastes generally have the waste codes **F010-F012** (see 40 CFR 261.31 for a more complete description of plating wastes).

## Wood Preserving Agents:



The wastewater treatment sludges from wastewater treatment operations are considered hazardous. Bottom sediment sludges from the treatment of wastewater processes that use creosote and pentachlorophenol have the waste code **K001**. In addition, unless otherwise indicated, specific wood preserving compounds are:

Chromated Copper Arsenate	D004	Pentachlorophenol	F027
Creosote	U051		





## SHIPPING WASTE OFF SITE

When shipping waste off site, SOGs must follow certain procedures that are designed to ensure safe transport and proper management of the waste.

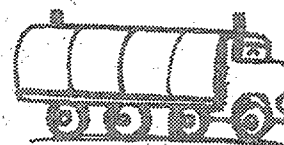
### Selecting a TSDF

**S**OGs may send their waste only to a regulated TSDF or recycler. Most regulated TSDFs and recyclers will have a permit from the state or EPA. Some, however, may operate under other regulations that do not require a permit. Check with the appropriate state authorities to be sure the facility you select has any necessary permits. All TSDFs and recyclers must have EPA identification numbers.

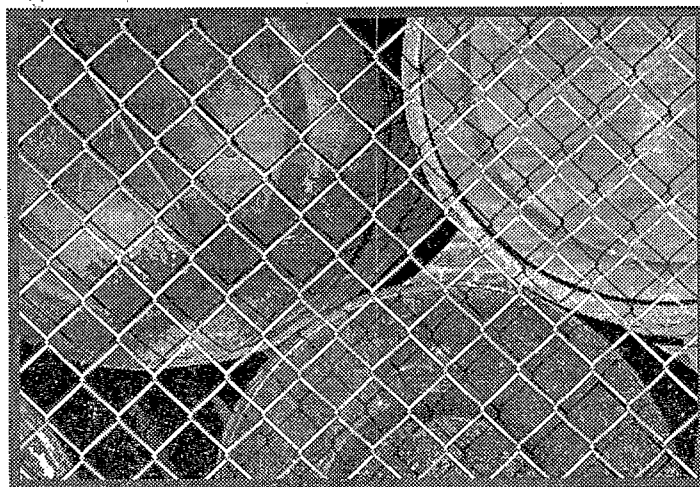
### Labeling Waste Shipments

**S**OGs must properly package, label, and mark all hazardous waste shipments, and placard the vehicles in which these wastes are shipped following Department of Transportation (DOT) regulations. Most small businesses use a commercial transporter to ship hazardous waste. These transporters can advise you on specific requirements for placarding, labeling, marking, and packaging; however, you remain responsible for compliance. For additional information, consult the DOT regulations (49 CFR Parts 172 and 173), or call the DOT hazardous materials information line at 202 366-4488.

Federal regulations allow you to transport your own hazardous waste to a designated TSDF provided that you comply with DOT rules. Some states, however, do not allow this practice. Call DOT and your state hazardous waste management agency (see page 19) regarding applicable regulations.



- ✓ Package, label, and mark your shipment, and placard the vehicle in which your waste is shipped as specified in DOT regulations.
- ✓ Prepare a hazardous waste manifest to accompany your shipment.
- ✓ Include a notice and certification with each waste shipment.
- ✓ Ensure the proper management of any hazardous waste you ship (even when it is no longer in your possession).



## SELECTING A TRANSPORTER OR TSDF/RECYCLER

**I**t is important to choose your transporter and your TSDF carefully since you remain responsible for the proper management of your hazardous waste even after it has left your site.

For help in choosing a transporter or TSDF, check with the following sources:

- References from business colleagues who have used a specific hazardous waste transporter or TSDF.
- Trade associations for your industry that might keep a file on companies that handle hazardous waste.
- The Better Business Bureau or Chamber of Commerce in the TSDF's area, which might have a record of any complaints registered against a transporter or a facility.
- Your state hazardous waste management agency or EPA Regional office, which can tell you whether the transporter or TSDF has a U.S. EPA identification number and a permit, if required.



## Preparing Hazardous Waste Manifests

**A** hazardous waste manifest must accompany all hazardous waste that is shipped off site. A hazardous waste manifest is a multipart form designed to track hazardous waste from generation to disposal. It will help you to track your waste during shipment and make sure it arrives at the proper destination. If you send waste to a recycling facility, you may be able to use a tolling agreement instead of a manifest. A tolling agreement is a "closed-loop" arrangement whereby a generator contracts with a recycling company to reclaim its hazardous waste and return it as a recycled product, thereby avoiding disposal. A copy of the contract must be kept on file for three years after the contract has ended.



Various versions of hazardous waste manifest forms are available.

- Some states require their own manifest form. If the state to which you are shipping your waste requires its own manifest, use that state's form. To obtain manifest forms, contact the hazardous waste management agency of the recipient state, your transporter, or the TSDF that you intend to use.
- If the state to which you are shipping your waste does not have its own manifest, but the state in which your waste was generated does require its own manifest, use your state's form. To obtain blank forms, contact your transporter or your state hazardous waste agency.

- If neither state requires a manifest, you can use the federal Uniform Hazardous Waste Manifest, EPA Form 8700-22. Copies are available from some transporters, TSDFs, and some commercial printers. Your state hazardous waste agency can refer you to manifest suppliers.

You must fill in all parts of a manifest. Information requested includes: name of transporter, name of the designated facility, your EPA ID number, and a description of the waste based on DOT requirements, such as proper shipping name and hazard class. Call the DOT information line for more information on DOT waste description requirements.

The transporter signs the completed manifest when the shipment is accepted for transport. The facility operator at the designated TSDF also signs the form when the shipment is received and sends a copy of it back to you. You must keep this copy on file for three years. (It might be a good practice, however, to keep it for as long as you are in business.)

Any SQG that does not receive a signed copy of the manifest from the designated TSDF within 60 days of shipment must submit a legible copy of the manifest to the state or EPA regional office. This copy, known as an exception report, simply indicates that a signed copy was not received from the facility operator.

## Land Disposal Restrictions (LDR) Reporting Requirements

**R**egardless of where the waste is being sent, for each shipment of waste subject to LDRs you must send the receiving TSDF or recycler an LDR notice. This notice must provide information about your waste, such as the EPA hazardous waste code and the LDR treatment standard. The purpose of this notice is to let the TSDF know that the waste must meet treatment standards before it is land disposed. There is no required form for this notice, but your TSDF may provide a form for you to use. A certification may also be required in specific situations. Call the RCRA Hotline, your state agency, or EPA regional office and consult 40 CFR Part 268 for help with LDR notification and certification requirements.

## Export Notification

**I**f you choose to export your hazardous waste, you must notify EPA 60 days before the intended date of shipment to obtain written consent. EPA's "Acknowledgement of Consent" document must accompany the shipment at all times. For more information on how to obtain the consent to export hazardous waste, contact the RCRA Hotline at 800 424-9346.



## SUMMARY OF REQUIREMENTS FOR LARGE QUANTITY GENERATORS

If you are a Large Quantity Generator (LQG) (generating more than 2,200 lbs (1,000 kg) per month), you must comply with the full set of hazardous waste regulations. This table summarizes the federal LQG requirements. This is only a summary and does not include all of the LQG requirements. For more details, call the RCRA Hotline or see 40 CFR Part 262. Be sure to check with your state as well, as some states have additional or more stringent requirements than the federal government.

LOG REQUIREMENTS	SUMMARY
Hazardous Waste Determination (40 CFR 262.10) Generator Category Determination (40 CFR 262.10 (b) and 261.5 (b) and (c))	Identify all hazardous wastes you generate. Measure the amount of hazardous waste you generate per month to determine your generator category (e.g., LQG).
EPA Identification Numbers (40 CFR 262.12)	Obtain a copy of EPA Form 8700-12, fill out the form, and send it to the contact listed with the form. An EPA identification number will be returned to you for your location.
Prepare Hazardous Waste for Shipment Off Site (40 CFR 262.30 - 262.33)	Package, label, mark, and placard wastes following Department of Transportation requirements. Ship waste using hazardous waste transporter.
The Manifest (40 CFR 262.20 - 262.23, 262.42)	Ship waste to hazardous waste treatment, storage, disposal, or recycling facility. Ship hazardous waste off site using the manifest system (EPA Form 8700-22) or state equivalent.
Managing Hazardous Waste On Site (40 CFR 262.34)	Accumulate waste for no more than 90 days without a permit. Accumulate waste in: <ul style="list-style-type: none"> <li>- Containers</li> <li>- Tanks</li> <li>- Drip pads</li> <li>- Containment buildings</li> </ul> and comply with specified technical standards for each unit type. Comply with Preparedness and Prevention requirements. Prepare written Contingency Plan. Train employees in hazardous waste management and emergency response.
Recordkeeping and Biennial Report (40 CFR 262.40 - 262.41)	Retain specified records for three years. Submit biennial report by March 1 of even numbered years covering generator activities for the previous year.
Comply with Land Disposal Restrictions (40 CFR 268)	Ensure that wastes meet treatment standards prior to land disposal. Send notifications and certifications to TSDF as required. Maintain waste analysis plan if treating on site.
Export/Import Requirements (40 CFR Subparts E and F)	Follow requirements for exports and imports, including notification of intent to export and acknowledgement of consent from receiving country.

## WHERE TO GET MORE HELP

For further assistance in understanding the hazardous waste regulations applicable to you, contact your state hazardous waste agency. Other assistance resources include the EPA Resource Centers (including the RCRA Hotline) (page 24), or your EPA Regional office (page 25).

Also, see other related sections of the Code of Federal Regulations:

- Handling PCBs (40 CFR Part 761)
- Toxic Release Inventory (TRI) Reporting (40 CFR Part 372)
- Domestic Sewage Waste Disposal Reporting (40 CFR Part 403)
- Shipping Hazardous Materials (49 CFR Parts 171-180)

## APPENDIX A

### STATE HAZARDOUS WASTE MANAGEMENT AGENCIES

One of the best ways to ensure compliance with hazardous waste regulations is to set up a visit by an inspector from your state or local hazardous waste agency. These visits can help you identify and correct problems. During the visit, you can ask the inspectors questions and receive advice on effective ways to manage your hazardous waste. The best way to prepare for a visit from an inspector is to conduct your own self inspection. See Worksheet 3 on page 26 for a list of questions that should help.

#### Alabama

Land Division  
Alabama Department of  
Environmental Management  
1751 Cong. William L. Dickinson  
Drive  
Montgomery, AL 36130  
334 271-7730

#### Alaska

Division of Air and Water  
Hazardous Waste Section  
Alaska Department of Environmental  
Conservation  
410 Willoughby Avenue, Suite 105  
Juneau, AK 99801  
907 465-5158

#### American Samoa

American Samoa Environmental  
Protection Agency  
Government of American Samoa  
Pago Pago, American Samoa 96799  
Overseas Operator: 684 663-2304

#### Arizona

Hazardous Waste Compliance Unit  
Arizona Department of  
Environmental Quality  
3033 N. Central Avenue  
Phoenix, AZ 85012  
602 207-4108

#### Arkansas

Hazardous Waste Division  
Arkansas Department of Pollution  
Control and Ecology  
8001 National Drive  
Little Rock, AR 72219  
501 562-6533

#### California

Hazardous Waste Management  
Program  
Department of Toxic Substances  
Control  
P.O. Box 806  
Sacramento, CA 95812  
916 324-1781  
800 61-TOXIC (CA only)

#### Colorado

Hazardous Materials and Waste  
Management Division  
Colorado Department of Health  
4300 Cherry Creek Drive South  
Denver, CO 80222  
303 692-3320





**Commonwealth of Northern  
Mariana Islands**

Division of Environmental Quality  
Department of Public Health and  
Environmental Services  
P.O. Box 1304  
Commonwealth of the Northern  
Mariana Islands  
Saipan, MP 96950  
Overseas Operator: 670 234-6114  
Cable Address: Gov. NMI Saipan

**Connecticut**

Bureau of Waste Management  
Department of Environmental  
Protection  
79 Elm Street  
Hartford, CT 06106  
203 424-3023

**Delaware**

Hazardous Waste Management  
Branch  
Department of Natural Resources and  
Environmental Control  
P.O. Box 1401  
89 Kings Highway  
Dover, DE 19903  
302 739-3689

**District of Columbia**

Hazardous Waste Management  
Branch  
Pesticides and Hazardous Materials  
Division  
Environmental Regulatory  
Administration  
2100 Martin Luther King Avenue,  
S.E.  
Suite #203  
Washington, DC 20020  
202 645-6080

**Florida**

Bureau of Solid and Hazardous Waste  
MS4560  
Division of Waste Management  
Department of Environmental  
Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
904 488-0300

**Georgia**

Hazardous Waste Management  
Branch  
Environmental Protection Division  
Department of Natural Resources  
Floyd Towers East/Room 1154  
205 Butler Street, S.E.  
Atlanta, GA 30334  
404 656-7802

**Guam**

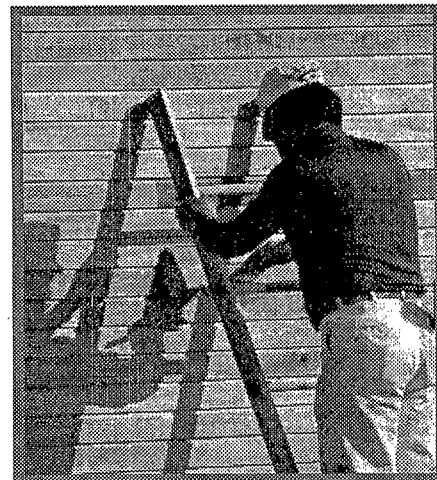
Solid and Hazardous Waste  
Management Program  
Guam Environmental Protection  
Agency  
130 Rajas Street, D107 Harmon  
Plaza  
Harmon, Guam 96911  
Overseas Operator: 671 646-8863

**Hawaii**

Solid and Hazardous Waste Branch  
Office of Solid Waste Management  
Department of Health  
919 Ala Moana, 2nd Floor  
Honolulu, HI 96814  
808 586-4226

**Idaho**

Hazardous Materials Bureau  
Division of Environmental Quality  
Department of Health and Welfare  
1410 North Hilton Street  
Boise, ID 83706  
208 334-5898



**Illinois**

Division of Land Pollution Control  
Illinois Environmental Protection  
Agency  
2200 Churchill Road  
Springfield, IL 62794-9276  
217 785-8604

**Indiana**

Hazardous Waste Management  
Branch  
Office of Solid and Hazardous Waste  
Indiana Department of  
Environmental Management  
105 N. Senate Avenue  
P.O. Box 6015  
Indianapolis, IN 46206-6015  
317 232-4417

**Iowa**

Environmental Protection Division  
Department of Natural Resources  
900 East Grand Avenue  
Des Moines, IA 50319-0034  
515 281-4968

**Kansas**

Bureau of Waste Management  
Department of Health and  
Environment  
Forbes Field, Building 740  
Topeka, KS 66620-0001  
913 296-1608

**Kentucky**

Hazardous Waste Branch  
Division of Waste Management  
Department of Environmental  
Protection  
18 Reilly Road, Frankfort Office Park  
Frankfort, KY 40601  
502 564-6716

**Louisiana**

Office of Solid and Hazardous Waste  
Hazardous Waste Division  
Louisiana Department of  
Environmental Quality  
P.O. Box 82178  
7290 Bluebonnet Drive  
Baton Rouge, LA 70884-2178  
504 765-0249

**Maine**

Division of Oil and Hazardous  
Materials Facilities  
Bureau of Hazardous Materials  
Control and Solid Waste Control  
Department of Environmental  
Protection  
State House, Station #17  
Augusta, ME 04333  
207 287-2651

**Maryland**

Hazardous Waste Program  
Hazardous and Solid Waste  
Management Administration  
Maryland Department of the  
Environment  
2500 Broening Highway  
Baltimore, MD 21224  
301 631-3345

**Massachusetts**

Division of Hazardous Waste  
Massachusetts Department of  
Environmental Protection  
One Winter Street, 7th Floor  
Boston, MA 02108  
617 292-5574

**Michigan**

Hazardous Waste Permit Section  
Waste Management Division  
Department of Natural Resources  
608 West Allegan, 1st Floor  
Lansing, MI 48933  
517 373-0530

**Minnesota**

Hazardous Waste Division  
Minnesota Pollution Control Agency  
520 North Lafayette Road  
St. Paul, MN 55155  
612 297-8512

**Mississippi**

Division of Hazardous Waste  
Management  
Office of Pollution Control  
Department of Environmental  
Quality  
2380 Highway 80 West  
P.O. Box 10385  
Jackson, MS 39204  
601 961-5052

**Missouri**

Hazardous Waste Management  
Program  
Division of Environmental Quality  
Department of Natural Resources  
Jefferson Building  
205 Jefferson Street  
P.O. Box 176  
Jefferson City, MO 65102  
314 751-3176

**Montana**

Solid and Hazardous Waste Bureau  
Department of Health and  
Environmental Sciences  
Cogswell Building  
P.O. Box 200901  
Helena, MT 59620-0901  
406 444-1430

**Nebraska**

Air and Waste Management Division  
Department of Environmental  
Quality  
1200 N Street, The Atrium  
Suite 400  
P.O. Box 98922  
Lincoln, NE 68509-8922  
402 471-4217



**Nevada**

Waste Management Bureau  
Division of Environmental Protection  
Department of Conservation and  
Natural Resources  
333 West Nye Lane  
Carson City, NV 89710  
702 784-1717  
800 882-3233 (NV only)

**New Hampshire**

Waste Management Compliance  
Bureau  
Waste Management Division  
Department of Environmental  
Services  
6 Hazen Drive  
Concord, NH 03301-6509  
603 271-2942

**New Jersey**

Bureau of Advisement and Manifest  
Department of Environmental  
Protection  
401 East State St./CN-421  
Trenton, NJ 08625  
609 292-8341

**New Mexico**

Hazardous and Radioactive Waste  
Bureau  
Environmental Department  
P.O. Box 26110  
Santa Fe, NM 87502  
505 827-4308

**New York**

Division of Hazardous Substances  
Regulation  
Department of Environmental  
Conservation  
50 Wolfe Road  
Albany, NY 12233  
518 485-8988

**North Carolina**

Hazardous Waste Section  
Division of Solid Waste Management  
Department of Environment, Health,  
and Natural Resources  
P.O. Box 27687  
Raleigh, NC 27611-7687  
919 733-2178

**North Dakota**

Division of Hazardous Waste  
Management  
Department of Health Management  
and Special Studies  
P.O. Box 5620  
Bismarck, ND 58502-5520  
701 328-5166

**Ohio**

Division of Hazardous Waste  
Management  
Ohio Environmental Protection  
Agency  
1800 Watermark Drive  
Columbus, OH 43215  
614 644-2944

**Oklahoma**

Division of Hazardous Waste  
Management  
Department of Environmental  
Quality  
1000 Northeast 10th Street  
Oklahoma City, OK 73117-1212  
405 271-5338

**Oregon**

Hazardous Waste Program  
Waste Management and Cleanup  
Division  
Department of Environmental  
Quality  
811 Southwest 6th Avenue  
Salem, OR 97204  
503 229-5913

**Pennsylvania**

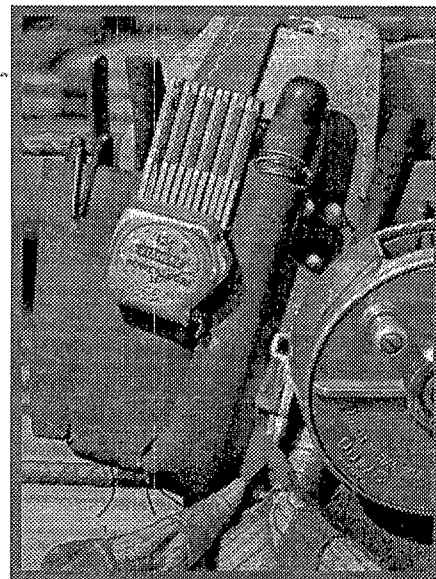
Bureau of Waste Management  
Pennsylvania Department of  
Environmental Resources  
400 Market Street  
P.O. Box 8472  
Harrisburg, PA 17105-8472  
717 787-6239

**Puerto Rico**

Environmental Quality Board  
Office of the Governor  
Banco Nationale Plaza Building  
Suite 431  
Hatorey, PR 00910  
809 767-8056

**Rhode Island**

Division of Waste Management  
Department of Environmental  
Management  
291 Promenade Street  
Providence, RI 02908  
401 277-2797



**South Carolina**

Division of Hazardous and Infectious  
Waste Management  
Department of Health and  
Environmental Control  
2600 Bull Street  
Columbia, SC 29201  
803 896-4000

**South Dakota**

Division of Environmental  
Regulation  
Department of Environment and  
Natural Resources  
523 E. Capitol Avenue, Foss Building  
Pierre, SD 57501-3181  
605-733-3153

**Tennessee**

Division of Solid Waste Management  
Tennessee Department of  
Environmental Conservation  
401 Church Street  
L&C Tower, 5th Floor  
Nashville, TN 37243  
615 532-0780

**Texas**

Industrial and Hazardous Waste  
Division  
Texas Natural Resources Conservation  
Commission  
P.O. Box 13087  
Austin, TX 78711-3087  
512 239-6592

**Utah**

Hazardous Waste Compliance Section  
Division of Solid and Hazardous  
Waste Management  
Department of Environmental  
Quality  
P.O. Box 144880  
Salt Lake City, UT 84114-4880  
801 538-6170

**Vermont**

Hazardous Waste Management  
Division  
Department of Environmental  
Conservation  
Agency of Natural Resources  
103 South Main Street, West Building  
Waterbury, VT 05671  
802 241-3888

**Virgin Islands**

Division of Environmental Protection  
Department of Planning and Natural  
Resources  
Government of the Virgin Islands  
1118 Watergut Homes,  
Christiansted Project  
St. Croix, VI 00820  
809 773-0565

**Virginia**

Office of Waste Resource  
Management  
Waste Division  
Department of Environmental  
Quality  
P.O. Box 10009  
Richmond, VA 23240-0009  
804 527-5145

**Washington**

Division of Hazardous Waste and  
Toxics Program  
Department of Ecology  
P.O. Box 47600  
Olympia, WA 98504-7600  
206 407-6758

**West Virginia**

Hazardous Waste Management  
Section  
Division of Environmental Protection  
Bureau of Environment  
State Complex Building 3, Room 732  
1356 Hansford Street  
Charleston, WV 25301  
304 558-5929

**Wisconsin**

Hazardous Waste Management  
Section  
Division of Environmental Quality  
Department of Natural Resources  
101 S. Webster Street  
Madison, WI 53702  
608 266-2111

**Wyoming**

Solid and Hazardous Waste Division  
State of Wyoming Department of  
Environmental Regulation  
122 West 25th Street  
Herschler Building  
Cheyenne, WY 82002  
307 777-7752

## APPENDIX B

### EPA AND OTHER FEDERAL RESOURCE CENTERS

#### RCRA/Superfund/OUST Hotline

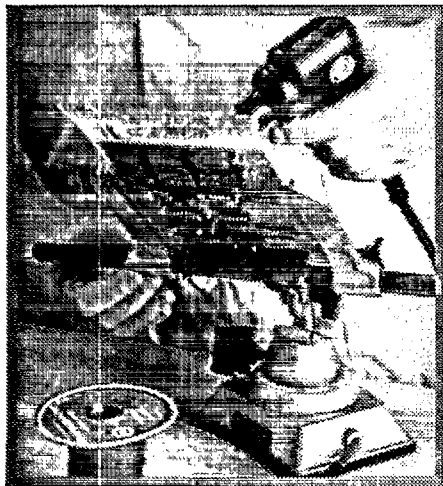
RCRA/SF/OUST Hotline  
1725 Jefferson Davis Highway  
Arlington, VA 22202  
Phone: 800 424-9346, or TDD 800  
553-7672  
Fax: 703 486-3333

*Answers questions on matters related to solid waste, hazardous waste, or underground storage tanks. Also can be used to find and order EPA publications.*

#### Small Business Ombudsman Clearinghouse/Hotline

U.S. Environmental Protection  
Agency  
Small Business Ombudsman (1230C)  
401 M Street, SW.  
Washington, DC 20460  
Phone: 800 368-5888  
Fax: 703 305-6462

*Helps private citizens, small businesses, and smaller communities with questions on all program aspects within EPA.*



#### Department of Transportation (DOT) Hotline

Office of Hazardous Materials  
Standards (DOT)  
Research and Special Programs  
Administration  
400 7th Street, SW.  
Washington, DC 20590-0001  
Phone: 202 366-4488  
Fax: 202 366-3753

*Answers questions on matters related to DOT's hazardous materials transportation regulations.*

#### RCRA Docket Information Center (RIC)

U.S. Environmental Protection  
Agency  
RCRA Docket Information Center  
(5305)  
401 M Street, SW.  
Washington, DC 20460  
Phone: 202 260-9327  
Fax: 202 260-9327  
E-mail: RCRA-Docket @  
epamail.epa.gov

*Holds and provides public access to all regulatory materials on solid waste and distributes technical and nontechnical information on solid waste.*

#### Pollution Protection Information Clearinghouse (PPIC)

PPIC-EPA  
401 M Street, SW. (3404)  
Washington, DC 20460  
Phone: 202 260-1023  
Fax: 202 260-0178  
E-mail: PPIC @ epamail.epa.gov

*Provides a library and an electronic bulletin board (accessible by any PC equipped with a modem) dedicated to information on pollution prevention.*

#### EPA Main Library

U.S. Environmental Protection  
Agency  
Headquarters Library  
401 M Street, SW., Room 2904  
Washington, DC 20460  
Phone: 202 260-5921 or 5922  
Fax: 202 260-6257  
E-mail: Library-HQ @  
epamail.epa.gov

*Maintains environmental reference materials for EPA staff and the general public, including books, journals, abstracts, newsletters, and audio-visual materials generated by government agencies and the private sector. Also provides access to online computer service bulletin boards, and CD-ROM systems.*

#### Public Information Center (PIC)

U.S. Environmental Protection  
Agency  
Public Information Center (3404)  
401 M Street, SW.  
Washington, DC 20460  
Phone: 202 260-7751  
Fax: 202 260-6257  
E-mail: Public-access @  
epamail.epa.gov

*Serves as the primary point of contact between EPA and the public. Refers calls and letters to the appropriate sources for technical information, and distributes a variety of general-interest items.*



## APPENDIX C

### EPA REGIONAL CONTACTS

#### EPA Region 1

Waste Management Branch  
JFK Federal Building  
Boston, MA 02203-2211  
617 573-5770  
Library: 617 573-9687

#### EPA Region 2

Hazardous Waste Compliance Branch  
290 Broadway, 21st Floor  
New York, NY 10007-1866  
212 637-3000  
Library: 212 637-3187

#### EPA Region 3

Hazardous Waste Management  
Division (3HW00)  
841 Chestnut Street  
Philadelphia, PA 19107  
215 597-9800  
Library: 215 597-6633

#### EPA Region 4

RCRA Branch  
345 Courtland Street, NE  
Atlanta, GA 30365  
404 347-3016  
Library: 404 347-4216

#### EPA Region 5

RCRA Program Management Branch  
77 W. Jackson Boulevard  
Chicago, IL 60604  
312 353-8510  
Library: 312 353-2022

#### EPA Region 6

RCRA Programs Branch (6H-H)  
1445 Ross Avenue  
Dallas, TX 75202  
214 665-6444  
Library: 214 665-6424

#### EPA Region 7

RCRA Branch  
726 Minnesota Avenue  
Kansas City, KS 66101  
913 551-7020  
Library: 913 551-7241

#### EPA Region 8

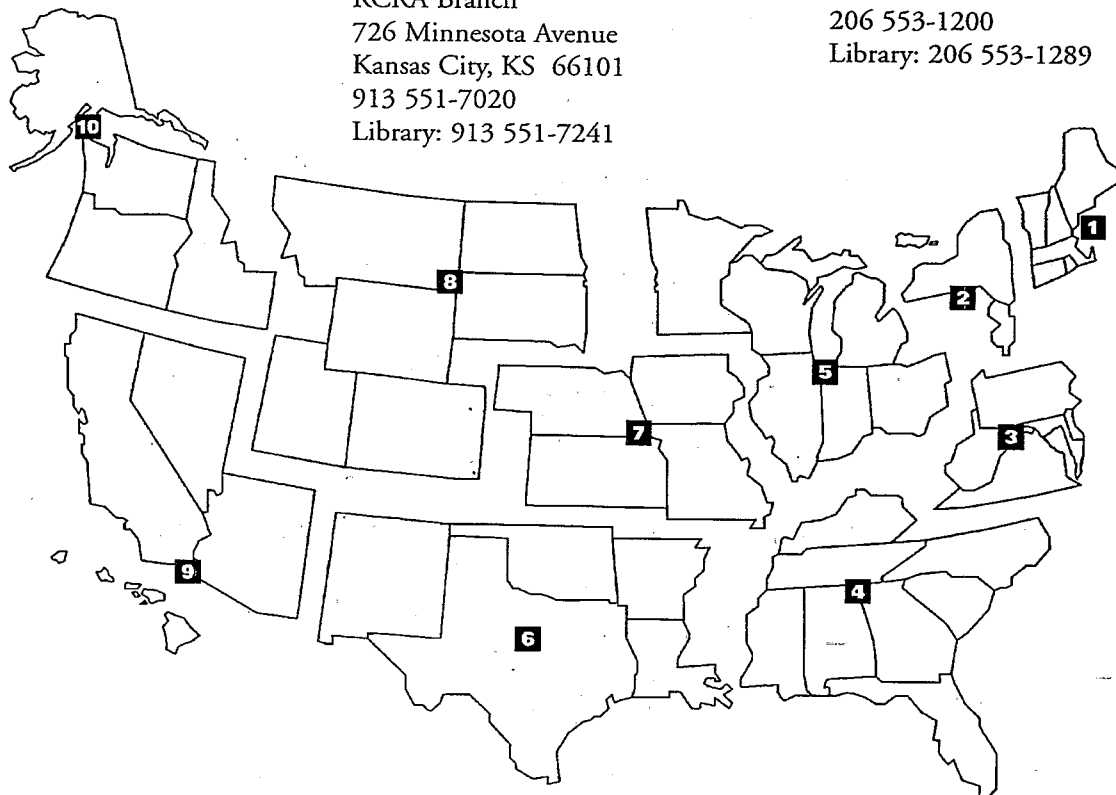
Hazardous Waste Management  
Division  
One Denver Place  
999 18th Street, Suite 500 (8HWM)  
Denver, CO 80202-2466  
303 293-1603  
Library: 303 293-1603  
800 227-8917 (Within Region)

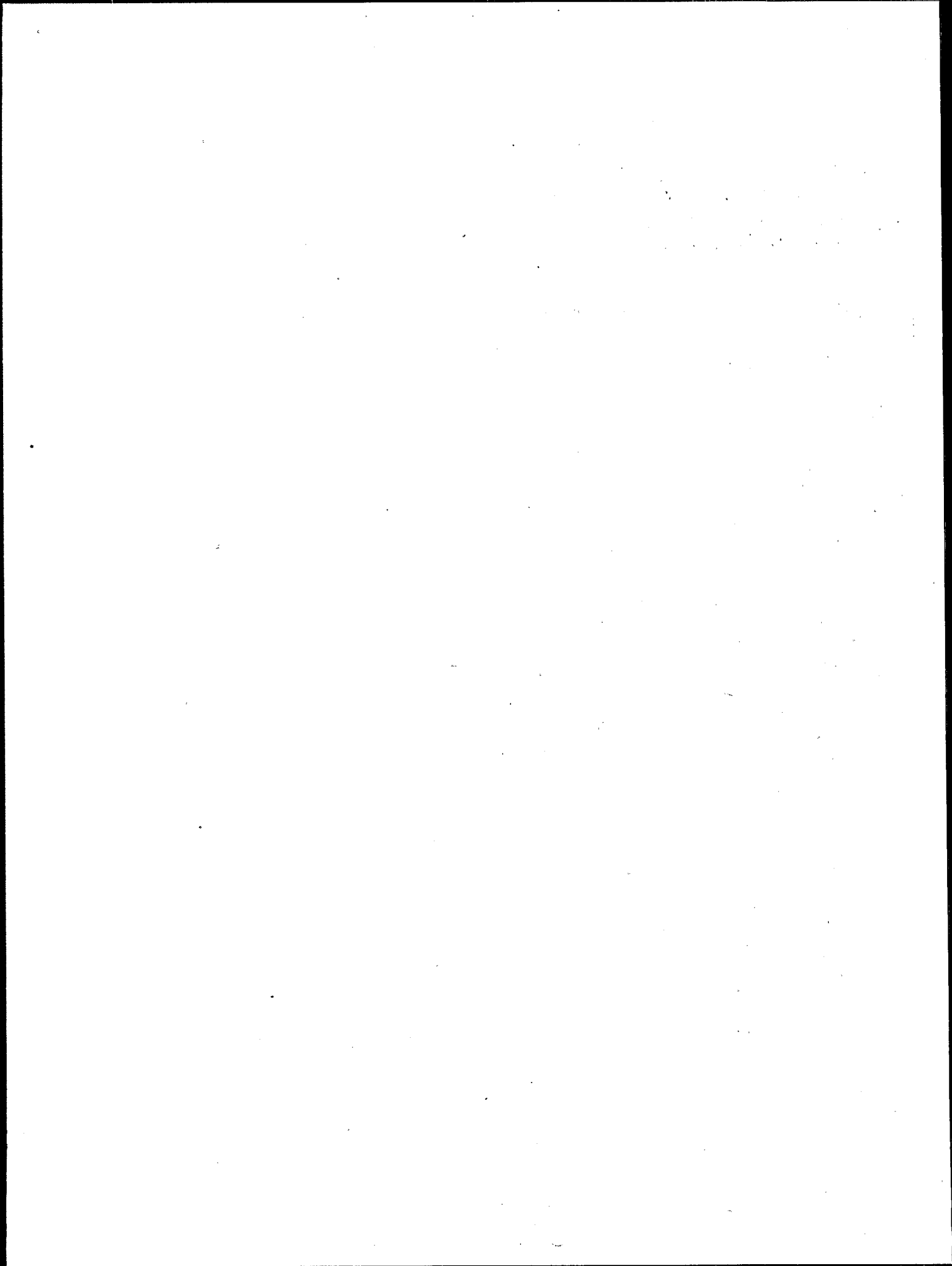
#### EPA Region 9

Hazardous Waste Management  
Division  
75 Hawthorne Street  
San Francisco, CA 94105  
415 744-1730  
Library: 415 744-1510

#### EPA Region 10

Waste Management Branch  
(HW-102)  
1200 Sixth Avenue  
Seattle, WA 98101  
206 553-1200  
Library: 206 553-1289



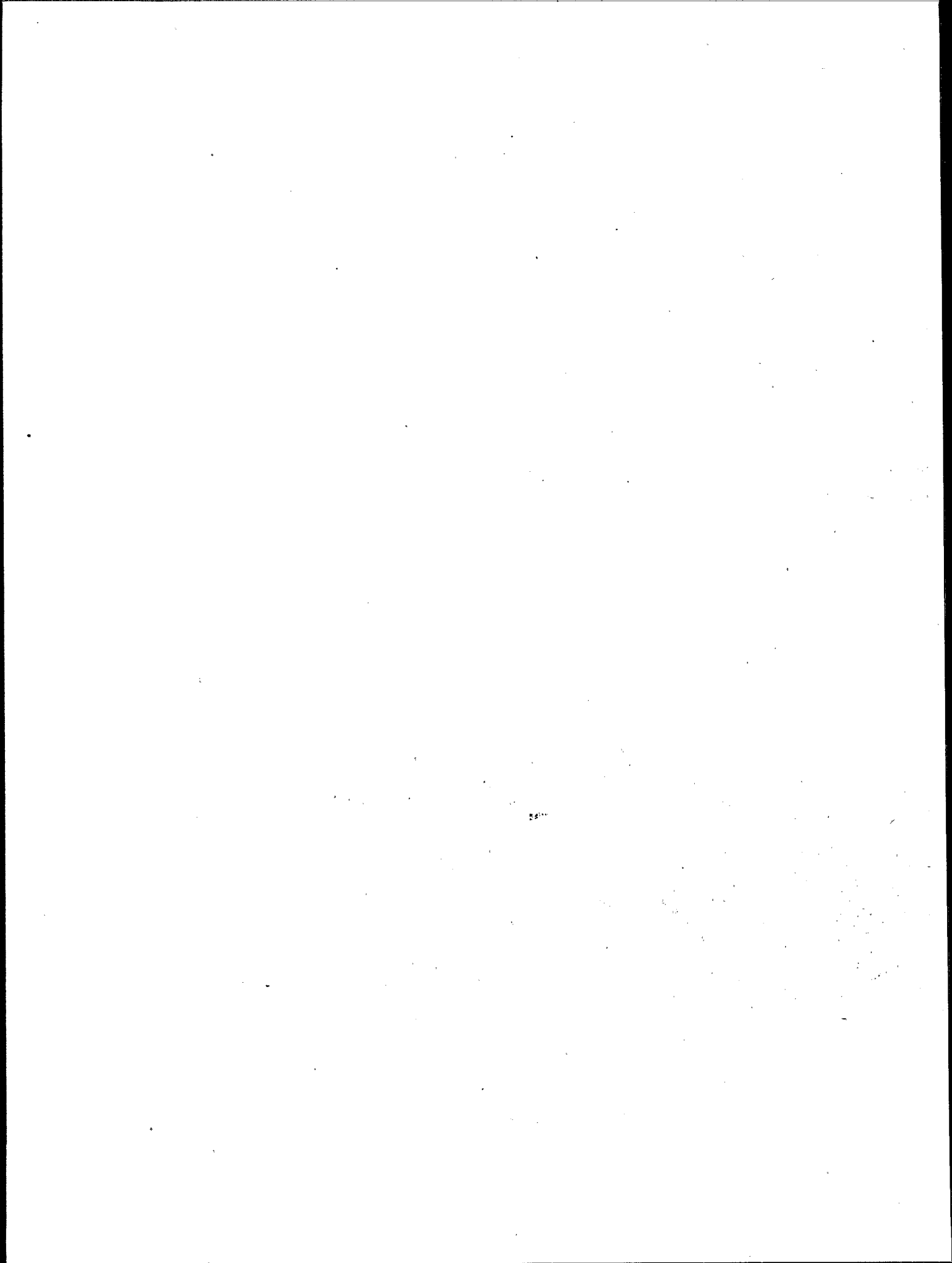


**WORKSHEET 3**

THESE QUESTIONS ARE GEARED TOWARD THE FEDERAL REQUIREMENTS FOR SQGs BUT MAY BE HELPFUL FOR OTHER HAZARDOUS WASTE GENERATORS. USE THEM TO HELP PREPARE FOR A VISIT FROM A FEDERAL, STATE, OR LOCAL AGENCY.

**YES      NO**

- |                          |                          |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Do you have documentation on the amount and kinds of hazardous waste that you generate and on how you determined that they are hazardous? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you have a U.S. EPA identification number?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you ship wastes off site?  |
| <input type="checkbox"/> | <input type="checkbox"/> | If so, do you know the name of the transporter and the designated TSDF that you use?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you have copies of completed manifests used to ship your hazardous wastes over the past three years?                                   |
| <input type="checkbox"/> | <input type="checkbox"/> | Are they filled out correctly?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Have they been signed by the designated TSDF and transporter?   |
| <input type="checkbox"/> | <input type="checkbox"/> | If you have not received your signed copy of the manifest from the TSDF, have you filed an exception report?                              |
| <input type="checkbox"/> | <input type="checkbox"/> | Is your hazardous waste stored in proper containers or tanks?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Are the containers or tanks properly dated and/or marked?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Have you complied with the handling requirements described in this handbook?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Have you designated an emergency coordinator?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Have you posted emergency telephone numbers and the location of emergency equipment?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Are your employees thoroughly familiar with proper waste handling and emergency procedures?   |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you understand when you need to contact the National Response Center?  |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you store your waste for no more than 180 days, or 270 days if you ship your waste more than 200 miles?                                |



# DEFINITIONS

## **By-Product**

A material that is not one of the primary products of a production process. Examples of by-products are process residues such as slags or distillation column bottoms.

## **Commercial Chemical Product**

A chemical substance that is manufactured or formulated for commercial or manufacturing use.

## **Container**

Any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

## **Elementary Neutralization Unit**

A tank, tank system, container, transport vehicle, or vessel (including ships) that is designed to contain and neutralize corrosive waste.

## **Reclaimed Material**

Material that is regenerated or processed to recover a usable product. Examples are the recovery of lead values from spent batteries and the regeneration of spent solvents.

## **Recovered Material**

A material or by-product that has been recovered or diverted from solid waste. Does not include materials or by-products generated from, and commonly used within, an original manufacturing process.

## **Recycled Material**

A material that is used, reused, or reclaimed.

## **Reused Material**

A material that is employed as an ingredient in an industrial process to make a product, or as an effective substitute for a commercial product.

## **Spent Material**

Any material that has been used and, as a result of contamination, can no longer serve the purpose for which it was produced without first processing it.

## **Sludge**

Any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

## **Still Bottom**

Residue or by-product of a distillation process such as solvent recycling.

## **Tank**

A stationary device designed to contain an accumulation of hazardous waste that is constructed primarily of nonearthen materials (e.g., wood, concrete, steel, plastic).

## **Totally Enclosed Treatment Facility**

A facility for the treatment of hazardous waste that is directly connected to an industrial production process and that is constructed and operated so as to prevent the release of hazardous waste into the environment during treatment. An example is a pipe in which waste acid is neutralized.

## **Toxicity Characteristic Leaching Procedure**

A testing procedure used to determine whether a waste is hazardous. The procedure identifies waste that might leach hazardous constituents into groundwater if improperly managed.

## **Wastewater Treatment Unit**

A tank or tank system that is subject to regulation under either Section 402 or 307(b) of the Clean Water Act, and that treats or stores an influent wastewater that is hazardous waste, or that treats or stores a wastewater treatment sludge that is hazardous.





United States Environmental Protection Agency  
(5305W)  
Washington, DC 20460

Official Business  
Penalty for Private Use  
\$300