



Standard Operating Procedure: Used Oil Disposal

Issue Date: 12/12/2024

Version: 5

Review Frequency:

Scope

The purpose of this procedure is to describe the proper means for handling and disposing of used oil from equipment maintenance operations, process procedures, and any other activities where used oils are generated. This procedure applies to the disposal of any used oil that is collected during normal work functions at UVA. Used oil includes:

- 1. Gasoline.** Volatile, flammable, it can be ignited by sparks and flames even at cold temperatures. Vapors can migrate to distant ignition sources and in poorly ventilated spaces, can accumulate to explosive levels. Typical gasoline contains about 150 different chemicals including benzene, toluene, and xylene.
- 2. Fuel oils.** Fuel oils such as diesel fuel are petroleum-based fluids which are somewhat volatile and flammable and can be ignited only when heated above 100F. Vapors can travel and flash from ignition sources and can accumulate to explosive levels in poorly ventilated areas. All fuel oils consist of complex mixtures of aliphatic and aromatic hydrocarbons such as kerosene, benzene, and styrene.
- 3. Lubricating oils.** Lubricating oils such as motor oil and hydraulic fluids are not volatile but are combustible. For lubricating oil to catch fire some other intense heat source (i.e., other materials on fire, hot engine manifold, etc.) must be present. Mineral-based lube oils are refined from petroleum or crude oil and contain additives such as lead or metal sulfide and other polymers.
- 4. Transformer oil.** Transformer oil conducts heat away from and insulates equipment used to convert electricity from high amperage to low amperage lines. Transformer oil is typically a liquid by-product of the distillation of petroleum to produce gasoline but may also be vegetable based.
- 5. Cooking oils and grease.** Cooking oils and grease are not volatile but they are combustible. With a 400F flashpoint, another heat source must be present for cooking oils or grease to catch fire. Vegetable oils contain esters which in high enough concentrations can form solvents that are strong enough to dissolve rubber and soft plastics. UVA Dine (Aramark) has a specialized Used Cooking Oil – UVA Dining SOP that should be followed at locations operated by Armark.

Responsibility

Anyone handling or disposing of used oil on UVA property must comply with this procedure.

Procedures

1. If personnel are unsure if the substances to be discarded are in fact oils, they should call Environmental Health and Safety (EHS) at 434-982-4911 for instructions. In addition, refer to the Safety Data Sheet (SDS) for the particular substance for relevant information regarding disposal. The EHS webpage provides access to a SDS database if one is not readily available.

Used Oil Disposal

2. During the collection of used oils for disposal, some basic principles should be followed:
 - a. Put used oil in a clean plastic or metal container in good condition and with a tight lid.
 - b. If the oil is hot, avoid sudden contact with other substances because mixing may cause ignition or the receiving container to fracture due to thermal shock.
 - c. Do not allow used fuel and used oils to mix with any other substances because unknown and dangerous chemical reactions may occur.
 - d. Keep used oils away from gas cylinders and gasoline.
 - e. Do not fill container to the top but allow a couple inches below the rim.
 - f. Label the container with contents, department, and contact information as specified in EHS Protocols. Call EHS at 982-4911 or appropriate disposal vendor for pick-up.
 - g. If any material is spilled, please contact EHS at 982-4911 or clean up the spill using spill kit materials as described in the UVA Spill Prevention Control and Countermeasures (SPCC) Plan or the Spill Response SOP.
3. Products such as rags or spill pads that are saturated with petroleum products require special handling and disposal by licensed transporters. Contact EHS for instructions. If the products have incidental amounts of oil (not dripping wet), they may be placed in a plastic bag and discarded in the general trash.