

HAZARDOUS WASTE AT MAINTENANCE YARDS

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What We Will Cover

- ★ Waste Evaluation
- ★ Universal Waste
- ★ Used Oil
- ★ Waste Examples
- ★ Resources

Waste Evaluation

Waste Evaluation Requirement



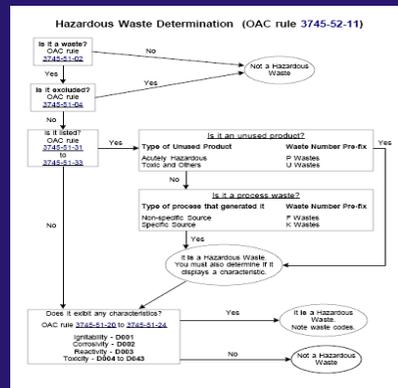
Don't throw any waste into the dumpster unless you have confirmed and demonstrated that it is **NOT** a hazardous waste.

Hazardous Waste Evaluation

By regulation, **all** wastes must be evaluated by the generator.

Generator – any person, by site, whose act or process produces or causes a hazardous waste to become subject to the hazardous waste rules.

To be a hazardous waste, a material must first be a **waste**.



What Is A Waste?

- ★ A waste is any material that will be discarded.
- ★ If you have a material that you can no longer use, it's probably a waste.

Steps To Properly Evaluate Your Waste

- 1st – Determine if your waste is **excluded**
- 2nd – Determine if your waste is **listed**
- 3rd – Determine if your waste exhibits a **characteristic**

Steps To Properly Evaluate Your Waste

- 1st – Determine if your waste is **excluded**

Excluded Wastes

- ★ Excluded wastes (OAC rule [3745-51-04](#)):
 - ★ not waste
 - ★ not hazardous waste, or
 - ★ not subject to hazardous waste rules
- ★ Examples:
 - ★ **Samples** you send for analysis
 - ★ **Excluded scrap metal** when recycled
 - ★ **Household hazardous waste**

Steps To Properly Evaluate Your Waste

- 2nd – Determine if your waste is **listed**

Listed Hazardous Wastes

- ★ To determine if your waste is a listed waste, compare the waste with the **listing descriptions**
- ★ See OAC rules 3745-51-31, 32 and 33

F Listed Hazardous Wastes

- ★ Non-specific sources
 - ★ Not limited to a specific process
- ★ Examples
 - ★ Spent solvents (e.g. from a parts washer)
 - ▶ F001, F002, F003, F004, F005 depending on solvent used

P or U Listed Hazardous Wastes

- ★ Is an **unused** commercial chemical product or soil from the cleanup of a spill of the chemical
- ★ The chemical is the **sole active ingredient**
- ★ Examples of P listed hazardous wastes:
 - ★ Methyl parathion – P071
 - ★ Copper cyanide – P029
- ★ Examples of U listed hazardous wastes:
 - ★ Acetone – U002
 - ★ Mercury – U151

Steps To Properly Evaluate Your Waste

- 3rd – Determine if your waste exhibits a **characteristic**

Characteristic Hazardous Wastes

Four categories:

- ▶ Ignitable
- ▶ Corrosive
- ▶ Reactive
- ▶ Toxic

Ignitable Hazardous Wastes

- ★ Liquid with flash point <140 F using specific procedures
- ★ Not a liquid and will spontaneously combust
- ★ DOT flammable compressed gas
- ★ DOT oxidizer
- ★ **D001** hazardous waste code
 - ★ Possible examples:
 - ▶ Paint wastes
 - ▶ Degreasers
 - ▶ Organic Solvents



Corrosive Hazardous Wastes

- ★ Aqueous with pH < 2 or > 12.5
- ★ Liquid & corrodes steel > 0.25 inch/year
- ★ **D002** hazardous waste code
- ★ Possible examples:
 - ▶ Waste cleaning acids
 - ▶ Alkaline cleaning fluids
 - ▶ Waste battery acids



Reactive Hazardous Wastes

- ★ No analytical tests for reactivity
- ★ Best professional judgment
- ★ D003 hazardous waste code
- ★ Examples
 - ★ Picric acid
 - ★ Cyanide heat treating salts

Toxic Hazardous Wastes

- ★ Toxic constituents
 - ★ Certain metals, organics, insecticides, herbicides
- ★ Exceed regulatory levels by **Toxicity Characteristic Leaching Procedure (TCLP)**
 - ★ Leachable, not total, concentrations
- ★ D004 through D043 hazardous waste codes
- ★ Possible examples:
 - ▶ Blasting sands
 - ▶ Waste Paints



How do I know if a waste is characteristic?

- ★ Test a representative sample of the waste
- ★ Apply knowledge of hazardous characteristics/constituents in light of the materials or processes used
 - ★ (GENERATOR KNOWLEDGE)

Generator Knowledge

- ★ Chemical Makeup of All Feed Materials
- ★ Reasonably expected byproducts
- ★ MSDS (account for information limitations)
- ★ Literature data: similar process & same feeds
- ★ Analytical data: wastes from similar process & same feeds
- ★ Equipment materials of construction

Documentation for Waste Evaluation

- ★ Keep for three years from date waste last sent to onsite treatment or offsite treatment, storage or disposal
- ★ Waste analysis data
- ★ Information used to make generator knowledge determination
- ★ Other waste evaluation determinations

Disposal of Hazardous Waste in a Solid Waste Landfill is Prohibited by Ohio Law

Preventing Hazardous Waste Violations

To avoid expensive sampling and lab analysis, make sure you don't have any "mystery drums" around your facility. Make sure employees know where hazardous waste goes. Keep waste streams segregated.



Remember This!



Don't throw any waste into the dumpster unless you have confirmed and demonstrated that it is **NOT** a hazardous waste.

QUESTIONS?

Universal Waste (UW)

★ What are Universal Wastes?

- Subset of hazardous waste
- Intended to promote recycling
- Eases regulatory requirements



Types of Universal Waste

- ★ **Hazardous waste pesticides**
 - ★ Unused and recalled or suspended under FIFRA
- ★ **Mercury-containing thermostats**
 - ★ Will include all mercury-containing devices
- ★ **Discarded batteries**
 - ★ Alternative option for lead acid batteries
- ★ **Lamps**
 - ★ Includes incandescent, fluorescent, compact fluorescent, LED, high intensity discharge, neon, high pressure sodium, etc.

What are the packaging requirements for UW?

- Batteries**
 - only required if leaking
- Mercury Thermostats, Lamps and Pesticides**
 - place in closed container
 - must be designed to contain potential releases
 - check with the destination facility to see if they can manage accidentally broken lamps



Can I use a lamp crusher to crush my lamps?



- ★ UW Regulations prohibit handlers from crushing lamps
- ★ If you crush your lamps, you must manage them under the hazardous waste requirements

Labeling requirements for UW

- ★ Each category of UW must be clearly marked with the appropriate wording
 - ★ "Universal Waste Lamps;" "Waste Lamps;" or "Used Lamps"
 - ★ "Universal Waste Battery (ies)", "Waste Battery (ies)", or Used Battery (ies)
- ★ Be able to demonstrate accumulation time



How long can I accumulate UW?

- ★ Up to one year on-site regardless of your handler category
- ★ If greater than one year is required, you must be able to prove why it is necessary



Am I required to notify Ohio EPA of my UW activities?

- ★ Small quantity handlers are NOT required to notify Ohio EPA or to obtain a U.S. EPA identification number
- ★ Large quantity handlers are required to notify and obtain a U.S. EPA identification number (unless you already have one)

What is Used Oil?

- ★ Petroleum based or synthetic oils that have been used and are contaminated with physical or chemical impurities
- ★ Used oil is not defined as a hazardous waste on its own (unless mixed with materials such as solvents or other chemicals)
- ★ Used oil is subject to its own set of regulations

Examples of Used Oil

- ★ Engine oils from vehicles and equipment
- ★ Lubricating oil
- ★ Brake/transmission fluid
- ★ Hydraulic fluid
- ★ Insulating oil
- ★ Metal cutting fluid
- ★ Compressor oil



Used Oil Does NOT Include

- ★ Oil Products (unused/new)
- ★ Contaminated oil products
- ★ Clean up material from oil product spills
- ★ Sludge from virgin oil storage tanks
- ★ Animal/vegetable oil
- ★ Kerosene, petroleum based solvents

Used Oil Generator

- ★ Label containers/tanks with "Used Oil"
- ★ Respond to leaks & spills
- ★ Use transporters with EPA ID number
- ★ May burn your own used oil in your space heater (< 0.5 MMBTU/HR)



Although these drums are labeled, they are being stored in a poor location outside. DON'T do this at your business!



This company was not being careful in how they stored used oil.

Make sure your containers are in good condition and managed to prevent spills or leaks.

**Respond promptly to oil spills.
Don't let them become a problem!**



**Make sure you don't pour used oil
or any other chemical wastes into
your floor drains or septic system!**



DON'T pour your used oil into a sewer or down a storm drain!

Not only does this cause environmental damage, it can also lead to violations or penalties.



Used Oil CANNOT be used as a dust suppressant!

Ohio EPA, DAPC has a list of dust suppression alternatives.

What About Used Oil Filters?

Used oil filters need to be properly drained. There are EPA guidelines on how to properly "hot drain" filters.

Once filters are properly hot drained, you should send them to a scrap metal recycling company or disposal company.



Handling Used Oil Filters

Acceptable "hot draining" methods include:

- Puncture back valve or dome end and hot drain,
- Hot drain and crush, or
- Dismantle and hot drain.

Hot draining means that oil is removed at close to engine temperature, when oil flows freely. Filters need to drain for 12 (minimum) to 24 hrs.

Used Oil Filters

Once hot drained, filters can be thrown in the dumpster with your other solid waste, provided they are not terne-plated filters.



It's recommended, though, that you consider sending the filters to a scrap metal company for recycling.

Can I burn used oil in my space heater?

Many small businesses burn used oil in space heaters to heat their shops. This is acceptable, if the following three conditions are met:

- You only burn oil that you've generated or received from a household oil changer ("do-it-yourselfer")

Burning Used Oil in Space Heaters

- The space heater has a burning capacity of no more than .5 million BTUs per hour, and
- The combustion gases from the space heater are vented outside.



Burning Used Oil

You should also check with Ohio EPA's Division of Air Pollution Control on any air regulations that might apply to burning used oil.

If you are burning used oil in a unit other than a space heater, such as a boiler or industrial furnace, you should discuss this with DHWM. You may be subject to additional regulations.

Burning Used Oil

You should not take used oil from other businesses to burn. You would be subject to additional rules, including possible lab analysis of the oil. You may also need to register with Ohio EPA as a used oil burner.

Also, open burning of used oil, shop rags or any other waste from your business is strictly prohibited under Ohio's air rules.



QUESTIONS?

POP QUIZ

STREET SWEEPINGS

CATCH BASIN CLEAN
OUT

SOIL CONTAMINATED
WITH OIL

AEROSOL CANS

SCRAP METAL

DEMOLITION DEBRIS

SPENT PARTS WASHER
FLUID

OLD PESTICIDES

OLD PAINT

LEAD WEIGHTS

WOODEN POSTS

FUEL FILTERS
(NOT OIL FILTERS)

PRINTED CIRCUIT
BOARDS

PAINT FILTERS

**TAR TRUCK
CLEANING**

ANTIFREEZE

SAND BLASTING WASTE

Resources

Guidance Documents

- ★ Intended to cover information that pertains to a large group of people
- ★ Listed alphabetically
- ★ Most current and updated versions

www.epa.state.oh.us/dhwm/guidancedocuments.html

<http://www.epa.state.oh.us/dhwm/formsandpubs.html>

Search Written DHWM Regulatory Interpretations

- ★ Written regulatory responses to questions received
- ★ Click on months for most recent correspondence

www.epa.state.oh.us/dhwm/search.html

Recyclers Lists

- ★ DHWM's Recyclers Lists available here:
 - ★ www.epa.state.oh.us/dhwm/guideancedocs.html#recycleList
- ★ Also available from OCAPP
 - ★ Ohio EPA's Office of Compliance Assistance and Pollution Prevention
 - ★ www.epa.state.oh.us/ocapp/p2/wastex.html

Ohio's Hazardous Waste Rules

- ★ Available on our Web page
- ★ Most current and updated versions
- ★ Access to Ohio Revised Code (ORC) and Ohio Administrative Code (OAC)

www.epa.state.oh.us/dhwm/laws_regs.html

Ohio EPA Resources

- ★ DHWM Regulatory Assistance
 - ★ Available weekdays from 8-5
 - ★ Call (614) 644-2917
 - ★ Answer Place http://ohioepa.tryrightnow.com/cgi-bin/ohioepa.cfg/php/enduser/std_alp.php
- ★ OCAPP Hotline:
 - ★ Weekdays, 8 AM - 5 PM
 - ★ (800) 329-7518

Answer Place



- ★ www.epa.state.oh.us