Universal Waste
&
Used Oil Requirements

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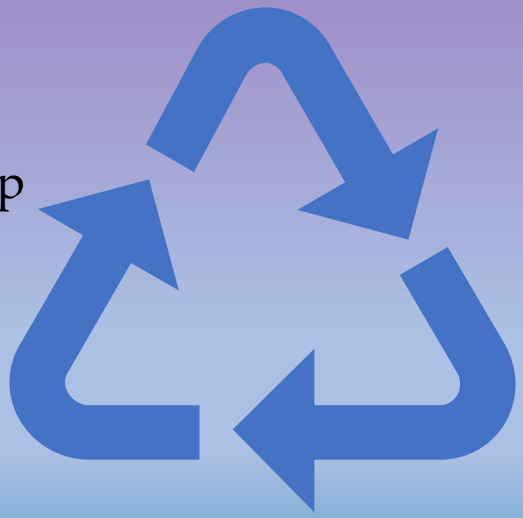


Resource Conservation and Recovery Act (RCRA)

- RCRA regulations govern the safe management of hazardous waste from the point of generation until the point of final deposition.
- Within the regulations EPA developed a streamlined management program for certain hazardous wastes, known as universal wastes.

Universal Waste

Conditionally Exempt **Hazardous Waste**

Exemptions – Allow a material that is a solid or hazardous waste to be partially or fully freed from RCRA (but you must follow applicable regulations or ***all*** hazardous waste regulations may apply).

Universal Waste

Universal waste program provides an alternative set of regulations that reduce the regulatory burden by allowing longer storage and reduced recordkeeping requirements.

Goal of the program is to encourage recycling.

Universal Waste

- Universal wastes are **hazardous wastes** that are:
  - Generated in a wide variety of settings, not solely industrial
  - Generated by a vast community
  - Present in significant volumes

Universal Waste Types

- Lamps (“bulbs”)
- Batteries
-  Antifreeze (Wisconsin specific)
- Mercury Containing Equipment
- Recalled/Unused Pesticides

Universal Waste Regulations

Found in Administrative Code NR 673

Basic requirements

- Train employees
- Keep containers closed
- Label containers
- Remove material within one year
- Demonstrate length of time universal waste has been accumulated

Employee Training

- NR 673.16
- Inform all employees who handle or have responsibility for managing universal waste.
- Information shall describe proper handling and emergency procedures.
- Information shall be appropriate for the types of universal waste at the facility.

Container Requirements

- Kept closed
- Structurally sound
- Compatible with the contents
- Lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

Labeling Requirements

- Lamps – each lamp, or container or package containing lamps shall be labeled or marked
  - "Used Lamps"
  - "Waste Lamps"
  - "Universal Waste – Lamps"

"Bulbs" is not the proper term.

Labeling Requirements

- Batteries – each battery, or container or package containing batteries shall be labeled or marked
  - "Used Batteries"
  - "Waste Batteries"
  - "Universal Waste – Batteries"

"Bad" or "dead" are not proper terms.

Labeling Requirements

- Antifreeze – each container or package containing used antifreeze shall be labeled or marked
  - "Used Antifreeze"
  - "Waste Antifreeze"
  - "Universal Waste-Antifreeze"

  "Coolant" is not the proper term.

Labeling Requirements

- Mercury-containing equipment – each device, or container or package containing mercury containing equipment shall be labeled or marked
  - "Used Mercury-Containing Equipment"
  - "Waste Mercury-Containing Equipment"
  - "Universal Waste – Mercury-Containing Equipment"

Labeling Requirements

- Recalled or unused pesticide– each container or package containing recalled or unused pesticide products shall be labeled or marked
  - "Waste Pesticides"
  - "Universal Waste – Pesticides"

One Year Accumulation Limit

You may accumulate universal waste for no longer than one year from the date the waste was generated or received.

Universal waste may be accumulated for longer, ***if necessary*** to facilitate proper recovery, treatment or disposal.

- Burden is on you to prove activity is solely for the purpose of accumulating necessary quantities.

One Year Accumulation Limit

Must be able to demonstrate the length of time universal waste has been accumulated.

- Dating the container
- Dating the individual items
- Maintaining an inventory system for each item
- Maintaining an inventory system for each group of containers
- Placing universal waste in a specific area and identifying the earliest date any waste in the area was received or became a waste

Response to Releases

1

Immediately contain all releases and other residues.

2

Determine if any material resulting from the release is a hazardous waste.

3

If so, manage the hazardous waste accordingly.

Lamps

New:

NR 673.05(2)(c)

Intentionally breaking lamps removes the universal waste exemption; lamps that are intentionally broken are fully regulated as hazardous waste.

TYPES OF LAMPS	
Many types of lamps contain heavy metals, like lead and mercury, at levels that can exceed hazardous waste limits. These include but are not limited to:	
Fluorescent lamps (tube-style) - commonly used as overhead lighting in offices; can also come in compact shapes for home and office uses	
Compact fluorescent lamps (CFLs) - CFLs are smaller versions of tube-style fluorescent lamps and are used in place of incandescent lamps	
Mercury vapor lamps - mercury vapor or "HID" lamps with blue-white light, originally and often used as farmyard lights	
Metal halide lamps - newer, more efficient HID lights found in homes and businesses; also used for blue-tinted car headlights	
High-pressure sodium-vapor lamps - generate white-yellow light used for street lamps and outdoor security lighting	
Ultraviolet lamps - used in water and air purifiers for germicidal purposes; also used in tanning salons	
Neon lights - emit various colors of light depending on the mixture of gases and color of the glass; red neon lights do not contain mercury while almost every other color of "neon" does	
Black lights* - used mainly for theatrical and concert displays	
LED lamps (light-emitting diodes) - colored lights used in traffic signals, screens and other illuminated displays; red LEDs often contain lead	

https://www.epa.gov/hw/frequent-questions-about-epas-mercury-lamp-drum-top-crusher-study

Batteries

Battery Type	Sizes	Uses	
DISPOSABLE - NOT EASILY RECYCLED			NON-HAZARDOUS
Alkaline (Manganese)	AAA, AA, C, D, 6V, 9V	Flashlights, toys, clocks, portable electronics, smoke alarms, remote controls	
RECYCLING ENCOURAGED			
Reusable Alkaline Manganese (Rechargeable)	AAA, AA, C, D	Flashlights, toys, clocks, portable electronics, smoke alarms, remote controls	
Carbon Zinc	AAA, AA, C, D, 6V, 9V	Low drain devices, such as calculators, toys, clocks, smoke alarms, remote controls, transistor radios, garage door openers	
Zinc-air	Button, 9V	Hearing aids, medical devices	
RECYCLE OR MANAGE AS HAZARDOUS WASTE			HAZARDOUS
Button - multiple types	Sizes Vary	Watches, hearing aids, small portable electronics, computer motherboards, toys, greeting cards, remote controls	
Lithium/Lithium Ion	3V, 6V, 9V, Button, AAA, AA, C, D	Portable electronics, power tools, computer packs	
Nickel-Cadmium (Rechargeable)	AAA, AA, C, D, 6V, 9V	Flashlights, toys, cellular phones, power tools, computer packs, R/C hobby vehicles	
Nickel-Metal Hydride (Rechargeable)	AAA, AA, C, D, 6V, 9V	Same as Nickel-Cadmium (above)	
Sealed Lead Acid (Rechargeable)	Multiples of 2 Volts: 2V, 6V, 12V	Video cameras, power tools, wheelchairs, ATV's, metal detectors, clocks, cameras	
Silver Oxide	Sizes Vary	Watches, hearing aids, toys, greeting cards, remote controls	
Mercury Oxide (now banned in US)	Sizes Vary	Watches, calculators, hearing aids	
Lead Acid Vehicle Batteries (banned fromWI landfills)	12V, 6V	Cars, trucks, motorcycles, boats and other vehicles	

RECYCLING IN THIS TABLE MEANS MANAGING AS A UNIVERSAL WASTE.

DO NOT PLACE BATTERIES IN YOUR RECYCLING CONTAINERS.

Mercury-Containing Equipment

Equipment that can be managed as universal waste includes:

- Thermostats
- Mercury Thermometers
- Barometers
- Mercury switches
- Certain medical equipment

Broken mercury devices should be placed in closed, leak-proof, non-metal containers and handled as hazardous waste.

Mercury Spills

Don’t use a vacuum to clean up mercury

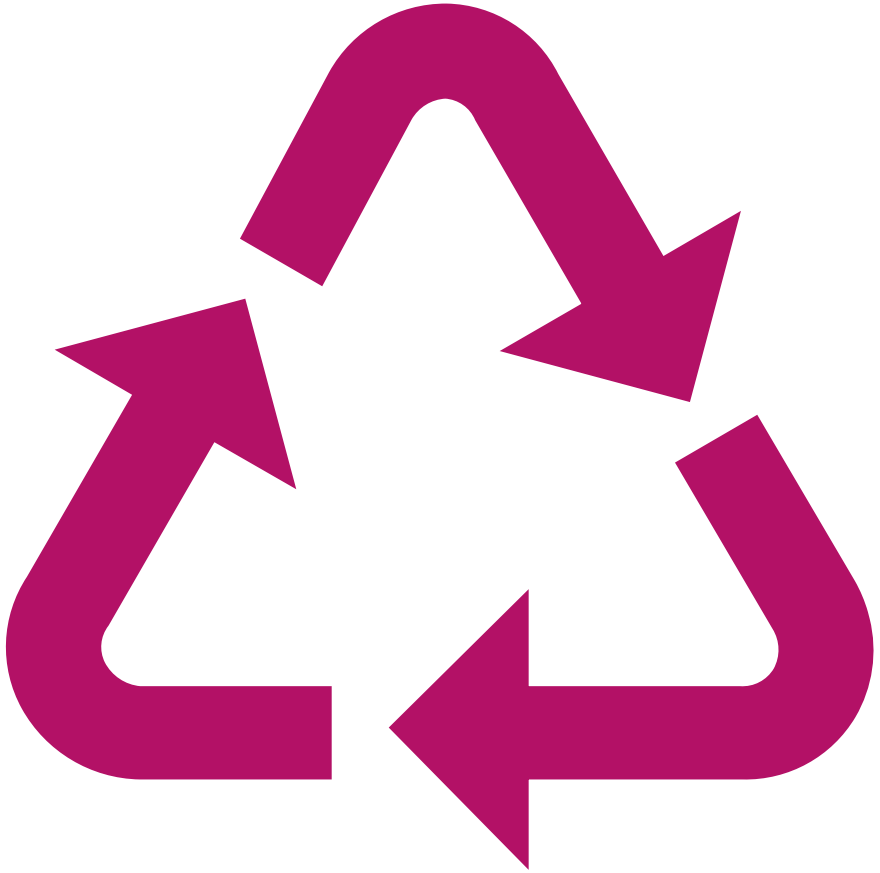
Don’t use a broom to clean up mercury

Don’t pour mercury down a drain

Don’t walk around in contaminated shoes or clothing

Used Oil

- Similar to Universal Waste, used oil that is recycled and managed according to NR 679 is generally not regulated as hazardous waste.



What is Used Oil?

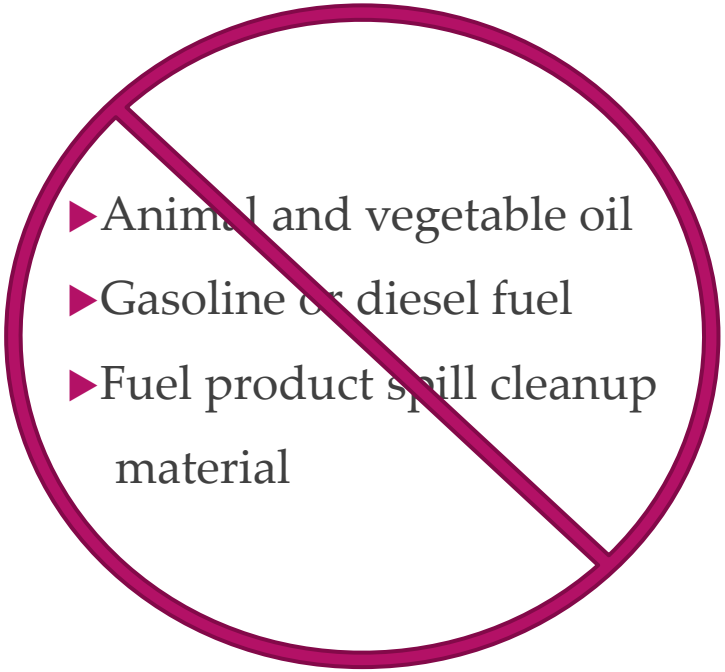
Used oil is any oil refined from crude oil, or any synthetic oil, that has been used and as a result is contaminated.

Used oil includes:

Motor oils	Greases	Brake fluid	Transmission fluid	Hydraulic fluid

What is Used Oil?

Used oil does not include:



- Animal and vegetable oil
- Gasoline or diesel fuel
- Fuel product spill cleanup material

Used Oil Collection Centers

Do-it-yourselfer used oil collection center

- Any facility that accepts of aggregates and stores used oil collected only from household do-it-yourselfers

Used oil collection center

- Any facility that accepts or aggregates and stores used oil from used oil generators who bring the used oil in shipments of no more than 55 gallons. May also accept used oil from household do-it-yourselfers

Used Oil Requirements

- Store used oil in containers or tanks that are in good condition
- Label containers or tanks “Used Oil”
- Stop and contain any releases, and properly clean up the release
- Use a transporter who has an EPA ID number
- Meet SPCC requirements

Used Oil Storage

- Containers or tanks that are in good condition
  - No severe rusting
  - No apparent structural defects
  - No visible leaks

It is a best practice to keep the container closed; not leaking is a requirement.

Proper Labeling

- Labeled or marked clearly with the words “Used Oil”

Make sure the “Used Oil” marking is visible!

Spill Prevention, Control and Countermeasure Rule (SPCC)

EPA regulation

- Applies to:
  - Non-transportation related facilities
  - Engaged in gathering, storing or using oil
  - Greater than 1,320 gallons of oil storage capacity (does not include containers less than 55 gallons)

Used Oil Tanks

- Department of Agriculture, Trade and Consumer Protection (DATCP) has additional requirements for used oil stored in tanks. ATCP 93.
  - Spill and overflow prevention requirements
  - Secondary containment
  - Additional signage
  - Vehicle collision protection
  - Closure requirements

Burning Used Oil

- Used oil may be burned in oil-fired space heaters if:
  - You generated the used oil, or only received used oil from household do-it-yourselfers
  - Heater is designed to have a maximum capacity of 500,000 Btu/hour or less
  - The heater is vented outside

Prohibitions

- Used oil cannot be used as a dust suppressant
- Generally used oil cannot be mixed with hazardous waste and still be managed as used oil
  - Prior to recycling or burning the oil handler must determine it has not been mixed with hazardous waste by using the Rebuttal Presumption see guidance document:

Used Oil Management - Satisfying the Rebuttable Presumption
https://dnr.wi.gov/files/pdf/pubs/wa/wa1677.pdf

Waste Oil Collection & Recycling

WI statute 287.15(3) lists the minimum number of required storage facilities for cities, villages, towns and counties

Each storage facility must have at least 250 gallons capacity.

There should be at least one facility for every 50,000 people or per county

Facilities must be accessible to the public, but do not need to be publicly owned or operated

Note Wis. Stat. 287.15 uses the term “waste oil” – this is a broad term that includes but is not limited to “used oil”

Collecting Used Oil

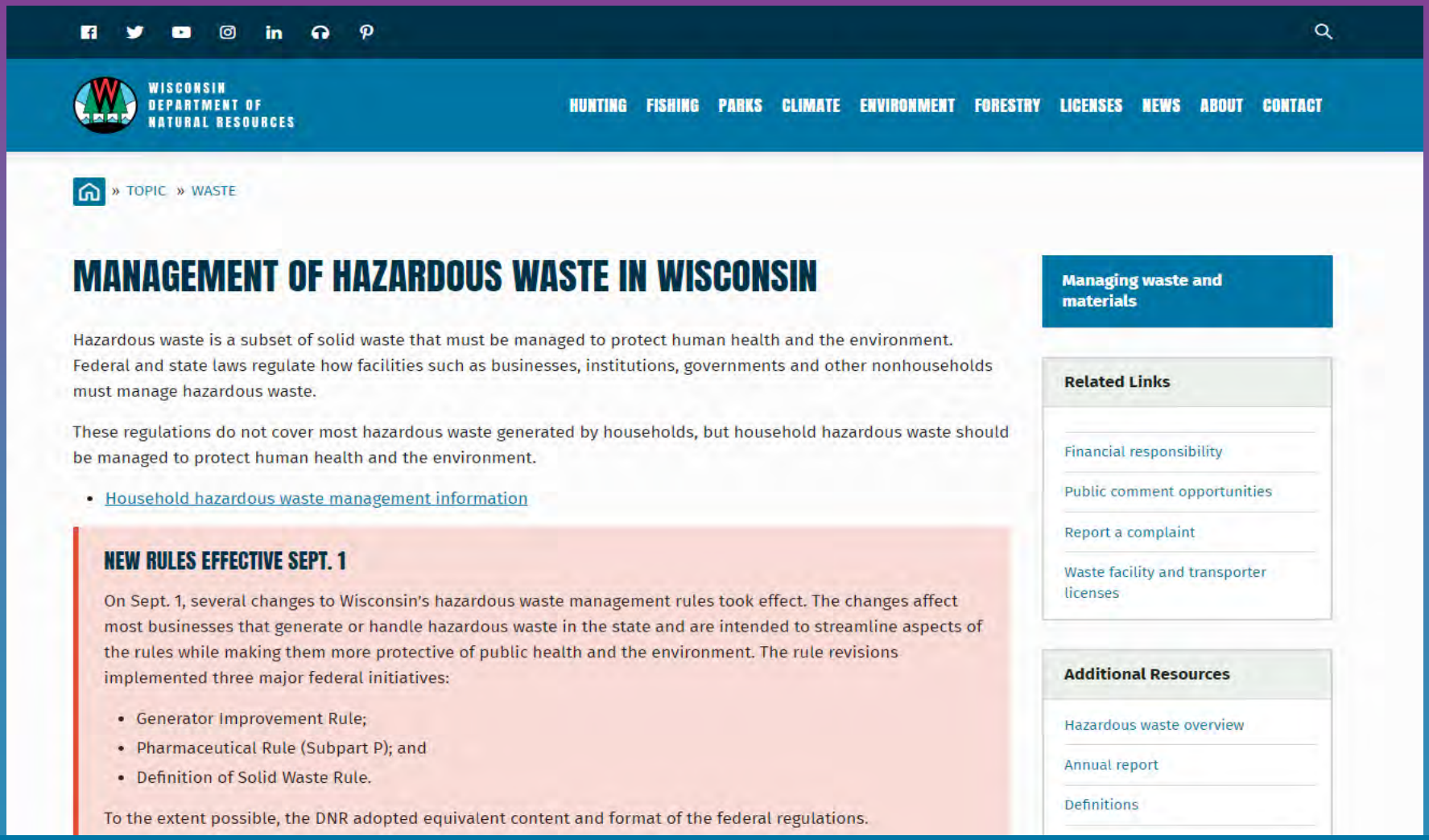
- Consider where the oil is coming from and how it is being collected.
  - A mixture of hazardous waste and used oil is no longer eligible to be managed as used oil.
  - Used oil containing over 50 ppm PCBs is regulated as PCB.

Used Oil Filters & Absorbents

- Oil filters and all oil absorbent materials containing free-flowing oil are banned from landfills.
  - Oil filters should be drained and recycled
  - Absorbents with free-flowing oil should be sent for recycling or drained so that no visible sign of free-flowing oil remain in or on the material

Resources:

https://dnr.wisconsin.gov/topic/Waste/Hazardous.html



Resources:

https://dnr.wisconsin.gov/topic/Waste/HWResources.html

- Universal Waste Requirements
  https://dnr.wi.gov/files/PDF/pubs/wa/WA1900.pdf
- Used Oil Management
  https://dnr.wi.gov/files/pdf/pubs/wa/wa233.pdf
- Used Oil Management - Satisfying the Rebuttable Presumption
  https://dnr.wi.gov/files/pdf/pubs/wa/wa1677.pdf
- How to Handle Universal Waste Pesticides
  https://dnr.wi.gov/files/PDF/pubs/wa/WA1812.pdf

- https://www.epa.gov/hw/reference-table-question-what-used-oil

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