

## Used Oil Burning

### Guidelines for burning used oil in space heaters, furnaces and boilers

#### Background

The burning of used oil is subject to state and federal environmental regulations. This fact sheet provides general regulatory guidance to burners of used oil. Information here should not be used as a replacement for the rules, but as a reference where specific rules may apply to used oil burners' activities.

Oregon has adopted the federal Environmental Protection Agency used oil management rules in Title 40 of the Code of Federal Regulations, Part 279 and has additional state used oil management requirements in Oregon Administrative Rules 340, Division 340. It's important to review both sets of rules to understand all used oil management requirements. For specific guidance, refer to the applicable regulation listed in brackets following each bold heading. For additional information sources, refer to the end of this fact sheet.

#### Used oil burner requirements [40 CFR 279, Subpart G]

#### Who's affected by used oil burning requirements? [40 CFR 279.60]

Persons burning used oil for energy recovery not meeting the specifications are subject to used oil burner regulations in most cases. See following section for exemptions.

#### Who's exempt from used oil burning requirements?

Persons are exempt from the used oil burning regulations found in 40 CFR 279, Subpart G if they burn:

- Only used oil meeting the specifications listed
- Used oil (regardless if it meets used oil specifications) in a used oil space heater; or,
- Used oil by a processor/re-refiner for purposes of processing used oil, which is considered incidental to used oil processing

#### Used oil specifications [40 CFR 279.11]

Used Oil Specification Levels 1:

Constituent/ Property	Allowable level
Arsenic	< 5 part per million

Cadmium	< 2 ppm
Chromium	< 10 ppm
Lead	< 100 ppm
Halogens	< 1,000 * ppm
Flashpoint	< 100° F minimum

\*The actual halogens regulatory limit is 4,000 ppm. However, if total halogens exceed 1,000 ppm, the oil is presumed to be a hazardous waste unless proven otherwise. The 1,000 ppm maximum is a preliminary limit, but exceeding it could prevent the oil from being burned in off-site space heaters.

#### Restrictions on burning [40 CFR 279.61]

Used oil not meeting specifications can be burned in the following devices:

#### \*Used oil space heaters, provided that:

The heater burns only used oil that the owner or operator generates or used oil received from household do-it-yourself used oil generators;

- The heater is designed to have a maximum capacity of not more than 0.5 million BTUs per hour;
- Combustion gases from the heater are vented to the outside air; and
- The heater is operated according to manufacturer's instructions

#### \*Industrial furnaces identified in 40 CFR 260.10.

#### \*Boilers, as defined in 40 CFR 260.10, that are identified as follows:

- Industrial boilers as defined in 260.10, located on the site of a facility engaged in a manufacturing process where substances are transformed into new products
- Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale

Burning of off-specification in these units may be subject to additional state or regional air quality regulations. Contact your nearest DEQ regional office, listed at the end of this fact sheet, for information about air quality requirements.

#### Used oil containing PCBs [40 CFR



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700 NE Multnomah St.  
Suite 600  
Portland, OR 97232  
Phone: 503-229-6742  
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[www.oregon.gov/DEQ](http://www.oregon.gov/DEQ)

### **279.10(i)]**

Used oil containing detectable levels (2 ppm) of polychlorinated biphenyls is subject to regulations in 40 CFR 761.20(e). Used oil containing 2 ppm but < 50 ppm must be burned in a qualified incinerator as defined in 40 CFR 761.3 and include PCB incinerators, off specification used oil burning devices as defined in 40 CFR 279.61 and industrial boilers and furnaces defined in 40 CFR 260.10. Used oil burners of oil containing 2 to 49 ppm PCBs are subject to tracking and notice requirements in 40 CFR 279, subparts G and H and 279.66 and 40 CFR 279.72(b). See 40 CFR 761.20(e) for details.

### **Notification of used oil burning activity [OAR 340-111-040]**

Used oil burners subject to the used oil burner requirements must notify DEQ of their used oil activity using the "Used Oil Activity Notification Form" available from DEQ.

### **Rebuttable presumption for used oil [40 CFR 279.63 & 40 CFR 279.10(b)(1)(ii)]**

To ensure that used oil managed at a burner facility is not a hazardous waste, used oil burners subject to the used oil burner requirements must determine whether the used oil is above or below 1,000 (ppm total halogens. Used oil containing more than 1,000 ppm total halogens is "presumed" to have been mixed with a listed halogenated hazardous waste.

The used oil burner must make this determination by:

- Testing the oil
- Applying knowledge of the halogen content of the used oil in light of the materials or process used to produce it; or,
- Using information provided by used oil marketer or processor.

A used oil burner may "rebut" the presumption that the used oil has been mixed with hazardous waste by using analysis or process knowledge that hazardous waste has not been mixed with the used oil.

Records of analysis or information used to rebut the presumption must be maintained by the used oil burner for at least three years.

If the used oil contains greater than 1,000 ppm total halogens and the presumption that it has been mixed with hazardous waste cannot be rebutted, it must be managed as a hazardous waste.

### **Used oil storage [40 CFR 279.64]**

Used oil burners subject to the burner requirements must:

- Store used oil in tanks or containers that are in good condition (no severe rusting, apparent structural defects or deterioration) and not leaking.
- Provide secondary containment for all above-ground tanks and containers, sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- Clearly label or mark all container and above-ground tanks and fill pipes used to transfer used oil to underground tanks with the words "Used Oil."
- Respond to releases of used oil as required in OAR, Division 108. Response to releases of used oil include but are not limited to:
  - Implementing applicable contingency plan if required
  - Containing the spill
  - Reporting the release if above reportable quantity
  - Cleaning up the spill or release

### **Countermeasures plan [40 CFR, Part 112]**

Used oil burners storing larger amounts of used oil (> 660 gallons in any one above-ground tank, > 1,320 gallons total in above-ground tanks or > 42,000 gallons of petroleum material in underground tanks) may be required to prepare and maintain a Spill Prevention, Control and Countermeasures Plan. See 40 CFR, Part 112 for requirements.

### **Tracking [40 CFR 279.65]**

Used oil burners must keep a record of each used oil shipment accepted for burning. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. The records must be maintained for at least three years and must include for each shipment the following information:

- Name, address and DEQ/EPA identification number of the transporter who delivered the used oil to the burner;
- Name, address and DEQ/EPA identification number (if applicable) of the used oil generator, processor or marketer from whom the used oil was received;
- Quantity of used oil accepted
- Date of acceptance of the used oil.

### **Notices [40 CFR 279.66]**

Before a used oil burner accepts the first shipment of off-specification used oil, the burner must provide to the used oil generator, transporter or processor a one-time written and signed notice certifying that the burner has

notified DEQ stating the location and the general description of their used oil management activities as required in OAR 340-111-040 (see notification requirements above) and will burn off-specification used oil in an industrial boiler or furnace identified in 40 CFR 279.61(a).

Maintain a copy of the certification for at least three years from the date the burner last receives shipment of an off-specification used oil.

**Management of residues [40 CFR 279.67]**

Used oil burners who generate residues from the storage or burning of used oil must manage the residues as specified in 40 CFR 279.10(e).

**Space heater information [40 CFR 279.23]**

Businesses, organizations and other persons may burn used oil in on-site space heaters if:

- The heater burns only used oil that the owner or operator generates himself/herself or used oil received from do-it-yourself used oil generators
- The heater is designed to have a maximum capacity of not more than 0.5 million BTUs per hour
- The combustion gases are vented to the outside air;
- The burner is operated following manufacturer's specifications

**Common questions:**

**What is a space heater?**

A space heater is a unit designed specifically to burn oil for space heating purposes. Wood stoves and open burn barrels are not considered space heaters.

**Do I need a permit for a space heater?**

No permit is needed from DEQ if the unit meets the requirements of 40 CFR 279.23. DEQ is not aware of any local requirements, but to be certain, contact your local fire marshal, air pollution control authority or building code department.

**What if I own more than one business and want to burn used oil generated from one business location at another of my locations?**

This is allowable as long as both operations are owned or operated by the same company, business or person. Check DEQ's used oil transporter fact sheet for transportation requirements.

**Used oil specifications [40 CFR 279.11]**

Constituent/ Property	Allowable level
Arsenic	< 5 part per million

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Owners of space heaters generally may burn only their own used oil, or oil from do-it-yourself used oil generators. However, used oil from another business or organization may be burned in your space heater if the oil meets certain specifications and proper records are kept. Specifically, to take someone else's used oil, the burner (yourself) or the generator (your used oil supplier) must test the oil and follow these guidelines:

- If oil from another business exceeds any of the above-listed specifications, it cannot be burned in your space heater. Instead, it must be managed as off-specification used oil and handled by a blending or burning facility with an EPA identification number
- Keep copies of oil test results for three years
- Obtain an identification number from DEQ as a marketer. If you already have a DEQ hazardous waste identification number, complete a used oil notification form to identify your marketing activity
- For three years, keep a record of each shipment of used oil to the burner, including:
  - Name and address of the facility receiving the shipment
  - Quantity of used oil delivered,
    - Date of shipment
  - A cross-reference to the test results showing the oil meets the specifications

**Does every batch of used oil need to be tested?**

No. Test results need to be representative of used oil received. In general, as long as the process of generating the used oil remains unchanged, the initial test may remain representative. If something in the process changes (such as servicing mostly heavy equipment instead of vehicles, using different cleaners which could end up in the oil, maintaining new vehicles instead of old ones), another test is likely needed.

## **Ash from space heaters [40 CFR 261.3; 40 CFR 261.5]**

As with any other waste, you must complete a hazardous waste determination on waste ash from space heaters. Ash determined to be a hazardous waste must be managed according to applicable hazardous waste management requirements.

### **Where to find more information**

DEQ has other fact sheets about handling used oil. Go to DEQ's hazardous waste program web pages for more information.

DEQ's used oil regulations are in [Oregon Administrative Rules Chapter 340, Division 111](#).

Federal used oil regulations are in [Title 40, Part 279 of the Code of Federal Regulations](#) .

Other related federal requirements of interest are on the [federal website for Title 40](#), "Protection of the Environment."

- Part 261 (hazardous waste identification)
- Part 112 (federal spill prevention, control and countermeasure plan requirements)
- Part 716.20(e) (PCB used oil)

EPA's [used oil webpage](#) .

### **DEQ regional offices and assistance**

For more assistance, see the DEQ hazardous waste program specialist in your area.

**Northwest Region office:** 700 NE Multnomah St, Suite 600, Portland, OR 97232, 503-229-5263

**Bend office:** 475 Bellevue, Suite 110, Bend, OR 97701, 541-388-6146

**Pendleton office:** 800 SE Emigrant, Suite 330, Pendleton OR 97801, 541-276-4063

**Salem office:** 4026 Fairview Industrial Drive, Salem, OR 97302, 503-378-8240

**Eugene office:** 165 E. 7<sup>th</sup> Ave., Suite 100, Eugene OR 97401, 541-686-7838

### **Alternative formats**

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011 or email [deqinfo@deq.state.or.us](mailto:deqinfo@deq.state.or.us).