

# Hazardous Waste Management

## Hazardous Waste: The Basics

Information presented in this fact sheet is intended to provide a general understanding of the regulatory requirements governing the management of hazardous waste. This information is not intended to replace, limit, or expand upon the complete regulatory requirements found in Division 14 of the Alabama Department of Environmental Management Administrative Code.

### WHAT IS HAZARDOUS WASTE?

(For in-depth information, see ADEM Administrative Code Division 14, Chapter 2)

According to the Alabama Hazardous Wastes Management and Minimization Act (AHWMMA), a hazardous waste is a waste that, 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.

Some wastes are designated hazardous, or acutely hazardous if found to be fatal to humans in low doses, because they appear on one of four lists of specific wastes (ADEM Admin. Code 335-14-2-.04), including items such as:

- spent chlorinated solvents (e.g., trichloroethylene)
- some still bottoms (e.g., aniline production)
- spent non-chlorinated solvents (e.g., xylene)
- some pollution control dusts (e.g., lead smelting)
- plating solutions (e.g., cyanide plating bath)
- some wastewater treatment sludges
- spent wood preserving solutions (e.g., creosote)
- many unused commercial products

Other wastes are designated hazardous because they exhibit one of the four following characteristics (ADEM Admin. Code 335-14-2-.03):

- **Ignitable** wastes are liquid wastes with a flash point less than 140°F; solid wastes that ignite spontaneously and burn vigorously; or ignitable compressed gases or oxidizers as defined by USDOT (e.g., solvents, paints).
- **Corrosive** wastes are acids with a pH of 2 or less; caustics with a pH of 12.5 or more; or liquids that corrode steel at a rate greater than ¼ inch per year (e.g., battery acid, strippers, cleaners).
- **Reactive** wastes explode; react violently with water; form toxic gases when exposed to water; release significant quantities of cyanide- or sulfide-containing gases; or are otherwise unstable (e.g., explosives, reactive metals).
- **Toxic** wastes contain at least one of 40 specified constituents (e.g., lead, benzene, chlordane) that leach out of the waste at levels that are hazardous.

### WHO GENERATES HAZARDOUS WASTE?

(See ADEM Administrative Code Division 14, Chapter 3)

Hazardous waste is a by-product of many large and small businesses. From the public's perspective, it is most often associated with medium- to large-scale manufacturers, but many small, non-manufacturing businesses produce hazardous waste. On one hand, a metal fabrication plant may have hazardous waste associated with cleaning and painting its products or a large printer may have hazardous ink wastes. On the other hand, a small auto service shop, a hardware store, a small copy shop, or even a general merchandise store may generate small quantities of hazardous waste. If you generate hazardous waste at a business or other non-household site, the management of that waste is regulated under Division 14 of the Alabama Department of Environmental Management's Administrative Code.

#### Note

"Waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities, including any material to be discarded by a generator.

According to ADEM Admin. Code 335-14-3-.01(2), the waste generator is required to evaluate all wastes produced to determine if they are hazardous waste. The results of these evaluations should be kept on-site, including those found to be non-hazardous.

Generators are categorized by three factors:

1. the amount of hazardous waste generated in a calendar month;
2. the amount of hazardous waste accumulated on-site at any one time; and
3. whether the waste generated is hazardous or acutely hazardous.

There are three generator categories:

- **Very Small Quantity Generators (VSQG)** produce no more than 220 pounds of hazardous waste and no more than 2.2 pounds of acute hazardous waste in a calendar month. A VSQG cannot accumulate more than 2,200 pounds of hazardous waste or 2.2 pounds of acute hazardous waste at any time.
- **Small Quantity Generators (SQG)** produce more than 220 pounds, but less than 2,200 pounds of hazardous waste and no more than 2.2 pounds of acute hazardous waste in a calendar month. An SQG cannot accumulate more than 13,200 pounds of hazardous waste or 2.2 pounds of acute hazardous waste at any time. Normally, hazardous waste cannot be accumulated on-site for more than 180 days (up to 300 days for special circumstances).
- **Large Quantity Generators (LQG)** produce 2,200 pounds or more of hazardous waste or more than 2.2 pounds of acute hazardous waste in a calendar month. Normally, hazardous waste cannot be accumulated on-site for more than 90 days (up to 120 days for special circumstances).

## WHAT ARE SOME EXAMPLES OF HAZARDOUS WASTES?

Below are some examples of activities that generate potentially hazardous wastes. This list is not intended to be exhaustive.

<i><b>Activity</b></i>	<i><b>Waste Examples</b></i>
Building Maintenance	Cleaners, Degreasers, Paints, Solvents, Thinners
Construction, General Repair	Acids, Adhesives, Caustics, Cleaners, Paints, Thinners
Dry Cleaning	Filters, Solvents, Still Bottoms
Metal Casting	Baghouse Dust, Cleaners, Refractory, Sand, Slag, Solvents
Metal Fabrication, Plating	Acids, Caustics, Cleaners, Paints, Sludges, Solvents
Painting	Cleaners, Filters, Paints, Sludges, Strippers, Thinners
Pesticide Application	Used Containers, Pesticides, Rinsates
Printing	Acids, Cleaners, Inks, Photo Solutions, Rags, Solvents
Vehicle Maintenance	Antifreeze, Filters, Oils, Paints, Solvents, Thinners
Wood Preserving	Preservative, Sludges

## WHAT MUST I DO IF I EXPECT TO GENERATE HAZARDOUS WASTE?

(See ADEM Administrative Code Division 14, Chapter 3)

1. Evaluate all wastes according to ADEM Admin. Code r. 335-14-3-.01(2) to determine if they are hazardous.
2. If you are an SQG or LQG, obtain an EPA Identification Number (ADEM Form 8700-12).
3. Provide appropriate training to employees handling hazardous waste.
4. Manage hazardous waste properly to prevent accidents, spills, and injuries while it is on-site.
5. Ensure hazardous waste is shipped off-site within the time limits.
6. If you are an SQG or LQG, prepare a manifest (and land disposal notification, if required) for each off-site shipment.
7. Arrange for proper off-site management, transportation, treatment, and disposal of all hazardous wastes.
8. Notify ADEM of your hazardous waste activities annually (ADEM Form 8700-12).
9. If you are an LQG, submit a Biennial Report every even-numbered year.
10. Maintain copies of all waste determinations, manifests, and required reports for at least three years.

