

Burning Used Oil Fuel

In Vermont, used oil may be burned as fuel provided certain minimal requirements are met. These include labelling containers with the words “Used Oil Fuel”, basic testing requirements to determine if the oil is appropriate for burning, and other container management standards summarized in the “Used Oil” fact sheet and found in the Vermont Hazardous Waste Management Regulations (VHWMR) Section 7-806.

This fact sheet summarizes the requirements applicable to burning “*specification*” used oil fuel in “*small fuel burning equipment*” (i.e., equipment that has been designed specifically for burning used oil fuel), an activity that is exempt from Vermont’s Air Pollution Control Regulations (APCR). Burning used oil fuel in larger equipment, or burning off-specification used oil, is subject to regulation under the APCR and more stringent VHWMR requirements.

What is specification used oil fuel?

Specification used oil fuel meets the “allowable” constituent and property levels identified in Table 1. While used oil that exceeds one or more of the Table 1 specifications may still be managed according to the VHWMR Subchapter 8 Used Oil Management Standards, it must either be burned as off-specification used oil or recycled in some other manner (e.g., re-refined).

Table 1 – Used Oil Fuel Specifications

Constituent / 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	1000 ppm maximum
PCBs	< 2 ppm maximum
Net Heat of Combustion	8000 BTU/lb minimum

What is small fuel burning equipment and how is it regulated?

It is space heating equipment defined as having a maximum operating heat input equal to or less than 500,000 BTU/hr.

Burning used oil fuel in this type of space heating equipment is allowed provided:

- Combustion gases are vented to ambient (outdoor) air;
- Stacks are not equipped with devices that would impede the upward discharge of the exhaust gases (i.e., no raincaps); and
- No more than one space heater is connected to an above-ground storage tank.

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Can any type of used oil be burned in small fuel burning equipment?

No. The types of used oil that may be burned in small fuel burning equipment are limited to vehicle crankcase, transmission fluid, hydraulic and machine gearbox oil that meet the Table 1 specifications. Other types of used oil (e.g., compressor oil, petroleum-based power steering fluid, metal working fluids) may be burned as fuel only after approval is granted by the Waste Management & Prevention Division. Approval is based on product information provided on the safety data sheet (SDS) and a description of the process generating the used oil.

Does used oil fuel need to be tested for all the Table 1 constituents?

- Facilities that either burn their own used oil on-site, or burn used oil received from off-site in shipments of less than or equal to 55 gallons:
 - ✓ Must only test the used oil (from each source) for total halogens prior to accepting it. A field screening test kit may be used to determine if the 1,000 ppm specification limit is met for total halogens. Contact the Waste Management & Prevention Division or Environmental Assistance Office for information about field screening test kits and how to obtain them.
 - ✓ If there is reason to believe that any of the remaining Table 1 specifications (i.e., those specifications other than total halogens) would not be met by a volume of used oil, that oil must be tested for the suspected constituents or properties.
- Facilities that receive used oil fuel in shipments greater than 55 gallons:
 - ✓ Must establish that the used oil fuel meets all of the Table 1 specifications prior to accepting the material; this testing may be conducted by either the burner or the used oil generator.

Note: A 1994 Vermont Agency of Natural Resource study concluded that used oil from vehicle service facilities and “do-it-yourselfer” collection sites frequently meets all Table 1 specifications.

How often do I have to test used oil fuel?

Used oil fuel from a specific source must be tested one time. The oil must be retested only if there is reason to believe that the quality of the oil, or the process generating the oil, has changed such that the Table 1 specifications would not be met. A burner does not need to test used oil fuel received from off-site if the oil has already been tested by the generator (or transporter) and found to meet Table 1 specifications.

Do I need a permit (or to provide notification) to burn used oil fuel in small fuel burning equipment?

No permit is required to burn specification used oil fuel. Moreover, facilities that burn specification used oil fuel and that do not generate any hazardous waste (e.g., oily absorbents or debris) are not required to notify the Waste Management & Prevention Division of this activity.

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Can I burn used oil fuel that I did not generate?

Yes. In addition to burning used oil fuel that is generated on-site, burners may accept used oil fuel from the following sources:

- Do-it-yourselfers (households that generate used oil);
- Off-site facilities that are owned and operated by the burner; or
- Other businesses and municipalities.

Can used oil fuel be transported by either the burner or the generator?

Yes. Not permit or certification is required under the VHWMR to transport used oil fuel, nor is there a limit imposed on the quantity shipped at any one time. However, in all cases the transportation of used oil fuel must be in accordance with applicable DOT (Department of Transportation) requirements, including those for placarding.

What records must be maintained?

When used oil fuel is received from other businesses or municipalities, the burner must retain records for three years which document:

- ✓ the quantity of used oil fuel accepted;
- ✓ specification testing results; and
- ✓ the name, address, and telephone number of the facility from which used oil fuel is accepted.

When used oil fuel is only generated on-site (or received from do-it-yourselfers), the burner need only retain specification testing results.

For more information contact:

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