



# Department of Environmental Protection

## A Guide on Hazardous Waste Management

### SMALL QUANTITY GENERATORS

#### INTRODUCTION

Many businesses, both large and small use hazardous materials in their processes. Many of these processes produce wastes. A portion of these wastes may be hazardous. The method a business manager employs to manage hazardous waste will have a direct influence on business profits and future liabilities for the property, the business, and its owners.

The purpose of this paper is to provide basic information to industry and public agencies that may be generators of small quantities of hazardous waste and to inform them of their responsibilities for proper hazardous waste management.

#### RESOURCE CONSERVATION AND RECOVERY ACT

The Resource Conservation and Recovery Act (RCRA) was enacted by Congress in 1976 to protect public health and the environment from improper management of hazardous waste. RCRA was primarily written to regulate hazardous waste managed by the larger generator. Since the initial enactment, RCRA has been amended to regulate the previously exempted small quantity generator. The State of Florida has adopted by reference the federal regulations governing the small quantity generator.

#### HOW CAN I DETERMINE IF I HAVE HAZARDOUS WASTE?

*All generators of waste materials* are required by law to identify and evaluate their waste. Evaluating waste streams means determining whether or not the waste is hazardous. Evaluate each waste you produce using Step 1 below to determine whether you are a generator.

##### Step 1: Evaluate Your Waste

First, inventory and assemble information about your waste. An inventory consists of identifying all wastes that your business discards including sewerage and recycled waste, unusable products, and by-products.

Material Safety Data Sheets (MSDSs) for your raw materials can be used to help identify your waste. Your Trade Association may be a good source of information. They can provide assistance for evaluating your wastes as well as assistance in handling, packaging and labeling your waste. If you have no information about your waste, it may be necessary to have the waste analyzed by a laboratory.

To determine whether your waste is hazardous, answer the following questions for each waste on your inventory.

1. Is the waste exempt from regulation? (i.e., recycled used oil, lead acid batteries that are reclaimed, domestic sewage, permitted industrial discharges, see **Table 1**)
2. Is the waste listed as a hazardous waste? (i.e., spent halogenated and certain non-halogenated solvents, see **Table 2**)
3. Is the waste hazardous because it exhibits a hazardous characteristic? (ignitable, corrosive, reactive, toxic, see **Table 3**)

#### Call DEP for a list of EPA Hazardous Waste codes for waste streams commonly generated

If your waste is not exempt and you answered yes to questions 2 or 3 for any waste produced then your business is a generator of hazardous waste.

### **Step 2: Determine Generator Size**

The amount of all hazardous waste generated or accumulated at your business will determine which category you fit in (see Table 4). Each category has its own requirements for waste management. If you generate between 100 kg and 1,000 kg (220-2,200 lbs.) in any one month of hazardous waste and no more than 1kg (2.2 lbs.) of acutely hazardous waste in any one month, you are a regulated small quantity generator and the RCRA hazardous waste regulations require you to:

<p><b>The Following Steps Apply to 100-1,000 Kg/month Small Quantity Generators</b></p>
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### **Step 3: Obtain an EPA Identification Number**

As a small quantity generator, you are required to obtain an EPA/DEP identification number by completing and submitting EPA Form 8700-12, Notification of Waste Activity. These forms can be obtained from DEP Tallahassee office or from any of the DEP district offices. The EPA/DEP I.D. number is site specific, so if you move to a new location you must get a new EPA/DEP I.D. number.

### **Step 4: Place Waste in a Labeled, Leak Proof Container**

The label must include:

1. The words “Hazardous Waste-Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency”;
2. Generator’s Name and Address;
3. Manifest Document Number.
4. The container should also include:
  - Description of the waste; and,
  - The date the waste was first put into the container (accumulation start date).

In addition, you must follow DOT labeling requirements when you ship your container off-site. Your transporter should be familiar with these requirements, otherwise, call the Florida Department of Transportation, Hazardous Materials Compliance Officer at 850-245-7900.

### **Step 5: Store Waste Properly; Accumulate Up To the Limits**

General requirements for handling storage containers:

1. They must be in good condition.
2. Replace leaking containers.
3. Keep containers closed.
4. The containers must be compatible with the hazardous waste stored in them, and must meet DOT standards.
5. Do not mix wastes.
6. Provide adequate aisle space for easy access and visibility.
7. Containers must be inspected at least weekly to check for leaks and signs of corrosion.

As a small quantity generator, you are allowed to store on-site up to 6,000 kg (13,200 lb.) of hazardous waste for a period of 180 days.

### **Step 6: Transport and Dispose of Waste Properly**

A generator is forever responsible for his or her hazardous waste. To reduce your liability and to ensure the waste is transported and properly disposed, choose a transporter that has met the following requirements:

1. Obtained an EPA/DEP I.D. number;
2. Use manifests;
3. Ability to clean up hazardous waste discharges during transportation-related incidents;
4. Documentation of financial liability.

Transporters storing more than 24 hours at a transfer facility must notify the DEP and meet many TSD requirements, including containment, contingency plan, training, security and closure.

**Step 7: Manifests and Transport of Hazardous Waste**

The Uniform Hazardous Waste Manifest is a multi-copy shipping document that must accompany hazardous waste shipments. The State of Florida requires the use of this manifest when disposing of hazardous waste.

**Step 8: Emergency Procedures Plan**

1. Designate an emergency coordinator;
2. Post emergency information by the phone; and,
3. Provide and document adequate training for personnel handling hazardous waste.

**Step 9: Preparedness and Prevention Plan**

If you accumulate hazardous waste on-site, you are required to prepare a Preparedness and Prevention Plan.

1. Maintain a safe work place;
2. Accessible telephones;
3. Maintain fire extinguishers and spill control equipment;
4. Maintain aisle space in work area;
5. Notify police, fire department, and state emergency response teams of the types of wastes handled at your facility.

**Step 10: Keep Records**

Maintain these records for a minimum of three years:

1. Manifests;
2. Land Disposal Restriction (LDR) Forms;
3. Manifest exception reports;
4. Analytical and other reports;
5. Training documents;
6. Inspection logs; and,
7. Correspondence.

For additional information on the Small Quantity Generator requirements call or write for:

**FLORIDA'S HANDBOOK FOR SMALL QUANTITY GENERATORS OF HAZARDOUS WASTE**

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## EPA Hazardous Waste Tables

**TABLE 1: EXEMPT WASTE**

- Domestic sewage;
- Irrigation waters or industrial discharges permitted under the Federal Water Pollution Control Act;
- Certain nuclear material as defined by the Atomic Energy Act;
- Household wastes, including hazardous waste;
- Certain mining wastes;
- Agricultural wastes, excluding some pesticides;
- Used oil filters that have been properly drained and recycled;
- Recycled used oil and lead acid batteries that are reclaimed;
- Universal Wastes (hazardous waste batteries, pesticides and mercury thermostats) managed under 40 CFR, Part 273;
- Mercury containing lamps and devices destined for recycling (Chapter 62-737, F.A.C.)

**TABLE 2: LISTED WASTE EXAMPLES**

Hazardous wastes from non-specific sources:

- **F001:** spent halogenated solvents used in degreasing such as trichloroethylene, methylene chloride, 1,1,1-trichloroethane, and carbon tetrachloride;
- **F002:** spent halogenated solvents such as those above but not used as degreasers; other examples are 1,1,2-trichloro-1,2,2-trifluoroethane and chlorobenzene;
- **F003:** spent nonhalogenated, ignitable-only solvents such as xylene, acetone, methanol, and methyl isobutyl ketone;
- **F004:** spent nonhalogenated solvents such as cresols, cresylic acid, and nitrobenzene;
- **F005:** spent nonhalogenated solvents such as toluene, methyl ethyl ketone, carbon disulfide, and benzene; Spent solvent mixtures/blends containing 10% before use of F001, F002, F004 and/or F005; and, distillation bottoms from recovering solvents;

Hazardous waste from specific sources such as certain plating bath solutions; wastewater treatment sludge; and, wastes from the heat treatment of metals (see K-list);

Discarded commercial chemical products, off-specification products, containers and/or spill residues (see P- and U-lists).

**TABLE 3: CHARACTERISTIC WASTES**

- **Ignitability-D001:** a liquid waste having an alcohol content greater than or equal to 24% or has a flash point of less than 140° F. Examples are solvents and paint thinners;
- **Oxidizer-D001:** wastes that add oxygen to a fire. Oxidizing substances often have “per” as the beginning of the name, “oxide” as the ending of the name, or “ate” in its chemical name. Examples are ammonium nitrate, perchlorates, and peroxides;
- **Corrosivity-D002:** a liquid waste material having a pH of less than 2.0 or greater than 12.5. Examples are acids and caustics;
- **Reactivity-D003:** waste materials that react to water, shock, heat, and pressure, and undergoes a rapid or violent chemical reaction. Some examples are explosives and cyanides wastes;
- **Toxicity-D004-D043:** waste which release toxic metals, pesticides or volatile organic chemicals above certain limits under acidic conditions. Includes 8 heavy metals and 32 organic chemicals including 10 pesticides. Wastes in this category need only contain small amounts of mercury, arsenic, lead, or one of the other heavy metals, or organics such as benzene, trichloroethylene, perchloroethylene, methyl ethyl ketone, or one of the ten pesticides.

**TABLE 4: GENERATOR SIZE**

1. **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**
  - less than 100 kilograms<sup>1</sup> in any one month (about ½ a 55-gallon drum<sup>2</sup>) of hazardous waste, or
  - you generate less than 1 kilogram of an acute hazardous waste (see P-list<sup>3</sup>), and
  - you never accumulate more than 1,000 kilograms (2,200 lb.) of hazardous waste at any time.
  
2. **SMALL QUANTITY GENERATOR**
  - more than 100 kilograms but less than 1,000 kilograms in any one month (about ½ to 5 -55 gallon drums) of hazardous waste.
  - ship stored waste within 180 days after the waste was first put into the container, and
  - you never accumulate more than 6,000 kg (13,200 lb.).
  
3. **LARGE QUANTITY GENERATOR**
  - more than 1,000 kilograms in any one month (about 5 -55 gallon drums) of hazardous waste, or
  - you generate 1 kilogram or more of an acute hazardous waste in any one month, and
  - ship stored waste within 90 days after the waste was first put into the container unless storage facility permit is obtained.

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<sup>1</sup>1 kilogram =2.2 pounds

<sup>2</sup> These volumes are based on the weight of water (8 lb./gallon) and are only provided for the purpose of estimating generator status. Heavier wastes like metal sludges (20 lb./gallon) and chlorinated solvents such as perchloroethylene, freon and trichloroethylene (12-13.5 lb./gallon) will need to be evaluated based on their actual weight per gallon.

<sup>3</sup> Contact the DEP for hazardous waste lists.