

Appendix C: Used Oil And Antifreeze Management

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Used Oil Management

What is Used Oil?

Used oil includes used crankcase (engine) oil, used liquid and semi-solid gear, chain, and ball bearing lubricants, and used hydraulic fluid. Materials that contain or are contaminated with used oil can also fall under the definition of used oil, such as used oil filters, oily rags and wipers, used absorbents, and oily wastewater.

Is it Hazardous?

Used oil is not considered hazardous waste unless it is mixed with a hazardous waste such as a chlorinated solvent. If used oil has been mixed with a hazardous waste, see Appendix B for management requirements.

How Should a Marina Manage the Used Oil it Generates?

Note that used crankcase oil, automatic transmission fluid, power steering fluid, and hydraulic fluid are all considered used oil and can be mixed and managed together.

There are a few options for managing used oil. Two of the most common are collecting it, testing it, and having it hauled away for recycling, or collecting it, testing it, and burning it in on-site space heaters. If the used oil tests positive for hazardous constituents, it must be managed as hazardous waste (see Appendix B).

If the used oil does not test positive for hazardous waste, it should be managed as follows:

1. Collect and store used oil in a secure collection tank or drum, separate from other wastes.
2. Dispose of the used oil by hauling or burning it:
 - ◆ Contract with a permitted waste oil transporter to haul oil to a permitted recycling facility

OR

- ◆ Burn the used oil in space heaters for energy recovery, i.e., to heat your shop, providing the heater burns only used oil generated on-site or received from “do-it-yourself” oil changers.

NOTE: Used oil heaters must:

1. Have a maximum design capacity of not more than 0.5 million BTU’s per hour; and
2. Vent combustion gases outside the building; and
3. Burn only used oil that you generate or that you have collected from your do-it-yourselfer customers.

What are the Requirements for Used Oil Storage in Tanks or Containers?

- ◆ Label the tank or container “Used Oil” [40 CFR 279.22(c)].
- ◆ Prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan if you store more than 1,320 gallons of used (or new) oil above-ground (containers of less than 55 gallons are exempt from the total) [40 CFR 112.1]. See Appendix E for more information.

What are the Recommended Practices for Used Oil Storage in Tanks or Containers?

- ◆ Place the tank or container on an impervious base. If the tank or container is outdoors, you must provide for secondary containment equal in volume to the capacity of the storage tank. If the tank or container is indoors, no secondary containment, device, or structure is required.
- ◆ Locate the tank or container in an aboveground area, preferably roofed, which will prevent unauthorized access or vandalism and minimize the possibility of fire or explosion and accidental release of oil to the environment.
- ◆ Lock the tank or container’s fill spout when not in use.
- ◆ Visually inspect the tank or container on a regular basis for leaks or malfunctions. Maintain written inspection records.
- ◆ Instruct all employees who handle used oil on the proper operation and management of the oil storage area. Assign one person the responsibility for monitoring oil storage.
- ◆ Use kitty litter, saw dust, or a commercially available product to absorb oil from minor spills.
- ◆ If providing a collection tank or container for used oil from your customers who do their own engine maintenance, clearly label the tanks or containers to indicate the importance that ONLY used oil be placed in the tank. Remember that you’ll be responsible to pay for disposal of used oil that is contaminated with hazardous waste.
- ◆ Keep records of used oil collection.

If a Marina Accepts Used Oil That Boaters Generate, How Should it be Managed?

Many marinas collect used oil from customers as a client service. Manage this oil in the same way as oil generated by the marina itself.

It may make sense to separate the waste area where you are collecting wastes from boaters from those generated by the marina, since you have more control over the wastes generated by your staff than by your clients. Used oil contaminated with a hazardous substance is much more costly to dispose of than unadulterated used oil. Educate your staff about the importance of keeping used oil from being contaminated with hazardous substances.

If you collect customers’ oil, remind boaters NOT to:

- ◆ Mix used oil with antifreeze or hazardous waste, i.e. waste gasoline.
- ◆ Burn used oil in residential boilers or space heaters.
- ◆ Dump used oil overboard.
- ◆ Pour used oil into sewers or storm drains.
- ◆ Dump used oil on the ground; use it for weed control or to keep dust down.

Can Used Oil Be Mixed with Diesel Fuel, as Recommended by the Manufacturers of Some Diesel Engines?

The manufacturers of certain diesel engines recommend that you add used oil to your diesel fuel. If you have a diesel engine of this type, you may mix your used oil with virgin diesel fuel according to the manufacturer's instructions. However, up until the point that the used oil is actually mixed with the diesel fuel, it must be handled exactly the same as any other used oil.

Please note that this exemption applies only to your used oil and only if it is used in your own diesel engines. You may not add your used oil to diesel fuel that will be used in someone else's diesel engines. You may also not accept used oil from someone else to put into your diesel fuel.

How Should Used Oil Absorbent Material Be Disposed?

Materials that *contain* or are *contaminated with* used oil can also fall under the definition of used oil. The most common of these materials are used oil *absorbent pads, rags and wipers*, and *absorbents* (such as kitty litter, speedi-dri, and absorbent pads).

Marina staff that produce waste oil absorbent material as a result of maintenance of marina-owned or customer's vessels in the marina's maintenance shop, must collect all used oil absorbent material, test for hazardous constituents and transport either as hazardous waste or used oil, depending on the test results. However, if the absorbents do not have free-draining oil and are not going to be burned for energy recovery, they are no longer subject to regulation as used oil. In this case, these soaked absorbents must have a hazardous waste determination and be disposed of as hazardous waste (see Appendix B) or double-bagged and discarded in trash, as appropriate.

Boaters or marina staff doing work on customers' boats dockside can dispose of oil absorbent materials generated while conducting maintenance by bringing the absorbent to a collection area provided by the marina. Boaters can also take their waste oil absorbents to a household hazardous waste collection facility for disposal. If the absorbent does not have free-draining oil and no such collection area is available, boaters may double-bag it and dispose of it in the regular trash.

Are There Any Other Requirements?

On-board air conditioning systems may also generate used oils that are contaminated with refrigerants (such as freon). This type of used oil must be recycled for its freon content. See section on "Refrigerants" for more information.

Spills of used oil (or any other petroleum liquids, chemicals, or hazardous waste) must immediately be reported via the Oregon Emergency Response System (OERS) at 1-800-OILS-911 or 1-800-452-0311 and to the National Response Center at 1-800-424-8802.

Used Antifreeze

Why is used antifreeze a concern?

Antifreeze is a common engine coolant used in automobiles. It usually contains ethylene glycol or propylene glycol. Small amounts of ethylene glycol can cause health problems if swallowed by people or pets. Environmental contamination can occur when antifreeze is improperly disposed of or handled. Spent antifreeze poured onto the ground or into septic systems may eventually contaminate the groundwater.

Antifreeze poured into storm drains, ditches, streams, lakes, etc., will contaminate surface water. Improper disposal may also result in drinking water supplies becoming contaminated.

How is used antifreeze regulated?

Used antifreeze that is generated by businesses, institutions or public agencies is subject to applicable state and federal hazardous waste management requirements. Under these requirements generators must determine if their wastes are hazardous. Refer to DEQ's [Waste Determination Factsheet](#) for more information at <http://www.deq.state.or.us/wmc/hw/reslibhwgen.html>. Management of used antifreeze produced by household "Do-It-Yourselfers" is not subject to these management requirements, and is discussed at the end of this fact sheet.

Oregon's antifreeze policy

The Oregon Department of Environmental Quality (DEQ) has determined that used antifreeze that is recycled and properly managed according to the following "[Best Management Practices](#)" (BMPs) generally will not exhibit hazardous waste characteristics. Waste antifreeze managed according to the following practices will not be considered to be hazardous waste by the DEQ.

Used antifreeze Best Management Practices

Generators that use the following Best Management Practices and legitimately recycle their used antifreeze are presumed by DEQ, to comply with hazardous waste management requirements. Make sure that:

- Used antifreeze is stored in containers that are in good condition and labeled with the words "Used Antifreeze."
- Used antifreeze is not mixed with any waste or other material (e.g., solvents, cooling system flushes, used oil, motor fuels). Used antifreeze must be managed according to applicable hazardous waste regulations if it

has been mixed with listed or characteristic hazardous waste.

- Antifreeze collection, storage and transport containers or tanks are dedicated solely to the transfer and storage of antifreeze, to prevent the risk of cross-contamination.
- Used antifreeze containers are kept closed, except when emptying or filling, to minimize the potential for spillage.
- Used antifreeze containers are located in a secure area and properly maintained so that they do not leak, rupture, or tip over when being opened, handled, or stored.
- Spills of used antifreeze are cleaned up immediately and appropriately managed. (Non-recyclable spill cleanup wastes must undergo a hazardous waste determination before disposal.)
- Volumes of accumulated used antifreeze are minimized by routinely recycling to reduce the potential for environmental harm.
- The used antifreeze generator and the recycling facility maintain proof of recycling (e.g., a log for on-site recycling or an invoice or bill of lading for off-site recycling).
- Employees who handle or otherwise manage used antifreeze know proper handling and spill response procedures.

Used antifreeze that is not legitimately recycled according to the above Best Management Practices is subject to management as a potential hazardous waste. Used antifreeze mixed with other waste or material, such as caustic radiator flushing chemicals or used oil, reduces the recyclability of the antifreeze and is not considered legitimate recycling under this policy.

Antifreeze management options

Acceptable methods for managing used antifreeze include: recycling; disposal at a hazardous waste treatment, storage, or disposal (TSD) facility; or discharge to a wastewater treatment plant (with prior approval of the operator). Please note that many wastewater treatment plant operators prohibit the disposal of used antifreeze to their systems because of the possibility of damaging the treatment system.

Antifreeze should not be disposed of by throwing it in the trash, pouring it down the storm sewer, or putting it into septic systems. Many storm sewers discharge directly to surface waters, such as ponds or streams. If poured into a



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septic system, the antifreeze may damage the system by killing the microorganisms necessary for waste decomposition.

Recycling used antifreeze is the preferred option.

Not only is recycling the most environmentally safe and responsible option, but it may also be more cost efficient than disposing of the waste and buying new product. Widely available antifreeze recycling options include distillation, ion exchange and filtration.

Used antifreeze may be recycled at the generator's facility, or it may be transported to a recycling facility for reclamation.

A hazardous waste determination must be made on all wastes produced by the recycling process, such as filters and sludges, produced by the recycling process and the waste managed appropriately.

Used antifreeze generated by household do-it-yourselfers

Used antifreeze from households should be taken to a hazardous waste collection facility or collection event for proper recycling or disposal.

If you live in the Portland metropolitan area, contact the Metro Recycling Information Center at (503) 234-3000 for used antifreeze disposal/recycling locations. If you live outside the Portland metro area, contact the toll-free hotline at 1-800-732-9253 for facilities that accept used antifreeze for recycling or upcoming household hazardous waste collection events. If collection is not available in your community, contact the local sewer district to see if disposal of small amounts of used antifreeze to the sanitary sewer is permitted. **Never** pour used antifreeze on the ground, down a dry well or storm drain, or in your septic system.

Used antifreeze recycling services

The following companies recycle or dispose of used antifreeze. This list is neither a DEQ endorsement nor a guarantee that the used antifreeze will be managed according to federal or state regulations. It is not a complete list of companies managing used antifreeze in Oregon.

Many of the companies listed also sell recycled antifreeze. When choosing a management company be sure that you know how the used antifreeze is managed and recycled. Not all companies claiming to recycle antifreeze produce a useable recycled product that can be used as a glycol feedstock or antifreeze product. Unusable materials end up being disposed, frequently in a manner that can adversely affect the environment. It is the responsibility of the generator to ensure their waste is managed properly.

Emerald Services

(Vancouver, WA) (888)832-3008

Industrial Oils

(Klamath Falls) (541) 884-9124

MSE Environmental

(Washougal) (206) 767-7990

Oil Rerefining

(Portland) (800) 367-8894

Onyx Environmental Services

(Vancouver, WA) (360) 607-3097

Philip Services Corporation

(Washougal, WA) (800) 547-2436

Romic Environmental / Antifreeze Environmental Service Corp.

(Clackamas) (888) 242-8592

Safety Kleen Systems, Inc.

(Clackamas) (503) 655-5798

(Springfield) (541) 747-5804

Thermo Fluids

(Portland) (503) 788-4612

Univar, USA

(Portland) (503) 222-1721

For more information

For additional information on the management of used antifreeze or hazardous waste, contact the office nearest to you from the list at:

<http://www.deq.state.or.us/wmc/hw/tuwrap/tuwrap-contacts.html>.

Additional information is available at DEQ

Online at <http://www.deq.state.or.us/>.

Alternative Formats

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