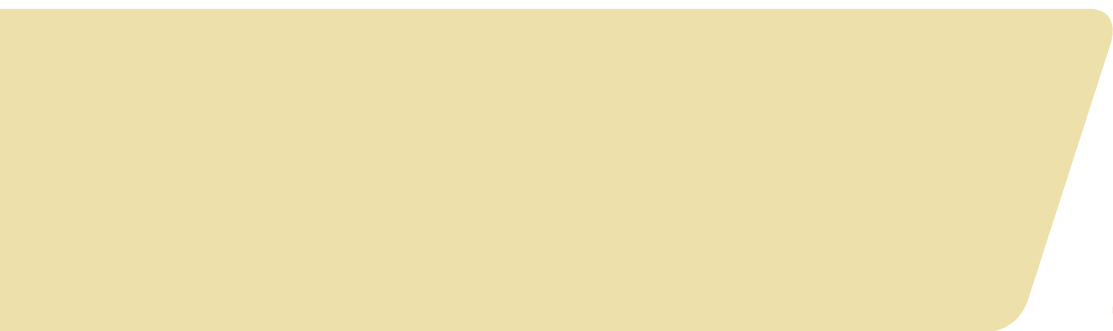


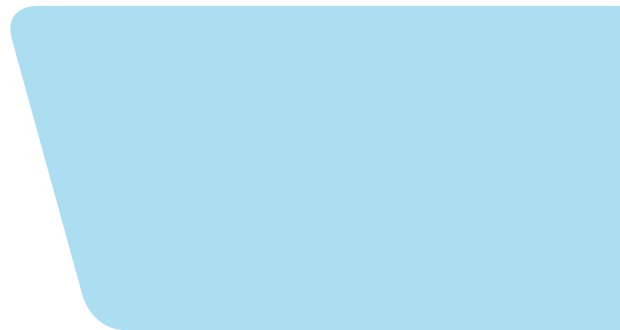
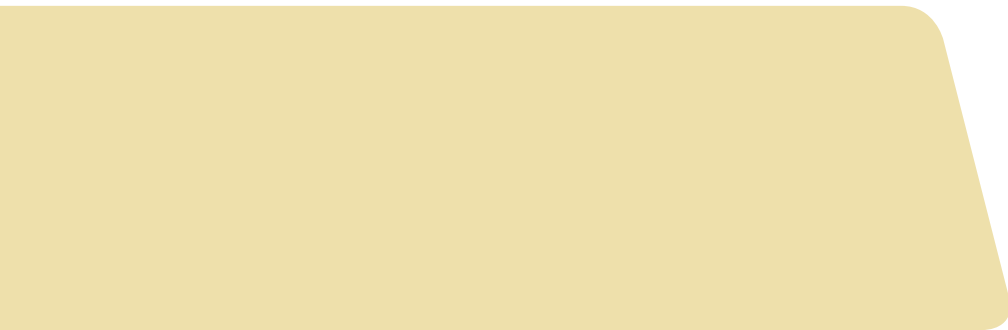
# MANAGING YOUR HAZARDOUS WASTE: A Guide for Small Businesses





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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 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 when generating and managing hazardous waste. 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 ([www.ecfr.gov](http://www.ecfr.gov)).

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

1. **Very small quantity generators (VSQGs)**, which generate less than 100 kilograms (kg) or 220 pounds (lbs) per month.
2. **Small quantity generators (SQGs)**, which generate between 100 and 1,000 kg (220 and 2,200 lbs) per month.
3. **Large quantity generators (LQGs)**, which generate more than 1,000 kg (2,200 lbs) per month.

Words or phrases that appear in **bold red text** throughout this guide are defined in the “Abbreviations and Definitions” section, starting on page 25.

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

This handbook explains only the federal requirements for hazardous waste management. Many **implementing agencies** (e.g., states) have their own hazardous waste regulations based on the federal hazardous waste regulations. Some use the federal requirements and definitions; others have developed more stringent requirements. If the latter is true for your implementing agency, you must comply with those more stringent regulations. To become familiar with your local requirements, consult your implementing hazardous waste agency. For the address or phone number for your implementing agency, visit [www.epa.gov/hwgenerators/links-hazardous-waste-programs-and-us-state-environmental-agencies](http://www.epa.gov/hwgenerators/links-hazardous-waste-programs-and-us-state-environmental-agencies).

Some generators hire a waste management company to address all hazardous waste management obligations. Remember, even if working with an outside firm, you are ultimately responsible for the proper management of your hazardous waste throughout its life cycle from cradle to grave.

## HAZARDOUS WASTE GENERATOR IMPROVEMENTS RULE

On November 28, 2016, EPA finalized a wide-ranging revision of the hazardous waste generator regulations, called the Hazardous Waste Generator Improvements Rule. This final rule added flexible standards for episodic generation and consolidation of waste from VSQGs at LQGs, discussed on pages 3 and 9 of this handbook. The final rule also made other changes throughout the hazardous waste generator regulations, revising standards for hazardous waste determinations, marking and labeling of hazardous waste units, emergency planning and preparedness, and closure, among others. Some of these revised standards are mandatory for states to adopt, as they are more stringent than previous regulations. For more information, see the webpage for the final rule ([www.epa.gov/hwgenerators/final-rule-hazardous-waste-generator-improvements](http://www.epa.gov/hwgenerators/final-rule-hazardous-waste-generator-improvements)) or read the rule itself in the *Federal Register* at [81 FR 85732](https://www.federalregister.gov/documents/2016/11/28/2016-24444).

# 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.*

## FIRST STEPS

- Determine if you generate hazardous waste in the first place.
- Count 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 **byproduct** of a manufacturing process or simply a commercial product that you use in your business—such as a cleaning fluid or battery acid—and that is being disposed of. Even materials that are recyclable or can be **reused** in some way (such as burning solvents 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 CFR (40 CFR Part 261 Subpart D). Currently, more than 500 wastes are listed using a four-character code of one letter and three numbers. Wastes are listed as hazardous because they are known to be harmful to human health and the environment when not managed properly. Some common listed hazardous wastes are spent solvents (F001–F005) and sludge from the treatment of electroplating wastewaters (F006). Even when managed properly, some listed wastes are so dangerous that they can be fatal to humans even in

low doses; these are called **acute hazardous wastes**. Examples of acute hazardous wastes include beryllium powder and certain discarded pesticides.

- **Characteristic wastes.** If your waste does not appear on one of the hazardous waste lists, it still might be considered hazardous if it exhibits 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.
  - » 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. For more information about the TCLP and other test methods, see [www.epa.gov/hw-sw846](http://www.epa.gov/hw-sw846).

## IDENTIFYING YOUR WASTE

To help you identify some of the waste streams common to your business, the table on page 4 provides a list of typical hazardous wastes generated by small businesses.

**Commercial chemical products** that are discarded might also become hazardous waste. For a complete listing of these hazardous wastes, see 40 CFR 261.33 (P- and U-waste codes).

If your waste is hazardous, you will need to manage it according to appropriate federal or state regulations. When in doubt about whether a waste is hazardous, it is always allowable to manage it as hazardous waste.

## Finding Your Generator Category

Once you know that you generate hazardous waste, you need to count the amount of it you produce per month. This amount determines your generator category.

Many hazardous wastes are liquids and are measured in gallons—meaning that you will need to convert gallons to kilograms or pounds to count those wastes. To do this, you must know the liquids' density. A rough guide is that 30 gallons (about half of a 55-gallon drum) of waste with a density similar to water weighs about 100 kg (220 lbs); 300 gallons of a waste with a density similar to water weighs about 1,000 kg (2,200 lbs).

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

- **VSQGs (Very Small Quantity Generators).** You are considered a VSQG if you generate less than 100 kg (220 lbs) per month of hazardous waste. You are exempt from hazardous waste management regulations, provided that you comply with the basic requirements described

### TIP

One way to help determine if your waste has any of the characteristics listed on page 2 is to check **Safety Data Sheets (SDSs)**, which come with all products containing hazardous materials (see [www.msdsonline.com](http://www.msdsonline.com) for information). In addition, your national trade association or its local chapter might be able to help you.

on page 8. If you are a VSQG and you generate no more than 1 kg (2.2 lbs) of acute hazardous waste—or 100 kg (220 lbs) of acute hazardous waste spill residues—in a calendar month, you may manage the acute hazardous waste according to the VSQG requirements.

- **SQGs (Small Quantity Generators).** You are considered an SQG if you generate between 100 and 1,000 kg (220 and 2,200 lbs) per month of hazardous waste. SQGs must comply with EPA requirements for managing hazardous waste described in this document.
- **LQGs (Large Quantity Generators).** You are considered an LQG if you generate more than 1,000 kg (2,200 lbs) per month of hazardous waste or 1 kg (2.2 lbs) per month of acute hazardous waste. LQGs must comply with more extensive hazardous waste rules than those summarized in this handbook. See page 20 for an overview.

## EPISODIC EVENTS

Sometimes an incident bumps a generator that is normally an SQG or VSQG into a larger generator category for a short period. EPA calls this an “episodic event” and it can happen because of a planned cleanout, a small project, an unplanned recall, or even a spill.

If this happens to you, you might be eligible for a streamlined set of requirements designed to keep smaller generators from having to comply with more extensive generator regulations because of an uncommon event. However, all the hazardous waste you generate will have to be sent with a manifest to a hazardous waste treatment and disposal facility or a recycler.

Some requirements that will apply to the SQG or VSQG are notifying the state (or EPA) using the Site ID form (see pages 11–12) if you will be holding an event, labeling the waste, managing the waste to prevent spills and releases, and completing the entire event and getting the waste off site within 60 days. The complete regulations for episodic events are found in 40 CFR Part 262 Subpart L.

Note: Not every case of increased waste production will qualify as an episodic event. Make sure your situation is eligible.

In addition, you should first check with your state to see if it has adopted this part of the regulations, as state requirements can be more stringent than the federal requirements.



## TYPICAL HAZARDOUS WASTE GENERATED BY SMALL BUSINESSES

Type of Business	How Generated	Typical Wastes	Waste Codes
<b>Dry cleaning</b>	Commercial dry cleaning processes	Distillation residues, spent filter cartridges, cooked powder residues, spent solvents, unused perchloroethylene	D001, D039, F002, F005, U210
<b>Furniture manufacturing and refinishing</b>	Construction and surface preparation, staining and painting, finishing, brush and spray brush cleaning	Ignitable wastes, toxic wastes, solvent wastes, paint wastes	D001–D003, D007, D008, D035, D040 F001–F003, F005, U002, U080, U159, U161, U220, U223, U239
<b>Construction, demolition, and renovation</b>	Land-clearing, wrecking, and demolition; heavy construction; carpentry and floorwork; paint preparation and painting; specialty contracting activities	Ignitable wastes, toxic wastes, solvent wastes, paint wastes, used oil, acids/bases	D001, D002, D004, D006–D009, D018, D021, D023–D026, D034, D035, D037, D040, F001–F003, F005, U002, U037, U080, U131, U159, U161, U220, U239
<b>Laboratories</b>	Diagnostic and other laboratory testing	Spent solvents, unused reagents, reaction products, testing samples, contaminated materials	D001, D002, D003, F001–F005, U211
<b>Vehicle maintenance</b>	Air conditioner maintenance; body repair and refinishing; car washing; battery and oil/fluids replacement; rustproofing, painting, and paint removal; parts washing and degreasing; radiator repair; product storage and storage tank cleaning; shop cleanup	Acids/bases, solvents, ignitable wastes, toxic wastes, paint wastes, spent rags and wipes, batteries, used oil, oil filters, unused cleaning chemicals, airbag inflators	D001, D002, D003, D006–D008, D018, D035, D040, F001–F002, F005, U002, U075, U080, U134, U154, U159, U161, U220, U228, U239
<b>Printing</b>	Using ink in lithography, letterpress, screen printing, flexography, and gravure; plate processing; cleaning printing equipment; developing negatives and prints; printing processes	Acids/bases, heavy metal wastes, spent organic solvents, toxic wastes, waste and unused ink, unused chemicals	D001, D002, D005–D007, D008, D011, D018, D019, D021, D035, D039, D040, D043, F001–F005, U002, U019, U043, U055, U056, U069, U080, U112, U122, U154, U159, U161, U210, U211, U220, U223, U226, U228, U239, U259, U359
<b>Equipment repair</b>	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
<b>Pesticide end users/application services</b>	Pesticide application and cleanup	Used/unused pesticides, solvent wastes, ignitable wastes, contaminated soil (from spills), contaminated rinse water, empty containers	D001, F001–F005, U129, U136, P094, P123
<b>Educational and vocational shops</b>	Automobile engine and body repair, metalworking, graphic arts-plate preparation, woodworking	Ignitable wastes, solvent wastes, acids/bases, paint wastes	D001, D002, F001–F005
<b>Photo processing</b>	Processing and developing negatives/prints; washing, stabilizing, system cleaning	Acid regenerants, dichromate-based and system cleaners, photographic activators, corrosive and ignitable wastes, silver	D001, D002, D007, D011
<b>Leather manufacturing</b>	Soaking; hair removal, deliming, bating; tanning; retanning, dyeing, fatliquoring; buffing coating	Acids/bases, ignitable wastes, toxic wastes, solvent wastes, unused chemicals, wastewater, suspended solids, alcohols	D001, D002, D003, D007, D035, F001–F005



# WHAT HAZARDOUS WASTE DO YOU COUNT TO DETERMINE YOUR GENERATOR CATEGORY?

## **DO Count. . .**

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**.
- Are discharged directly to **publicly owned treatment works (POTWs)** without being stored or accumulated first. Such discharges 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, then used again.
- Meet special, limited requirements for managing certain commonly generated wastes. These wastes can be managed following the less burdensome requirements referenced below instead of the usual hazardous waste requirements. Check with your state agency to determine if your state has similar regulations.

## **DO NOT Count . . .**

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 Part 279, and universal wastes (e.g., batteries, pesticides, thermostats, lamps) managed under 40 CFR Part 273.
- Might be left in the bottoms of containers that have been thoroughly emptied through conventional means, such as pouring or pumping. Note that this applies to **non-acute hazardous waste**.
- Are left as residue in the bottoms of tanks storing products, until the residue is removed from the product tank.
- Are reclaimed continuously on site without storing before reclamation, such as dry cleaning solvents.
- Are managed in an **elementary neutralization unit**, a **totally enclosed treatment unit**, or a **wastewater treatment unit** without being stored first. (See “Abbreviations and Definitions” on page 25 for an explanation of these types of units.)
- » **Scrap metal** that is recycled—40 CFR 261.6(a)(3).
- » **Unused commercial chemical products and other unwanted materials** generated under the special requirements for a cleanout of an **academic laboratory**—40 CFR Part 262 Subpart K.
- » **Hazardous waste** managed as part of an infrequent **episodic event**—40 CFR Part 262 Subpart L.
- » **Lead-acid batteries** that are reclaimed—40 CFR Part 266 Subpart G.
- » **Pharmaceuticals** being managed by healthcare facilities and reverse distributors—40 CFR Part 266 Subpart P.
- » **Universal wastes** (e.g., certain batteries, recalled and collected pesticides, mercury-containing equipment, lamps)—40 CFR Part 273 (see page 6).
- » **Used oil**—40 CFR Part 279 (see pages 6–7).

# UNIVERSAL WASTES AND USED OIL

## Universal Wastes

Universal wastes are potentially hazardous items commonly thrown into the trash by households and small businesses. The universal waste program was developed to streamline environmental regulations for these wastes generated by large numbers of businesses in relatively small quantities. It is designed to reduce the amount of hazardous waste disposed of as municipal solid waste, encourage the recycling and proper disposal of certain common hazardous wastes, and reduce the regulatory burden for businesses that generate these wastes.

Although handlers of universal wastes can meet less stringent standards for storing, transporting, and collecting these wastes, handlers must still comply with the full hazardous waste requirements for final recycling, treatment, or disposal. By providing a waste management structure that removes these wastes from municipal landfills and incinerators, this program ensures stronger safeguards for public health and the environment.

Universal wastes include:

- **Batteries**, such as nickel-cadmium (Ni-Cd), small sealed lead-acid batteries, and lithium-ion batteries, which are found in many common items, including electronic equipment, cell phones, portable computers, power tools, and emergency backup lighting.
- **Agricultural pesticides** that have been recalled or banned from use, are obsolete, have become damaged, or are no longer needed due to changes in cropping patterns or other factors. They often are stored for long periods in sheds or barns.
- **Mercury-containing equipment**, including thermostats, thermometers, and other devices, which can contain as much as 3 grams of liquid mercury and are found in almost any commercial, industrial, agricultural, community, and household building.
- **Lamps**, which can contain mercury and sometimes lead, such as fluorescent, high-intensity discharge (HID),

neon, mercury vapor, high-pressure sodium, and metal halide lamps found in businesses and households.

Other types of wastes can be added to the universal waste list by EPA or authorized states. For updates, check [www.epa.gov/hw/universal-waste](http://www.epa.gov/hw/universal-waste) for the latest information.

The universal waste program also encourages communities and businesses to establish collection programs or participate in manufacturer take-back programs required by a number of states. Many large manufacturers and trade associations manage national and regional collection programs for their universal waste products. For more information, see 40 CFR Part 273.



## Used Oil

EPA's used oil management standards are a set of "good housekeeping" requirements that encourage used oil handlers to recycle used oil instead of disposing of it. Used oil can be collected, refined and recycled, and used again—for the same job or a completely different use.

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.” To meet EPA’s definition of used oil, a substance must meet each of the following criteria:

- **Origin.** Used oil must have been refined from crude oil or made from synthetic materials. Used animal and vegetable oils are excluded from EPA’s definition of used oil.
- **Use.** Oils used as lubricants, hydraulic fluids, heat transfer fluids, buoyants, and for other similar purposes are considered used oil. Oils such as bottom cleanout waste from virgin fuel oil storage tanks or virgin fuel oil **recovered** from a spill do not meet EPA’s definition of used oil because these oils have never been used. EPA’s definition also excludes products used as cleaning agents or solely for their solvent properties, as well as certain petroleum-derived products such as antifreeze and kerosene.
- **Contaminants.** To meet EPA’s definition, used oil must become contaminated as a result of being used. This includes residues and contaminants generated from handling, storing, and processing used oil. Physical contaminants can include dirt, metal scrapings, or sawdust. Chemical contaminants could include solvents, halogens, or saltwater.

The following are types of used oil handlers:

- **Generators** are businesses that handle used oil through commercial or industrial operations or from the maintenance of vehicles and equipment. Examples include car repair shops, service stations, government motor pools, grocery stores, metalworking industries, and boat marinas. Farmers who produce less than an average of 25 gallons of used oil per month are excluded from generator status. Individuals who generate used oil through the maintenance of their personal vehicles and equipment are not subject to regulation under the used oil management standards.
- **Collection centers** and **aggregation points** are facilities that accept small amounts of used oil and store it until enough is collected to ship it elsewhere for recycling.
- **Transporters** are companies that pick up used oil from all sources and deliver it to re-refiners, processors, or burners.
- **Transfer facilities** are any structures or areas where used oil is held for longer than 24 hours, but not longer than 35 days.
- **Re-refiners** and **processors** are facilities that blend or remove impurities from used oil so the oil can be burned for energy recovery or reused.

- **Burners** burn used oil for energy recovery in boilers, industrial furnaces, or in hazardous waste incinerators.
- **Marketers** are handlers that either (a) direct shipments of used oil to be burned as fuel in regulated devices or (b) claim that certain EPA specifications are met for used oil to be burned for energy recovery in devices that are not regulated.

Although different used oil handlers have specific requirements, the following requirements are common to all types of handlers:

### Storage

- Label all containers and tanks as “used oil.”
- Keep containers and tanks in good condition. Do not allow tanks to rust, leak, or deteriorate. Fix structural defects immediately.
- Never store used oil in anything other than tanks and storage containers. Used oil also can be stored in units that are permitted to store regulated hazardous waste.

### Oil Leaks or Spills

- Take steps to prevent leaks and spills. Keep machinery, equipment, containers, and tanks in good working condition, and be careful when transferring used oil. Keep sorbent materials available at the site.
- If a leak or spill occurs, stop the oil from flowing at the source. If a leak can’t be stopped, put the oil in another holding container or tank.
- Contain spilled oil using sorbent berms or by spreading sorbent over the oil and surrounding area.
- Clean up the used oil and recycle it as you would have before it was spilled. If recycling is not possible, you must first make sure the used oil is not a hazardous waste and dispose of it appropriately. You also must handle all used cleanup materials that contain used oil, including rags and sorbent booms, according to the used oil management standards.
- Remove, repair, or replace the defective tank or container immediately.

Used oil requirements are detailed in 40 CFR Part 279. For more information, see the regulations or [www.epa.gov/hw/managing-used-oil-answers-frequent-questions-businesses](http://www.epa.gov/hw/managing-used-oil-answers-frequent-questions-businesses).

# SUMMARY OF REQUIREMENTS FOR VERY SMALL QUANTITY GENERATORS

*If you generate no more than 100 kg (220 lbs) of hazardous waste per month, you are a VSQG. 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 acute hazardous waste.)*

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First, you must identify all hazardous waste that you generate. Second, you may not store more than 1,000 kg (2,200 lbs) of hazardous waste on site at any time. Finally, you must ensure delivery of your hazardous waste to an off-site 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):

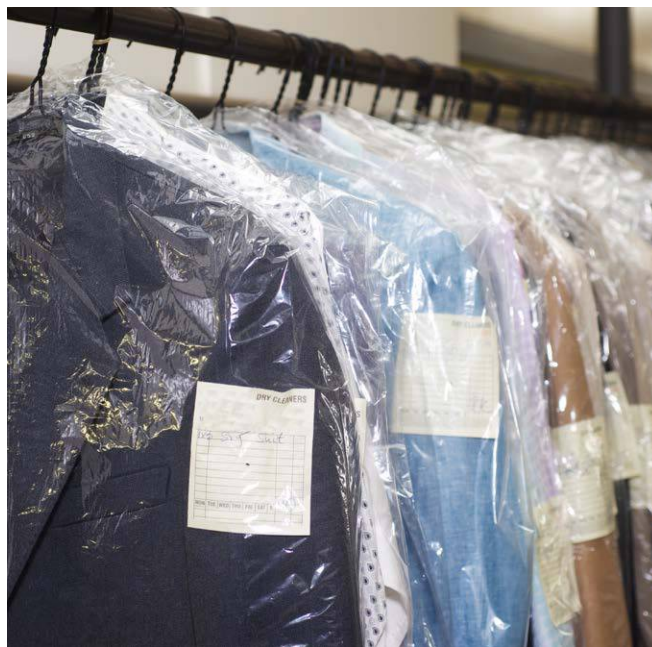
- A state or federally regulated hazardous waste management **treatment, storage, or disposal facility (TSDF)**.
- A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste.
- A facility that uses, reuses, or legitimately recycles the waste (or treats the 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 batteries, recalled and collected pesticides, mercury-containing thermostats and other equipment, or lamps.)
- An LQG under the control of the same person as the VSQG, provided the VSQG marks its containers with the words “Hazardous Waste” and the hazards of the contents of the container (e.g., ignitable, corrosive, toxic, or reactive or another nationally recognized hazard label).

## STATE REQUIREMENTS

Some states have additional requirements for VSQGs. For example, some states require VSQGs to follow some of the SQG requirements, such as obtaining EPA identification numbers or complying with storage standards. See page 13 for SQG storage requirements.

## Suggestion:

It’s a good idea to call the appropriate implementing agency to verify the TSDF you have selected has the 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.)





## WASTE CONSOLIDATION FROM VSQGS

If you are a VSQG that is part of a larger company, you may be able to reduce your overall environmental liability, improve the management of your hazardous waste, and reduce overall waste management costs by consolidating your VSQG hazardous waste at an LQG within your company. First, check with your state to see if it has adopted the VSQG-LQG consolidation provisions. If your LQG location is in a different state, both states must adopt the consolidation regulations before you may use this provision. All VSQGs and the LQG must be under the control of the same company to participate in this consolidation option.

To begin consolidating, the LQG would notify the implementing agency that it plans to consolidate its VSQG waste at its facility using the EPA Site ID form referenced on page 10. This notification must be submitted at least 30 days before receiving the first shipment from one of its VSQGs. The LQG would also fill out the addendum to the Site ID form listing the VSQGs that are participating in the program.

All the VSQG needs to do is mark its containers with the words “Hazardous Waste” and an indication of the hazards of the contents. It would then ensure delivery of its waste to the LQG location, making sure it stays within the overall accumulation limit for VSQGs (less than 1,000 kg of non-acute hazardous waste or 1 kg of acute hazardous waste). The LQG would then manage the VSQG waste along with its own generated hazardous waste following all LQG requirements.



# SUMMARY OF REQUIREMENTS FOR SMALL QUANTITY GENERATORS

*If your business generates between 100 and 1,000 kg (220 and 2,200 lbs) of hazardous waste per month, you are an SQG 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 EPA identification number when you send waste off site to be managed.*

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## Obtaining an EPA Identification Number

To obtain an EPA identification number, you should:

- Contact 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, "RCRA Subtitle C Site Identification Form" (Site ID form). EPA regional offices are listed on page 23. (You can also download the form and instructions with those portions of the regulations that will help you identify your waste at [www.epa.gov/hwgenerators/how-hazardous-waste-generators-transporters-and-treatment-storage-and-disposal](http://www.epa.gov/hwgenerators/how-hazardous-waste-generators-transporters-and-treatment-storage-and-disposal).) A sample excerpt of a completed Site ID form—showing two pages from it—is shown on pages 11-12. Note that a few states use a different form; in those states, you'll need to get the appropriate form from your state agency.
- Fill in the Site ID form as shown in the example. To complete Item 10.B, you will need to identify your hazardous waste by its EPA Hazardous Waste Code. (For a complete list of waste codes, consult 40 CFR Part 261 or contact your state or regional EPA office.) The form you receive from your state might contain an extra 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 19 of the Site ID form.

- Submit the completed form to your **STATE** hazardous waste contact (available at [https://rcrapublic.epa.gov/rcrainfoweb/modules/main/state\\_contacts.html](https://rcrapublic.epa.gov/rcrainfoweb/modules/main/state_contacts.html)).

EPA—or the state—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.

If the waste streams you generate change or you become an LQG, you should submit a new form. In addition, starting in 2021, SQGs must re-notify every four years using this same form.

## ELECTRONIC REPORTING OPTIONS AVAILABLE

EPA has electronic reporting options available for the 8700-12/Site ID form in states that have opted to use the electronic system. Check with your state environmental agency to see if the electronic MyRCRAID system is available to you.

## United States Environmental Protection Agency RCRA SUBTITLE C SITE IDENTIFICATION FORM

**1. Reason for Submittal** (Select only one.)

<input checked="" type="checkbox"/>	Obtaining or updating an EPA ID number for an on-going regulated activity that will continue for a period of time. (Includes HSM activity)
<input type="checkbox"/>	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
<input type="checkbox"/>	Site was a TSD facility and/or generator of > 1,000 kg of hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in <b>one or more months of the reporting year</b> (or State equivalent LQG regulations)
<input type="checkbox"/>	Notifying that regulated activity is no longer occurring at this Site
<input type="checkbox"/>	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
<input type="checkbox"/>	Submitting a new or revised Part A Form

**2. Site EPA ID Number**

V	A	D	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---	---	---

**3. Site Name**

General Metal Processing

**4. Site Location Address**

Street Address 501 Main Street		
City, Town, or Village Small Town		County: Arlington
State VA	Country United States	Zip Code 12345

**5. Site Mailing Address**

☒ Same as Location Address

Street Address		
City, Town, or Village		
State	Country	Zip Code

**6. Site Land Type**

<input checked="" type="checkbox"/> Private	<input type="checkbox"/> County	<input type="checkbox"/> District	<input type="checkbox"/> Federal	<input type="checkbox"/> Tribal	<input type="checkbox"/> Municipal	<input type="checkbox"/> State	<input type="checkbox"/> Other
---	---------------------------------	-----------------------------------	----------------------------------	---------------------------------	------------------------------------	--------------------------------	--------------------------------

**7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)**

A. (Primary) 33149	C. 332323
B. 337124	D.



EPA ID Number

V A D 1 2 3 4 5 6 7 8 9

**10. Type of Regulated Waste Activity (at your site)**

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

**A. Hazardous Waste Activities**

<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c	
<input type="checkbox"/> a. LQG	- Generates, in any calendar month (includes quantities imported by importer site) 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste; or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.	
<input checked="" type="checkbox"/> b. SQG	100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.	
<input type="checkbox"/> c. VSQG	Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste.	
If "Yes" above, indicate other generator activities in 2 and 3, as applicable.		
<input type="checkbox"/> Y <input type="checkbox"/> N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.	
<input type="checkbox"/> Y <input type="checkbox"/> N	3. Mixed Waste (hazardous and radioactive) Generator	
<input type="checkbox"/> Y <input type="checkbox"/> N	4. Treater, Storer or Disposer of Hazardous Waste—Note: A hazardous waste Part B permit is required for these activities.	
<input type="checkbox"/> Y <input type="checkbox"/> N	5. Receives Hazardous Waste from Off-site	
<input type="checkbox"/> Y <input type="checkbox"/> N	6. Recycler of Hazardous Waste	
<input type="checkbox"/> a. Recycler who stores prior to recycling		
<input type="checkbox"/> b. Recycler who does not store prior to recycling		
<input type="checkbox"/> Y <input type="checkbox"/> N	7. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.	
<input type="checkbox"/> a. Small Quantity On-site Burner Exemption		
<input type="checkbox"/> b. Smelting, Melting, and Refining Furnace Exemption		

**B. Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

D002	F006	F007	F008			

**C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes.** Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.


## 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 TSDF.

### Accumulating Your Waste

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 RCRA hazardous waste permit. Before shipping the waste for disposal or recycling, you are responsible for its safe management, which includes safe storage, appropriate labeling, safe treatment, preventing accidents, and responding to emergencies in accordance with federal regulations.

SQGs can accumulate no more than 6,000 kg (13,228 lbs) 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. Wastes generated in small amounts throughout your facility may be stored in satellite accumulation areas at or near the point of generation of the waste. **Containers** in satellite accumulation areas must be kept closed most of the time and be marked with the words “Hazardous Waste” and the hazards of the contents.

The total amount of waste that may be accumulated at a satellite area is limited to 55 gallons. Once this quantity has been exceeded, you have three calendar days to transfer the waste to your designated **central accumulation area (CAA)** (also sometimes referred to as your “180-day [or 270-day] storage area”).

Note: Different and significantly smaller quantity limits apply to acute hazardous wastes.

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 on page 14.

### Treating Your Waste to Meet the Land Disposal Restrictions

Most hazardous wastes may not be land disposed unless they meet “treatment standards.” The **Land Disposal Restrictions (LDR)** program requires that the waste be either (a) treated to reduce the hazardous constituents to levels set by EPA or (b) treated using a specific technology. It is your responsibility

### SUMMARY OF MANAGEMENT REQUIREMENTS

- 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.

to ensure that your waste meets LDR treatment standards before it is land disposed (see page 19 for a description of required LDR notices). Most SQGs typically have a TSDF treat their waste. 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, contact your state agency or EPA regional office and consult 40 CFR Part 268.

### Preventing Accidents

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

Any SQG that stores hazardous waste on site must have:

- 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 handheld, 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 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.

You must test and maintain all equipment to ensure proper operation. Allow enough aisle space for 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

## FOR CONTAINERS, YOU MUST

- Mark each container with the words “Hazardous Waste,” the date that the waste was generated, and the hazards of the contents of the container (e.g., ignitable, corrosive, toxic, or reactive or another nationally recognized hazard label).
- 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 (e.g., stack) containers in a way that might rupture them, cause them to leak, or otherwise fail.
- Inspect container storage areas at least weekly. Look for leaks and for deterioration caused by corrosion or other factors.
- Keep 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.
- Take precautions to avoid mixing **incompatible wastes** or materials in the same container to prevent dangerous situations.



## FOR TANKS, YOU MUST

- Mark each tank with the words “Hazardous Waste,” the date that the waste was generated, and the hazards of the contents of the tank (e.g., ignitable, corrosive, toxic, or reactive or another nationally recognized hazard label).
- Store only waste that will not cause the tank or the inner liner of the tank to rupture, leak, corrode, or fail.
- Equip tanks with an automatic waste feed with a waste feed cutoff system, or a bypass system for use in case 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 800-344-3555.
- Do not mix incompatible wastes or materials unless precautions are taken to prevent dangerous situations.
- Do not place ignitable or reactive wastes in tanks unless certain precautions are taken.
- Provide at least 60 centimeters (2 feet) of freeboard (space at the top of each tank) in uncovered tanks, unless the tank has a containment structure, a drainage control system, or a standby tank with adequate capacity.

## TIP

It is a good practice never to mix wastes. Mixing wastes can create an unsafe work environment and potentially result in more costly disposal.

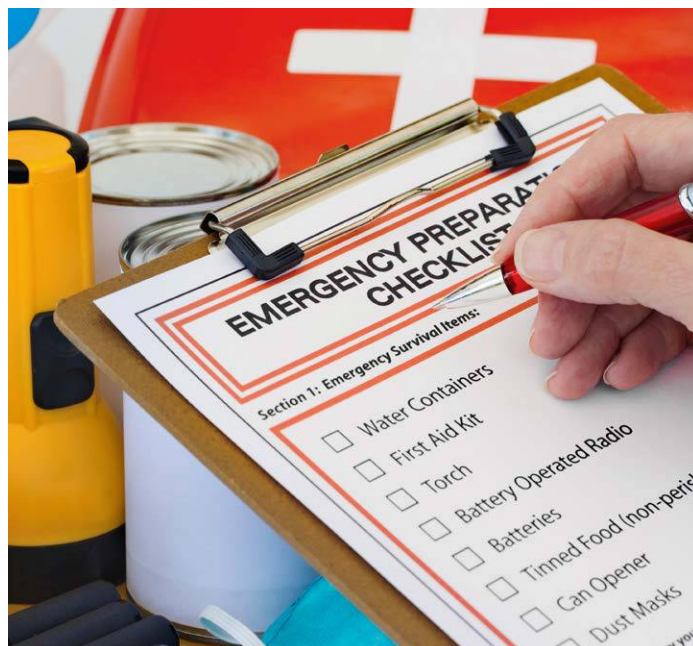
departments, police, emergency response teams, equipment suppliers, and local hospitals, as appropriate, to provide emergency services. Ensure that personnel handling hazardous waste have immediate access to an alarm or emergency communications device.

You are not required to have a formal personnel training program, but you must ensure that employees handling hazardous waste are familiar with proper handling and emergency procedures. In addition, you must have an emergency coordinator on the premises or on call at all times, and have basic facility safety information readily accessible.

## Responding to Emergencies

Although EPA does not require SQGs to have written contingency plans, you should be prepared for an emergency at your facility. You should also be prepared to answer 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?” In case of a fire, explosion, or toxic release, having such a plan provides an organized and coordinated course of action. SQGs should establish and adhere to basic safety guidelines and have up-to-date response procedures to follow in the event of an emergency.

Worksheets 1 and 2 (on page 16) 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.



## IF YOU THINK YOU HAVE AN EMERGENCY, IMMEDIATELY CALL 911 AND THE NATIONAL RESPONSE CENTER AT 800-424-8802

In 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. You may find that the problem you faced was not a true emergency, but **it is better to call if you are not sure**. Serious penalties exist for failing to report emergencies or releases of hazardous wastes.

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 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:

\_\_\_\_\_





## WASTE MINIMIZATION: THE KEY TO BETTER WASTE MANAGEMENT

The easiest, most cost-effective way to manage 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 non-hazardous waste with hazardous waste. Once you mix anything with a listed hazardous waste, the whole batch becomes hazardous. Mixing waste can also make recycling very difficult, if not impossible. A typical example of mixing wastes would be putting non-hazardous cleaning agents in a container of used hazardous solvents.
- **Change materials, processes, or both.** Businesses can save money and increase efficiency by replacing a material or 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. 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.
- **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.
- **Safely store hazardous products and containers.** You can avoid creating more hazardous waste by preventing spills or leaks. Store hazardous products and waste containers in secure areas, and inspect them often for leaks. When leaks or spills occur, materials used to clean them up also become hazardous waste.
- **Make a good faith effort.** SQGs do not have to document their waste minimization activities or create a waste minimization plan. You do, however, need to certify on your manifests that you have made a good faith effort to minimize waste generation when you send your waste off site.

## Shipping Waste Off Site

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

### Choosing a Treatment, Storage, and Disposal Facility

SQGs may only send their waste to regulated TSDFs and/or recyclers. Most regulated TSDFs and recyclers will have permits 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 choose has any necessary permits. All TSDFs and recyclers must have EPA identification numbers. Ensuring the good standing of the destination facility is important because hazardous waste generators can retain liability for waste mismanaged at a TSDF under RCRA (the Resource Conservation and Recovery Act) and Superfund (the Comprehensive Emergency Response, Compensation, and Liability Act, or CERCLA).



### Preparing Waste Shipments

SQGs 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 more information,

consult the DOT regulations (49 CFR Parts 172 and 173) or contact the DOT hazardous materials information line at 800-467-4922 or [infocntr@dot.gov](mailto:infocntr@dot.gov).

## Preparing Hazardous Waste Manifests

The Hazardous Waste Manifest System is a set of forms, reports, and procedures designed to seamlessly track hazardous waste from the time it leaves the generator until it reaches the off-site waste management facility that will store, treat, or dispose of the hazardous waste. The system allows the waste generator to verify that its waste has been properly delivered and that no waste has been lost or unaccounted for in the process.

The key component of this system is the Uniform Hazardous Waste Manifest, a multipart form prepared by most generators that transport hazardous waste for off-site treatment, recycling, storage, or disposal. The manifest is required by both DOT and EPA. When completed, it contains information on the type and quantity of the waste being transported, instructions for handling the waste, and signatures of all parties involved in the off-site treatment, recycling, storage, or disposal of the waste. Each party must keep a copy of the manifest. This process ensures critical accountability throughout transportation and disposal. Once the waste reaches its destination, the receiving facility returns a signed copy of the manifest to the generator, confirming that the waste has been received.

## Land Disposal Restriction Reporting Requirements

Regardless of where the waste is being sent, the initial shipment of waste subject to LDRs must be sent to a receiving TSDF or recycler along with an LDR notice. You must send

## E-MANIFEST AVAILABLE NATIONWIDE

Electronic manifests are now an option everywhere! e-Manifest launched nationwide on June 30, 2018. All generators have the option of creating and submitting their hazardous waste manifests electronically in e-Manifest. Generators can continue to use a paper manifest, but it is cheaper and faster to submit the uniform manifest form electronically. To use e-Manifest, generators must have an EPA identification number (see page 10 for how to get your EPA ID number) and register with e-Manifest. For more information and to register for e-Manifest, go to [www.epa.gov/e-Manifest](http://www.epa.gov/e-Manifest).

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 EPA-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. Contact your state agency or EPA regional office, and consult 40 CFR Part 268 for help with LDR notification and certification requirements.

## Export Notification

If you choose to export your hazardous waste, you must notify EPA at least 60 days before the intended date of shipment to request consent to export. Export is prohibited until you receive an EPA "Acknowledgement of Consent" letter documenting consent from the country of import and any countries of transit. For more information on how to obtain the consent to export hazardous waste and comply with additional hazardous waste export requirements, please go to [www.epa.gov/hwgenerators/information-exporters-resource-conservation-and-recovery-act-rcra-hazardous-waste](http://www.epa.gov/hwgenerators/information-exporters-resource-conservation-and-recovery-act-rcra-hazardous-waste).

## Closure

When you close your facility, you must ensure that all hazardous waste has been removed from your hazardous waste containers and/or tanks, discharge control equipment, and discharge confinement structures. In addition, any contamination you might have caused must be cleaned up and managed under all applicable hazardous waste regulations.

## SUMMARY OF SHIPPING REQUIREMENTS

- 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 the first waste shipment.
- Ensure the proper management of any hazardous waste you ship (even when it is no longer in your possession).



## CHOOSING A TRANSPORTER, TSDF/RECYCLER, OR WASTE MANAGEMENT COMPANY

As a small business, you may not have the expertise to perform some or all the duties necessary to comply with the hazardous waste regulations. Because the consequences of non-compliance can be significant, you may decide to hire a professional waste management company. Depending on how complicated your waste generation is and on your level of in-house expertise, you may decide to contract separately with a transporter and a TSDF/recycler or hire a full-service waste management company that handles all your hazardous waste obligations. Once you have decided which path meets your needs, it is important to select your vendors carefully—you'll ultimately be responsible for the proper management of your hazardous waste even after it has left your site. Asking the right questions and conducting thorough due diligence in advance can add to your confidence that your hazardous waste will be managed safely, effectively, and in compliance with the regulations:

- Can the company give you a clear description of its business and compliance history?
- Can all recyclers describe their processes and procedures for recycling, reuse, or resale?
- Are the vendor's waste operations regularly audited by a third party and can you access those reports?

In addition, for help in choosing a vendor, check with the following sources:

- References from business colleagues who have used a specific waste management company.
- Trade associations for your industry that might keep files on companies that handle hazardous waste.
- The Better Business Bureau or local Chamber of Commerce, which keep records of registered complaints.
- Your implementing agency, which can tell you whether the vendor has an EPA identification number and a permit, if required. The Envirofacts website publishes facility information, including types and quantities of waste managed and violations assessed at [www.epa.gov/enviro](http://www.epa.gov/enviro).

Once you have selected a hazardous waste management partner, ongoing communication can ensure continued compliance. Remember these points when overseeing the management of your waste, no matter who performs each step in the process:

- Making a correct hazardous waste determination is critical—you know your waste best, so pay attention when a vendor suggests how to classify your waste.
- Make sure the waste handler you have hired is fully informed regarding the chemical and physical attributes of your waste. If something changes about your process or your waste, immediately share that information with those managing the waste. Even the smallest detail may be important.
- Know where your hazardous waste goes when it leaves your site. Understand the path your waste is taking to final disposal or recycling.
- Make sure your records are complete and accurate, including when created by a third party.

You can use the information you have learned in this Guide to focus your discussions about your waste management. Continue to ask your providers questions about their practices and procedures. Remember, you are ultimately responsible for the proper disposal of the hazardous waste.



# SUMMARY OF REQUIREMENTS FOR LARGE QUANTITY GENERATORS

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

LQG Requirements	Summary
<b>Hazardous Waste Determination (40 CFR 262.11)</b> <b>Generator Category Determination (40 CFR 262.13)</b>	Identify all hazardous wastes you generate. Count the amount of hazardous waste you generate per month to determine your generator category (e.g., LQG).
<b>EPA Identification Numbers (40 CFR 262.18)</b>	Obtain a copy of EPA Form 8700-12, fill out the form, and send it to your state. An EPA identification number for your location will be returned to you.
<b>Prepare Hazardous Waste for Shipment Off Site (40 CFR 262.30–262.33)</b>	Package, label, mark, and placard wastes following Department of Transportation requirements. Ship waste using a hazardous waste transporter.
<b>The Manifest (40 CFR Part 262 Subpart B and 262.42)</b>	Ship waste to a hazardous waste treatment, storage, disposal, or recycling facility. Ship hazardous waste off site using the manifest system (EPA Form 8700-22) or state equivalent.
<b>Managing Hazardous Waste On Site (40 CFR 262.17 and Part 262 Subpart M)</b>	Accumulate waste for no more than 90 days without a permit. Accumulate waste in containers, tanks, drip pads, or containment buildings. Comply with specified technical standards for each unit type. Complete a contingency plan and comply with other emergency planning and preparedness requirements.
<b>Recordkeeping and Biennial Report (40 CFR 262.40–262.41)</b>	Retain specified records for three years. Submit biennial report by March 1 of even numbered years covering generator activities for the previous year.
<b>Comply with Land Disposal Restrictions (40 CFR Part 268)</b>	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.
<b>Export/Import Requirements (40 CFR Part 262 Subpart H)</b>	Follow requirements for exports and imports, including notification of intent to export and acknowledgement of consent from receiving country.
<b>Air Emissions (40 CFR Part 265 Subparts AA, BB, and CC)</b>	If applicable, use various monitoring and control mechanisms to: <ul style="list-style-type: none"> <li>Control <b>volatile organic compound (VOC)</b> emissions from hazardous waste management activities.</li> <li>Reduce organic emissions from process vents associated with certain recycling activities and equipment that is in contact with hazardous waste that has significant organic content.</li> <li>Control VOCs from hazardous waste tanks, surface impoundments, and containers using fixed roofs, floating roofs, or closed-vent systems routed to control devices.</li> </ul>
<b>Closure (40 CFR 262.17)</b>	Complete closure notification. Decontaminate and remove all contaminated equipment, structures, and soil, and minimize the need for further maintenance of your site. Meet unit-specific closure standards for containers, tanks, containment buildings, and drip pads.

# WHERE TO GET MORE HELP

*For more help understanding the hazardous waste regulations applicable to you, contact your state hazardous waste agency. Other assistance resources include the EPA website ([www.epa.gov/hwgenerators](http://www.epa.gov/hwgenerators)), EPA headquarters and other federal resource centers (page 22), or your EPA regional office (page 23).*

Other EPA resources include:

- The **Frequent Questions Knowledge Base**, where there are Q&As on various hazardous waste topics, including generators and hazardous waste identification: <https://www.epa.gov/hwgenerators/frequent-questions-hazardous-waste-generators>
- The **RCRAOnline website**, where there are interpretative memos on various RCRA topics: <https://rcrapublic.epa.gov/rcraonline/>.

Also see other potentially relevant sections of the CFR:

- 40 CFR Part 761 (handling PCBs, or polychlorinated biphenyls)
- 40 CFR Part 372 (Toxics Release Inventory reporting)
- 40 CFR Part 403 (domestic sewage waste disposal reporting)
- 49 CFR Parts 171–180 (shipping hazardous materials)

## RCRA IN FOCUS BOOKLETS AVAILABLE

*RCRA in Focus* is a series of short informational booklets that describe the RCRA regulations as they apply to specific industry sectors. The documents explain what RCRA is, who is regulated, and what hazardous waste is; provide a sample life cycle of a RCRA waste in each industry; include a quick reference chart of all applicable RCRA regulations and a series of waste minimization suggestions for various specific industrial processes; and provide information on other relevant environmental laws, contacts, and resources.

Individual issues of *RCRA in Focus* have been written for the following industries:

- Construction, demolition, and renovation (EPA 530-K-04-005)
- Dry cleaning (EPA 530-K-99-005) (*also available in Korean*)
- Furniture manufacturing and refinishing (EPA 530-K-03-005)
- Leather manufacturing (EPA 530-K-00-002)
- Motor freight and railroad transportation (EPA 530-K-00-003) (*also available in Spanish*)
- Photo processing (EPA 530-K-99-002)
- Printing (EPA 530-K-97-007) (*also available in Spanish*)
- Textile manufacturing (EPA 530-K-02-028)
- Vehicle maintenance (EPA 530-K-99-004) (*also available in Spanish*)

You can view the *RCRA in Focus* documents online at [www.epa.gov/hwgenerators/resource-conservation-and-recovery-act-rcra-focus-hazardous-waste-generator-guidance](http://www.epa.gov/hwgenerators/resource-conservation-and-recovery-act-rcra-focus-hazardous-waste-generator-guidance). EPA also provides compliance assistance on a sector-by-sector basis in order to efficiently reach facilities with similar operations, processes, or practices: [www.epa.gov/regulatory-information-sector](http://www.epa.gov/regulatory-information-sector).

## EPA and Other Federal Resource Centers

Environmental Protection Agency Headquarters (Washington, DC)				
<b>EPA Small Business Ombudsman Hotline</b>	EPA Small Business Ombudsman 1200 Pennsylvania Ave, NW Washington, DC 20460	800-368-5888 or 202-566-1970	Web: <a href="http://www.epa.gov/resources-small-businesses/asbestos-small-business-ombudsman">www.epa.gov/ resources-small-businesses/ asbestos-small-business-ombudsman</a>	Helps private citizens, small businesses, and smaller communities with questions on all program aspects within EPA
<b>RCRA Dockets</b>	EPA Docket Center WJC West Building, Rm 3334 1301 Constitution Ave, NW Washington, DC 20004	202-566-0270	Email: <a href="mailto:rcra-docket@epa.gov">rcra-docket@epa.gov</a> Web: <a href="http://www3.epa.gov/enviro/facts/rcrainfo/search.html">www3.epa.gov/enviro/facts/ rcrainfo/search.html</a>	Provides documents involved in the different stages of Office of Land and Emergency Management (OLEM) rulemakings
<b>Pollution Protection Information Clearinghouse (PPIC)</b>	EPA PPIC (7409M) 1200 Pennsylvania Ave, NW Washington, DC 20460	202-566-0799	Email: <a href="mailto:ppic@epa.gov">ppic@epa.gov</a> Web: <a href="http://www.epa.gov/p2/pollution-prevention-resources#ppic">www.epa.gov/p2/ pollution-prevention-resources#ppic</a>	Provides references and referrals on pollution prevention to help reduce and eliminate industrial pollutants through education and public awareness
<b>EPA National Library</b>	EPA Headquarters and Chemical Libraries (MC3404T) 1200 Pennsylvania Ave, NW Washington, DC 20460	202-566-0556	Email: <a href="mailto:hqchemlibraries@epa.gov">hqchemlibraries@epa.gov</a> Web: <a href="http://www.epa.gov/libraries/catalog">www.epa.gov/libraries/catalog</a>	Maintains environmental reference materials for EPA staff and makes information resources accessible to the public
Department of Transportation (Washington, DC)				
<b>Hazmat Information Center</b>	Standards and Rulemaking Division U.S. DOT/PHMSA (PHH-10) 1200 New Jersey Ave, SE East Building, 2nd Floor Washington, DC 20590	800-467-4922 or 202-366-4488	Email: <a href="mailto:infocntr@dot.gov">infocntr@dot.gov</a> Web: <a href="http://www.phmsa.dot.gov/standards-rulemaking/hazmat/hazardous-materials-information-center">www.phmsa.dot.gov/standards- rulemaking/hazmat/hazardous- materials-information-center</a>	Answers questions on matters related to DOT's hazardous materials transportation regulations

## EPA Regional Offices

Region	States Represented	Address	Main Phone Number(s)	Regional Library Phone Number/Email
<b>EPA Region 1</b>	CT, MA, ME, NH, RI, VT	5 Post Office Square, Suite 100 Boston, MA 02109-3912	888-372-7341	617-918-1990 / <a href="mailto:r1_library@epa.gov">r1_library@epa.gov</a>
<b>EPA Region 2</b>	NJ, NY, Puerto Rico, Virgin Islands	290 Broadway New York, NY 10007-1866	877-251-4575	212-637-3185 / <a href="mailto:region2_library@epa.gov">region2_library@epa.gov</a>
<b>EPA Region 3</b>	DC, DE, MD, PA, VA, WV	1650 Arch Street Philadelphia, PA 19103-2029	215-814-5122 or 800-438-2474 in Region 3	215-814-5254 / <a href="mailto:library-reg3@epa.gov">library-reg3@epa.gov</a>
<b>EPA Region 4</b>	AL, FL, GA, KY, MS, NC, SC, TN	Sam Nunn Atlanta Federal Center 61 Forsyth Street SW Atlanta, GA 30303-8960	800-241-1754	404-562-8190 / <a href="mailto:r4-library@epa.gov">r4-library@epa.gov</a>
<b>EPA Region 5</b>	IL, IN, MI, MN, OH, WI	Ralph Metcalfe Federal Building 77 West Jackson Boulevard Chicago, IL 60604	312-353-2000	312-886-6822 / <a href="mailto:library.r05@epa.gov">library.r05@epa.gov</a>
<b>EPA Region 6</b>	AR, LA, NM, OK, TX	Renaissance Tower 1201 Elm Street Dallas, TX 75270	214-665-2760 or 800-887-6063 in Region 6	214-665-6424 / <a href="mailto:library_region6@epa.gov">library_region6@epa.gov</a>
<b>EPA Region 7</b>	IA, KS, MO, NE	11201 Renner Boulevard Lenexa, KS 66219	913-551-7003 or 800-223-0425 in Region 7	913-551-7979 / <a href="mailto:r7-library@epa.gov">r7-library@epa.gov</a>
<b>EPA Region 8</b>	CO, MT, ND, SD, WY, UT	1595 Wynkoop Street Denver, CO 80202-1129	303-312-6312 or 800-227-8917 in Region 8	303-312-7226 / <a href="mailto:library-reg8@epa.gov">library-reg8@epa.gov</a>
<b>EPA Region 9</b>	American Samoa, AZ, CA, Guam, HI, Marshall Islands, Northern Mariana Islands, NV	75 Hawthorne Street San Francisco, CA 94105	415-947-8000 or 866-372-9378 in Region 9	415-947-4406 / <a href="mailto:library-reg9@epa.gov">library-reg9@epa.gov</a>
<b>EPA Region 10</b>	AK, ID, OR, WA	Park Place Building 1200 6th Avenue Seattle, WA 98101	206 553-1200 or 800-424-4372 in Region 10	206-553-1289 / <a href="mailto:library-reg10@epa.gov">library-reg10@epa.gov</a>

**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 TSD/recycler 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 3 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 TSD/recycler and transporter?
<input type="checkbox"/>	<input type="checkbox"/>	If you have not received your signed copy of the manifest from the TSD/recycler, 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 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 hazardous waste for no more than 180 days, or 270 days if you ship your waste more than 200 miles?

# ABBREVIATIONS AND DEFINITIONS

*This section explains terms used throughout this guide. Terms italicized below also appear in the federal hazardous waste regulations. (Note: some of the regulatory terms are more detailed in the regulations.)*

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## **acute hazardous waste**

*Specific hazardous wastes that are particularly dangerous to human health and, therefore, are regulated more stringently at lower volumes. Certain wastes listed in 40 CFR 261.31 with the assigned hazard code of (H) and the P hazardous waste codes listed in 40 CFR 261.33(e) are acute hazardous wastes. (40 CFR 260.10)*

## **byproduct**

*A material that is not one of the primary products of a production process. Examples of byproducts are process residues such as slags or distillation column bottoms. (40 CFR 261.1(c))*

## **CAA (central accumulation area)**

*An onsite hazardous waste accumulation area with waste accumulating in units subject to SQG or LQG requirements. (40 CFR 260.10)*

## **CFR (Code of Federal Regulations)**

A codification of the general and permanent rules published in the *Federal Register* by the executive departments and agencies of the federal government. The CFR is divided into 50 “titles,” which represent broad areas subject to federal regulation. Each title is divided into chapters, which usually bear the name of the issuing agency.

## **commercial chemical product**

*A chemical substance that is manufactured or formulated for commercial or manufacturing use. (40 CFR 261.33(d))*

## **container**

*Any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled. (40 CFR 260.10)*

## **DOT (Department of Transportation)**

The federal agency that oversees all national transportation systems and regulates the transport of hazardous materials.

## **elementary neutralization unit**

*A tank, tank system, container, transport vehicle, or vessel (including ships) that is designed to contain and neutralize corrosive waste. (40 CFR 260.10)*

## **implementing agency**

The EPA regional office or state or local agency responsible for enforcing the hazardous waste regulations.

## **incompatible waste**

A hazardous waste that can cause corrosion or decay of containment materials, or is unsuitable for comingling with another waste or material because a dangerous reaction might occur. See 40 CFR Part 265 Appendix V for examples.

## **LDR (Land Disposal Restrictions)**

The LDR program ensures that toxic constituents present in hazardous waste are properly treated before that waste is disposed of in the land (such as in a landfill).

## **LQG (large quantity generator)**

*A business that generates more than 1,000 kg (2,200 lbs) per month of hazardous waste or 1 kg (2.2 lbs) per month of acute hazardous waste. (40 CFR 260.10)*

## **NFPA (National Fire Protection Association)**

NFPA is a nonprofit organization devoted to eliminating death, injury, property, and economic loss due to fire, electrical, and related hazards. NFPA has a code of standards for storing hazardous wastes.

## **non-acute hazardous waste**

*All hazardous wastes that are not acute hazardous waste. (40 CFR 260.10)*

## **POTW (publicly owned treatment works)**

*A municipal wastewater treatment plant that receives wastewater through the public sewer from households, office buildings, factories and industrial facilities, and other places where people live and work. (40 CFR 260.10)*



**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. (40 CFR 261.1(c))

**recovered material**

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

**recycled material**

A material that is used, reused, or reclaimed. (40 CFR 261.1(c))

**reused material**

A material that is used as an ingredient in an industrial process to make a product, or as an effective substitute for a commercial product. (40 CFR 261.1(c))

**SDS (Safety Data Sheet)**

A detailed technical bulletin, prepared by a chemical's manufacturer or importer, about the hazards of that chemical. Your supplier must send you an SDS when the chemical is first shipped and any time it updates the SDS with new, significant information about the hazards. SDSs include information about components and contaminants, including exposure limits, physical data, fire and explosion hazard, toxicity, and health hazard data. They also discuss emergency and first aid procedures, information about storage and disposal, and spill or leak procedures. However, an SDS may not have enough information to make a proper hazardous waste determination. NOTE: SDSs were previously called MSDSs (Material Safety Data Sheets).

**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. (40 CFR 260.10)

**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 being processed. (40 CFR 261.1(c))

**SQG (small quantity generator)**

A business that generates between 100 and 1,000 kg (220 and 2,200 lbs) per month of hazardous waste and less than 1 kg (2.2 lbs) per month of acute hazardous waste. (40 CFR 260.10)

**still bottom**

Residue or byproduct of a distillation process such as solvent recycling.

**tank**

A stationary device designed to contain an accumulation of hazardous waste and made primarily of non-earthen materials (e.g., wood, concrete, steel, plastic). (40 CFR 260.10)

**TCLP (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 ground water if improperly managed.

**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 to prevent the release of hazardous waste into the environment during treatment. An example is a pipe in which waste acid is neutralized. (40 CFR 260.10)

**TSDf (treatment, storage, and disposal facility)**

A facility that treats, stores, or disposes of hazardous waste. TSDf's have specific requirements under RCRA, including obtaining a RCRA permit.

**VOC (volatile organic compound)**

VOCs are highly evaporative organic gases that can be produced during the manufacture or use of chemicals such as paints, solvents, and cleaners. Various pollution control devices can prevent the release of VOCs both outdoors and indoors.

**VSQG (very small quantity generator)**

A business that generates less than 100 kg (220 lbs) per month of hazardous waste or less than 1 kg (2.2 lbs) per month of acute hazardous waste. (40 CFR 260.10)

**wastewater treatment unit**

A tank or tank system that is part of a wastewater treatment facility 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. (40 CFR 260.10)

