Navigating the EPA Hazardous Waste Regulations for Businesses
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Introduction

Does 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 is designed 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 should not be used as a substitute for the actual requirements. All of the federal hazardous waste regulations are located in Title 40 of the Code of Federal Regulations (CFR), Parts 260 to 299 or online at www.ecfr.gov

This handbook is intended primarily for businesses that generate a small quantity of hazardous waste to help them learn about regulations that apply to them. This handbook explains only 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.
Hazardous Waste

The Resource Conservation and Recovery Act (RCRA) defines hazardous waste as a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may:

a. Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

b. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

It is important to note that the definition of solid waste is not limited to wastes that are physically solid. Many solid wastes are liquid, semi-solid, or contain gaseous material.

The Environmental Protection Agency (EPA) used this definition to create specific criteria for defining hazardous waste. The EPA defines hazardous waste in two ways:

- By listing specific solid wastes as hazardous
- By indentifying characteristics that make a solid waste hazardous
Listed Waste

When listing hazardous wastes, the EPA follows three criteria:

- Wastes that contain toxic chemicals at levels that could pose a threat to human and the environmental health if improperly managed. Such wastes are known as **toxic listed wastes**.

- Wastes that contain dangerous chemicals that could pose a threat to human health and the environment even when properly managed, and are fatal to humans and animals even in low doses. Such wastes are known as **acute hazardous wastes**.

- Wastes that typically exhibits one of the four characteristics: **ignitability**, **corrosivity**, **reactivity**, and **toxicity**.

Each EPA listed hazardous waste is grouped one of four lists in the **40 CFR Part 261**, and is assigned a hazard code that signifies the reason it is classified as hazardous.

### Hazard Code

<table>
<thead>
<tr>
<th>Hazardous Characteristic Waste</th>
<th>Hazard Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxic Listed Waste</td>
<td>T</td>
</tr>
<tr>
<td>Acute Hazardous Waste</td>
<td>H</td>
</tr>
<tr>
<td>Ignitability Characteristic Waste</td>
<td>I</td>
</tr>
<tr>
<td>Corrosivity Characteristic Waste</td>
<td>C</td>
</tr>
<tr>
<td>Reactivity Characteristic Waste</td>
<td>R</td>
</tr>
<tr>
<td>Toxicity Characteristic Waste</td>
<td>E</td>
</tr>
</tbody>
</table>

### Hazardous Waste Lists

<table>
<thead>
<tr>
<th>List</th>
<th>Waste Source</th>
<th>Location in 40 CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>F List</td>
<td>Nonspecific Industrial and Manufacturing</td>
<td>261.32</td>
</tr>
<tr>
<td>K List</td>
<td>Specific Industrial and Manufacturing</td>
<td>261.32</td>
</tr>
<tr>
<td>P List</td>
<td>Acutely Toxic Specific Unused Chemicals</td>
<td>261.33</td>
</tr>
</tbody>
</table>
Waste Codes

Each listed waste is assigned a waste code, which starts with the letter of the list, followed by a three digit number. This waste code helps the transporter and disposal facility more efficiently identify the hazardous waste.

Characteristic Waste

If a waste is not listed in the 40 CFR, it can still be classified as a hazardous waste if it can be characterized as ignitable, corrosive, reactive, or toxic along specific criteria. These wastes are assigned a code ranging from D001 to D043.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Criteria</th>
<th>Code</th>
<th>Location in 40 CFR</th>
</tr>
</thead>
</table>
| Ignitability   | Liquid waste with a flash point below 140°F  
Solid waste that spontaneously combusts under normal conditions | D001 | 261.21 |
| Corrosivity    | Aqueous waste with a pH below 2 (acidic) or above 12.5 (basic) | D002 | 261.22 |
| Reactivity     | Combusts or creates toxic fumes when exposed to water  
 Creates toxic fumes when exposed to a pH range between 2 and 12.5  
 Meets the criteria for classification as an explosive under DOT rules | D003 | 261.23 |
| Toxicity       | Identified by the EPA as likely to leach dangerous | D004 - D043 | 261.24 |
Identifying Waste

When determining whether or not a waste is considered hazardous, follow this flow chart shown to the right. If the waste is not a solid waste, or a listed or characteristic hazardous waste, then it cannot be defined as hazardous.

Typical Hazardous Wastes Generated by Businesses

<table>
<thead>
<tr>
<th>Business Type</th>
<th>Sources of Waste</th>
<th>Example Wastes</th>
<th>Waste Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Painting, carpentry, floor work, specialty contracting activities, heavy construction, wrecking, demolition, vehicle and equipment maintenance for construction activities</td>
<td>Ignitable wastes, toxic wastes, solvent wastes, paint wastes, used oil, acids/bases The Hazardous Waste Identification Process</td>
<td>D001, D002, F001-F005</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>Preservation and disposal of biological agents, disinfectants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory</td>
<td>Diagnostic and other laboratory testing</td>
<td></td>
<td>D001, D002, D003, F005, U211</td>
</tr>
<tr>
<td>Vehicle Maintenance</td>
<td>Degreasing, rust removal, paint preparation, spray</td>
<td></td>
<td>D001, D006, D007, D008, D035, U117</td>
</tr>
</tbody>
</table>

Concentrations of toxic chemicals into ground water
<table>
<thead>
<tr>
<th>Industry</th>
<th>Activities</th>
<th>Waste Materials</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Booth, Spray Guns, Brush Cleaning, Paint Removal, Tank Cleanout, Installing Lead-Acid Batteries, Oil and Fluid Replacement</td>
<td>Batteries, Used Oil, Unused Cleaning Chemicals, Fuel</td>
<td>F001 - F005, U002, U080, U134, U154, U159, U161, U220, U228, U239</td>
<td></td>
</tr>
<tr>
<td>Electronics</td>
<td>Semiconductor manufacture, circuit board operations, wiring assemblies</td>
<td>Waste Organic Solvents, Hydroxide Sludge, Arsenic, Heavy Metals, Solder, Spent Epoxy</td>
<td>D001, D002, D004, D008, D009</td>
</tr>
<tr>
<td>Dry-Cleaning &amp; Laundry</td>
<td>Commercial dry-cleaning processes</td>
<td>Still Residues from Solvent Distillation, Spent Filter Cartridges, Cooked Powder Residue, Spent Solvents, Unused Perchloroethylene</td>
<td>D001, D039, F002, F005, U210</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>Crude Oil Extraction and Refining, Cleaning, Equipment Maintenance</td>
<td>Unused Fracturing Fluids or Acids, Gas Plant Cooling Tower Cleaning Wastes, Used Hydraulic Fluids, Used Equipment Lubrication Oils, Waste Solvents, Pesticides</td>
<td>D001, D002, D018, D035, F001 - F005, P089, U002, U044, U123, U135, U151, U154, U211, U220, U239</td>
</tr>
<tr>
<td>Educational Institution</td>
<td>Science Laboratories, Painting, Cleaning</td>
<td>Ignitable Wastes, Corrosive (Acid/Base) Wastes, Reactive Wastes, Spent Solvents, Organic Wastes, Inorganic Wastes</td>
<td>D001, D002, D003, F001 - F005</td>
</tr>
<tr>
<td>Aerospace</td>
<td>Degreasing, Surface Finishing, Painting, Surface Cleaning, Maintenance, Plating, Transportation</td>
<td>Still Bottoms, Waste Metal Sludges, Spent Corrosives, Paint Sludges and Solids Spent Solvents, Rags, Oil-Solvent Mixtures, Plating Bath Solutions Contaminated Water</td>
<td>D001, D002, D006, D007, D008, F001 - F008, U002, U032, U080, U134, U154, U159, U161, U220, U228, U239</td>
</tr>
<tr>
<td>General Manufacturing</td>
<td>Chemical Manufacturing, Metal Manufacturing, Parts Manufacturing, Plastics Manufacturing</td>
<td>Ignitable Wastes, Corrosive Wastes, Spent Solvents, Ethylene Oxide, Formaldehyde, Cadmium, Toluene, Methylene Chloride</td>
<td>D001, D002, D006, F001 - F005, U002, U080, U115, U122, U220</td>
</tr>
<tr>
<td>Health Care</td>
<td>Testing, Surgical Procedures, Medications, Cleaning</td>
<td>Syringes, Needles, Pathological Waste, Bandages, Radio</td>
<td>D001, D002, F001 - F005, P042, P108,</td>
</tr>
<tr>
<td>Category</td>
<td>Activity</td>
<td>Waste Types</td>
<td>Code Range</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Gaming &amp; Hospitality</td>
<td>Cleaning, Laundry</td>
<td>Pool cleaning supplies, pesticides and herbicides, polishes, disinfecting products, spent solvents</td>
<td>D002, D013 F001- F005, U129</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>Development and production of medications, cleaning and maintaining equipment</td>
<td>Ignitiable Wastes, corrosive wastes, spent solvents, warfarin, epinephrine, nicotine, maleic anhydride, methanol, saccharin, phenol, uracil mustard,</td>
<td>D001, D002, F001 – F005, P001, P042, P075, U002, U147, U155, U188, U202, U228, U237</td>
</tr>
<tr>
<td>General Maintenance</td>
<td>Degreasing, equipment cleaning, rust removal, paint preparation, painting, spray painting, air conditioner maintenance</td>
<td>Acids/bases, toxic wastes, ignitable wastes, paint wastes, spent solvents, Dichlorodifluoromethane, spent rags</td>
<td>D001, D002, D006, D008, D018, U075, F001 – F005</td>
</tr>
<tr>
<td>Printing &amp; Graphics</td>
<td>Screen printing, plate processing, equipment cleaning and maintenance, photo processing</td>
<td>Waste ink, acid plate etching chemicals, unused inks and solvents, unused chemicals, spent solvents, waste photochemical solution</td>
<td>D001, D002, D005, D007, D008, D011, D019, D035, D039, D040, D043, F001- F005, U002, U019, U043, U069, U080, U112, U122, U161, U210, U211, U220, U223, U226, U259, U359</td>
</tr>
<tr>
<td>Packaging</td>
<td>Package manufacturing, product packaging, label printing</td>
<td>Ignitible wastes, corrosive wastes, waste ink, spent solvents, paints, adhesives</td>
<td>D001, D002, D005, D007, D008, D0035, F001 – F005, U002, U122, U220</td>
</tr>
<tr>
<td>Food &amp; Beverage</td>
<td>Alcohol fermentation and distillation, large scale baking, food storage, equipment cleaning wastes, meat</td>
<td>Corrosive wastes, toxic wastes, fuel, spent solvents, refrigerants (CFCs),</td>
<td>D001, D002, F001 – F005, U075</td>
</tr>
</tbody>
</table>
Waste Generator Categories

RCRA regulates generators based on the amount of waste that they generate in a calendar month. As a result, there are three categories of hazardous waste generators:

- Large quantity generators (LQGs)
- Small quantity generators (SQGs)
- Very small or conditionally exempt small quantity generators (CESQGs or VSQGs)

Because a generator’s category is determined on a monthly basis, it is possible that a generator’s category can change from one month to the next, depending on the quantity of hazardous waste generated in a particular month. This is referred to as episodic generation. If a generator’s status does in fact change, the generator is required to comply with the respective regulatory requirements for that class of generators for the waste generated in that particular month.

Each generator category is subject to different regulations regarding the handling of their hazardous waste, including accumulation limits, proper containers, and emergency procedures. Listed below are some of the regulations that apply to each generator category.
Regulations regarding generator categories are detailed in 40 CFR part 262.

**Very Small Quantity Generators**

Very Small Quantity Generators (VSQGs) generate 100 kilograms (220 pounds) or less per month of hazardous waste or one kilogram (2.2 pounds) or less per month of acutely hazardous waste. They are also referred to as Conditionally Exempt Small Quantity Generators (CESQGs). Requirements for VSQGs include:

**Proper Management** — VSQGs must identify all the hazardous waste generated. VSQGs must also ensure that hazardous waste is delivered to a person or facility that is authorized to manage it.

**Small Quantity Generators**

Small Quantity Generators (SQGs) generate between 100 kilograms (220 pounds) and 1,000 kilograms (2,200 pounds) of hazardous waste per month, and less than one kilogram (2.2 pounds) per month of acutely hazardous waste. Major requirements for SQGs include:

**Proper Management** — The waste is properly accumulated in either tanks or containers marked with the words “Hazardous Waste.” Containers must also be kept closed and marked with the date on which accumulation began.

**Emergency Plan** — The SQG requirements include specified emergency responses; however, SQGs are not required to have written contingency plans. They are required to ensure that an emergency coordinator is on the premises, or on-call at all times, and have basic facility safety information readily accessible.

**Personnel Training** — SQGs are not required to have an established training program but must ensure and document that employees handling hazardous waste are familiar with proper handling and emergency procedures.

**Large Quantity Generators**

Large Quantity Generators (LQGs) generate 1,000 kilograms (2,200 pounds) per month or more of hazardous waste or more than one kilogram (2.2 pounds) or less per month of acutely hazardous waste.
pounds) per month of acutely hazardous waste. Major requirements for LQGs include:

**Proper Management** — The waste is properly accumulated in containers, tanks, drip pads, or containment buildings. Hazardous waste containers must be kept closed and marked with the date on which hazardous waste accumulation began. Tanks and containers are required to be marked with the words “Hazardous Waste.” The generator must ensure and document that waste is shipped off site within the allowable 90-day period.

**Emergency Preparedness and Prevention** — LQGs are required to have an emergency coordinator, coordinate with local emergency response authorities, and to test and maintain emergency equipment. LQGs are required to have formal written contingency plans and emergency procedures in the event of a spill or release.

**Personnel Training** — Facility personnel must be trained in the proper handling of hazardous waste through an established training program. All personnel training **must be documented** and kept up to date.

### Characteristics of each Hazardous Waste Generator

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Very Small Quantity Generator (VSQG)</th>
<th>Small Quantity Generator (SQG)</th>
<th>Large Quantity Generator (LQG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous Waste Generated</td>
<td>≤ 100 kg/month</td>
<td>100 &gt; and &lt; 1,000 kg/month</td>
<td>≥ 1,000 kg/month</td>
</tr>
<tr>
<td>Acutely Hazardous Waste Generated</td>
<td>≤ 1 kg/month</td>
<td>≤ 1 kg/month</td>
<td>&gt; 1 kg/month</td>
</tr>
</tbody>
</table>
Determining Your Generator Category

Hazardous waste generator category is based on the amount of waste generated monthly. To determine your generator category, you need to measure all quantities of listed and characteristic hazardous waste that are:

- Accumulated on the property for any period of time before disposal or recycling.
- 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 sludge and removed from product storage tanks

State Regulations
Some states are authorized to establish generator categories that are different from those that the EPA set up. The following states have separate generator categories than the federal regulations:

- California
- District of Columbia
- Kansas
- Maine
- Maryland
- Massachusetts
- Minnesota
- New Hampshire
- Rhode Island
- Washington

**EPA Identification Numbers**

Any business or facility that:

- Generates
- Treats
- Stores
- Disposes
- Transports
- Offers for transportation

Hazardous waste in a large enough quantity must have an EPA Identification Number. All Large Quantity Generators and Small Quantity Generators must have EPA Identification Number. The generator is forbidden from offering hazardous waste to any transporter or treatment, storage, and disposal facility (TSDF) that does not also have an EPA ID number.

ID numbers are issued to each generator for each individual site or facility property where hazardous waste is generated. In most cases, generators request EPA ID numbers from the state implementing agency. Some states use the federal application form, **EPA Form 8700-12**, while other states use their own state forms.
Managing Hazardous Waste on Site

Many businesses will generate hazardous waste, and they will have to manage it on site before it can be shipped off site to a treatment, storage, or disposal facility (TSDF).

Waste Accumulation

Accumulating hazardous waste on site can pose a threat to human health and the environment, so you may keep it only 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.

All hazardous waste generators must accumulate waste in properly labeled tanks or containers in a designated waste accumulation area. Wastes generated in small amounts throughout your facility may be stored in satellite accumulation areas located at or near the point of generation of the waste. The total amount of waste that may be accumulated at a satellite accumulation area is limited to 55 gallons. Your storage containers must be managed according to the EPA requirements summarized on the next page.
For all hazardous waste containers, you must:

- Label each container with the words “HAZARDOUS WASTE”, the date the waste was generated, and hazard listed.

- Use a container made of, or lined with, a material that is compatible with the hazardous waste to be stored. For example, do not store corrosive waste in a steel container because it will corrode the metal.

- Keep all containers holding hazardous waste closed during storage, except when adding or removing waste.

- Do not open, handle, or store (e.g., 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 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.
Example containers include:

- 55 Gallon Drums
- 275 gallon Totes
- 5 Gallon Buckets
- Tanker Trucks
- Test Tubes
- Pressurized Cylinders
- Sharps Containers
- Original Container

Waste Minimization

The 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 waste minimization procedures. These procedures not only reduce waste, but they can prevent accidents and save businesses money. To help reduce the amount of waste you generate, try the following practices at your business:

The Mixture Rule

Mixing non-hazardous waste with hazardous waste often creates larger than necessary quantities of hazardous waste. Avoid mixing hazardous and non-hazardous waste. A typical example of mixing wastes would be putting nonhazardous cleaning agents in a container of used hazardous solvents.

Change Materials and Processes

Businesses can save money and increase efficiency by replacing a material or a process with another that produces less waste. Many non-hazardous substitutes for common hazardous materials have been developed and are currently sold.
For example, you could use plastic blast media for paint stripping of metal parts rather than conventional solvent stripping.

**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.

**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 also become hazardous waste.

**Make a Good Faith Effort**

Only LQGs have to document their waste minimization activities or create a waste minimization plan. SQGs, however, need to certify on their manifests that they have made a good faith effort to minimize waste generation when they send their waste off site.

**Waste Recycling**

EPA developed a regulatory approach to regulate different hazardous waste recycling activities in accordance with the degree of hazard they pose. The three types of regulation are:

1. Full Regulation
2. Exemptions
3. Special Standards

Persons who generate, transport, and store hazardous wastes prior to recycling must manage them in the same manner as persons who handle hazardous wastes prior to disposal. The recycling process itself is exempt from regulation. Certain hazardous wastes, based on the manner in which they are recycled or
based on regulation by other environmental statutes, are exempt from hazardous waste regulation. Some recycling processes are not fully exempt from hazardous waste regulation, but are instead subject to specialized standards.

<table>
<thead>
<tr>
<th>Wastes Exempt from Hazardous Waste Regulation</th>
<th>Processes Subject to Specialized Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Industrial ethyl alcohol</td>
<td>• Use constituting disposal</td>
</tr>
<tr>
<td>• Scrap metal</td>
<td>• Precious metal reclamation</td>
</tr>
<tr>
<td>• Regenerated batteries</td>
<td>• Lead-acid battery reclamation</td>
</tr>
<tr>
<td>• Waste-derived Fuels from refining processes</td>
<td>• Burning for energy recovery</td>
</tr>
<tr>
<td>• Unrefined waste-derived fuels and oils from petroleum refineries</td>
<td>• Used oil recycling</td>
</tr>
<tr>
<td></td>
<td>• Universal waste recycling</td>
</tr>
</tbody>
</table>

**Used Oil**

One type of material, used oil, is regulated under its own recycling program. Used oil is defined as any oil that has been refined from crude oil or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. The used oil recycling provisions include management standards for used oil:

- Generators
- Collection centers and aggregation points
- Transporters
- Transfer facilities
- Processors and refiners
- Burners
- Marketers.

**Universal Waste**

Another type of material, universal waste, is also subject to streamlined management provisions. The universal waste program is designed to encourage the recycling of certain widely generated hazardous wastes by easing the
regulatory burden on persons who handle, transport, and collect them. The program includes regulatory provisions for universal waste handlers, transporters, and destination facilities.

Universal wastes consist of:

- Hazardous waste batteries
- Hazardous waste pesticides that are recalled or a part of waste pesticide collection programs
- Mercury-containing equipment such as thermometers and thermostats
- Hazardous waste lamps, including fluorescent, neon, and metal halide lamps

**Emergency Preparedness**

Whenever you store hazardous waste on site, you must minimize the potential risks from fires, explosions, or other accidents. The EPA only requires LQGs to have a written contingency plan, but SQGs must also be prepared for an emergency at their facility. All generators that store hazardous waste must have and regularly maintain:

- 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 those 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.
- Sufficient space to permit the unobstructed movement of personnel, fire protection equipment, spill-control equipment, and decontamination equipment to any area of facility operation
- Immediate access to an alarm or emergency communications device by all personnel handling hazardous waste
- Basic safety guidelines and response procedures to follow in the event of an emergency

If You Think You Have an Emergency, Immediately Call:

- **911 and**
- The National Response Center: **(800) 424-8802**

All facilities should 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. In the event of a hazardous waste emergency 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 National Response Center will evaluate the situation and help you make appropriate emergency decisions. Even if the problem you face may not be a true emergency, **it is better to call if you are not sure**. Serious penalties exist for failing to report emergencies.

You should post the following information next to your facility’s phone and other communication systems, and ensure that all employees are familiar with it

---

**Emergency Response Information**

Emergency Coordinator

Name: __________________________ Telephone: __________________________

Fire Department Phone: __________________ National Response Center: **(800) 424-8802**

Emergency Equipment Locations

Fire Extinguisher(s): __________________________

_________________________________________

Spill-Control Materials: __________________________

_________________________________________
Shipping Hazardous Waste off Site

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

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

Treatment, Storage, and Disposal Facilities (TSDFs)

With some exceptions, a TSDF is a facility engaged in one or more of the following activities:

**Treatment** — Any method, technique, or process designed to physically, chemically, or biologically change the nature of a hazardous waste.

**Storage** — Holding hazardous waste for a temporary period, after which the hazardous waste is treated, disposed of, or stored elsewhere.
**Disposal** — The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid or hazardous waste on or in the land or water. A disposal facility is any site where hazardous waste is intentionally placed and where the waste will remain after a TSDF stops operation.

**Choosing a TSDF**

It is important to choose your transporter and your TSDF carefully because 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 an EPA identification number and a permit, if required.
- The RCRAInfo Search tool on the EPA website: [https://www3.epa.gov/enviro/facts/rcrainfo/search.html](https://www3.epa.gov/enviro/facts/rcrainfo/search.html)

**Transportation Requirements**

Pre-transport regulations are designed to ensure safe transportation of hazardous waste from the point of origin to the ultimate disposal site. In developing hazardous waste pre-transport regulations, the EPA adopted the Department of Transportation’s (DOT) regulations for packaging, labeling, marking, and placarding. 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. These DOT regulations can be found in Title 49 of the Code of Federal Regulations, parts 171 through 179 (49 CFR parts 171-179)
Department of Transportation regulations require:

- Proper packaging to prevent leakage of hazardous waste during both normal transport conditions and potentially dangerous situations, like a drum falling off a truck
- Labeling, marking, and placarding of the packaged waste to identify the characteristics and dangers associated with its transport.

These pre-transport regulations only apply to generators shipping waste off site for treatment, storage, or disposal. Transportation on site is not subject to these pre-transport requirements.

Choosing a Transporter

Waste generators remain responsible for their hazardous waste while it is being transported to a TSDF. When choosing a transporter, make sure they comply with the following criteria:

- Have an EPA identification number
- Comply with the hazardous waste manifest system
- Properly handle hazardous waste discharges.

**Hazardous Waste Manifests**

A hazardous waste manifest must accompany all hazardous waste that is shipped off site. It is designed to track the waste from generation to eventual treatment or disposal. A RCRA manifest contains the following federally required information:

- Name, address, and EPA ID number of the hazardous waste generator, transporter(s), and designated facility
- DOT description of the waste's hazards
- Quantities of the wastes transported and container type.

Each manifest also contains a certification that states:

- The shipment has been accurately described and is in proper condition for transport.
- The generator has a waste minimization program in place at its facility to reduce the volume and toxicity of hazardous waste to the degree economically practicable, as determined by the generator.
- The treatment, storage, or disposal method chosen by the generator is the most practicable method currently available that minimizes the risk to human health and the environment.

The hazardous waste manifest is a standardized form issued by the U.S. EPA. Shown below is the section of the manifest that the generator must complete.

![Hazardous Waste Manifest Form](https://example.com/hazardous-waste-manifest-form.png)
The manifest must be signed each time a waste is transferred, and a copy of the manifest is retained by each individual in the transportation chain. Once the waste is delivered to the designated facility, the owner and operator of that facility must sign and return a copy of the manifest to the generator. The generator of the waste must keep the manifest on file for at least three years after the initial shipment.

**Electronic Manifest System**

The EPA is establishing a national system for tracking hazardous waste shipments electronically. This system, known as “e-Manifest,” is designed to modernize the nation’s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states. The EPA anticipates launching e-Manifest on **June 30, 2018**

**Land Disposal Restrictions**

Land Disposal Restrictions (LDRs) prohibit the land disposal of untreated hazardous wastes, and require the EPA to specify either concentration levels or methods of treatment for hazardous constituents to meet before land disposal. The regulations describing EPA’s LDR program can be found in **40 CFR Part 268**. Land Disposal Restrictions fall under three categories
1. The Disposal Prohibition – requires waste-specific treatment standards to be met before a waste can be land disposed.
2. The Dilution Prohibition – states that dilution of a hazardous waste is not a substitute for adequate treatment
3. The Storage Prohibition – regulates the storage of hazardous waste in order to facilitate proper treatment or disposal

Regardless of where the waste is being sent, the initial shipment of hazardous waste subject to Land Disposal Restrictions must be sent to a receiving TSDF or recycler along with an LDR notice. You must send an additional LDR notice if your waste or receiving facility changes. 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.

**Generator Checklist**

Follow this checklist to ensure that your business is properly managing its hazardous waste

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Additional Resources

Environmental Protection Agency Laws and Regulations
- [https://www.epa.gov/laws-regulations](https://www.epa.gov/laws-regulations)

EPA Regulatory Information by Sector
- [https://www.epa.gov/regulatory-information-sector](https://www.epa.gov/regulatory-information-sector)

RCRA Hazardous Waste Codes

US EPA, Region 6 – AR, LA, NM, OK, TX
1445 Ross Avenue, Suite 1200
Dallas, TX 75202
800-887-6063

US EPA, Region 8 – CO, MT, ND, SD, UT, WY
1595 Wynkoop Street
Denver, CO 80202-1129
303-312-6312

US EPA, Region 9 – AS, AZ, CA, GU, HI, MH, MP, NV

75 Hawthorne Street
San Francisco, CA, 94105
415-947-8000