**Disposal of Hazardous Waste Pesticides in Colorado**

Hazardous wastes have been restricted from land disposal to protect human health and the environment. Treatment standards have been established to diminish the toxicity of these wastes and to reduce the threat to human health and the environment prior to disposal. Wastes that have been treated are not prohibited from land disposal in a permitted hazardous waste landfill as long as the specific treatment standards for that waste have been met.

**Who regulates hazardous waste?**

In 1976, Congress passed the Resource Conservation and Recovery Act (RCRA) which directed the Environmental Protection Agency (EPA) to develop and implement a program to protect human health and the environment from improper hazardous waste management practices.

Colorado passed its own laws governing hazardous waste in 1981 and has since adopted regulations that cover hazardous waste management in the state. The Colorado Department of Public Health and Environment (CDPHE) was authorized to implement and enforce the federal hazardous waste program in 1984. Colorado regulations must be at least as stringent as those of the EPA. There are numerous instances where Colorado rules are stricter than federal regulations.

**What is a pesticide waste?**

A pesticide waste is any material which contains any concentration of pesticides that are no longer desirable. This includes such things as: rinse material from containers and spray equipment, left over spray solutions, excess pesticides, and canceled/suspended pesticides. Pesticides that cannot be legally used must be disposed of as hazardous wastes.

**Are all pesticide wastes considered hazardous wastes?**

Household waste, including homeowner pesticides, are exempt from Colorado and Federal hazardous waste regulations and may be disposed of through a local household chemical waste collection event or facility, recycled, or disposed of in a municipal solid waste landfill.

Under RCRA, commercial chemical products such as pesticides become “solid wastes” (and thus, potentially, hazardous wastes) at the point where the pesticide’s holder (i.e., end-user, dealer, distributor, or registrant) decides to discard them.
Hazardous waste can be of two types:

1. **Listed waste.** A hazardous waste listing is a narrative description of a specific type of waste that both EPA and CDPHE consider dangerous enough to warrant regulation. Wastes are listed as hazardous because they are known to be harmful to human health and the environment when not managed properly. Listed wastes are hazardous regardless of their concentration. Even when managed properly, some listed wastes are so dangerous that they are called **acutely hazardous wastes.** Examples of acutely hazardous wastes include some pesticides that can be fatal to humans even in low doses.
   - **F listed** hazardous wastes are wastes from non-specific sources
   - **K listed** hazardous wastes are wastes from a specific source
   - **P and U listed** wastes are:
     - off-specification or discarded commercial chemical products
     - any residue remaining in a container that held commercial chemical products in the P or U listing
     - any residue or contaminated media resulting from the cleanup of a spill of a commercial chemical product in the P or U listing

2. **Characteristic wastes.** If your waste does not appear on one of the hazardous waste lists, it still might be considered hazardous if it demonstrates one of more of the following characteristics:
   - It catches fire under certain conditions. This is known as an **ignitable** waste.
   - It corrodes metals or has a very high or low pH. This is known as a **corrosive** waste.
   - It is unstable and explodes or produces toxic fumes, gases, and vapors when mixed with water or under other conditions such as heat or pressure. This is known as a **reactive** waste.
   - It is harmful or fatal when ingested or absorbed, or it leaches toxic chemicals into the soil or groundwater when disposed of on land. This is known as a **toxic** waste.

**How do you know if you are generating hazardous waste?**

1. Call the CDPHE Hazardous Materials and Waste Management Division, customer technical assistance line at (303) 692-3320.
2. Obtain a copy of the Colorado Hazardous Waste Regulations by calling CDPHE at (303) 692-3300. Refer to [6 Colorado Code of Regulations (CCR) 1007-3, Section 261](https://www.colorado.gov/pacific/cdphe/section261) which describes the listing and the identification of hazardous wastes.
3. Use Material Safety Data Sheets (MSDS) for information regarding the products you use to determine if hazardous waste is generated. Be aware that MSDSs may not provide all the information that you need to make a hazardous waste determination (see Pesticide Fact Sheet [Understanding the Material Safety Data Sheet](https://pesticides.colorado.gov/mad/)).
4. Call the EPA's RCRA/Superfund Hotline at 1-800-424-9346.

**Finding your Generator Category**

Once you know that you generate hazardous waste, you need to measure the amount of waste you produce per month. The amount of hazardous waste you generate determines your generator category. In general, the more hazardous waste you generate, the more regulations you must follow.

EPA has established three generator categories, as follows, each of which is regulated differently:

1. **Conditionally exempt small quantity generators (CESQGs):** you must generate less than 220 lbs of hazardous waste per month. You must also identify all hazardous waste that you generate,
not store more than 2,200 lbs of hazardous waste on site at any time, and ensure delivery of your hazardous waste to an off-site treatment or disposal facility.

2. **Small quantity generators (SQGs):** you generate between 220 lbs and 2,200 lbs of hazardous waste per month. You must obtain and use an EPA identification number. EPA and states use these 12-character numbers to monitor and track hazardous waste activities. You will need to use your identification number when you send waste off-site to be managed. You must also accumulate wastes according to the limits established by EPA for SQGs, follow storage and handling procedures required by EPA for SQGs, and follow EPA requirements for equipment testing and maintenance, access to communications or alarms, aisle space, and emergency arrangements with local authorities.

3. **Large quantity generators (LQGs):** you generate more than 2,200 lbs of hazardous waste per month. You must identify all hazardous waste you generate; obtain and use an EPA identification number; package, label, mark, and placard wastes following Department of Transportation (DOT) requirements; ship waste to hazardous waste treatment, storage, disposal, or recycling facility; accumulate waste for no more than 90 days without a permit; retain specified records for three years; ensure that wastes meet treatment standards prior to land disposal; follow requirements for exports and imports, including notification of intent to export and acknowledgement of consent from receiving country; decontaminate and remove all contaminated equipment, structures, and soil, and minimize the need for further maintenance of your site.

**How can my business dispose of commonly generated hazardous wastes?**

Colorado has adopted streamlined hazardous waste management regulations that govern the collection and management of certain widely generated wastes known as “universal wastes.” The Universal Waste Rule provides an alternative set of reduced management standards that the generator can follow instead of the full hazardous waste requirements. This rule was designed to reduce the regulatory burden on non-residential entities, such as businesses, governmental agencies, and schools that generate these wastes. The Universal Waste Rule also encourages recycling and reducing the amount of hazardous waste items illegally sent to municipal solid waste landfills, thus reducing a potential threat to public health and the environment.

Universal wastes include many:
- Batteries
- Pesticides
- Mercury-containing lighting wastes
- Mercury-containing devices
- Aerosol cans
- Electronic devices and components

Universal wastes include agricultural pesticides that have been recalled or banned from use, are obsolete, have become damaged, or are no longer needed due to changes in cropping patterns or other factors.

**References and Resources**

http://www.cepep.colostate.edu/Disposal/Chemsweep%20brochure.pdf


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