

TOPIC: Introduction to the Definition of Hazardous Waste

Statutory Definition

The RCRA law, §1004(5) defines hazardous waste as:

A solid waste, or combination of solid waste, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may **(a)** cause, or significantly contribute to, an increase in **mortality** or an increase in serious irreversible, or incapacitating reversible, **illness**; or **(b)** pose a substantial present or **potential hazard** to human health or the environment when **improperly treated**, stored, transported, or disposed of, or otherwise managed.

The statutory definition is very broad, providing the required legal authority and guiding the EPA in the development of the regulatory definition of hazardous waste.

Congress tasked EPA to develop the regulatory definition of hazardous waste by listing certain wastes as hazardous and by identifying characteristics that, when present in a waste, make it hazardous.

Hazardous Waste Listings

A hazardous waste listing is a description of specific waste that the EPA considers dangerous enough to require regulation. Listed Hazardous wastes are wastes from various industrial processes, wastes from specific sectors of industry, or certain waste chemical formulations.

Before putting a waste on a hazardous waste list, the EPA studies that wastestream and assesses its threat to human health and the environment. If the waste is deemed enough of a threat, the EPA includes a description of that waste on one of the hazardous waste lists. Any waste meeting the description is hazardous, regardless of its chemical composition.

Generator knowledge is used to determine if a waste is a listed hazardous waste; no laboratory analysis is required. By comparing a waste to the listing descriptions, a waste generator can determine if it is hazardous due to being a listed hazardous waste.

Hazardous Waste Characteristics

A hazardous waste characteristic is a property that makes a waste sufficiently threatening to warrant regulation as hazardous. To define the hazardous waste characteristics, the EPA considered the properties or qualities that would cause a waste to be dangerous.

For example, ignitability is a dangerous property and is one of the hazardous waste characteristics. A waste displaying or exhibiting that property or characteristic is regulated as hazardous. When defining hazardous waste characteristics, EPA generally identifies analytical tests for the characteristic. The chemical makeup or other properties of the waste determine whether it exhibits

a hazardous characteristic. Hazardous waste characteristics require a waste generator to evaluate a wastestream and classify it accordingly.

Summary

There are two basic types of hazardous waste, listed hazardous waste, placed on a list because the EPA found that the wastestream is generally a threat to human health or the environment and characteristic hazardous waste, which the generator has found to be potentially dangerous through the use of one or more analytical tests. The two types of hazardous waste are not mutually exclusive; a wastestream can be hazardous due to being both a listed hazardous waste and hazardous because it exhibits one or more hazardous characteristics.