

## What is Hazardous Waste Transcript

Slide 1: Hello, and welcome to the basics of hazardous waste management from the Montana Department of Environmental Quality. This presentation will focus on how to determine what wastes are hazardous wastes. My name is Jennifer Strause, I am a hazardous waste specialist with Montana DEQ, and I will be your guide through this presentation. The contact information for my office is listed on the last slide and you are welcome to contact our team at any time with your questions.

Slide 2: During this presentation, we will talk about what is and is not hazardous waste, excluded and exempt wastes, and review listed and characteristic wastes. We also have resources and contact information for you to find out more about hazardous waste.

Slide 3: All businesses, industries, households, medical offices, government entities, and schools generate waste. But how do you know if it is hazardous waste? In the next few slides, we will talk about different types of waste and which ones are considered to be hazardous waste.

Slide 4: The first thing to know about hazardous waste is that all entities that generate waste are responsible for determining if the waste that they generate is considered hazardous waste, regardless of how much they generate. Hazardous waste determinations can be made either by using knowledge of the components and processes that generate the waste or through laboratory testing. Waste generators are also responsible for ensuring proper disposal of all wastes, both hazardous and non-hazardous. It is also important that records be kept on the waste determination process and when and where the waste was disposed.

Slide 5: The term hazardous waste brings to mind lots of things. But what is considered a hazardous waste by the US EPA and Montana DEQ is very specifically defined in the regulations. Let's start with what is NOT considered a hazardous waste. Radiological wastes are governed by the US Department of Energy and are not considered hazardous wastes. Biological wastes, including red bag medical waste and human septage, are not considered hazardous wastes. Wastes generated in a home, while they may be hazardous, are not regulated under the hazardous waste regulations. Most items that will be recycled are exempt from hazardous waste regulations. Asbestos is regulated by the Toxic Substances Control Act and is not subject to hazardous waste regulations. In addition, hazardous wastes are not the same as DOT hazardous materials or OSHA hazardous chemicals, though there is overlap with both of those regulatory programs.

Slide 6: Next, let's talk about what IS hazardous waste. Hazardous wastes are regulated under the federal Resource Conservation and Recovery Act, also known as RCRA. In Montana, we incorporate the federal rules by reference and have very few state-specific rules. Any time in this presentation that you see the acronym CFR, it is referring to the code of federal regulations. Environmental regulations are found in Title 40 of the CFR. Hazardous wastes are very specifically defined in 40 CFR 261.3. To be a hazardous waste, a waste has to be considered a solid waste. The term solid waste does not refer to the physical state of the waste, but rather how the waste will be disposed. Wastes that will be discharged to a sanitary sewer are not solid wastes. All other wastes are considered solid waste. Hazardous wastes are either specifically listed in the regulations or have specific characteristics that make them hazardous. I will talk more in depth on listed and characteristic wastes in a little bit. There are several exemptions and exclusions to the hazardous waste regulations. Excluded wastes are those that are excluded from being considered solid wastes. This includes household hazardous wastes and industrial discharges to regulated sanitary sewer systems. These systems, and their discharges, are permitted under the Clean

Water Act. Exempt wastes are wastes that are generally a hazardous waste but have special rules that exempt them from following the same regulations. These included some scrap metals, used oil, and universal wastes. Please see our website for more information about used oil and universal wastes.

Slide 7: If you have determined that your waste is neither excluded or exempt, the next step is to determine if it is a listed waste or a characteristic waste. Listed wastes are those that are specifically listed in the regulations and are considered hazardous regardless of concentration or what characteristics they may exhibit at the time they are generated. All hazardous wastes can be summarized by a waste code. These codes consist of a letter followed by three numbers. The waste code letter corresponds to the list on which it can be found. Wastes that are on the F list are common wastes from a variety of industries. These include spent solvents and electroplating wastes. Wastes on the K list are wastes from specific industries such as oil refining. Wastes on the U list are discarded unused chemicals such as acetone or formaldehyde. P-listed wastes are those that are acutely hazardous to humans or the environment and include warfarin and arsenic compounds. Accumulation of wastes on the p-list are counted differently than other wastes. It is also important to remember that when listed wastes are mixed with other wastes, the entire mixture becomes listed waste. The regulatory citations shown are where each of the complete lists can be found.

Slide 8: Next, we will talk about characteristic hazardous wastes. Characteristic hazardous waste are considered hazardous because they exhibit certain characteristics rather than being specifically defined on a list. Characteristic wastes have a waste code that starts with the letter D. Sometimes information is available to determine if a waste meets these criteria and other times a laboratory test is needed. A list of testing laboratories can be found on our website.

Ignitable wastes are liquids with a flash point of less than 140 degrees Fahrenheit and ignitable compressed gasses. These include things such as 70% rubbing alcohol and propane.

Corrosive hazardous wastes have a pH of 2 or less or 12.5 or more. These include hydrochloric acid and some concentrations of bleach.

Reactive hazardous wastes are those that react violently to heat, pressure, friction, or when exposed to air or water. These include sodium metal and picric acid.

Hazardous wastes that exhibit the toxicity characteristic must contain one or more of 40 contaminants at specific concentrations. For example, a waste that contains 5 ppm or more of arsenic or 0.2 ppm or more of mercury would be considered a toxic hazardous waste.

Remember, it is important to keep records of how you determined whether or not your waste is a hazardous waste.

Slide 9: A great deal of information is available online regarding hazardous waste management. A great place to start is the Montana DEQ website at [deq.mt.gov](http://deq.mt.gov) where we have lists of laboratories and waste transporters, summaries of the regulations, registration forms and more training videos. You can also sign up to be on the distribution list for the hazardous waste program's semi-annual newsletter.

Slide 10: Montana DEQ can be found on Facebook, Twitter, Instagram, and YouTube. If you have more questions about hazardous waste, you are welcome to reach out to the hazardous waste program at any time by phone or email, we are always happy to answer your questions. Thanks for joining me for this presentation!