



## HAZARDOUS WASTE

### WHAT IS HAZARDOUS WASTE?

Hazardous wastes are wastes that, in sufficient quantities and concentrations, pose a threat to human life, human health, or the environment when improperly stored, transported, treated or disposed.

In regulating hazardous waste, Pennsylvania uses a federal list of over 600 specific wastes. Other wastes are designated "hazardous" if they contain any of the following characteristics:

1. **IGNITABLE** - combustible under certain conditions
2. **CORROSIVE** - highly acidic, basic and/or capable of corroding metal
3. **REACTIVE** - unstable under normal conditions and capable of creating explosions and/or toxic fumes, gases, and vapors when mixed with water
4. **TOXIC** - harmful or fatal when ingested or absorbed

Mixtures of hazardous and nonhazardous waste are also labeled hazardous. The hazardous waste designation does not include low-level radioactive waste, which is covered under separate state and federal rules.

### WHAT ARE SOME EXAMPLES?

Hazardous wastes include dust from some air pollution control devices, pickle liquor from the steel industry, some waste treatment sludges, industrial wastes from refining petroleum and preserving wood and degreasing solvents.

### WHO GENERATES HAZARDOUS WASTE?

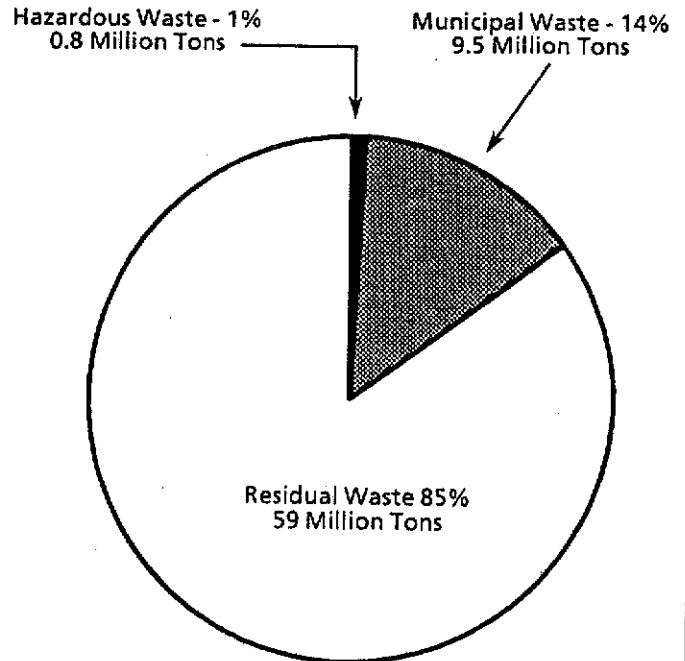
Most hazardous waste are generated by industries, including car repair shops; the construction, ceramics and printing industries; manufacturers of chemicals, paper, leather, cleaning agents, cosmetics, and metals. The steel industry, through its various manufacturing and fabricating processes, accounts for over one third of the hazardous waste generated in Pennsylvania.

Industries are regulated by the amount of hazardous waste they produce and are identified either as large-quantity generators (establishments that generate 2200 pounds or more of hazardous waste per month) and small-quantity generators (establishments that generate less than 2200 pounds of hazardous waste per month). There are about 2,000 registered large-quantity and 11,800 small-quantity generators in Pennsylvania.

### HOW MUCH HAZARDOUS WASTE DO WE PRODUCE?

Pennsylvania produces nearly 800,000 tons of hazardous waste annually. While the risks involved in managing this waste should not be minimized, hazardous waste represent just a small proportion of all wastes generated.

#### PENNSYLVANIA'S ANNUAL WASTE GENERATION



### HOW IS HAZARDOUS WASTE MANAGED?

Large-quantity generators must obtain a U.S. Environmental Protection Agency (EPA) identification number and report on the management of all its hazardous wastes to the Pennsylvania Department of Environmental Protection (DEP). Hazardous waste should be managed to minimize the amount of waste that must be disposed through the following methods:

1. **SOURCE REDUCTION.** Hazardous waste generators try to minimize the amount of hazardous waste they produce. Some have accomplished this by eliminating production steps, some by introducing new technologies.

2. **RE-USE/RECYCLING/RECOVERY.** Many hazardous wastes can be recycled, re-used, or recovered for use as fuel. Solvents, for example, can be rerefined and recycled. This reduces the need for waste disposal.
3. **TREATMENT.** Waste that cannot be reduced or recycling may be treated to change their chemical composition to reduce the volume of waste or make it nonhazardous.
4. **STORAGE.** Hazardous waste may be stored until they can be re-used or treated. If the storage period is longer than 90 days, the storage facility must have a permit.
5. **DISPOSAL.** Landfilling and Incineration.

DEP is currently promulgating regulations to make waste minimization mandatory for generators of both hazardous and industrial nonhazardous wastes.

Waste transported for off-site treatment, storage or disposal must be accompanied by a manifest, an EPA shipping form which is obtained from DEP or the state of destination. The manifest travels with the hazardous waste from the point of generation to the point of final disposal and is completed at each step of the journey. It identifies the type and amount of hazardous waste shipped, the generator, and the permitted facility that will receive the waste. It also contains all necessary information for proper handling of the waste during shipping.

### HOW DO WE DISPOSE OF IT?

Hazardous waste, like other waste, is disposed of by landfilling or incineration. Landfilling is used only after the waste has been treated and stabilized. All hazardous waste facilities are covered by strict state regulations.

Pennsylvania presently does not have a commercial hazardous waste landfill or incinerator. (A commercial facility is one which takes waste from other generators of hazardous wastes.) About one-third of Pennsylvania's hazardous waste is treated and disposed on-site; at the place where it was generated. The remaining two-thirds is shipped off the premises for commercial treatment and disposal.

This fact sheet and related environmental information are available electronically via Internet. Access the DEP-DCNR Web Site at <http://www.dep.state.pa.us> (choose Information by Environmental Subject/choose Waste Management).

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