



Hazardous Waste from Households and Different types of Businesses

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DESCRIPTION

All facilities, including manufacturing industries, commercial enterprises, government agencies, healthcare providers, administrative offices, and non-household waste generating facilities, are required to determine the generation of hazardous waste Michigan facilities.

Types of hazardous waste

To treat the following types of hazardous waste as general waste according to the general reasonable waste standard:

Aerosol: A container in which pressurized gas is used to aerate and distribute any material through a valve in the form of a spray or foam.

Antifreeze: Mixture containing ethylene glycol or propylene glycol used as heat transfer fluid or desiccant.

Battery: A device consisting of one or more electrochemical cells and designed to receive, store, and supply electrical energy. This category includes hazardous waste batteries such as used nickel-cadmium, lead acid and lithium batteries.

Household electronics: A device containing electronic circuit boards, liquid crystal displays, or plasma displays commonly found in homes and offices and such devices used in other environments.

Devices containing elemental mercury: A device or part of a device (excluding batteries and lamps) that contains elemental mercury integral to its function. Some commonly recognized devices are thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches, such as light switches in automobiles.

Lamps: The bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Lamps can exhibit the toxicity characteristic for some heavy metals (i.e., mercury, lead, cadmium). Examples of universal waste lamps include incandescent, fluorescent, high

intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide lamps.

Pesticides: Certain pesticides are suspended, unused.

Pharmaceuticals: Medicines for human and veterinary use.

Universal waste has alternative management standards found in Rule 228 of the Hazardous Waste Code [1]. Manufacturers may choose to manage common wastes according to these standards instead of managing them as fully regulated hazardous waste. The designation of consumer electronics, antifreeze, and pharmaceuticals as common waste categories is unique in Michigan. Moreover, by February 22, 2022, EGLE is required to adopt new federal hazardous waste regulations for handling hazardous waste pharmaceuticals from healthcare and rescind the designation of pharmaceuticals as a universal waste type [2].

When households generate these types of wastes, they are not regulated in the same way unless the household waste is mixed with universal waste from a non-household if mixed, the mixture must be managed to meet the universal waste standards.

If generators choose not to handle these waste streams as universal waste, they need to manage them to meet the requirements that apply to their generator category. Those requirements vary depending on the weight of hazardous waste generated at site each month. This information is used to determine the site's hazardous waste generator category Large Quantity Generator (LQG), Small Quantity Generator (SQG), or Very Small Quantity Generator (VSQG) of hazardous waste [3]. The more hazardous waste a site generates, the greater the hazard associated with the waste, and the more regulation the site must meet. To understand the generator categories and requirements that apply, see the hazardous waste generator category and summary of accumulation requirements.

Spilled common wastes and cleanup materials do not qualify for management as general waste [4]. The weight of spilled and cleared materials must be taken into account when determining the site's monthly generator list. SNPs and NPs are considered using batch generator requirements outlined in Rule 316 of the

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Received: 04-May-2022, Manuscript No. IJWR-22-16860; **Editor assigned:** 09-May-2022, PreQC No. IJWR-22-16860(PQ); **Reviewed:** 23-May-2022, QC No IJWR-22-16860; **Revised:** 30-May-2022, Manuscript No. IJWR-22-16860(R); **Published:** 08-Jun-2022, DOI:10.35248/2252-5211.22.12.466

Citation: Allen M (2022) Hazardous Waste from Households and Different types of Businesses. Int J Waste Resour. 12:466.

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hazardous waste code to maintain their existing generator portfolio.

Common benefits of waste

Some of the greatest benefits of waste management in accordance with the general waste standard include:

- Manufacturers do not need to maintain complex waste characterization data, because waste is managed as hazardous waste according to the most stringent environmental waste standards.
- The generator does not include the weight of the waste when determining the site's monthly generator category. This can decrease a site's generator category, minimize the regulatory requirements.
- The generator may accumulate universal waste onsite up to one year, much longer than the 90 days or 180 days allowed for LQGs and SQGs, respectively. This generally reduces cost by minimizing the number of pickups needed for recycling or disposal.
- The generator has greater flexibility in locating accumulation containers. Bins can be placed in areas convenient for personnel. General waste containers are not required to be located at the production site under operator control or in an accumulation area with secondary containment as required for waste management in accordance with SQG and LQG regulations [5].

CONCLUSION

Universal waste recycling, treatment or disposal sites are general waste destination facility. Incoming facilities must comply with

state and federal requirements for hazardous waste recycling, disposal. Universal waste handlers are classified as Small Quantity Handlers (SQH) or Large Quantity Handlers (LQH) depending on the amount of universal waste accumulated at any one time. SQHs accumulate less than 5,000 kilograms of all general waste combined at a time. LQHs accumulate 5,000 kilograms or more of all general wastes combined at any one time. This LQH designation is retained until the end of the calendar year in which the cumulative amount of general waste exceeds the SQH limit.

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