

# Identifying Your Hazardous Waste

## Introduction

As a business owner, it is important to know if you generate a hazardous waste. Under United States Environmental Protection Agency (EPA) and Nevada Division of Environmental Protection (NDEP) regulations, all wastes generated from a business must be evaluated to see if they are hazardous or non-hazardous. NDEP has specific regulations on how hazardous waste needs to be handled and disposed. For businesses generating hazardous waste, there are also recordkeeping requirements to comply with.

If you do not know whether your business generates a hazardous waste, or if you are not properly managing hazardous wastes, you could face enforcement action and be liable for damages.

## What is a hazardous waste?

If you have a material that can no longer be used, it is considered a waste. There are two ways in which your waste can be classified as a hazardous waste:

## Listed hazardous wastes

If your waste appears on any one of the lists published in the Code of Federal Regulations (CFR), it is a hazardous waste. These hazardous waste lists are published in 40 CFR § 261. There are four different types of listed wastes. Each waste on the list is assigned a hazardous waste code.

Hazardous waste codes for the above wastes include either an "F," "K," "P," or "U" followed by three digits (e.g., F001, K062, U122, P018).

Hazardous Waste Code	Waste Description
F wastes:	These listed wastes come from general processes such as cleaning, degreasing, metal finishing and manufacturing.
K wastes:	These listed wastes come from specific industrial processes, such as chemical or pesticide production, petroleum refining and metal manufacturing.
U wastes:	These listed wastes include old, off-specification or discarded commercial chemicals. For example, if you have a process or lab chemical which has exceeded its shelf life and cannot be used, this chemical may be a U waste.
P wastes:	Like U wastes, these wastes are also old, off-specification or discarded commercial chemicals. The P wastes are, however, more toxic than U wastes.

Table 1—Listed Hazardous	Waste	Codes	& Descriptions
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# Characteristic hazardous wastes

If you find your waste does not appear on the F, K, P or U lists in the CFR, your waste may still be regulated if it possesses a hazardous characteristic. Under the regulations, there are four characteristics that could cause a waste to be regulated as hazardous:

Hazardous Characteristic	Description
Ignitability:	The waste has a flash point of less than 140 °F (60 °C) or could catch fire under certain circumstances. Examples include: solvents, mineral spirits and paint waste.
	Ignitable hazardous wastes are assigned the EPA hazardous waste code of D001.
Corrosivity:	The waste is aqueous and has a pH of very low (2 or less) or very high (12.5 or greater). Or, the waste can corrode metal. Examples include: acids or alkali cleaning baths and battery acid.
	Corrosive hazardous wastes are assigned the EPA hazardous waste code of D002.
Reactivity:	The waste is unstable, reacts violently, explodes or produces toxic vapors under certain conditions. Examples: cyanide or sulfide wastes and peroxides.
	Reactive hazardous wastes are assigned the EPA hazardous waste code of D003.
Toxicity:	The waste has specific toxic contaminants present in high enough concentrations to be harmful to humans or the environment. The toxic contaminants and their threshold levels are included in the federal hazardous waste regulations. Examples include wastes that contain heavy metals (e.g., lead, chromium, mercury, cadmium) or certain chemicals (e.g., benzene, MEK, pesticides).
	Toxic hazardous wastes are assigned the EPA hazardous waste codes of D004 through D043, depending on the contaminant(s) present.

Table 2—	-Characteristic	Hazardous	Waste	Codes	& Descriptions
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Knowing the EPA waste codes that apply to your wastes is important because these codes identify the specific type of waste generated by your company. They also help identify the waste as it is being transported, treated and disposed of. The waste codes are put on drum labels, the generator notification form, hazardous waste shipping manifests, and other records.

#### Do small businesses generate hazardous wastes?

Yes! Many small businesses are hazardous waste generators. Even if a business generates only a small amount of waste, the waste must still be evaluated and, if it is hazardous, properly managed. Some of the small businesses that are commonly hazardous waste generators include:

- Auto repair shops
- Body shops
- Dry Cleaners
- Machine shops
- Medical clinics
- Painters
- Printers
- Wood refinishers

- Auto salvage yards
- Construction
- Laboratories
- Manufacturing
- Metal finishers
- Photographers
- Sandblasting

#### How do I evaluate my waste?

First, you must know about ALL the wastes generated at your business. Go through your business and make a list of all your wastes (include even those you think are not hazardous). Go through the list and carefully evaluate each waste stream. Some wastes are excluded from the hazardous waste regulations. These include, for example, certain wastes which are recycled. You should see if any of your wastes fall under these exclusions in the hazardous waste regulations. For wastes that are not excluded, you need to be able to answer the following questions:

Is the waste on any of EPA's F, K, P or U lists of hazardous wastes?

Note: Any waste that is mixed with or derived from a listed waste is also considered listed - and hazardous. An example of "mixed with" is mixing an F-listed solvent with antifreeze. An example of "derived from" includes distillation bottoms from distilling an F-listed solvent. Used solvent wipers containing an F-listed solvent are also hazardous waste if they are being disposed.

Does the waste have any of the hazardous waste characteristics?

Collect information that might be helpful to you in evaluating your waste. This may include information from your vendor, supplier or Safety Data Sheets (SDS) with product information. Keep any information you use to make your waste evaluation in your files. If your business is ever inspected by a hazardous waste inspector, the inspector will want to review this information.

If you do not have enough information from the process to evaluate a waste, you may need to have the waste sampled and sent to an environmental testing laboratory for analysis. Keep any laboratory results you have on your waste in a file. *See the BEP Toxicity Characteristic Leaching Procedure fact sheet for more information* 

Some of the common hazardous wastes that are generated from small businesses are listed below. These are just some examples of hazardous wastes which may be generated by your business. However, there may be others not listed below.

## Table 3—Common Hazardous Wastes Generated at Small Businesses

Description of Waste	EPA Waste Code(s)		
Spent cleaning or degreasing solvents (e.g., xylene, acetone, MEK, toluene, benzene, methanol) Still bottoms, solvent wipers	F003, F004, F005, D001, D018, D035		
Spent halogenated cleaning or degreasing solvents (e.g., methylene chloride, 1,1,1- trichloroethane, carbon tetrachloride, trichloroethylene). Still bottoms, solvent wipers	F001, F002, D019, D039, D040		
Old paint, paint booth filters	D001, D035, D006, D007, D008		
Mineral spirits or stoddard solvent, solvent wipers	D001		
Spent acids or caustics	D002		
Dry cleaning waste and filters	F001, F002, D019		
Printing wastes	D001, D002, D011		
Lab chemicals	D, F, P, U codes possible		
Metal plating wastes	F007, F008, F009, F010, F011, F012, F019, D007, D008		

## What are some options for reducing the amount of waste my business generates?

There are many opportunities for businesses to reduce the amount of hazardous waste they generate, even for small businesses. These options can range from simply improving housekeeping practices to making process changes.

Reducing waste can save your company money, reduce environmental liability and regulatory burdens. To find out more about pollution prevention options for your business, contact the BEP at (800) 882-3233.

# Where can I get more help?

If you have any questions about how to evaluate wastes from your business or any other questions about hazardous waste regulations, give us a call.

# **Useful Websites**

Business Environmental Program-UNR	Metal finishing			
http://www.unrbep.org	http://www.finishing.com			
Nevada Division of Environmental Protection	http://www.nmfrc.org			
http://ndep.nv.gov	Printers' National Environmental Assistance Center			
Western Sustainability and Pollution Prevention Network	http://www.pneac.org			
http://www.wsppn.org	Auto Service and Repair Environmental Assistance			
U.S. EPA web site	http://www.ccar-greenlink.org			
http://www.epa.gov/epawaste/inforesources/online/index.htm	Air Links			
	http://www2.epa.gov/learn-issues/air-resources#air-pollution			
	Small Business Environmental Compliance			
	Assistance Centers			
	http://www.assistancecenters.net			
	Safety Data Sheets			
	http://www.msds.com/			

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DISCLAIMER: This guidance document is intended as general information and is not provided nor intended to act as a substitute for legal advice or other professional services. BEP advises the regulated community to read all applicable regulations set forth in both US Code of Federal Regulations (Title 40 C.F.R. Parts 260-279) and the Nevada Hazardous Waste Regulations and to keep informed of all subsequent revisions or amendments to these regulations. This guidance document was developed by BEP with funding support provided by the Nevada Division of Environmental Protection.

