



Lesson Resources

Used Motor Oil Recycling

We love to drive. To the supermarket, to the mall, to school, to see friends, to get a pizza, to our job, to the beach or mountains and to a million places in between. We get in the car, buckle up and hit the road every day.

There are many responsibilities related to that privilege. Safety, for example. Buckle up. Slow down. Be careful. Another responsibility often forgotten is the environmental impact of driving. Cars and trucks, for example, release pollutants into the air. Cars and trucks use energy and they use motor oil. It's driven into you the moment you begin to drive: you have to change your oil periodically to maintain your vehicle and ensure that it runs properly. That's a lot of oil.

What do you do with your used motor oil after you change it? What can you do with it? What happens to it?

Why recycle oil?

- Recycling used motor oil protects human health and the environment by keeping it: from contaminating soil; out of rivers, lakes, streams and groundwater; and away from the beach, aquatic life and wildlife. The potential harm that improperly disposed of used oil may cause is staggering. One gallon of used motor oil improperly disposed of may contaminate 1 million gallons of fresh water – enough to supply 50 people with drinking water for one year. One pint of used motor oil improperly disposed of can create a 1-acre slick on the surface of a body of water and kill floating aquatic organisms.
- Recycling used motor oil also saves valuable energy. Two gallons of used motor oil can generate 36-kilowatt hours of electricity. That's enough to run an average household for a day, cook 36 meals in a microwave, blow dry your hair 216 times, vacuum your house for 15 months or run your TV for 180 hours.
- Recycling used motor oil also helps to reduce dependency on foreign oil. Oil is the No. 1 source of energy for the United States, supplying more than one-third of the nation's overall energy needs according to the American Petroleum Institute. About 43 percent of the oil we consume is produced in the United States while the rest is imported.

What happens to recycled motor oil?

Recycled motor oil can be used in a variety of ways. Most is processed for use in asphalt plants, industrial and utility boilers, steel mills and other facilities. Some is re-refined for use as a new generation of motor oil or as fuel oils. The rest is used in specially designed space heaters in

Recycling motor oil is the **LAW** in South Carolina.

That's right. In South Carolina, it's the law.

The S.C. Solid Waste Policy and Management Act of 1991 (Act) banned the disposal of motor oil in municipal solid waste (MSW) landfills after May 27, 1992.

The Act prohibits the disposal of oil into sewers, drainage systems, septic tanks, surface water or groundwater and on the ground.

The Act also prohibits the use of oil for road oiling, dust control, weed abatement and other uses that have the potential to harm the environment.

It must be recycled. If you have your oil changed for you (at a car dealership, garage or quick lube), your used motor oil is recycled by that business. If you change your own oil, you must recycle that used motor oil.

For more information about the recycling of used motor oil, filters or bottles in South Carolina including the nearest collection site, call 1-800-768-7348 or visit www.scdhec.gov/recycle.

automotive bays and municipal garages. The oil helps these types of facilities reduce their heating costs. This practice, however, is not recommended for home use.

Most of the oil collected from DIYers in South Carolina is burned for energy recovery to generate electricity by Santee Cooper, the state-owned utility. Santee Cooper estimates that it has collected more than 25 million gallons of used motor since 1990 (collected from DIYers and businesses) – enough to provide electricity to every average-sized home in South Carolina for six days.

South Carolina has a slick program targeting DIYers.

The U.S. Environmental Protection Agency estimates that the largest single source of oil pollution harming our nation's waters is from DIYers. In fact, it is estimated that about 185 million gallons of used motor oil are improperly disposed each year – poured in storm drains or the sewer, dumped on the ground and tossed in the trash.

The good news – no, great news – in South Carolina is that the state has developed one of the nation's best and most comprehensive programs targeting DIYers. A used oil recycling program for DIYers began in South Carolina in 1990 when Santee Cooper collected nearly 3,000 gallons of used oil from eight locations. In 1991, Santee Cooper expanded the Give Oil for Energy Recovery (GOFER) program throughout the state. Following the passage of the Act, the S.C. Department of Health and Environmental Control's (DHEC) Office of Solid Waste Reduction and Recycling

(Office) began providing grant funding and technical assistance to local governments to set up used motor oil recycling centers. The combined efforts have resulted in one of the nation's top overall programs.

In fiscal year 2014 (July 1, 2013 to June 30, 2014), DIYers in South Carolina recycled 951,531 gallons of used motor oil at more than 920 collection sites throughout the state.

Used motor oil filters and bottles also are collected from DIYers in most counties. Used motor oil filters are banned from MSW landfills unless "hot drained" or crushed to their smallest practical volume. The used motor oil filter recycling program began in 1994 with just three counties collecting filters. This is an important part of the overall recycling program because filters can contain from 4 ounces to 1 quart of oil. Most of the filters recycled in South Carolina are sent to several steel mills located in the state and made into new steel products.

South Carolina became one of the first states to collect used motor oil bottles, beginning a program in 1995 with two counties. Bottles are an important target for recycling for two reasons. First, oil bottles are made from a plastic that is recyclable in most local programs. Second, each bottle can contain as much as one ounce of oil that should be recovered before recycling. In addition the program offers recycling locations for farmers and for oil/gasoline mixtures.

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