# Used Oil Management

Guidance on Hazardous Waste Requirements

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WISCONSIN DEPT. OF NATURAL RESOURCES

## Introduction

Wisconsin and federal laws recognize both the value of used oil, for uses such as producing fuels and lubricants, and its potential threat to the environment if mismanaged.

Businesses and institutions that handle used oil must follow the used oil management standards in ch. NR 679, Wis. Adm. Code. This document summarizes those requirements for the following used oil handlers:

- generators, collection centers and aggregation points;
- transporters and transfer facilities;
- processors and re-refiners;
- burners; and
- fuel marketers.

This fact sheet also discusses:

- environmental compliance tools;
- how to manage used oil-containing materials;
- other requirements that apply to used oil; and
- where to get more information.

The Department of Natural Resources recommends that household do-it- yourselfers and small farmers store used oil in closed containers that are in good condition and labeled "used oil," and take their used oil to a used oil collection center.

## What is used oil?

Used oil is any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of the use is contaminated by physical or chemical impurities. Most used oils regulated under ch. NR 679, Wis. Adm. Code, standards have been used as lubricants, hydraulic fluids or heat transfer fluids.

**Used oil includes:** motor oils, greases, emulsions, machine shop coolants, antifreeze, heating media, brake fluids, transmission fluids, other hydraulic fluids, electrical insulating oils, metalworking fluids and refrigeration oils.

**Used oil does not include:** fuel product storage tank bottoms, fuel product spill cleanup material, other waste that results from oil that has not been used, animal and vegetable oils and greases, and materials used as cleaning agents or only for their solvent properties.

## How is used oil regulated?

Used oil that is recycled, including burned for energy recovery, is generally regulated as used oil and not as hazardous waste.

If used oil is mixed with hazardous waste, however, the entire mixture may be regulated as hazardous waste. Used oil containing more than 1,000 parts per million (ppm) total halogens is presumed to be a hazardous waste because it has been mixed with listed halogenated hazardous waste.

The presumption of mixing with hazardous waste can be rebutted by showing through testing or documentation of operations and processes that the used oil does not contain hazardous waste. For information on satisfying the rebuttable presumption for used oil, see *Used Oil Management – Satisfying the Rebuttable Presumption* (WA-1677). Another resource is the U.S. Environmental Protection Agency's (EPA) *Guidance and Summary of Information Regarding the RCRA Used Oil Rebuttal Presumption*.

Used oil that is regulated as hazardous waste must be managed according to the hazardous waste rules in chs. NR 660 to 670, Wis. Adm. Code; the ch. NR 679, Wis. Adm. Code, used oil standards summarized in this fact sheet do not apply. Used oil may not be managed in surface impoundments or waste piles unless they are licensed or permitted hazardous waste units. The use of used oil as a dust suppressant is prohibited.

## What are the requirements for used oil generators, collection centers and aggregation points?

A **used oil generator** is a person who produces used oil or first causes used oil to become regulated. An example of the latter is a regulated used oil handler who accepts used oil from a household do-it- yourselfer.

A **used oil collection center** or **aggregation point** is any site or facility that accepts, aggregates or stores used oil from:

- household do-it-yourselfers or small farmers; or
- generators who self-transport no more than 55 gallons of used oil to the collection center or aggregation point at any time.

The used oil generator, collection center and aggregation point standards in subchs. C and D of ch. NR 679, Wis. Adm. Code, require generators, collection centers and aggregation points to:

- label containers, above-ground tanks and underground tank fill pipes with the words "Used Oil;"
- store used oil in containers or tanks that are in good condition and not leaking;
- stop and contain used oil releases to the environment, clean up and properly manage the released used oil and other materials, and repair or replace any leaking containers or tanks before reusing them;
- use a transporter who has an EPA identification number to ship used oil off-site, unless the transporter is exempt (see additional information on transporters below);
- meet the applicable EPA Spill prevention, control and countermeasures (SPCC) requirements; *and*
- meet the applicable Wisconsin Department of Safety and Professional Services' requirements for flammable, combustible and hazardous liquids in ch. SPS 310, Wis. Adm. Code. For information on those and other relevant commerce requirements, see "What other requirements apply to used oil?" below.

**Environmental compliance tools**

DNR inspection forms for used oil facilities are available on the DNR's Hazardous Waste Resources webpage.

## What are the requirements for used oil transporters and transfer facilities?

A **used oil transporter** includes any person who transports used oil and the owners and operators of used oil transfer facilities.

A **used oil transfer facility** is a transportation related facility where shipments of used oil are held, for more than one day and up to 35 days, during the normal course of transportation or before performing exempt processing activities. (A transfer facility that stores used oil for more than 35 days is regulated more stringently as a used oil processor and re- refiner).

The used oil transporter and transfer facility standards are in subch. E of ch. NR 679, Wis. Adm. Code. The following are **exempt** from those requirements:

- A generator who self-transports only used oil generated on-site or collected directly from household do-it-yourselfers or small farmers (the oil must be transported in a generator- or employee-owned vehicle, in no more than 55-gallon shipments, to a collection center or aggregation point).
- A person who transports only household do-it- yourselfer used oil to a regulated used oil generator, collection center, aggregation point, processor or re-refiner, or burner.
- A person who transports only on-specification used oil, which will be burned for energy recovery, away from handlers who are not the first person to claim the oil is on-specification.

**What is the difference between on- and off-specification used oil?**

**On-specification** used oil is used oil that will be burned for energy recovery and meets all the following allowable levels:

| Constituent or property | Allowable level |
|---|---|
| Arsenic | 5 ppm maximum |
| Cadmium | 2 ppm maximum |
| Chromium | 10 ppm maximum |
| Lead | 100 ppm maximum |
| Flash point | 100° F minimum |
| Total halogens | 4,000 ppm maximum |

**Off-specification** used oil is used oil that will be burned for energy recovery and does not meet one or more of the allowable levels.

Used oil transporters and transfer facilities are required to:

- have an EPA identification number;
- have a DNR solid waste transportation license;
- meet all applicable U.S. Department of Transportation (DOT) Hazardous Materials Regulations;
- meet subch. E of ch. NR 679, Wis. Adm. Code, requirements for delivery destinations, used oil discharges, rebuttable presumption, acceptance and delivery tracking, residue management and secondary containment (transfer facilities only); and
- meet storage and release response requirements summarized above for generators, collection centers and aggregation points (transfer facilities only).

## What are the requirements for used oil processors and re-refiners?

A **used oil processor or re-refiner** is a facility that chemically or physically processes used oil to produce or prepare fuel oils, lubricants or other used oil-derived products.

**Used oil processing** includes, but is not limited to, blending used oil with virgin petroleum products, blending used oils to meet the fuel specifications, filtration, simple distillation, chemical or physical separation and re-refining.

The used oil processor and re-refiner standards are in subch. F of ch. NR 679, Wis. Adm. Code. The following are **exempt** from those requirements:

- A generator who does only the following with used oil generated on-site, if the used oil is not sent directly to a used oil burner:
  - reconditions (e.g., filters) used oil before reusing it;
  - separates used oil from wastewater;
  - uses oil mist collectors to remove air borne oil;
  - removes used oil from other materials; or
  - reconditions (e.g., filters) used oil before burning it in a space heater.
- A transporter or transfer facility that does only the following:
  - consolidates loads of used oil for purposes of transportation;
  - conducts incidental processing operations during the normal course of transportation (e.g., settling and water separation) that do not produce or prepare used oil derived products;
  - filters used oil from electrical transformers and turbines prior to returning it for reuse; or
  - performs any of the exempt processing activities summarized above for generators, except the used oil does not have to be generated on-site.
- A burner who blends off-specification used oil with virgin oil or on-specification used oil for purposes of burning it on-site, but not to produce on-specification used oil.

Used oil processors and re-refiners are required to:

- meet the storage and release response requirements summarized above for generators, collection centers and aggregation points;
- have an EPA identification number; and
- meet subch. F of ch. NR 679, Wis. Adm. Code, requirements for preparedness and prevention, contingency plan and emergency procedures, rebuttable presumption, secondary containment, closure, analysis plan, acceptance and delivery tracking, operating record, biennial reporting and residue management.

## What are the requirements for used oil burners?

A **used oil burner** is a facility that burns off-specification used oil for energy recovery in an industrial furnace or boiler, utility boiler, licensed or permitted hazardous waste incinerator, or used oil-fired space heater, which meets the conditions in the first exemption below.

The used oil burner standards are in subch. G of ch. NR 679, Wis. Adm. Code. The following are **exempt** from those requirements:

- A generator who burns used oil in a used oil-fired space heater meeting all the following:
  - it burns only used oil that the owner or operator generates or receives directly from household do-it-yourselfers or small farmers;
  - it has a maximum design capacity of 500,000 BTUs per hour; and
  - its combustion gases are vented outside.
- A processor or re-refiner who burns some used oil only for the purpose of processing other used oil.
- A facility that burns only on-specification used oil.

For more information on burning used oil in a space heater, refer to *Burning Used Oil in a Space Heater* (WA-1003).

Used oil burners are required to:

- meet storage and release response requirements summarized above for generators, collection centers and aggregation points;
- burn off-specification used oil for energy recovery in only an industrial furnace or boiler, utility boiler or licensed or permitted hazardous waste incinerator;
- have an EPA identification number;
- meet subch. G of ch. NR 679, Wis. Adm. Code, requirements for rebuttable presumption, secondary containment, acceptance tracking, certification notices and residue management; and
- if burning used oil containing 2 ppm or more PCBs, meet the applicable DNR and EPA PCB requirements in ch. NR 157, Wis. Adm. Code. (Used oil containing between 2 and 50 ppm PCBs is regulated as used oil under ch. NR 679, Wis. Adm. Code, and as PCBs under ch. NR 157, Wis. Adm. Code, and 40 CFR part 761. Used oil containing 50 ppm or more PCBs is **only** regulated as PCBs. No person may avoid PCB regulation by diluting used oil containing PCBs.)

## What are the requirements for used oil fuel marketers?

A **used oil fuel marketer** is any person who directs a shipment of off-specification used oil from their facility to a used oil burner, or first claims that used oil that will be burned for energy recovery meets the used oil fuel specifications. A marketer must be at least one other type of used oil handler.

The used oil fuel marketer standards are in subch. H of ch. NR 679, Wis. Adm. Code. Facilities are **exempt** from those requirements if they are a generator or transporter who directs shipments of off-specification used oil to processors or re-refiners who burn some used oil only for the purpose of processing other used oil.

Used oil fuel marketers are required to:

- have an EPA identification number;
- meet subch. H of ch. NR 679, Wis. Adm. Code, requirements for prohibitions, on-specification used oil fuel, delivery tracking and certification notices; and
- if marketing used oil containing 2 ppm or more PCBs, meet the applicable PCB requirements discussed above for burners.

## How do I dispose of used oil if it cannot be recycled?

Used oil that cannot be recycled under the used oil management standards in ch. NR 679, Wis. Adm. Code, and that has been determined to be hazardous waste, must be managed according to the hazardous waste rules in chs. NR 660 to 670, Wis. Adm. Code.

Wisconsin prohibits the disposal of used oil in solid waste landfills, and the burning of used oil without energy recovery in solid waste incinerators per s. 287.07(1m)(b), Wis. Stats.

## How should I manage materials containing used oil?

Used oil-containing materials, including absorbents, may be disposed of in a solid waste landfill only if:

1. There is no free-flowing oil in or on the absorbent material, and
2. The absorbent and the liquid absorbed is not hazardous waste.

Used oil-containing materials that do not meet these two criteria should be recycled. Recycling includes reusing, reclaiming or burning for energy recovery. If not recycled, the material must be evaluated to determine if it is a hazardous waste and managed accordingly.

### Used oil filters



Used oil filters are exempt from hazardous waste regulation if they have been hot drained, or drained by another equivalent method, and will be recycled as scrap metal.

Prior to hot-draining, used oil filters are regulated as used oil. Used oil filters that will be burned for energy recovery are regulated as used oil, regardless of whether they have been hot-drained.

In addition, used automotive engine filters are banned from land disposal. Refer to DNR's Recycling motor oil, oil filters and other automotive products page.for more information.

## What other requirements apply to used oil?

### Wisconsin Department of Safety and Professional Services

The flammable, combustible and hazardous liquids requirements in ch. SPS 310, Wis. Adm. Code, regulate used oil storage tanks as containing a Class IIIB combustible liquid, unless flash point testing indicates otherwise. Chapter SPS 310, Wis. Adm. Code, has additional requirements for public used oil collection centers, which allow do-it-yourselfers to pour their used oil directly into a collection tank. Tanks used to store used oil for recycling and tanks connected to a used oil burner may need pre-installation plan approval and may need to be installed under the oversight of a SPS 305-certified tank system installer.

The fire prevention requirements in ch. SPS 314, Wis. Adm. Code, apply to the storage of used oil in barrels and portable containers. Barrels used to store used oil may need to be DOT-approved for a flammable or combustible liquid.

Before installing used oil burning equipment or a directly-connected used oil supply tank, facilities may need to submit plans to the authorized building plan approval agent. Even if a plan approval is not needed, building code, insurance or other safety requirements may apply (e.g., to vents for burning equipment or tanks).

For more information on Storage Tank Regulations, contact the Wisconsin Department of Agriculture, Trade, and Consumer Protection.

### Used oil collection/sign posting for retailers selling automotive oil

Wisconsin requires retailers selling automotive oil to either accept household do-it-yourselfer used oil, or post a sign at the location of sale indicating the location and hours of operation of the nearest household do-it-yourselfer used oil collection center [s. 287.15(2)(a), Wis. Stats.]. Retailers may request signs from the DNR to meet the used oil sign-posting requirement. The signs are available on the DNR's Recycling motor oil, oil filters and other automotive products page.

### Public used oil collection centers in municipalities

Wisconsin requires municipalities to provide a minimum number of used oil collection centers, based on the size and type of municipality per s. 287.15(3)(a), Wis. Stats. Each collection center must have a capacity of at least 250 gallons and must be accessible to the public. A collection center that is not municipally owned or operated may be counted toward meeting a municipality's required minimum number of collection centers.

### Air pollution control

Properly maintain and operate burning devices so they burn the used oil completely and do not create smoke. Meet the applicable air pollution control rules in chs. NR 400 to 499, Wis. Adm. Code. For burning devices with a maximum design capacity of more than 500,000 BTUs per hour, contact the appropriate DNR regional air management specialist to see if an air pollution control permit is needed. If required, facilities must obtain a permit and meet its terms and conditions.

### Hazardous substance spills



In addition to the ch. NR 679, Wis. Adm. Code, release, spill and discharge- related requirements, Wisconsin's hazardous substance spills law requires a person who possesses, controls or discharges a hazardous substance, such as used oil, to notify the DNR immediately by calling the 24-hour emergency hotline at (800) 943-0003 of any discharge not exempted by law. In addition, the person must take actions necessary to restore the environment to the extent practicable and minimize the harmful environmental effects.

## Where can I get more information?

For more information including publications, inspection forms, and administrative codes and statutes, go to dnr.wi.gov and search "hazardous waste resources." Use the *Additional Resources* menu to navigate to specific topics. For staff contact information, go to the staff directory and enter "hazardous waste requirements" in the subject field and choose the appropriate county contact.

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