



South Carolina
USED MOTOR OIL RECYCLING
Annual Report • Fiscal Year 2019



S.C. Department of Health and Environmental Control's Office of Solid Waste Reduction and Recycling

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About This Report

The S.C. Solid Waste Policy and Management Act of 1991 (Act) – S.C. Code of Laws § 44-96-160 – requires the S.C. Department of Health and Environmental Control (DHEC) to publish an annual report on the state’s used motor oil recycling programs for do-it-yourself (DIY) oil changers.

The report – which must be submitted by July 1 to the Governor and General Assembly – must include:

- **The number and location of used motor oil collection sites for DIYers in each county;**
- **The amount of used motor oil collected in each county; and**
- **A summary of grant funding provided by DHEC’s Office of Solid Waste Reduction and Recycling to local government used motor oil collection programs.**

This report reflects activities for fiscal year (FY) 2019 (July 1, 2018 to June 30, 2019).

Why oil?

Used motor oil is insoluble, slow to degrade, sticks to everything from beach sand to a bird’s feathers, and can contain toxic chemicals and heavy metals. If improperly disposed of, it is a risk to soil, waterways, drinking water sources, animals, plants and aquatic life.

SOURCE: U.S. Environmental Protection Agency



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RECYCLE USED OIL

IT'S A **DO-IT-YOURSELF** THING

This campaign – developed by DHEC’s Office of Solid Waste Reduction and Recycling – is designed to prevent the illegal disposal of used motor oil and filters by working with local governments and other stakeholders. The primary goals of the campaign are to:

- **Provide and maintain a statewide network of convenient collection centers** for DIY oil changers to recover used motor oil, filters and bottles;
- **Increase awareness of the environmental impact of the improper disposal of used motor oil and filters** through outreach initiatives to residents and students; and
- **Offer grant funding to local government programs** for the safe and efficient collection and pickup of this material.

Acknowledgements

The “Used Motor Oil Recycling Annual Report for Fiscal Year 2019” is published by DHEC’s Office of Solid Waste Reduction and Recycling. The report is submitted in compliance with the Act. In addition, Act 119 of 2005 mandates that agencies provide all reports to the General Assembly in an electronic format.

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Introduction

Thousands of do-it-yourselfers (DIYers) in South Carolina change their own motor oil. If you're one of them, you can help conserve a valuable resource and protect the environment by recycling used oil from your car, truck, motorcycle, boat, recreational vehicle or lawnmower. What happens to that used motor oil plays an integral role in preventing pollution and conserving resources.

The improper, illegal disposal of used motor oil can cause significant harm to the environment – particularly South Carolina's waterways. It doesn't take much either. One gallon of motor oil dumped in a storm drain, on the ground or in a stream can pollute 1 million gallons of fresh water – enough drinking water for 50 people for a year according to the U.S. Environmental Protection Agency (EPA).

If recycled, however, used motor oil can be re-refined into a base stock for lubricating oil – a process very similar to the refining of crude oil. Cement kilns and power plants, for example, can safely burn used motor oil to create energy. On a lesser scale, small quantities of used motor can be burned in specially designed heaters.

South Carolina addresses used oil management through the S.C. Solid Waste Policy and Management Act of 1991 (Act) and Regulation 61-107.279 Solid Waste Management: Used Oil.

Used Oil Management in South Carolina

The proper management of used oil and filters is addressed by the Act – which makes the S.C. Department of Health and Environmental Control (DHEC) the lead agency on the issue. Key provisions of the Act require used oil and filters to be recycled and bans:

- The placement of used motor oil in municipal solid waste (household garbage) as well as

DHEC's Office of Solid Waste Reduction and Recycling

The Office is designed to provide technical assistance, outreach/education resources, and grant funding to local governments, schools, college/universities. To learn more, please visit www.scdhec.gov/recycle.

waters of the state, septic tanks and drainage systems;

- The disposal of used motor oil in landfills;
- The disposal of used motor oil filters in landfills – unless the filter has been crushed to the smallest volume possible and has been drained (filters can contain as much as 10 ounces of oil);
- The use of used motor oil for dust control, weed abatement, road oiling and other similar applications; and
- The collection, storage and transport of used motor oil that may endanger the public's health and welfare or the environment.

DHEC Responsibilities

DHEC – as authorized – developed regulations to implement provisions of the Act. For more information on Regulation 61-107.279 Solid Waste Management: Used Oil see page 7. The Act also charged DHEC with:

1. Setting up a statewide network of collection centers;
2. Providing local governments grant funding for collection centers and/or curbside pickup as well as appropriate equipment; and
3. Creating public education/outreach material to encourage and motivate residents to recycle used motor oil.

Lastly, the Act includes an advance recycling fee of 2 cents per quart charged at the wholesale level. The primary use of the fee is to provide funding for the requirements outlined above.

Used oil is a valuable resource.

Oil doesn't wear out. It just gets dirty. The used oil you take to a recycling center can be re-refined into new products.

In fact, one gallon of used motor oil provides the same 2.5 quarts of lubricating oil as 42 gallons of crude oil – while requiring less energy to produce it.

SOURCE: EPA

The Year at a Glance

In 1993, the S.C. Department of Health and Environmental Control, following guidelines established by the S.C. Solid Waste Policy and Management Act of 1991, began work with local governments to develop a statewide system of centers to collect used motor oil from residents.








In the past 27 years, South Carolina’s used motor oil recycling network has grown to be one of the nation’s most comprehensive and successful programs. Here are the key takeaways from fiscal year (FY) 2019 (July 1, 2018 to June 30, 2019).

- County and municipal governments provided **553 used motor oil collection sites** for DIYers (including farmers) in FY19 with about 400 additional locations offered by retailers such as Advance Auto Parts, Auto Zone, NAPA Auto Parts, O’Reilly Auto Parts, Pep Boys, Walmart and Jiffy Lube to residents at no charge.
- **DIYers recycled a reported 954,057.88 gallons** of used motor oil in FY19 – a slight decrease of 6,452 gallons (0.67 percent) from the previous FY. See page 5 for yearly totals. Greenville County led the state in oil collected with 86,119 gallons

followed by Oconee (63,876 gallons) and Lexington (62,267 gallons) counties. Horry County offered the most collection sites with 26.

- **All 46 counties accepted used motor oil and filters** from residents while 41 counties accepted used oil bottles and 33 counties accepted oil/gasoline mixtures. In FY19, **1,936.98 tons of used motor oil filters** were collected. Used motor oil bottles are collected with other plastic bottles so the number recycled is not available.
- DHEC awarded **\$704,714.79 in grant funding** to local government programs in FY19 to purchase equipment and supplies for their used motor oil collection sites. Grants also were used to fund the recycling of used motor oil filters, public outreach and professional development to local government solid waste professionals.

For all of the information required by law to be reported by county (as outlined on page 2 in “About This Report”), please review the Used Oil Recycling: The Counties at a Glance table on the following page.

<h2>By the Numbers</h2> <p>*SOURCE: S.C. Department of Motor Vehicles</p>		 <p>More than 3.1 million private passenger vehicles registered in South Carolina*</p>
 <p>1,937 tons of used motor oil filters were collected in FY19.</p>	 <p>25 million gallons of used motor oil from DIYers have been collected since 1992.</p>	 <p>954,057.88 gallons of used motor oil from DIYers were recycled in the state during FY19.</p>
 <p>8,547 tons of used oil filters were recycled in the past five years.</p>		 <p>Nearly 4.5 million vehicles were registered overall in South Carolina.*</p>
 <p>More than 900 used motor oil collection sites were available to DIYers in FY19.</p>		

Used Oil Recycling: The Counties at a Glance

Collection Sites, Oil Collected by Tons/Gallons, Filters Collected by Tons and Grants Awarded in FY19

GRANTEE	NO. OF SITES	TONS OF OIL*	GALLONS OF OIL	TONS OF FILTERS	GRANT AMOUNT
Abbeville	11	23.01	6,078.55	1.78	\$6,400.00
Aiken	11	168.57	44,531.14	6.98	\$29,350.00
• City of Aiken	●	●	●	●	\$3,750.00
Allendale	5	0.00	●	0.08	\$0.00
Anderson	18	117.11	30,936.95	3.71	\$10,445.00
Bamberg	8	14.36	3,793.48	0.00	\$3,050.00
Barnwell	12	62.47	16,502.70	0.00	\$0.00
Beaufort	11	141.56	37,395.91	385.44	\$75,751.00
Berkeley	10	108.00	28,530.36	8.31	\$24,030.00
Calhoun	10	22.72	6,001.94	0.00	\$0.00
Charleston	9	185.19	48,921.64	16.52	\$11,987.39
Cherokee	13	24.03	6,348.01	2.41	\$7,750.00
Chester	12	68.02	17,968.84	1.90	\$5,250.00
Chesterfield	15	5.66	1,495.20	4.10	\$3,114.00
Clarendon	15	66.83	17,654.48	2.96	\$6,586.00
Colleton	15	36.07	9,528.61	7.52	\$5,220.00
Darlington	14	43.22	11,417.43	17.92	\$44,150.00
Dillon	12	44.32	11,708.01	5.56	\$7,138.00
Dorchester	12	106.48	28,128.82	6.45	\$7,096.20
Edgefield	8	35.63	9,412.38	0.65	\$0.00
Fairfield	12	55.14	14,566.33	3.70	\$24,022.00
Florence	15	87.43	23,096.38	30.76	\$18,395.00
Georgetown	15	108.42	28,641.31	10.09	\$29,550.00
Greenville	7	326.00	86,119.42	1,481.00	\$8,820.00
• City of Greenville	●	●	●	●	\$3,750.00
Greenwood	9	43.66	11,533.66	1.18	\$5,477.70
Hampton	11	21.16	5,589.84	1.09	\$7,550.00
Horry	26	7.12	1,880.89	305.01	\$41,500.00
• City of Myrtle Beach	●	●	●	●	\$750.00
Jasper	6	27.45	7,251.47	3.43	\$0.00
Kershaw	10	116.45	30,762.60	4.56	\$13,115.00
Lancaster	13	55.98	14,788.24	1.71	\$10,000.00
Laurens	11	53.00	14,001.01	1.06	\$37,905.00
Lee	10	5.15	1,360.48	1.56	\$0.00
Lexington	11	235.71	62,267.51	1,027.91	\$15,824.00
Marion	6	10.86	2,868.89	5.10	\$3,362.50
Marlboro	5	10.30	2,720.95	6.54	\$15,110.00
McCormick	4	11.90	3,143.62	0.18	\$0.00
Newberry	12	24.86	6,567.27	3.91	\$8,010.00
Oconee	15	241.80	63,876.31	28.94	\$13,750.00
Orangeburg	23	194.18	51,296.53	4.12	\$10,150.00
Pickens	12	130.40	34,447.77	11.01	\$15,550.00
Richland	12	4.50	1,188.77	161.18	\$15,010.00
• City of Columbia	●	●	●	●	\$4,750.00
Saluda	7	27.98	7,391.48	0.15	\$0.00
Spartanburg	22	183.40	48,448.78	10.12	\$8,750.00
• City of Spartanburg	●	●	●	●	\$4,750.00
Sumter	12	83.59	22,081.97	8.66	\$30,196.00
• City of Sumter	●	●	●	●	\$2,750.00
Union	8	21.00	5,547.57	0.13	\$7,880.00
Williamsburg	20	55.66	14,703.70	4.60	\$51,320.00
York	18	195.18	51,560.70	26.68	\$13,550.00
• City of Rock Hill	●	●	●	●	\$7,725.00
Three Rivers SWA ¹	●	●	●	●	\$15,675.00
Tri-County SWA ²	●	●	●	●	\$8,700.00
STATE TOTAL	553	3,611.53	954,057.88	1,936.98	\$704,714.79

1. The Three Rivers Solid Waste Authority (SWA) provides solid waste management services to local governments in Aiken, Allendale, Bamberg, Barnwell, Calhoun, Edgefield, McCormick, Orangeburg and Saluda counties.

2. The Tri-County SWA provides solid waste management services to local governments in Edgefield, McCormick and Saluda counties.

● Collection sites and/or used motor oil collected by a municipality are included in the county's total.

* Used oil is reported in tons and converted into gallons (1 ton = 264.17 gallons)

Used Motor Oil Collected by Year from DIYers

County governments are required to report the amount of used oil recovered at its collection centers set up for do-it-yourself (DIY) oil changers. Retail establishments are encouraged but not required to report. Because this reporting is voluntary, the data collected from these sources is inconsistent and results in under reporting. Overall, between 1992-2012 data was reported by calendar year and changed to fiscal year (FY – July 1 to June 30) in 2013.

Total Gallons of Used Motor Oil Collected by Calendar Year (CY) in South Carolina	
CY	GALLONS
1992	256,025
1993	485,073
1994	600,320
1995	723,780
1996	747,886
1997	828,113
1998	923,962
1999	1,017,877
2000	1,130,857
2001	1,147,500
2002	1,160,865
2003	1,142,199
2004	1,164,835
2005	1,066,336
2006	1,002,066
2007	1,000,527
2008	957,708
2009	995,340
2010	984,437
2011	964,623
2012	705,141
TOTAL	19,005,470



Total Gallons of Used Motor Oil Collected by Fiscal Year (FY) in South Carolina	
FY	GALLONS
2013	828,838
2014	951,531
2015	711,411
2016	888,079
2017	917,174
2018	960,246
2019	954,097
TOTAL	6,211,376
TOTAL FOR CY & FY	25,216,846

Santee Cooper GOFER Program

Santee Cooper continued to be an integral player in South Carolina’s used oil recycling network in FY19. The utility’s Give Oil For Energy Recovery (GOFER) program picked up 492,379 gallons of used oil from DIY collection sites.

Overall, Santee Cooper recovered more than 1 million gallons of used oil from industries, commercial operations and farms in FY19 and more than 30 million gallons since the program began in 1990.

The majority of the used oil collected through GOFER is burned as a supplemental fuel at the utility’s

Winyah Generating Station to make electricity for South Carolinians. The oil replaces the use of coal and provides environmental and performance benefits.

In addition, recovered oil is used by Chargeurs Wool USA, Inc. in Jamestown as a fuel source for a boiler. Any oil not used to make electricity is recycled.

For more information on the GOFER program, visit www.santeecooper.com.



Additional Resources

The proper management of used oil in South Carolina is outlined in the S.C. Solid Waste Management Act of 1991 – S.C. Code of Laws 44-96-160 – and Regulation 61-107.279 with the overall goal to reduce improper and illegal disposal, encourage recycling and reuse, and minimize any impact on the environment.

The S.C. Department of Health and Environmental Control (DHEC) oversees this program through permits, inspection and enforcement. DHEC's Office of Solid Waste Reduction focuses on local government programs for do-it-yourself (DIY) oil changers through technical assistance, outreach/education programs and grant funding.

The regulation includes standards on:

- **Used oil generators;**
- **Used oil collection centers and aggregation points;**
- **Used oil transporters and transfer facilities;**
- **Used oil processors/re-refiners;**
- **Used oil (off-specification) burners;**
- **Used oil fuel marketers;**
- **Disposal of used oil;**
- **Used oil filter management;**
- **Monitoring;**
- **Violations and penalties; and**
- **Retail sales requirements.**

Used oil is banned from South Carolina's landfills – it must be recycled. Used oil filters – with limited exception – are banned from landfill disposal and must be recycled.

Web Links

Here are links to additional information.

- S.C. Solid Waste Policy and Management Act of 1991 – www.scstatehouse.gov/code/t44c096.php
- Regulation 61-107.279, Solid Waste Management: Used Oil – www.scdhec.gov/environment/land-management/solid-waste/used-oil
- Information for do-it-yourself (DIY) oil changers – www.scdhec.gov/usedoilrecycling
- County-by-county used oil collection centers for DIYers – www.scdhec.gov/recyclehereSC
- Retail locations that accept used oil from DIY oil changers – www.irecycleoil.com
- Basic information on used oil management at home – www.epa.gov/recycle/managing-reusing-and-recycling-used-oil
- Basic information on used oil management for businesses – www.epa.gov/hw/managing-used-oil-answers-frequent-questions-businesses
- S.C. Hazardous Waste Management Act – www.scstatehouse.gov/code/t44c056.php
- Regulation 61-79, Hazardous Waste Management – www.scdhec.gov/sites/default/files/media/document/R.61-79_0.pdf

Recycled oil counts.

All recovered used oil is counted as part of South Carolina's municipal solid waste recycling totals. Used oil is reported in tons and converted to gallons using the U.S. Environmental Protection Agency's measurement of 1 ton equals 264.17 gallons.

Don't forget the filter.

Filters – which are comprised mostly of steel – can be recycled and turned into cans, cars, appliances and more.

SOURCE: Steel Recycling Institute





Table Rock State Park near Pickens, SC

***Recycling just 2 gallons of used oil can generate
enough electricity to run the average household
for almost 24 hours.***

– American Petroleum Institute