

What Every Business Needs to Know about Hazardous Waste

Many small and large businesses that generate hazardous waste are at risk because they are out of compliance with the complex body of law that governs hazardous waste. This can result from a variety of factors, including personnel turnover, process changes, and the complicated nature of the regulations themselves.

The good news is that through an organized and disciplined approach, a business can get on track to compliance. Although "hazardous waste" encompasses a virtually limitless number of substances, which can result from an equally vast range of operations, the basic outline of a successful approach to compliance remains the same: First, every business must determine whether it is a generator of hazardous waste. Second, it must quantify the amount generated on a calendar month basis. Third, it must determine its generator category (based on its monthly total). Fourth, it must identify and comply with the applicable regulatory requirements (based on its generator category). These steps are discussed in turn below.

Identify your hazardous waste:

To be a hazardous waste, a substance must meet a two step test of being both a "waste" and "hazardous." The relevant definition of waste is a broad one that includes any material destined for disposal, recycled in certain ways, or "inherently waste-like." A waste will be a hazardous if it is either "listed" or "characteristic." There are over 500 hazardous wastes contained in various lists within the federal regulations. Some listed hazardous wastes are common process wastes from generic sources, such as spent solvents from parts cleaning. Some are industry-specific wastes from specific sources, such as distillation bottoms from various organic chemical production processes. Still others are pesticide and pharmaceutical products. Characteristic wastes are those meeting the definition of at least one of the four following characteristics: ignitability (low flash point or spontaneously combustible), corrosivity (strong acid or base or capable of corroding metal), reactivity (unstable when heated, compressed, or mixed with water), or toxicity (as determined through the Toxicity Characteristics Leaching Procedure, a laboratory test designed to identify substances likely to leach into ground water in harmful concentrations). Additionally, any of those wastes described in the regulations as "acutely hazardous" must be identified.

Quantify your hazardous waste:

The total weight of hazardous waste and acutely hazardous waste generated in each calendar month must be tallied, because the hazardous waste generator category is determined from these numbers on a calendar month basis. Volumes of liquid hazardous wastes must be converted into weights, because the generator categories are defined in terms of weight not volume. Certain hazardous wastes known as "universal wastes" do not count toward generator status. Universal wastes are common, recyclable, relatively self-contained items such as mercury switches and fluorescent lamps. Universal wastes have their own unique requirements pertaining to employee training, handling, storage, and accumulation time. Certain wastes such as scrap metal and used oil may not count toward generator status depending on how they are managed. Also, computer and other electronic equipment that would otherwise be considered hazardous (such as cathode ray tube monitors and circuit boards containing lead) can be managed to avoid counting toward generator status.

Determine your generator category:

Based on the quantity of hazardous waste and acutely hazardous waste generated, a business will fall into one of the following three categories: Large Quantity Generator (LQG), Small Quantity Generator (SQG), or Conditionally Exempt Small Quantity Generator (CESQG). Not surprisingly, the regulatory burden increases along with the amount of hazardous waste generated. Because generator categories are determined on a monthly basis, they can change from month to month. Changes in generator category require agency notification and compliance with the greater burdens associated with the higher category. Sometimes, when atypically large quantities of hazardous waste are generated due to scheduled events such as tank cleanouts, the events can be timed in order to avoid a higher generator category. Because the generator category can also change based on the total quantity of hazardous waste present at any given time, on-site totals should be continually tracked in addition to monthly generation totals.

Identify your requirements and put in place a program to comply with them:

LQGs have extensive requirements pertaining to the management of their hazardous wastes, including inspections, record-keeping, agency reporting, employee training, and contingency planning, along with strict limits on the amount of time hazardous waste can be kept on site from the date of generation. The requirements for SQGs include limits on both the quantity of hazardous waste that can be present on-site and the amount of time it may remain, along with inspection and many other requirements. CESQGs have a limit on the amount of hazardous waste they can have on site at any given time, but are relieved from many of the other requirements placed on LQGs and SQGs. All generators should have a basic understanding of EPA's Uniform Hazardous Waste Manifest system, the vehicle for nationwide "cradle to grave" tracking of hazardous waste, and the Land Disposal Restriction requirements. No matter what your generator category, the key to compliance is having a thorough understanding of the applicable requirements and implementing practices and procedures to ensure they are met.

The best way to reduce your regulatory burden is to minimize or avoid the generation of hazardous waste in the first place. For example, do not allow employees to mix hazardous waste with non-hazardous waste (so as to make the entire mixture hazardous). Use citrus-based compounds instead of organic solvents to clean equipment and tools. Finally, when you must utilize one, use care to select a reputable and properly permitted Treatment, Storage, and Disposal Facility (TSDF) for disposition of your hazardous waste, because your liability does not end when your waste leaves your site.