



WHAT TO DO WITH YOUR USED MOTOR OIL



WASTE GENERATION

Pennsylvania car and truck owners who change their own motor oil generate about 11 million gallons of used motor oil each year. Unfortunately, only 14 percent of this oil is recycled, leaving 9.5 million gallons dumped into sewers, on the ground or into the trash.

Activities that contribute to oil waste generation include cleaning engines and parts, replacing engine and transmission fluids, and repairing and maintaining equipment. Some waste oil is generated from spills and leaks that occur while repairing vehicles or from poorly maintained equipment. This waste can and should be reduced.

CONTAMINANTS

Used motor oil alone is not regulated as a listed hazardous waste by the Pennsylvania Department of Environmental Protection (DEP). **Never** mix used motor oil with other substances like gasoline, paint solvents or pesticides; this creates hazardous waste. Used motor oil destined for disposal would be considered a characteristic hazardous waste if tested and found to contain excessive levels of certain contaminants, such as lead, arsenic, cadmium or chromium.

Anyone handling used motor oil should do so carefully, and thoroughly wash it from the skin afterward.

DISPOSAL

Disposing of used motor oil by pouring it into storm or sewer drains, dumping it onto the ground, or placing it with household trash may create risks to public health and the environment.

Public health is threatened if rainwater carries heavy metal contaminated oil into underground streams and contaminates drinking water. It is extremely difficult to clean up groundwater once it has been contaminated. Surface runoff from ground disposal and oil poured down drains often leads to water treatment plants, streams or rivers, which can also affect drinking water supplies. Used motor oil from a single oil change, improperly managed, can impair a million gallons of fresh water - a year's supply for 50 people.

Used motor oil dumped or drained in surface water also harms wildlife. In addition, oil also depletes the oxygen supply of fish and other aquatic life, and hinders the ability of birds to fly. When plants are grown in soil or fed by water contaminated by used motor oil, they absorb (or bioaccumulate) the high concentrations of heavy metals. Plants used for food or fodder should never be grown in soil contaminated with used motor oil. One of the indirect risks of such environmental dangers is the poisoning of the food chain, which ultimately affects human health.

If unable to recycle your used motor oil, place it in a safe, tightly closed container and *identify it* for municipal trash collection.

RECYCLING — REPROCESSING & RE-REFINING

Recycling oil preserves the environment and saves energy. If every Pennsylvanian who changed his or her own oil recycled it, we could save more than half a million barrels each year. Recycling used motor oil also reduces the need to import foreign oil and the risk of oil spills.

The most common method of recycling is reprocessing. Industrial techniques such as adding heat and/or chemicals, the evaporation of water content, filtration, sedimentation, centrifuge separation and vacuum distillation can all be applied to used motor oil to prepare it for blending with virgin oil for use as industrial grade fuel oil.

Only small quantities of the used motor oil generated in Pennsylvania are re-refined. Used motor oil, when re-refined, can be recycled over and over again without losing its lubricating quality. After rerefining, about 60 to 70 percent of the oil is nearly identical to newly refined oil and can be used as lubricating oil. The remaining oil and the waste byproduct can be used as fuel oil and asphalt extender. To produce 2.5 quarts of lubricating oil, it takes 42 gallons of crude oil, but only one gallon of used motor oil.

LABELING REQUIREMENTS

Labeling provisions require used motor oil to be labeled as "waste oil" in containers and on pipes into storage tanks.

TIPS FOR HOME MECHANICS

If you maintain your own family vehicles, here are some tips for changing and recycling oil:

- Place a drip pan directly under the vehicle's oil pan plug to collect as much of the oil as possible and prevent spills.
- Loosen the old oil filter (use a filter wrench if necessary), then spin it off and drain as much oil as possible out of the filter into your drip pan.
- Pour the used motor oil into a clean, empty, plastic container with a tight lid. DO NOT MIX IT WITH ANY OTHER SUBSTANCES.
- Locate your nearest used motor oil collection site and recycle the used motor oil.

TIPS FOR COMMERCIAL GENERATORS

If you maintain commercial vehicles such as farm equipment, buses, taxis, trucks, etc., here are some tips for recycling used motor oil:

- Use a lockable oil storage tank to prevent unauthorized dumping. Avoid leaks and spills and ensure compliance with local fire and safety regulations.
- Used motor oil mixed with other materials (e.g., some degreasers and solvents) may have to be managed as hazardous waste.
- Using absorbent materials, such as sawdust to soak up oil spills and leaks, keeps the repair area clean and helps prevent personal injury. The used materials must be disposed of as residual wastes.
- Questions about hazardous wastes may be directed to the Pennsylvania Environmental Council's toll-free Hazardous Materials Hotline at 800-322-9214.
- Practice energy recovery by burning used motor oil in an on-site heating unit that satisfies air quality and ventilation regulations. This can reduce heating costs significantly.

- Research the oil filtration systems available on the market. They keep lubricating oil clean and extend oil change intervals.
- Local businesses with vehicle fleets may recycle used motor oil at an UMOCS. If you cannot locate a nearby UMOCS, contact the DEP Recycling Hotline at 800-346-4242. The staff at the hotline can also provide a list of used motor oil haulers and recyclers in your area.
- If your business accepts used motor oil for recycling, make sure all of your employees are aware of the program and are able to inform customers of details. If you would like to start an oil recycling program, contact DEP's Used Motor Oil Information Center, P.O. Box 8472, Harrisburg, PA 17105-8472; 717-783-6004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTE MANAGEMENT P.O. BOX 8472 Harrisburg, PA 17105-8472

DIVISION OF REMEDIATION
SOUTHCENTRAL REGION, HARRISBURG
NORTHCENTRAL REGION, WILLIAMSPORT
SOUTHWEST REGION, PITTSBURGH

To learn where to recycle oil, or for more information, visit DEP's Web site at <u>www.depweb.state.pa.us</u>, Keyword: "Oil Recycling" or check <u>http://www.earth911.org/</u>.