Used Oil

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What is used oil?

The U.S. Environmental Protection Agency (EPA) defines used oil as any oil that has been refined from crude oil, or any synthetic oil that has been used, and as a result of such use is contaminated by physical or chemical impurities. Examples of used oil include motor oil, hydraulic fluid, industrial process oils, lubricants, emulsions and oil coolants.

What types of used oil handlers are regulated?

- **Generators** – Businesses which produce used oil through commercial or industrial operations are considered generators. Generators are the largest segment of the used oil industry. Examples of generators include vehicle/ fleet repair shops and service stations, public transportation authorities and metal-working industries.
- **Collection centers and aggregation points** – Facilities who accept small amounts of used oil and store it until enough is collected to ship it somewhere else for recycling. Collection centers will usually accept used oil from multiple sources including individuals and businesses. Aggregation points accept used oil from places run by the same owner or operator and from individuals.
- **Transporters** – Companies that pick up used oil from all sources and deliver it to re-refiners, processors or burners.
- **Re-refiners and processors** – Facilities that blend or remove impurities from used oil so that it can be burned for energy recovery or reused.
- **Burners** – Facilities that burn used oil for energy recovery in boilers, industrial furnaces or in hazardous waste incinerators.
- **Marketers** – Handlers who either a) direct shipments of used oil to be burned as fuel in regulated devices or, b) claim that certain EPA specifications are met for used oil to be burned for energy recovery in devices that are not regulated. They also sometimes help move shipments of used oil to burners. By definition, marketers must also fall into at least one of the above categories.

Is used oil considered a hazardous waste?

Although not normally considered a hazardous waste, used oil is considered a regulated waste and is subject to federal regulations (Title 40 of the Code of Federal Regulations Part 279 [40 CFR 279]). The Georgia Environmental Protection Division (EPD) follows these federal regulations. Georgia's laws exempt used oil from being regulated as a hazardous waste provided:

- It is not mixed with or contaminated by other hazardous waste;
- It is sent offsite for recycling; and
- It is never spilled onto the ground

When used oil is mixed with a hazardous waste it is generally considered a hazardous waste and is subject to hazardous waste regulations. (For more information on hazardous waste, see the GECAP Tech Guide *Hazardous Waste Generator Requirements*). The best way to ensure used oil does not become a hazardous waste is to store it separately from all solvents and chemicals and to

not mix it with anything.

What are storage requirements for used oil?

Generators are required to store used oil in tanks or containers labeled with the words "Used Oil". These tanks and containers must be in good condition and should not be allowed to rust, leak or deteriorate. Any damaged tanks or containers must be taken out of use or fixed immediately. The used oil standards apply to all used oil handlers, regardless of the amount of oil they handle.

How are used oil filters managed?

Used oil filters are exempt from the hazardous waste regulations provided they are:

- NOT constructed of terne plate steel. Terne is a tin/lead alloy historically used to cover the interior of oil filters. The lead content of the plating material may cause the filters to exhibit a hazardous waste characteristic. These filters are not common.
- NOT mixed with any hazardous waste mixtures; and
- Gravity hot drained over an appropriate container in accordance with federal regulations [40 CFR 261.4(b)(13)] which includes:
    - Puncturing the anti-drainback valve or dome end
    - Crushing
    - Dismantling; or
    - Any other method that will remove oil from the filter.

The regulatory interpretation of gravity hot drained requires 12 hours of draining time of a filter that is at near engine operating temperature and above 60 degrees Fahrenheit. The filter is adequately drained if when it is picked up, used oil does not immediately drip or run from the filter. Once the filter is drained, it should be placed in a container clearly labeled "USED OIL FILTERS."

Georgia law permits the disposal of *drained* oil filters in landfills; however, it is highly recommended that these filters be recycled if possible. In many cases, the used oil transporter will also recycle oil filters. If recycling of drained oil filters is not feasible, the EPD recommends that the filters be double-bagged before being placed into the dumpster.

How are used oil sorbents managed?

Sorbents (cat litter, rags, booms, etc.) that are used during an oil spill can be disposed of in a dumpster as long as they are in a small quantity (i.e. less than what would fill a 55-gallon drum). However, the EPD recommends that you contact the landfill to confirm whether they can accept this waste. The EPD also recommends that the sorbent waste be double-bagged before disposing it into the dumpster.

Is an EPA identification number required for used oil?

Generators of used oil are not required to obtain an EPA identification (ID) number unless they are also subject to the hazardous waste regulations. However, Georgia law requires that you contract with a used oil transporter/recycler that is registered with the Georgia EPD and has an EPA ID number. When shipping used oil off site, all generators, collection centers and aggregation points must use transporters with valid EPA ID numbers. Contact the Georgia EPD for a list of approved transporters in Georgia. Any handler, generator, collection center or aggregation point shipping used oil in quantities less than 55 gallons, does not need an EPA ID number.

It is the responsibility of the generator of used oil to ensure that their used oil transporter has an EPA ID number and is complying with the used oil transporter regulations found in 40 CFR 279 Subpart E. You may also want to ensure that they can provide proof of current liability insurance.

What other record keeping requirements are there with used oil?

For each shipment of oil, you should obtain a receipt, non-hazardous waste manifest, or bill of lading showing the amount of oil shipped offsite and where the used oil was going. You should retain these records for at least three years.

What if there is a leak or a spill?

Facilities who generate or handle used oil must use preventative maintenance to avoid spills or leaks. They should practice good housekeeping by keeping containers, machinery and tanks in good

condition and sorbent material should always be on site and easily accessible. To prevent oil from reaching the environment in the case of a spill or leak, re-refiners, processors, transfer facilities and burners must have secondary containment systems such as an oil impervious dike, berm or retaining wall and floor. Generators are encouraged by the EPA to also use secondary containment systems to prevent contamination of the environment.

In the case of a spill or leak, the following steps should be taken:

- Stop the flow of oil immediately at the source and place in another holding container or tank if the leak cannot be stopped.
- Contain the oil that has been spilled by using sorbent beams, oil sorbent material or vacuuming equipment.
- The oil recovered must be handled as used oil, including the used cleanup materials that contain free flowing oil.
- Remove or repair the defective container or tank immediately.

If an oil spill reaches or threatens a waterway, the spill must be reported to the Georgia EPD per the **Georgia Spill Act** (404-656-4300/800-241-4113) and the **National Response Center (NRC)** (800-424-8802). Waterways include lakes, rivers, streams, creeks, branches, ponds, drainage systems, and all other bodies of surface or sub-surface waters.

What recycling and pollution prevention opportunities are available for used oil?

Used oil may be burned on site for energy recovery if the oil has been tested and contains less than 1,000 ppm halogen content. Space heaters for burning used oil on site must not exceed a maximum capacity of 0.5 million BTU per hour, and combustion gases must be vented to ambient air.

Used oil can be recycled the following ways:

- **Reconditioned** – Used oil is reconditioned on site, which involves removing impurities from the used oil and using it again. This does not restore the oil to its original condition, but it does prolong its life.
- **Inserted into a petroleum refinery** – Used oil is introduced as a feedstock into either the front end of the process or the coker to produce gasoline and coke.
- **Re-refined** – Used oil is treated to remove impurities so that it can be used as a base stock for new lubricating oil. This process prolongs the life of the oil resource indefinitely and is the preferred option because it closes the recycling loop by reusing the oil to make the same product that it was when it started out and uses less energy and less virgin oil.
- **Processed and burned for energy recovery** – Water and particulates are removed so that used oil can be burned as fuel to generate heat or to power industrial operations. This method is not as preferable because it only allows the oil to be reused once. This process does provide valuable energy.

Where can I go for more information?

- Refer to Title 40 of the Code of Federal Regulations Part 279 (40 CFR 279) *Standards the Management of Used Oil*
- Refer to the EPA's *Managing Used Oil: Advice for Small Businesses:* http://www.epa.gov/osw/conserve/materials/usedoil/usedoil.htm
- Contact the Georgia EPD Generator Compliance Program at 404-657-8831
- Contact the Filter Manufacturers Council by calling 1-800-99-FILTER (993-4583) or visiting http://www.aftermarketsuppliers.org/Councils/Filter-Manufacturers-Council
- Contact the Georgia Environmental Compliance Assistance Program (GECAP) at 404-407-8082 or send an email to Paige Rohrig at paige.rohrig@gtri.gatech.edu

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