

National Used Oil Collection Study

**August 1997
Addendum**

Publication No. B1830A



Let's Do It Again.

Call your local Recycling Coordinator or any participating full service gasoline station for more information about recycling your used motor oil.



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COMING SOON

Consumer Materials:

Mini-Posters

***“Let’s Do It Again” and
“Put It To Good Use Again”***

Colorful 8 x 11 mini-posters for dealers, service stations, retail outlets, etc. to promote recycling of used oil. These posters can be imprinted with an “800” number or a specific drop-off location address.

Decals

Colorful peel-off decals promoting the recycling effort can be placed on doors, windows, etc.

****See sample pictures.**

**On Page 30 of the May 1996 “National Used Oil Collection Study”
edition, titled “Table 13 - States with Oil Collection Hotlines”, the state
of Texas has a new “Hotline” number. The correct number is:**

**888-TXCRUDE
(888-892-7833)**

On Page 53 of the May 1996 "National Used Oil Collection Study" edition, titled "Table 19 - Used Oil Filter Regulation Summary", the following list of states has new contact persons and/or new phone numbers:

Alabama	-	Terry Shipman (334) 271-7700
Alaska	-	No name or number currently available
Arkansas	-	No name or number currently available
California	-	Sue Tracy (916) 324-1780
Connecticut	-	George Dews (860) 424-3572
Hawaii	-	John Harder (808) 586-4240
Illinois	-	Mark Schallenberger (217) 524-3307
Indiana	-	Lee Parsons (317) 232-4402
Missouri	-	John Beard (573) 751-3176
Montana	-	Rick Thompson (406) 444-4323
Nebraska	-	Dave Johnson (402) 471-4210
New Jersey	-	Voice Mail Option #1 (609) 292-8341

New Mexico	-	Cathy Tyson (505) 827-2860
New York	-	Bill Morabile (518) 485-8988
North Carolina	-	Jim Edwards (919) 733-4996
Oklahoma	-	Kevin Samson (405) 745-7106
Oregon	-	Rick Volpel (503) 229-6753
Tennessee	-	No name or number currently available
Texas	-	Jane Scheidler (512) 239-6156
Utah	-	Sharrel Praul (801) 538-6170
Virginia	-	No name or number currently available

On Pages 227 thru 243 of the May 1996 “National Used Oil Collection Study” edition, the educational materials shown are no longer available. The newly designed “Used Oil T-Shirt”, made of recycled materials, is shown in the attached picture along with an order form.

“THE USED OIL T-SHIRT”

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\$18.00 per shirt*
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Quantity	Order Number	Title	Unit Price	Total	SO*
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Rush shipping charge (see left)

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National Used Oil Collection Study

MAY 1996



STEP

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The members of the American Petroleum Institute are dedicated to continuous efforts to improve the compatibility of our operations with the environment while economically developing energy resources and supplying high quality products and services to consumers. The members recognize the importance of efficiently meeting society's needs and our responsibility to work with the public, the government, and others to develop and to use natural resources in an environmentally sound manner while protecting the health and safety of our employees and the public. To meet these responsibilities, API members pledge to manage our businesses according to these principles:

- To recognize and to respond to community concerns about our raw materials, products and operations.
- To operate our plants and facilities, and to handle our raw materials and products in a manner that protects the environment, and the safety and health of our employees and the public.
- To make safety, health and environmental considerations a priority in our planning, and our development of new products and processes.
- To advise promptly appropriate officials, employees, customers and the public of information on significant industry-related safety, health and environmental hazards, and to recommend protective measures.
- To counsel customers, transporters and others in the safe use, transportation and disposal of our raw materials, products and waste materials.
- To economically develop and produce natural resources and to conserve those resources by using energy efficiently.
- To extend knowledge by conducting or supporting research on the safety, health and environmental effects of our raw materials, products, processes and waste materials.
- To commit to reduce overall emissions and waste generation.
- To work with others to resolve problems created by handling and disposal of hazardous substances from our operations.
- To participate with government and others in creating responsible laws, regulations and standards to safeguard the community, workplace and environment.
- To promote these principles and practices by sharing experiences and offering assistance to others who produce, handle, use, transport or dispose of similar raw materials, petroleum products and wastes.



National Used Oil Collection Study

Manufacturing, Distribution and Marketing

MAY 1996

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Suggested revisions are invited and should be submitted to the director of the Manufacturing, Distribution and Marketing Department, American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005.

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Executive Summary

OBJECTIVES OF THE STUDY

The purpose of this study was to review the status of used engine oil collection in the United States. By conducting the study, the American Petroleum Institute wished to document state efforts to collect oil and the outcomes of such efforts. By doing so, the Institute hoped to provide examples of how used oil collection can be successful as well as warning of the pitfalls that should be avoided based on the experiences of other states.

An early objective of the study was to evaluate the existence and success of programs on a state-by-state basis. Unfortunately, other than in general terms, this task is impossible due to diverse data collection methodologies utilized by the states. Even in well-established programs, data about used oil collection is acquired in a variety of different ways. For example, some states require collection centers to provide very specific data up to four times each year. Other states rely on data provided by used oil haulers, and this data almost always includes industrial, commercial, and vehicle used oils. As a result, comparability between states is difficult.

This study provides the best data available as of the summer of 1995. In an ideal situation, the costs of programs could be compared to the amount of used oil collected. However, with inconsistent data collection, this is impossible to do beyond determining, in general terms, a few factors that make programs more successful.

Initially, the developers of this study had hoped to rely solely on information provided by the states. However, other sources have been utilized in order to fill in any gaps that may have existed, to attempt to adjust any distorted data, and to provide a more complete picture of national used oil collection efforts. Other sources are indicated as they are discussed in the study.

OVERALL CONCLUSIONS

As of 1995, 30 states and the District of Columbia had at least some type of state-sponsored used oil program, with new states adding programs annually. Each year, more used oil is being collected from do-it-yourselfers (DIYers) throughout both the United States and Canada. States continue to work to develop the most effective and cost-efficient programs possible. Based on experiences from throughout the country, several key factors appear to be important to the success of used oil collection efforts: adequate public education; sufficient funding, particularly for grants to establish collection locations; and convenient collection points.

Many states indicated that DIYers do not recycle used oil due to a lack of convenience and a lack of public education. Barriers to establishing collection programs included a fear of contaminated oil, liability and lack of funding. Yet, when these obstacles are overcome, used oil collection from do-it-yourselfers can be quite successful.

When states have adequately funded grant programs for establishing used oil collection locations, both the total number of government-operated collection points and the quantity of oil collected increase. In addition, as spending on public education increases so does the number of public collection points, as more service and sales outlets become aware of the need for the proper disposal of used oil.

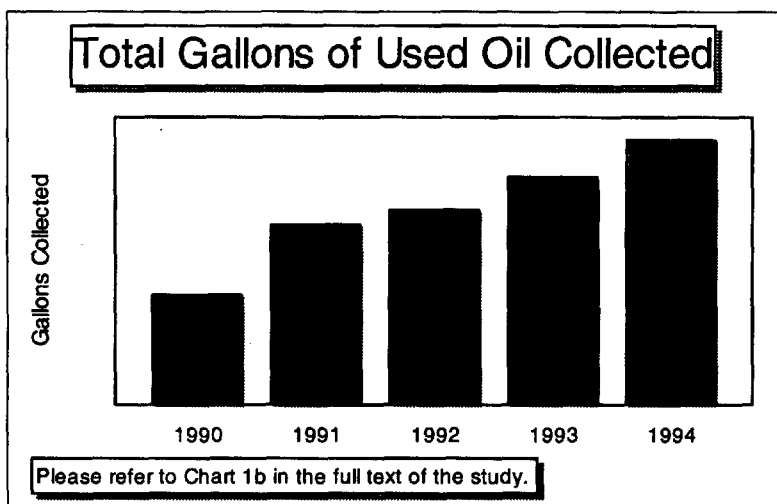
Public education through toll-free hotlines providing information about collection points also impacts overall collection rates in a positive manner. The 25 states with these hotlines, on average, collect twice as much used oil as states that do not have such efforts. Public education can also overcome other obstacles to collection, including the fear of

liability many companies have when deciding whether or not to accept used oil. To do so, states must strive to inform service outlets that both federal, and in some cases state, regulations exempt DIY collection points from certain liability that may be encountered when accepting oil from the public.

KEY FINDINGS

Collection Activities

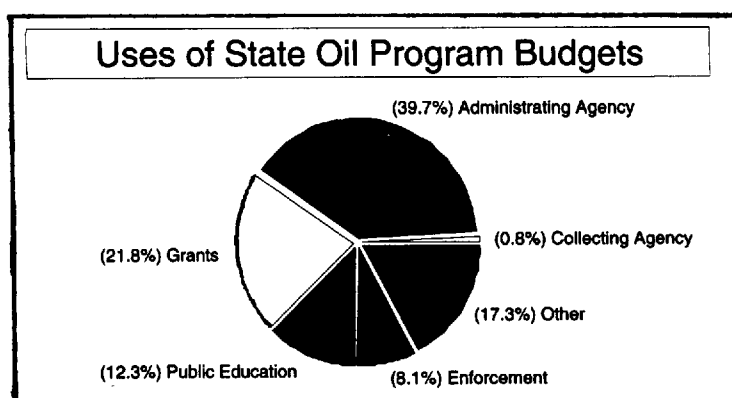
Thirty-two states reported a total of 2,927 oil collection locations operated by municipalities or other government entities. Thirty states indicated that 7,953 private businesses voluntarily accept used oil from do-it-yourselfers. Yet, the number of private collection points for used oil is actually much higher, with members of the American Petroleum Institute operating more than 10,000 collection points for used oil throughout the country.



Budgets for Used Oil Collection Programs

Thirteen states have specific used oil collection grants, and two more states are currently developing such programs. Recipients include local governments, nonprofit organizations, and private businesses. Fourteen other states have general recycling grants that may be utilized for used oil.

The most common sources of funding for used oil collection are general funds and some type of fee on the sale of lubricating oil. Specific state budgets for used oil collection range from as little as \$5,000 in Iowa to as much as \$22 million in California. States employ anywhere from less than one full-time employee to administer used oil collection programs to as many as 30 in California.



Barriers to Used Oil Collection

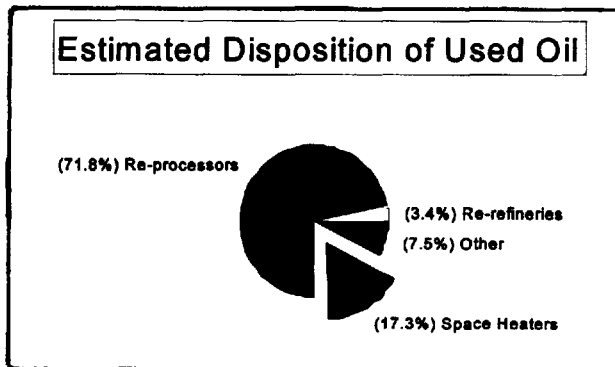
Of the states providing information, 82 percent indicated that lack of public education is a major reason why do-it-yourselfers do not participate in used oil collection programs. Even states already providing public education believe this is a key issue. Lack of convenient recycling centers was listed as a major obstacle to DIY participation by 91 percent of all states reporting. Finally, inadequate funding was listed as a major obstacle states must overcome by 47 percent of all states reporting. Not surprisingly, no state with a fee on the sale of lubricating oil listed inadequate funding as a barrier to used oil collection.

Regulatory Issues

Thirty states have adopted some version of the federal used oil management standards, although 12 states reported revisions. Eight other states plan to adopt the federal management standards. Five states (California, New Jersey, Vermont, Rhode Island, and Massachusetts) still list used oil as a hazardous waste.

Disposition of Used Oil

According to state-reported data, most used oil is re-processed and used as fuel. However, utilizing used oil directly in space heaters and re-refining are also common management practices. Twenty-four states have enacted some type of government purchasing preference for re-refined or re-processed used oil.



Oil Filter Recycling

Recycling of all types of oil filters (passenger car and heavy duty) exceeded 25 percent of all the oil filters sold in the United States by the end of 1995 based on projections from a survey conducted by the Filter Manufacturers Council. Thirty-six filter processors reported recycling approximately 56 million filters in 1994 and approximately 44 million during the first half of 1995. At least 33 other companies are processing used oil filters in the United States.

The United States Environmental Protection Agency does not ban filters from disposal in landfills if certain standards are followed. However, three states (Rhode Island, Texas, and Minnesota) have banned all oil filters from landfills, and Florida prohibits commercial generators from disposing of filters as solid waste. Officials from eight states (Arkansas, California, Connecticut, Minnesota, Oklahoma, Rhode Island, South Carolina, and Texas) and the District of Columbia indicated that formal oil filter collection programs are now in place.

DIY Oil Available for Collection

Approximately 240 million gallons of used oil was available for collection from do-it-yourselfers in the United States in 1993. Fewer drivers (approximately 50 percent) are changing their own oil due to an increase in the number of convenient oil change locations (i.e., quick lubes) and due to factors such as difficulty in changing one's oil due to new engine designs and the aging of the general population.

Methodology

To obtain data for this study, the Educational and Research Foundation of the Motor and Equipment Manufacturers Association developed a questionnaire that was mailed to every state, all Canadian provinces, and several U.S. territories. A copy of the survey instrument is enclosed as Appendix C. All 50 states, six Canadian provinces, the District of Columbia, and two U.S. territories provided information for the study. A number of the states provided additional materials, including lists of used oil collection sites, educational materials (see Appendix E), reports to state legislatures, and letters detailing their efforts.

After receiving the completed surveys, study personnel followed up with calls to almost all states to clarify any questions and verify data. A few questions lent themselves to data clarification in order to ensure that states reported in a consistent manner. These follow-up calls provided an abundance of qualitative data that may have not been obtained otherwise. For the most part, this data is included in each state's narrative.

The results of this survey were examined utilizing both spreadsheet programs and a statistical package. Information in the study was supplemented with pre-existing data from other state and national studies. These are noted throughout the contents of this document.

This is the first time a national study of this nature has been conducted. In many cases, states obtained data utilizing different methodologies, making comparability somewhat difficult. For example, New York state officials estimate total used oil collection sites by examining total used oil retail sales outlets (whether service providers or retailers/mass merchandisers). On the other hand, some states certify do-it-yourself (DIY) oil collection programs operated by government entities and have very specific data for collection. As another example, some states reported oil collected from only vehicle crankcases maintained by do-it-yourselfers (DIYers). On the other hand, some states reported total oil managed by certified collectors which could include crankcase oil from DIYers and service repair outlets, as well as industrial lubricants. These are but two examples of how difficult it is to compare aspects of various state programs.

This study represents a guide to national used oil collection efforts as of the summer of 1995 and should be utilized as such. One should note that the scope of this study is limited to used oil generated from vehicle engines, unless otherwise noted.

Collection Points in Operation

VOLUNTARY STATE COLLECTION PROGRAM LOCATIONS

The number of do-it-yourself (DIY) used oil collection points continues to grow each year. Thirty-two states reported specific data about collection centers operated by government entities, and 30 states with voluntary programs reported collection locations operated by private businesses.

The states providing data listed more than 2,900 collection points for used oil operated by local governments (i.e., public collection points operated by a municipality, county, or other government body). On the other hand, collection locations operated by private business number at least 7,953 across the country. Some states were unable to provide a breakdown of the type of center, but a total of at least 12,000 collection points for used oil exist in the United States.

MANDATORY STATE COLLECTION PROGRAM LOCATIONS

New Jersey officials estimated that there are 2,500 locations that should, by law, take back used oil. New York officials estimated that number at 10,000. However, it is unclear how many of the locations required, by law, to take back used oil are actually doing so. For example, Massachusetts has had a program requiring retail sales outlets to take back used oil since 1973. However, state officials do not believe this program is working and are drafting new regulations that would eliminate the take back requirement. A letter from Massachusetts officials regarding the state's proposed changes outlined the problems with their current program as follows:

The 1973 Used Oil Return Law requires all retailers selling motor oil to collect up to two gallons of used oil per person per day if the consumer has a receipt. The law has not been upheld by many retailers, who contest the requirement that small stores selling motor oil have a collection facility and trained personnel. Consumers complain about having to save their receipt in order to have the oil collected. And DEP has found enforcement of the law to be difficult due to inadequate staff to police the numerous retail outlets.

In addition, a 1994 investigative article by the Boston Herald found that mandatory collection efforts were less than successful with nearly half of all Boston-area oil sales outlets refusing to accept used oil as required by the current state law.

ADDITIONAL DATA

Specific information about state collection points and the amount of used oil collected per state can be found in Tables 1a, 1b and 2, as well as Charts 1a and 1b. In some cases, the total used oil collection includes oil generated from both vehicle and industrial sources.

COLLECTION EFFORTS BY THE PRIVATE SECTOR

The American Petroleum Institute tracks do-it-yourself used oil collection locations operated by its own members. As of mid-1995, the number of collection points operated by members of API stood at just over 10,000. These locations included company-owned

quick lubes accepting DIY oil, numerous service stations serving as DIY collection locations, and retail outlets being serviced by the environmental services divisions of the member companies.

These efforts have resulted in the collection of nearly 45 million gallons of DIY used oil in less than four years (1992 through June of 1995). The success rates of these private efforts continue to grow with just over 7 million gallons collected in 1992 and more than 16.4 million gallons collected in 1994. For specific details, please refer to Table 3—API Member Company DIY Collection Locations by Year and Chart 2—Gallons of Used Oil Collected by API Member Companies.

USE OF INCENTIVES TO INCREASE THE NUMBER OF PRIVATE COLLECTION CENTERS

Three states now provide incentives to do-it-yourself used oil collection centers operated by private businesses. For some time, Utah and California have remitted an incentive fee on each quart of oil sold back to businesses that collect DIY oil. For example, in California, manufacturers pay four cents per quart on every quart of motor oil sold in the state. A quick lube accepting DIY used oil can receive a four cent reimbursement on every quart of oil they utilize in changing oil in customers' vehicles at their location, plus four cents per quart of DIY oil collected. On average, the state of California will remit more than \$3 million back to businesses collecting DIY oil each year. California has 1,200 collection locations operated by private businesses alone. Recently, Texas added an incentive program for businesses collecting DIY used oil. During a sign-up program for new collection points late in the summer of 1995, the state added nearly 2,000 new collection locations, primarily quick lubes and other service repair outlets.

TYPES OF COLLECTION LOCATIONS FOR DIY USED OIL

States with Formalized Collection Programs

Most often states utilize two types of collection centers when administering used oil programs: service repair outlets and municipal collection points. Twenty-one of 28 states reporting indicated they utilize both municipal centers and service repair outlets for DIY collection. Retail parts outlets are utilized as DIY oil collection points in 19 states. Finally, 11 states utilize at least some curbside collection programs. States also listed landfills, transfer stations, marinas, and recycling centers as collection points. For specific information about each state, please refer to Table 4—Types of Collection Programs Utilized by States.

Collection Efforts by the Private Sector

Many private businesses are now collecting DIY oil, even in states without formal programs. Service stations are the most common location for private DIY oil collection points. State officials from 42 of the 44 states responding to this question indicated that service stations serve as collection points, followed by quick lubes (39 states), retailers and mass merchandisers (34 states), and vehicle dealerships (23 states). Other private businesses collecting used oil included landfills, general automotive repair outlets, waste collectors, and companies providing recycling programs for their employees. For specific information on private efforts reported by each state, please refer to Table 5—Types of Private Businesses Operating Collection Locations.

**Table 1a—Government-Run Used Oil (Drop-Off)
Collection Locations by State**

STATE	NO. OF CENTERS
Alabama*	50
Alaska*	5
Arizona	300
Arkansas*	9
California	300
Connecticut*	120
Delaware	45
District of Columbia	4
Iowa*	10
Louisiana*	50
Maryland	200
Massachusetts	118
Minnesota*	100
Montana*	56
Nebraska*	21
Nevada	2
New Hampshire	124
New Jersey	250
New York*	30
North Carolina	54
North Dakota*	25
Oklahoma	12
Oregon	123
Pennsylvania	50
Rhode Island	34
South Carolina	279
Tennessee	105
Texas	321
Utah	30
Vermont	38
Virginia	61
West Virginia	1
TOTAL REPORTED	2,927

*Estimated figure; n = 32 states reporting.

**Table 1b—Private Sector Used Oil
Collection Locations in States with Voluntary Programs**

STATE	NO. OF CENTERS
Alabama*	200
Alaska*	10
Arizona	10
Arkansas*	26
California	1200
District of Columbia	24
Iowa	840
Kentucky	273
Louisiana*	200
Maine	78
Maryland	400
Minnesota*	1200
Mississippi*	45
Montana*	15
Nebraska*	112
Nevada*	100
New Hampshire	21
North Carolina	294
North Dakota*	50
Ohio	190
Oklahoma	84
Oregon*	49
Pennsylvania	800
South Carolina	74
South Dakota	75
Tennessee	202
Texas	1027
Utah*	200
Virginia	100
West Virginia	54
Total Reported	7953

*Estimated figure; n = 30 states reporting.

Table 2—Total Gallons as Reported Collected by State by Year

At Government-Operated Collection Locations

State	1990	1991	1992	1993	1994	1995
Alabama	200,000	500,000	700,000	800,000		
Connecticut				721,714	735,054	
Washington, D.C.			40,000	60,000	60,000	
Delaware	16,811	61,143	75,980	67,650	97,790	
Maryland	145,153	323,408	482,019	507,777	575,391	300,000
North Carolina				391,178		
New Jersey	700,069	1,201,000	1,178,286	1,706,746		
Rhode Island	87,435	119,646	128,444	140,788	136,655	148,960
South Carolina			174,047	360,396	439,555	
Texas				82,503	361,010	
Washington			320,688	1,225,676		
Total	1,149,468	2,205,197	3,099,464	6,064,428	2,405,455	448,960

Total Gallons Collected

State	1990	1991	1992	1993	1994	1995
Alabama	7,800,000	7,800,000	8,000,000	8,200,000	36,000,000	
Arizona	6,900,000	7,300,000	7,900,000		11,400,000	
California	69,000,000	75,000,000	77,000,000	74,000,000	77,000,000	
Connecticut				10,345,766	735,054	
Washington, D.C.			120,000	135,000	146,000	
Delaware	16,811	61,143	75,980	67,650	97,790	
Florida		50,000,000	60,000,000	70,000,000	80,000,000	
Kentucky				10,001,511	11,339,521	
Maryland	145,153	323,408	482,019	507,777	575,391	300,000
Minnesota				4,500,000	4,500,000	4,500,000
North Carolina				391,178		
New Jersey	6,470,706	11,623,571	9,676,143	10,926,140		
New York						44,000,000
Oregon			529,737	592,964		
Rhode Island	87,435	119,646	128,444	140,788	136,655	148,960
South Carolina			256,034	485,073	600,320	
Texas				749,908	1,377,027	
Utah	3,657,672	4,249,043	4,361,569	4,904,042	5,709,792	
Virginia		2,493,867		6,793,600		
Washington			320,688	1,225,676		
Total	94,077,777	158,970,678	168,850,614	203,967,073	229,617,550	48,948,960

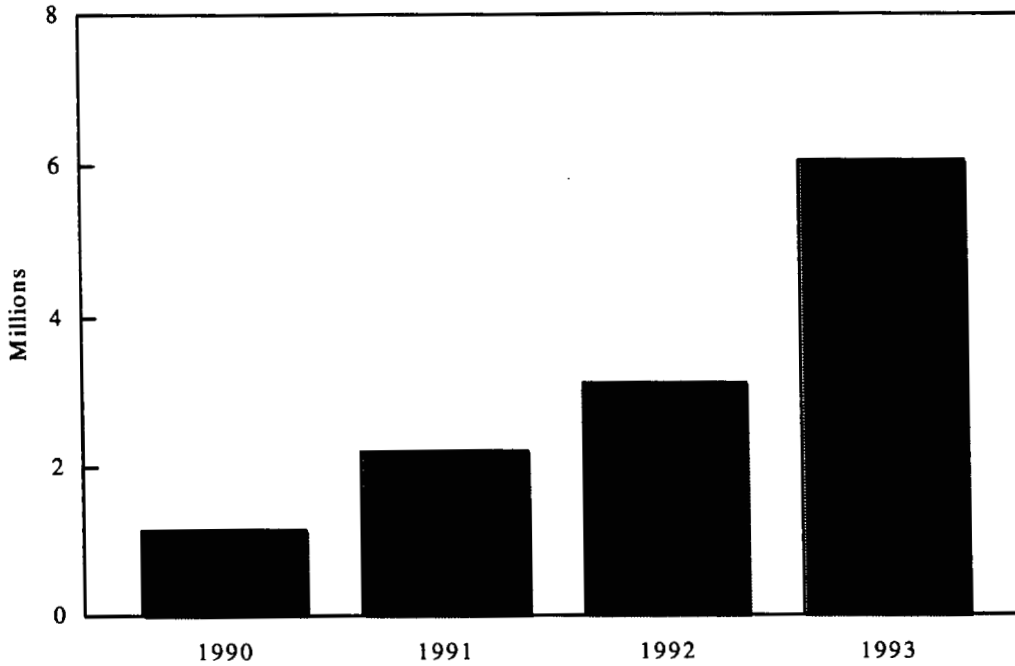
NOTE: 1995 figures are limited since most states had little (or only preliminary) data at the time of this survey

Many states also lacked complete data for 1994 public collection efforts.

NOTE: Total figures include data provided by used oil collectors and contains DIY oil, used oil collected at service repair outlets, plus industrial and commercially-generated used oil.

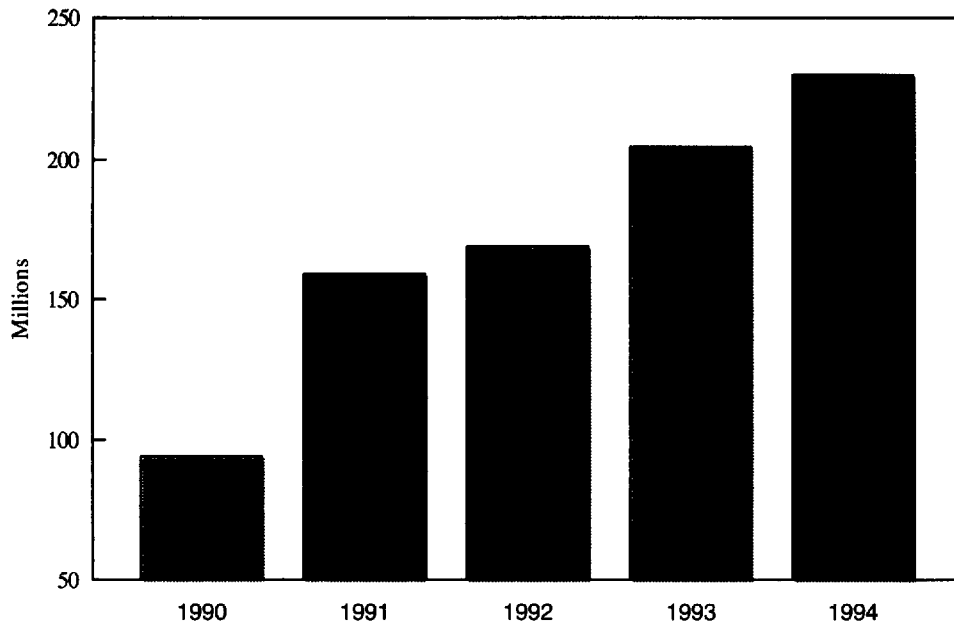
NOTE: Some states reported in fiscal years, as opposed to calendar years.

Chart 1a: Gallons Collected
By Government-Operated Locations



n = 11 states reporting.

Chart 1b: Total Gallons of Used Oil Collected



n = 19 states reporting.

Table 3—API Member Company DIY Collection Locations by Year

	Collection Centers				Gallons Collected				
	1993	1994	1995	1995*	1992	1993	1994	1995*	4-Year Total
Amoco	1,128	981	981	864,032	1,686,928	1,842,472	1,728,064	864,032	6,121,496
Ashland (Valvoline)	346	346	361	291,376	470,122	590,811	496,358	291,376	1,848,667
BP	555	555	555	171,600	284,856	367,965	343,200	171,600	1,167,621
Chevron	5	27	136	68,000	15,795	19,175	38,600	68,000	141,570
Conoco	3			2,160	1,050	1,110			2,160
Exxon	2,159	1,700	1,400	728,000	2,182,000	2,155,492	1,914,000	728,000	6,979,492
Evergreen				742,114		1,750,000	2,817,958	742,114	5,310,072
Marathon	224	231	231	103,950	46,120		138,600	103,950	288,670
Mobil	1,545	1,527	1,520	671,840	1,865,122	1,432,000	1,334,880	671,840	5,303,842
Pennzoil	411	425	425	265,200	128,325	176,082	524,160	265,200	1,093,767
Phillips	278	278	228	36,140	167,986	54,171	68,666	36,140	326,963
Quaker State (Q Lube)	88	185	228	30,648	5,311	17,190	29,642	30,648	82,791
Shell	192	192	192	45,000	71,576	92,660	90,000	45,000	299,236
Sun	189	344	344		37,440	24,920	24,570		86,930
Texaco	643	691	691	533,180	419,290	89,072	1,066,360	533,180	2,107,902
Unocal		42	42	7,000		14,000		7,000	21,000
Valvoline Env. Services		2,700	2,700	3,545,708		4,200,000	5,762,560	3,545,708	13,508,268
Witco	23	24	24	19,000	6,900	32,425	38,027	19,000	96,352
TOTAL	7,789	10,248	10,058	8,122,788	7,388,821	12,845,545	16,429,645	8,122,788	44,786,799
Safety-Kleen									1,140,000

*1995 figures represent first six months only.

Ashland and Quaker State figures represent company-owned instant oil change facilities.

Evergreen's figures represents DIY collection from retail outlets and other special efforts.

Valvoline Environmental Services' figures represents DIY collection from retail outlets and other special efforts.

Safety-Kleen is listed separately because there is no break down available for DIY gallons collected vs. service-installed gallons collected.

Chart 2-Gallons of DIY Used Oil Collected
by API Member Companies

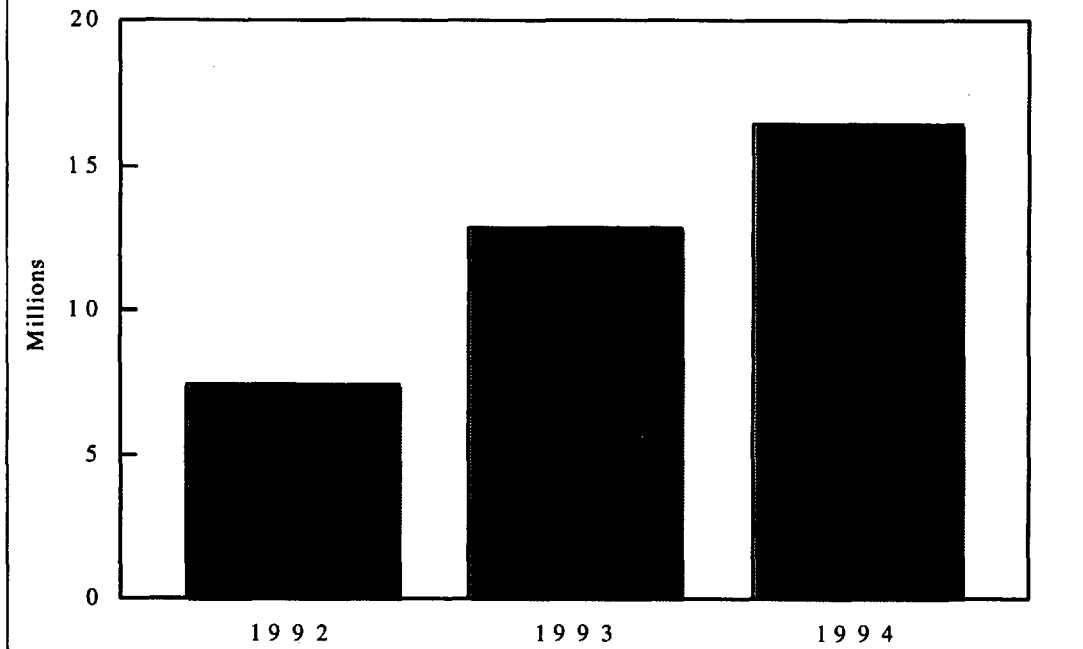


Table 4—Types of Collection Programs Utilized by States

State	Service Outlets	Municipal Centers	Retail	Curbside	Other
Alabama	X	X	X	X	
Arizona					
California	X	X	X	X	Private landfills, transfer stations, recycling centers.
Connecticut	X	X		X	
Delaware					
Dist. of Columbia		X			
Florida	X	X	X	X	
Iowa					Landfills, recycling centers.
Kentucky	X	X	X		
Louisiana	X	X	X	X	
Maine					
Maryland	X	X	X		Marinas.
Massachusetts	X	X	X		
Minnesota	X	X	X	X	
New Jersey	X	X	X		
New York	X	X	X	X	
Oregon			X	X	Public and private landfills.
Pennsylvania	X	X			
Rhode Island		X			
South Carolina	X	X	X	X	
South Dakota	X				
Tennessee	X	X	X		
Texas	X	X	X	X	
Utah	X	X	X		Municipal landfills, solid waste transfer sites.
Vermont	X	X	X		
Virginia	X	X	X		
West Virginia	X		X		
Wisconsin	X	X	X	X	
TOTAL	21	21	19	11	5

n = 28 states reporting.

Table 5—Types of Private Businesses Operating Collection Locations

State	Retailers/		Dealerships	Others	
	Service Stations	Quick Lubes			Mass Merch.
Alabama	X	X	X	X	
Alaska	X	X	X	X	
Arizona		X	X		
Arkansas	X	X	X		
California	X	X	X	X	Recycling centers.
Colorado	X	X	X	X	
Connecticut	X	X		X	
Delaware	X				
Dist. of Columbia	X	X			Landfills and recycling centers.
Florida	X	X	X	X	
Indiana	X	X		X	
Iowa	X	X	X		
Kansas	X	X	X		Other repair shops.
Kentucky	X	X	X	X	
Louisiana	X	X	X		Employee programs.
Maine	X	X	X		
Maryland	X				
Massachusetts	X	X	X		
Michigan	X	X			Convenience outlets.
Minnesota	X	X	X	X	
Mississippi	X	X	X		Waste disposal firms.
Missouri	X	X			Waste collectors.
Montana					State government offices.
Nebraska	X				Recycling centers.
Nevada	X	X	X		
New Jersey	X	X	X	X	
New Mexico	X	X	X	X	
New York	X	X	X	X	
North Carolina	X	X	X		
North Dakota	X	X	X	X	
Ohio	X	X	X	X	
Oklahoma	X	X	X		
Oregon	X	X	X	X	Private recycling centers.
Pennsylvania	X	X	X	X	Autobody repair shops.
South Carolina	X	X	X		
South Dakota	X	X		X	
Tennessee	X	X	X	X	
Texas	X	X	X		
Utah	X	X	X	X	
Vermont	X	X	X	X	
Virginia	X	X	X	X	Landfills.
Washington	X	X	X	X	
West Virginia	X		X		
Wisconsin	X	X	X	X	
TOTAL	42	39	34	23	12

n = 44 states reporting.

SPECIAL STATE EFFORTS TO ENCOURAGE USED OIL COLLECTION

Thirty states provided additional information about special efforts government officials have undertaken to collect DIY-generated used oil. These special efforts ranged from public education campaigns to periodic letters directed at service stations and retailers asking them to accept used oil. Other states listed grant programs as key special efforts to encourage used oil collection. For a list of the special efforts listed by each state, please see Table 6—Special Efforts by States to Encourage Used Oil Collection.

CURBSIDE COLLECTION

As noted above, officials from 11 states indicated that curbside used oil collection now exists somewhere within their boundaries. States where curbside efforts exist include: Alabama, California, Connecticut, Florida, Louisiana, Minnesota, New York, Oregon, South Carolina, Texas, and Wisconsin. While more expensive, such curbside programs have been successful due to the convenience offered to households. One of the primary obstacles to used oil collection in some states has been a lack of convenient collection points. This is not an issue when oil can be collected curbside. A study commissioned by California found that 70 percent of the public would recycle used oil if it was picked up at their house. Several cities in the state now provide curbside recycling.

The City of Houston has examined results for both curbside collection and drop-off centers. Since April of 1992, the city has provided a curbside recycling program to 32,000 households. In 1994, the program was expanded to include almost 90,000 homes. During 1992, the program's most successful month resulted in the collection of 626 gallons. However, the program's collection rate has increased over time, with 703 gallons collected in July of 1993, 2,960 gallons collected in September of 1994, and 2,975 gallons collected in July of 1995. Since its inception, the program has collected more than 46,000 gallons of oil from do-it-yourselfers. From September of 1994 to August of 1995, the program has collected at least 2,000 gallons in almost every month.

For a comprehensive overview of how to implement curbside collection, please refer to "A Guidebook for Implementing Curbside and Drop-off Used Motor Oil Collection Programs," published by the American Petroleum Institute in 1992.

Table 6—Special Efforts by States to Encourage Used Oil Collection

Alabama	Adopted used oil management standards. Project ROSE. Auburn Waste Oil Reprocessing Lab.
Alaska	Education efforts and technical assistance.
Arizona	Grants.
Arkansas	Three pilot used oil and used oil filter projects. Hope to show successes to other counties.
California	Statewide solicitation and establishment of centers. Statewide education program.
Delaware	Establishing more convenient drop-off centers.
Dist. of Columbia	Established public collection centers, education.
Florida	Formal education curriculum, public awareness campaign.
Iowa	Annual letters to retailers, landfills, etc. asking them to collect used oil.
Kentucky	Ads, employment of local officials to ID collection centers, counting used oil for recycling goals.
Maine	Periodic mailings to service stations, retailers, etc. to establish listing of collection sites.
Minnesota	Retail collection mandate (7/1/96), contamination fund, state superfund liability exemption.
Mississippi	Brochure with list of oil handlers.
Montana	Supplies information to DIYers, list of recyclers and available collection centers.
Nevada	"Guide" for collectors.
New Hampshire	Public outreach seminars. Availability of grant money and educational materials.
New Jersey	Education.
New York	Distribution of information "tip strips" with motor vehicle registrations, public presentations.
North Dakota	Coordination with industry representatives.
Ohio	Each solid waste district is required to have strategy for handling certain wastes, including oil.
Oklahoma	Public education, bumper stickers, collection center lists.
Oregon	Special report by a Used Oil Recovery Committee.
Pennsylvania	Consultant study working towards county-wide approach.
Rhode Island	State/municipal partnership.
South Carolina	Strong public relations between regulators and regulated community, strong advertising.
South Dakota	Coordination with Mobil, Amoco and Jiffy Lube, and education efforts.

Table 6—Special Efforts by States to Encourage Used Oil Collection (Continued)

Tennessee	Grants, technical assistance, public awareness.
Texas	Grants, technical assistance.
Utah	Grant program, public education.
Virginia	Dissemination of information and literature to the public.

State Requirements for Collection Centers

A number of states operating used oil programs have implemented certain requirements for collection centers, and some states actually certify the centers. Other states require collection centers to provide periodic reports. Specifics of these requirements are outlined below.

CERTIFICATION

Nineteen states have certification requirements for government-operated (i.e., public) centers and sixteen states (many of the same) have certification requirements for collection centers operated by private businesses. In all, 20 states have some type of requirement. See Table 7—Certification Requirements.

All of the states indicating specific requirements ask that collection centers use a licensed hauler. Many states require the use of certain types of containers or spill containment areas. Fewer states (six) require centers to advertise their existence, and even fewer require centers to remain open a certain number of hours. Some states, such as New York, do not certify a center but have minimal requirements for operation (i.e., use of licensed hauler, use of certain containers, and secondary containment). In Wisconsin, the state requires municipalities to provide a certain number of collection tanks/centers per capita. In California and Utah, centers actually have a monetary incentive to follow the state's requirements, since only certified centers are eligible for the state's deposit/incentive reimbursement.

The number of states requiring certain certification procedures is graphically outlined in Chart 3—Certification Requirements.

REPORTING

Nineteen states require used oil collection centers to provide periodic reports to the state. The type of information required ranges from the amount of oil collected to the disposition of used oil.

Other common reporting requirements include listing the name of the company transporting the used oil off site and providing manifests or bills of lading.

Fourteen of the states require that the center provide the quantity of oil collected. Almost as many states (13) require a specific frequency of report. This frequency ranges from quarterly reports to annual reports. Fewer states require listing the transporter's name (10), listing the disposition of used oil (9), or providing copies of manifests or bills of lading (7).

This information is provided by state in Table 8—Reporting Requirements and is represented graphically in Chart 4—Reporting Requirements.

Table 7—Certification Requirements

	Public	Private	Use of Licensed Hauler	Hours Open Requirement	Advertising Requirement	Container	Spill Containment	Other	Other Comments
Arizona		X	X					X	Also notification requirements.
California	X	X	(1) X	X	X	X	X	X	Sign requirements.
Colorado	X		X						
Connecticut	X		X			X	X		
Dist. of Columbia	X	X	X			X	X		
Florida	X	X	X					X	(3)
Illinois	X	X	X			X	X		
Maryland	X	X	X		X		X		Advertising and spill containment apply only to public centers.
Massachusetts	X	X	X	X		X	X		Hours open only applies to public centers.
New Jersey	X	X	X		X				Certain requirements exist because NJ considers used oil hazardous.
New York	X	X	X			X		X	Secondary tank requirement. No certification, but requirements for operation.
North Carolina	X	X	(2) X			X	X		
North Dakota	X	X	X			X	X		
Rhode Island	X		X				X		
South Carolina	X	X	X		X	X	X		Advertising requirement only applies to private centers.
Tennessee	X	X	X			X			Requirements apply only to centers taking DIY used oil exclusively.
Texas	X	X	X	X	X	X	X		Advertising requirement only applies to public centers.
Utah	X	X	(1) X					X	Record keeping requirements.
Vermont	X		X			X	X		
Wisconsin	X	X	X		X	X	X	X	Requirement for a certain number of tanks per capita.
TOTAL	19	16	20	3	6	13	13	6	

n = 20 states reporting.

(1) Used oil collection centers have a monetary incentive to become certified, since only certified centers are eligible for deposit/incentive reimbursement.

(2) Certification is simply registration.

(3) Requirements apply only to public centers or retailers selling more than 500 gallons of oil per year.

*Missouri is now implementing certain collection center notification requirements.

Chart 3: Certification Requirements

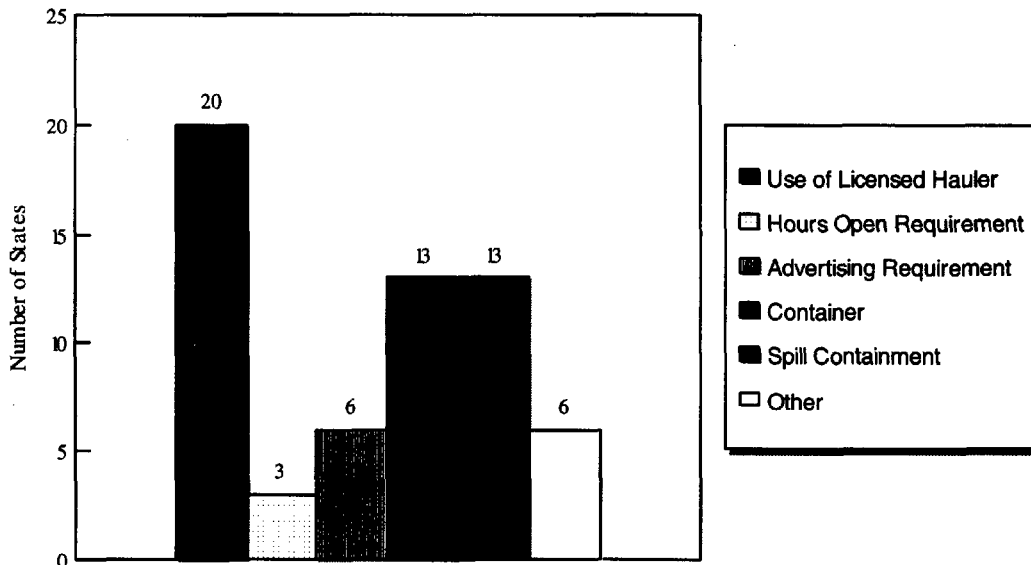
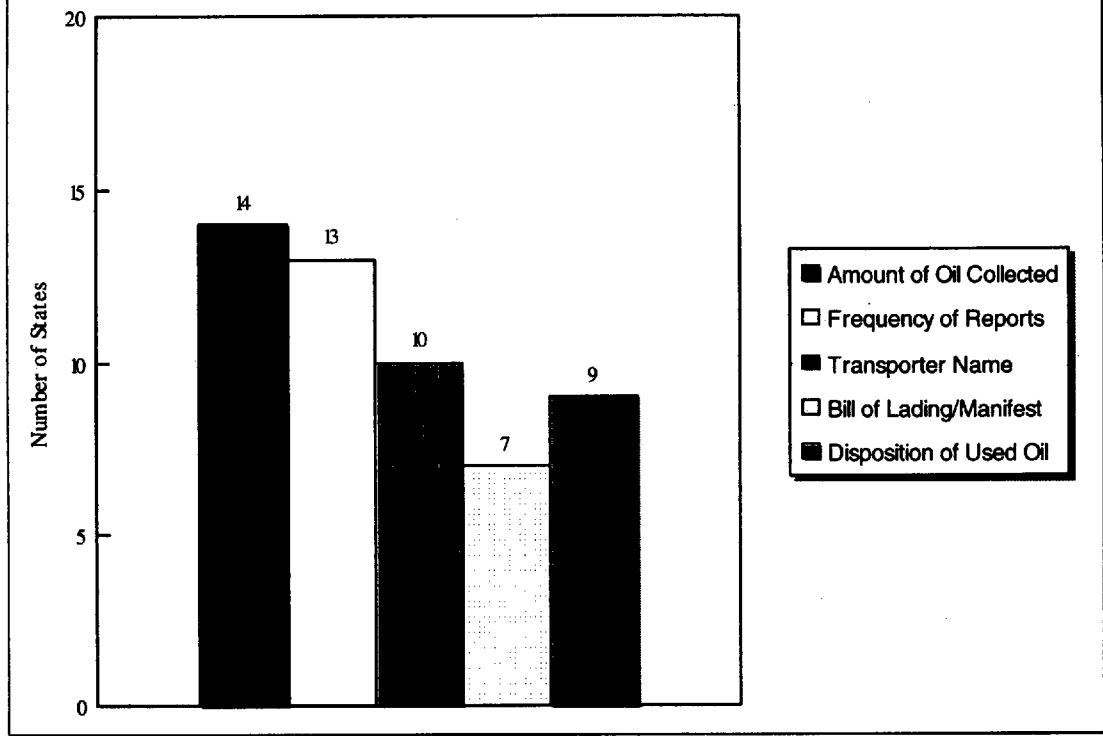


Table 8—Reporting Requirements

	Amount of Oil Collected	Frequency of Reports	Transporter Name	Bill of Lading/Manifest	Disposition of Used Oil	Other Comments
Arizona			X		X	Required for both public and private centers.
California		X	X	X	X	
Connecticut	X	X	X		X	Amount collected only required of public centers.
Delaware	X	X	X			Public collection centers provide certain reports to the state.
Dist. of Columbia	X		X		X	
Florida	X	X				Reporting requirements only for public centers.
Maryland	X					Amount collected only required of public centers.
Massachusetts				X		
Michigan				X		
Missouri				X		
New Hampshire	X	X			X	
North Carolina	X	X				Public collection centers provide certain reports to the state.
Oregon	X	X				Public collection centers provide certain reports to the state.
Rhode Island	X	X	X	X	X	Quarterly reports required.
South Carolina	X	X	X	X	X	
Tennessee	X	X	X		X	
Texas	X	X	X	X	X	
Utah	X	X	X			Quarterly reports required.
Vermont	X	X				Quarterly reports required.
TOTAL	14	13	10	7	9	

n = 19 states reporting.

Chart 4: Reporting Requirements



Funding Sources for State Used Oil Collection Programs

The most common forms of funding for state used oil collection programs are fees placed on the sale of motor oil (in nine states) or general funds (in six states). Fees are typically between one and five cents per quart. Overall, 23 states provided specific information about funding of their used oil programs. Alternative sources of funding included: a U.S. Department of Energy grant (Alabama); bond funds (Connecticut); landfill tipping or user fees (Delaware, Iowa, New Jersey, and Oregon); local government funds or taxes (New Jersey, New York, and West Virginia); and vehicle title transfer fees (Minnesota). For specific funding sources by state, please refer to Table 9—Funding Sources.

ALLOCATION OF USED OIL PROGRAM BUDGETS BY FUNCTION

Fourteen states provided specific information about how used oil program funds are allocated. Specific budget allocations for these programs ranged from \$5,000 in Iowa to a high of \$22,000,000 in California. On average, 22 percent of a state's budget goes to grant programs; 12 percent goes for public education; 8 percent is allocated to enforcement efforts; less than 1 percent is allocated to offset the cost of collecting fees in states with such programs; 40 percent goes toward administration; and 17 percent is allocated to other efforts. Unfortunately, administration figures are overinflated because the states of Iowa and Maryland were unable to provide any breakdown beyond the complete cost of their programs. Iowa's budget included public education, while Maryland funds education, salaries, and collection tank purchases from the used oil program budget. In addition, Utah's administration expenses include some funds for enforcement.

When considering overall information about the percentage of funding used for each function, one should consider that these national averages are based on information for each state reporting and are not weighted based on the size of a state's budget. For example, California's state program with a budget of \$22 million is weighted no differently than Iowa's budget of \$5,000. For specific information about each state, please refer to Table 10—Allocation of Budget by Function. For national average percentage expenditures, please refer to Chart 5—Budget Allocation by Function.

Table 9—Funding Sources

	General Funds	Fee on Oil	Other
Alabama			U.S. Dept. of Energy Grant.
California		X	
Connecticut			Bond funds.
Delaware			User fee at landfill.
District of Columbia			Federal seed money.
Florida	X	X	
Hawaii			Env. Response Revolving Fund.
Iowa			Landfill tipping fee.
Kentucky	X		
Maryland	X		Program development funds.
Minnesota			Vehicle title transfer fee.
Missouri		X	
New Hampshire		X	
New Jersey			Local taxes, tipping fees.
New York			Local taxes.
Oregon			Garbage fees.
Pennsylvania	X		
Rhode Island		X	
South Carolina		X	
Tennessee		X	
Texas		X	
Utah	X	X	
West Virginia	X		Local government funding.
TOTAL	6	9	12

Table 10—Allocation of Budget by Function

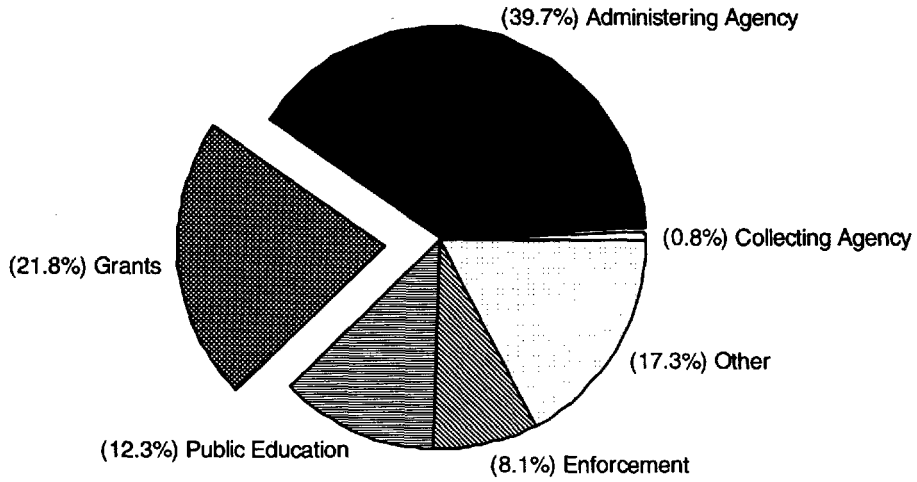
	Budget	Fee in \$ Per Quart	Employees	Percentage Used For Each Function						Other Comments
				Collecting Agency	Admin. Agency	Grants	Public Educ.	Enforce- ment	Other	
Alabama	\$75,000				25		75			
Arizona	\$200,000		2				1	90	9	Misc.
California	\$22,000,000	0.04	30	3	10	60	12		15	Deposit refund.
Iowa (1)	\$5,000		<1		100					
Maryland (2)	\$94,208		2		100					
Minnesota	\$140,000		1		28	36			36	Contamination reimbursement account.
New Hampshire	\$208,000	0.01	2		53	36	4		7	
Oregon	\$60,000		<1		80		20			
Pennsylvania	\$100,000		1		70		20		10	Supplies.
Rhode Island	\$30,000	0.05	<1						100	Hauling used oil.
South Carolina	\$1,400,000	0.02	1		5	45	14		36	Liability.
Tennessee	\$1,214,200	0.02	6	5	12	77		6		
Texas (3)	\$4,000,000	0.01	4	3	8.5	37.5	12.5	17.5	21	Superfund.
Utah (4)	\$357,400	0.04	4		64	14	14		8	
TOTAL	\$29,883,808			0.8	39.7	21.8	12.3	8.1	17.3	

n = 14 states reporting.

- (1) Funding allocated to administration also includes public education.
- (2) Administrative agency expenses include education program, salaries and tank and decal purchases.
- (3) Texas' annual budget based on fee reduction to take place in next fiscal year.
- (4) Administrative expenses include salaries for four staff members that do administration, education and enforcement.

*North Dakota is now developing a used oil grant program for 1996 with \$20,000 for grants and \$10,000 for education.

Chart 5: Budget Allocation by Function



Used Oil Recycling Grants

DEDICATED GRANT PROGRAMS FOR USED OIL

Thirteen states have grant programs dedicated to used oil collection. Of these states, ten have caps on the amount of funding that can be given to any one recipient. These caps range from as little as \$1,500 in New Hampshire to as much as \$1,100,000 in entitlement grants in California. Local governments are the primary recipient of grant funding, with 12 of the 13 states providing funding to municipalities, counties or other local government entities. Of the 13 states, only Arizona does not provide funding to local governments. Other grant recipients include nonprofit entities (three states), councils of government (Texas), private businesses (5 states), and recycling regions or solid waste management districts (Connecticut and Ohio, respectively).

Certain states have more specific requirements for grants or the grant process. For example, three states (Arizona, Indiana, and Ohio) require recipients to provide matching funds, and seven states have peer review processes for grant selection. Finally, all 13 states outline specific uses for grant funds. In 12 states (all but Ohio), funds can be used for storage tanks. In five states, funds can be used for actual recycling costs. The same is true with spill containment. In 11 states, funds can be utilized for public education, and in three states funds can go into special contamination funds. Seven states list other uses, including equipment and trucks; curbside collection programs; demonstration sites; used oil burners (space heaters) or halogen test kits; and security fencing, lighting, or other site preparation.

In addition to the 13 states with existing grant programs, North Dakota and Missouri have programs under development. Louisiana's legislature passed a law authorizing oil collection grants, but no funding was available as of the summer of 1995. For a complete breakdown of state grant programs and their uses, please see Table 11—States with Used Oil Collection Grants.

Table 11—States with Used Oil Collection Grants

State	Grant Cap Info.		Requires Matching Funds	Peer Review Process	Potential Recipients					How Grants Can Be Utilized					
	Cap on Grants	Amount of Cap			Local Govt.	Non-Profits	Council of Govt.	Private Businesses	Other	Storage Tanks	Actual Costs	Spill Containment	Public Education	Contamination Fund	Other
Arizona	Yes	75,000	Yes	Yes				X				X	X	X (4)	
California	Yes	1,100,000 (1)	No	Yes	X	X						X	X	X (5)	
Connecticut			No	Yes	X				X(*)						
Indiana	Yes	60,000 (2)	Yes	Yes	X										
Massachusetts	Yes				X										
Minnesota	Yes	2,500 (3)	No	No	X			X				X			
New Hampshire	Yes	1,500	No	No	X										
Ohio	Yes		Yes	No	X				X(*)						
South Carolina	Yes		No	Yes	X										
Tennessee	No		No	No	X	X		X							
Texas	Yes	50,000	No	Yes	X		X	X				X	X	X (8)	
Utah	No		No	Yes	X	X		X						X (9)	
Vermont	Yes	5,000	No	Yes	X							X		X (4)	
					X										
Total		10	3	7	12	3	1	5	2	12	5	5	11	3	7

- (1) Block grants are limited based on population size; other grants limited to \$300,000.
- (2) Cap ranges from \$30,000 to \$60,000 depending on type of project.
- (3) Funds available for clean up of contamination up to 95 percent of actual cost.
- (4) Grant funds may be utilized for equipment, trucks, etc.
- (5) Grants can also be used for establishing curbside collection programs or public collection centers.
- (6) Grants can be utilized for demonstration sites, permanent sites or curbside programs.
- (7) Grants can be used for anything that enhances DIY used oil collection.
- (8) Grant funds may also be utilized for used oil burners and halogen test kits.
- (9) Grant funds may also be utilized for security fencing, lighting and site preparation.
- X(*) Recycling regions can utilize grant funds in Connecticut; solid waste management districts can receive funding in Ohio.

North Dakota and Missouri currently have grant programs under development.
 Louisiana has a state law authorizing oil collection grants, but no funding is currently available.
 n = 13 states reporting.

States with General Recycling Grants That Can Be Utilized for Oil Collection

Fourteen states have general recycling grant programs that sometimes are utilized for used oil collection projects. These also can have specific requirements. For example, four states have caps on grants, four states require matching funds, and six states have a peer review process. Recipients of these grants include local governments (nine states), nonprofit organizations (five states), councils of government (two states), private businesses (three states), and solid waste districts (one state).

In Montana, the program is actually a tax credit that may be available for those organizations involved in recycling efforts. In two states, household hazardous waste projects are funded. In Oregon, a few recycling grants are available, but none have been utilized for oil to date (although it is not prohibited). In New Jersey, municipalities can be reimbursed up to \$10 per ton of material recycled, including used oil. Several other states have general recycling grants that can include used oil. For state-by-state information on these grants, please refer to Table 12—States with General Recycling Grant Programs That Can Be Utilized for Oil.

Table 12—States with General Recycling Grant Programs That Can Be Utilized for Oil Collection

State	Grant Cap Info.		Requires Matching Funds	Peer Review Process	Potential Recipients					Other Information
	Cap on Grants	Amount of Cap			Local Govl.	Non-Profits	Council of Govl.	Private Businesses	Other	
Alabama	Yes	10,000	Yes	Yes	X	X	X			For all recyclables, not specific to oil.
Arkansas				No	X				X*	Funded through landfill tipping fees.
Colorado	Yes	150,000	No	Yes	X	X		X		Provides waste diversion loans, not grants.
Iowa										State funds recycling centers that may take oil.
Kansas	No		Yes	Yes						Provides general household hazardous waste grants.
Mississippi	No		Yes	No	X					Provides general household hazardous waste grants that may include oil.
Montana										Tax credits may be available for those involved in recycling efforts.
Nebraska			No	Yes	X	X		X		State provides \$3 million annually for solid waste recycling projects.
Nevada	No		No	No	X	X	X			General recycling grants that may include used oil.
New Jersey	Yes	\$10 per ton	No	No	X					Municipalities reimbursed \$10 per ton of material recycled.
New Mexico										Facility grant programs to recycle multiple products.
Oregon										Limited recycling grants available; none utilized for used oil to date.
South Dakota	Yes	50,000	Yes	Yes	X	X		X		Solid waste grant can be accessed for oil recycling.
Washington				Yes	X					General recycling grants can include used oil.

4 4 6 9 5 2 3 1

*Solid waste districts.
 ■ = 14 states reporting.

Use of Hotlines to Encourage DIY Collection

Twenty-five states currently utilize special telephone numbers to provide information about the location of collection centers to do-it-yourself (DIY) oil changers. While most are operated by state agencies, two states actually have nonprofit organizations that administer collection center hotlines (Maine and Nebraska). One state, New Jersey, only provides referrals to county officials, but the other 24 states provide information about the actual collection site.

All but five of the states with special phone numbers have toll-free 800 numbers. This provides an inexpensive method for the do-it-yourselfer to find out where to dispose of used oil. Some states (Florida, Maryland, South Dakota, Texas, and Washington) have attempted to make the phone numbers as memorable as possible by using numbers that spell something. For example, Washington state's hotline is 1-800-RECYCLE (732-9253), and Texas' number is 1-800-64-TEXAS (648-3927).

For a complete list of the states operating hotlines that provide information about collection sites, please refer to Table 13—States with Oil Collection Hotlines.

Table 13—States with Oil Collection Hotlines

Alabama	800-452-5901
Arizona	800-947-3873
California	800-553-2962
Delaware	800-404-7080
Florida	800-437-4337 (437-4DEP)
Iowa	800-367-1025
Kentucky	800-282-0868
Louisiana	800-305-6621
Maine*	207-287-2651
Maryland	800-473-2925 (I-RECYCL)
Massachusetts	617-556-1022
Minnesota	800-657-3724
Missouri	800-334-6946
Nebraska ^a	402-444-4188
New Jersey ^b	609-530-8000
North Dakota	701-328-5166
Pennsylvania	800-346-4242
Rhode Island	800-253-2674
South Carolina	800-768-7348
South Dakota	800-438-3367 (GET-DENR)
Tennessee	800-287-9013
Texas	800-648-3927 (64-TEXAS)
Utah	800-458-0145
Washington	800-732-9253 (RECYCLE)
West Virginia	800-472-8280

n = 25 states reporting.

^a Collection center hotline not operated by state but by an outside nonprofit.

^b Only provides referrals to county officials, not actual collection center location.

Barriers to Used Oil Collection

Forty-five of the 51 U.S. jurisdictions completing this survey provided information about impediments to collection programs in their states. Specifically, the states were asked to provide information about why do-it-yourselfers choose not to participate in collection programs and what barriers each state encountered in establishing such programs. Each state's response is outlined in Table 14—State-Reported Barriers.

WHY DIYERS DO NOT PARTICIPATE

Almost universally, state officials indicated that a lack of public education and a lack of convenience were the primary reasons do-it-yourselfers do not participate in used oil collection programs. A lack of convenience was reported by 91 percent of the states reporting. See Chart 6—State-Reported Barriers.

Lack of public education proved a close second with eighty-two percent of the respondents indicating that this was a key factor in low participation. Even states with substantial public education efforts cited a need for increasing educational programs, including Alabama, California, Oregon, Pennsylvania, South Carolina, Texas, and Utah.

Other factors impacting a consumer's willingness to participate included: apathy or a lack of motivation to recycle, lack of adequate storage facilities, changes in location of collection centers, and a lack of approved containers. State officials from Alaska offered a unique perspective discussing their state's remoteness and limited road system as impediments to recycling used oil.

WHY STATES DO NOT PARTICIPATE

State officials also listed barriers to establishing state-funded collection programs. Lack of funding fell behind issues surrounding liability and the fear of contaminated oil. Sixty-two percent of the respondents indicated that the issue of liability was a major barrier to collection, while sixty percent listed fear of contaminated oil. Inadequate funding was listed by slightly less than half the respondents (47 percent). No state having a fee or incentive system as outlined in model legislation developed by the American Petroleum Institute indicated that funding was a barrier to the state's collection program.

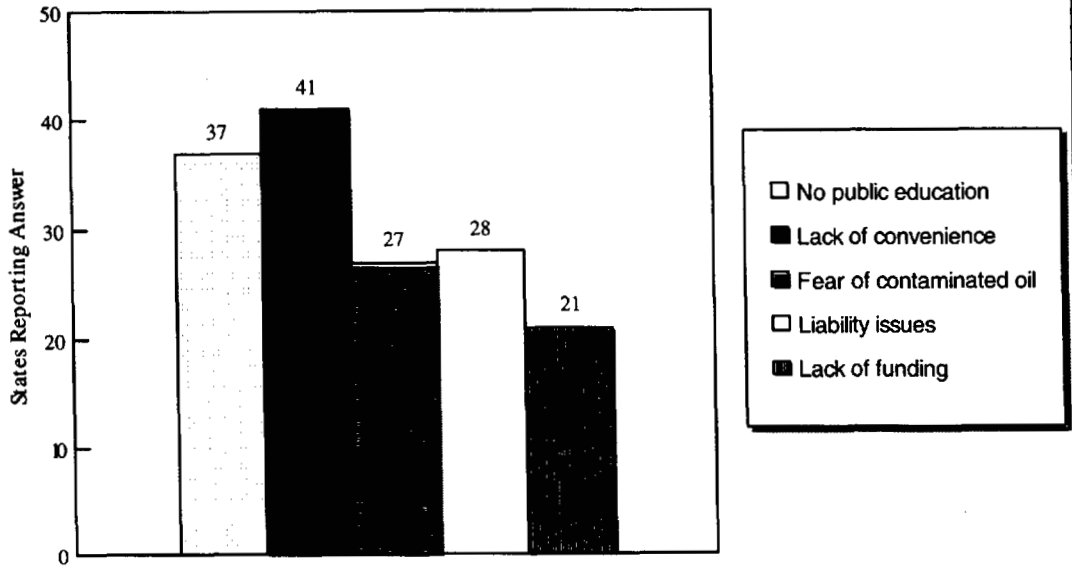
Other barriers include cost of administering programs, inadequate legislation, burdensome regulations, remoteness of communities, confusion over standards for oil collection tanks, state hazardous waste listings for used oil, zoning requirements, local fire codes, and municipalities' desire to avoid unfunded mandates.

Table 14—State Reported Barriers

	Why DIYers Do Not Participate			Other Comments	Barriers to Establishing Collection Programs				Other Comments
	No Public Education	Convenience	Other		Fear of Contain. Oil	Liability	Funding	Other	
Alabama	X	X			X	X	X		
Alaska	X	X	X	Remoteness, limited roads.			X	X	Transportation issues.
Arizona		X			X	X		X	Lack of retail responsibility.
Arkansas	X	X			X	X			
California	X	X	X	Motivation to recycle.	X	X		X	Local restrictions, cost.
Colorado		X					X		
Connecticut		X							
Delaware		X			X	X			
Dist. of Columbia	X	X			X	X			
Florida	X	X					X		
Georgia	X	X			X	X	X		
Iowa	X								
Kansas	X	X					X		
Kentucky	X	X			X			X	Fear of regulations.
Louisiana	X	X			X		X		
Maine	X	X			X	X	X		
Maryland	X	X	X	Do not believe oil is harmful.					
Massachusetts	X	X					X		
Michigan	X	X			X	X	X		
Minnesota		X	X	Lack of certainty of collection centers.	X	X	X		
Mississippi	X	X				X	X		
Missouri		X			X	X		X	Remote communities.
Montana	X	X	X	Lack of collection centers.	X		X	X	Cost.
Nebraska	X		X	Lack of programs.	X	X			
Nevada	X	X				X	X		
New Hampshire	X	X			X	X		X	Burdensome.
New Jersey	X	X	X	Centers change a lot.	X	X			
New Mexico		X					X	X	Cost.
New York	X	X	X	Apathy.			X	X	Inadequate legislation.
North Carolina	X	X					X		
North Dakota	X	X	X	Storage.	X	X	X	X	Industry acceptance.
Ohio	X	X				X	X		
Oklahoma	X	X				X			
Oregon	X		X	Lack of approved containers.	X	X	X		
Pennsylvania	X	X			X	X			
Rhode Island	X	X							
South Carolina	X	X			X				
South Dakota	X	X			X	X			
Tennessee	X	X	X	Dust suppression.	X	X			
Texas	X	X			X	X			
Utah	X	X			X	X			
Vermont	X	X			X	X			
Virginia	X						X		
Washington		X				X			
Wisconsin	X	X	X	Fear of inspection.	X	X	X	X	Confusion over oil tank standards.
TOTAL	37	41	12		27	28	21	11	

n = 45 states reporting.

Chart 6: State-Reported Barriers



Total States Reporting = 45

Used Oil Available for Collection by State—Discussion and Methodology

ANNUAL OIL SALES PER STATE PER YEAR

Statistics from the National Petroleum Refiners Association indicate that in 1993 more than 683.5 million gallons of automotive oil was sold for use in gasoline-powered engines within the United States. Total automotive lubricant sales for 1993—including oil for heavy duty engines, oil sold but not distributed, and other petroleum-based lubrication products—was 1,392 million gallons. By utilizing two key government statistics, an estimate of the amount of motor oil sold for gasoline-powered light duty vehicles per state can be estimated. The two statistics are as follows: vehicle miles of travel per state (provided by the Federal Highway Administration or FHA) and state vehicle registrations (also provided by FHA). Unfortunately, these two figures do not include off-road equipment that may not be registered with the state. However, unregistered off-road vehicles should not dramatically impact each state's estimate.

In 1992, the latest year with available data, Americans drove 2.239 trillion miles. The Federal Highway Administration also provides miles of travel for each state ranging from 3.562 billion miles in the District of Columbia to 262.548 billion in California. For vehicle registrations, 1993 data is available with a total of 192,865,000 vehicles registered throughout the country. The fewest vehicles are registered in the District of Columbia (262,000) and the most are registered in California (22,472,000).

To determine an estimate of the amount of oil sold in a state, these two figures can be utilized. For example, Texans drive 7.29 percent of all miles driven in the U.S. each year and own 6.68 percent of the registered vehicles. To accommodate these differences, the average is taken and Texas is allocated a total of 6.99 percent of the motor oil sold nationally each year. A sample of several states is listed below.

<u>State</u>	<u>Percent of Miles Driven</u>	<u>Percent of Registered Vehicles</u>	<u>Percent of Oil Sales Allocated</u>
California	11.72	11.65	11.7
New York	4.91	5.07	4.99
Ohio	4.25	4.76	4.5
Texas	7.29	6.68	6.99
Washington	2.20	2.31	2.26

State-by-state calculations are shown in Table 15—DIY Used Oil Available for Recovery in 1993 by State. The column for estimated gallons of oil sold per state is determined based on the formula outlined above.

DO-IT-YOURSELF OIL SALES PER STATE PER YEAR

It is also useful to determine the amount of oil sold to do-it-yourselfers in each state each year. While there is no argument that the percentage of drivers changing their own oil and filters is declining, there is still some debate over the percentage of drivers who are performing these tasks. One proprietary study completed on behalf of an automotive parts manufacturer indicated that DIY oil changers make up approximately 42 percent of the population. In addition, the average DIY percentage as reported by states answering questions on this survey is approximately 43 percent. Unfortunately, only 27 states

provided estimates of their own state's DIY market. These state estimates ranged from as low as 15 percent in Florida to as high as 75 percent in Arizona.

On the other hand, data collected on behalf of a number of petroleum companies indicate that the percentage of oil utilized by DIYers may be as high as 60 percent. Some industry analysts argue that while the number of drivers that are do-it-yourselfers may be a lower percentage, DIYers actually change their oil more frequently, thus utilizing a higher percentage of the total oil sold.

Much of the confusion may be over the amount of packaged oil sold. While dealerships and quick lubes generally utilize bulk oil, service outlets do purchase oil packaged in quarts as well. A recent survey by *Aftermarket Business*, an industry trade journal, indicated that as much as 15 percent of packaged oil purchased at retail outlets is sold to installers. Retail outlets of packaged oil generally serve the do-it-yourselfer; yet, a fairly significant portion of these sales are still to the installed marketplace.

While an exact figure for DIY sales is difficult to determine, 50 percent is used for the purposes of this study. After determining the amount of oil sold in a state on Table 15, it is divided in half to determine oil sales to the do-it-yourselfer. For example, total sales estimates for Ohio are placed at approximately 30,818,027 gallons each year. As a result, DIY sales would then be 15,409,013 gallons annually. A second example is Texas. As noted above, 47,756,632 gallons of oil are estimated to be sold in Texas each year. Of this amount, approximately 23,878,316 gallons are sold to DIYers annually. This study places total DIY oil sales at approximately 341,844,500 gallons each year.

Obviously, DIY sales percentages in each state will vary. It is very difficult to determine percentages on a state-by-state basis. However, some general guidelines can be provided for a state studying this issue on an in-depth basis.

The percentage of DIY sales is likely to be less in states with densely populated areas that are more convenience-oriented. However, in rural states with more agriculturally based economies, the DIY percentage may be slightly higher. Another factor impacting the percentage of DIYers is climate. In colder climates, this percentage will drop, while in more temperate regions of the country the DIY percentage will be slightly higher. Finally, the age of a state's population may also impact DIY sales, since older Americans are less likely to perform their own oil change.

OIL AVAILABLE FOR COLLECTION FROM DIYERS EACH YEAR

One last factor impacts the amount of used oil available for collection: the generation rate. In every vehicle, a certain amount of oil is used or burned within the internal combustion engine. In addition, a certain amount remains adhered to engine parts and a certain amount may leak out of the vehicle. The total amount of oil sold minus the percentage of oil unavailable for collection is commonly referred to as the generation rate.

Past studies have indicated that as much as 40 percent of the oil placed into a vehicle engine is not available for recovery, translating into a generation rate of 60 percent. In 1991, a University of Illinois report cited three previous studies on generation rates. Of the three studies cited, the highest percentage available for recovery was listed at 64 percent. However, industry research indicates the amount of oil available for recovery is increasing, mainly due to enhancements in engine technology. On the other hand, the average age of vehicles in service is now listed at eight years of age, the oldest average age of vehicles ever recorded through vehicle registration data.

Table 15—DIY Used Oil Available for Recovery in 1993 by State

State	Vehicle Miles of Travel Fed. Highway Admin.—1992 (in Millions)	Number of Vehicles Registered Fed. Highway Admin.—1993	Estimated Gallons of Oil Sold per State in 1993	Gallons of Oil Sold per State to DIYers Changing Their Own Oil	Estimated Oil Available for Recovery per State in 1993
Alabama	45,762	3,360,000	12,939,685	6,469,842	4,528,890
Alaska	3,841	500,000	1,472,444	736,222	515,355
Arizona	35,047	2,793,000	10,299,370	5,149,685	3,604,779
Arkansas	23,081	1,524,000	6,223,863	3,111,932	2,178,352
California	262,548	22,472,000	79,900,909	39,950,455	27,965,318
Colorado	28,927	2,894,000	9,544,348	4,772,174	3,340,522
Connecticut	26,459	2,557,000	8,570,363	4,285,181	2,999,627
Delaware	6,892	557,000	2,039,120	1,019,560	713,692
Florida	114,311	10,494,000	36,046,385	18,023,193	12,616,235
Georgia	77,904	6,096,000	22,694,661	11,347,330	7,943,131
Hawaii	8,066	775,000	2,604,692	1,302,346	911,642
Idaho	10,764	1,031,000	3,470,212	1,735,106	1,214,574
Illinois	87,642	7,980,000	27,520,188	13,760,094	9,632,066
Indiana	57,072	4,623,000	16,904,437	8,452,219	5,916,553
Iowa	23,926	2,749,000	8,524,085	4,262,043	2,983,430
Kansas	24,163	1,960,000	7,161,790	3,580,895	2,506,626
Kentucky	38,062	3,023,000	11,167,187	5,583,593	3,908,515
Louisiana	33,853	3,140,000	10,732,182	5,366,091	3,756,264
Maine	12,151	977,000	3,586,185	1,793,092	1,255,165
Maryland	41,896	3,763,000	13,063,952	6,531,976	4,572,383
Massachusetts	47,348	3,619,000	13,640,807	6,820,404	4,774,282
Michigan	84,219	7,394,000	25,959,108	12,979,554	9,085,688
Minnesota	41,162	3,557,000	12,586,802	6,293,401	4,405,381
Mississippi	26,239	1,997,000	7,544,211	3,772,106	2,640,474
Missouri	53,254	4,066,000	15,334,473	7,667,237	5,367,066
Montana	8,525	932,000	2,953,021	1,476,510	1,033,557
Nebraska	14,621	1,373,000	4,665,050	2,332,525	1,632,768
Nevada	10,897	950,000	3,346,942	1,673,471	1,171,430
New Hampshire	10,067	881,000	3,097,967	1,548,984	1,084,288
New Jersey	59,410	5,661,000	19,101,073	9,550,536	6,685,375
New Mexico	18,452	1,375,000	5,253,286	2,626,643	1,838,650
New York	109,881	9,776,000	34,097,652	17,048,826	11,934,178
North Carolina	67,538	5,411,000	19,898,461	9,949,231	6,964,462
North Dakota	6,072	666,000	2,107,169	1,053,584	737,509

State	Vehicle Miles of Travel Fed. Highway Admin.—1992 (in Millions)	Number of Vehicles Registered Fed. Highway Admin.—1993	Estimated Gallons of Oil Sold per State in 1993	Gallons of Oil Sold per State to DIYers Changing Their Own Oil	Estimated Oil Available for Recovery per State in 1993
Ohio	95,221	9,188,000	30,818,027	15,409,013	10,786,309
Oklahoma	35,119	2,789,000	10,303,269	5,151,634	3,606,144
Oregon	27,926	2,651,000	8,960,868	4,480,434	3,136,304
Pennsylvania	89,200	8,309,000	28,341,109	14,170,554	9,919,388
Rhode Island	7,676	616,000	2,263,350	1,131,675	792,172
South Carolina	35,049	2,581,000	9,923,915	4,961,957	3,473,370
South Dakota	7,218	731,000	2,397,282	1,198,641	839,049
Tennessee	49,994	4,751,000	16,051,061	8,025,530	5,617,871
Texas	163,329	12,880,000	47,756,632	23,878,316	16,714,821
Utah	16,307	1,277,000	4,752,213	2,376,107	1,663,275
Vermont	6,019	467,000	1,746,361	873,181	611,226
Virginia	63,447	5,398,000	19,251,048	9,625,524	6,737,867
Washington	49,386	4,451,000	15,426,531	7,713,265	5,399,286
West Virginia	16,478	1,278,000	4,780,084	2,390,042	1,673,029
Wisconsin	47,628	3,813,000	14,027,397	7,013,699	4,909,589
Wyoming	6,217	497,000	1,829,754	914,877	640,414
Dist. of Columbia	3,562	262,000	1,008,019	504,009	352,807
Total	2,239,828	192,865,000	683,689,000	341,844,500	239,291,150

Note: Oil sales by state calculated by examining the percentage of national vehicle miles of travel a state has, plus the percentage of national vehicle registrations a state has.

^a Estimated total U.S. sales of crankcase oil for gasoline engines courtesy of the National Petroleum Refiners Association.

^b Both market research and state official estimates indicate that approximately 45 to 55 percent of oil changes are performed by do-it-yourselfers. A national average is utilized to calculate each state's DIY oil usage. However, one should note that this may vary based on each state's demographics. For the purposes of this chart, 50 percent is used as the DIY rate.

^c A University of Illinois study published in 1991 indicated that only approximately 60 percent of oil sold is available for recovery due to combustion, residue left on automotive parts and inadvertent spillage/leakage. Of three studies cited by the University of Illinois, the highest percentage available for recovery was listed at 64 percent. While the vehicle population as a whole is aging, newer vehicles have higher tolerances and will utilize less oil. As a result, more oil should be available for recovery in the future. For example, a recent California study of rental car agencies indicated that up to 80 percent of oil is available for recovery. However, this was a limited population of newer vehicles. For the purposes of this study, a generation rate of 70 percent is utilized.

Two recent studies validate the trend that more oil is now available for recovery. First, in a California study, car rental agencies were asked to provide information about oil available for recovery. This study indicated that up to 80 percent of the oil placed into a vehicle is available for recovery. However, this study only looked at relatively new vehicles utilized by rental agencies and did not represent a true cross section of the vehicle population. A second set of data also represents a limited population of vehicles. Information provided by the Convenient Automotive Services Institute, a trade association representing quick lubes, indicates that approximately 75 percent of oil placed into vehicle engines is available for recovery. Neither of these data sets included do-it-yourselfers, a group that generally drives older vehicles with wider tolerances and subsequently more wear.

For the purposes of this study, a generation rate of 70 percent is utilized. This is between the research cited by the University of Illinois study and more recent examinations of limited vehicle populations. Again, state-by-state differences could impact this number. However, when utilizing a national generation rate of 70 percent, just over 239 million gallons of oil is available for recovery from DIYers in the United States each year.

The previous study by the University of Illinois (1991) indicated that approximately 190 million gallons of oil was available for recovery from DIYers in the United States each year. However, it is likely that this number has actually increased for two primary reasons. First, for the past several years, the total amount of lube oil sales in the U.S. has been increasing. Second, as enhancements in engine technologies have led to decreased tolerances (i.e., closer fitting parts), the total amount of oil available for recovery has increased. As a result, it is very likely that the used oil available for recovery from DIYers has increased from the previously cited 190 million gallons prior to the 1991 study to an estimated 240 million gallons today.

DO-IT-YOURSELFER PROFILE

Several states have conducted studies regarding the average do-it-yourselfer. The state of California commissioned a study by Deen and Black Public Relations in order to better understand DIYers. On a national basis, the study found:

- DIYers are most often men between the ages of 20 and 45 years old.
- Convenience is a significant factor in recycling behavior.
- The older the individual, the less importance they place on proper disposal of used motor oil.
- Urban Americans are more likely to bring in used oil for recycling than rural Americans.

More extensive research specifically examining California found the following:

- Cost savings, quality of workmanship, quality of oil, and enjoyment obtained by changing one's own oil were primary reasons that DIYers perform their own work. DIYers have an affinity for working on their automobiles.
- Convenience was a primary motivator to recycling. Eighty-four percent of the respondents to the California study said they would always bring used oil in for recycling if it was convenient. Another 11 percent said they would recycle sometimes if there were convenient recycling options.
- Three out of four DIYers lived in Southern California.

- About one in five DIY households improperly disposed of used oil.
- Hispanics represented 55 percent of those who improperly dispose of used oil, but only represented 28 percent of the general population in California. Further, 45 percent of the households improperly disposing of used oil spoke a primary language other than English.

South Carolina officials also conducted a study examining the public's knowledge of used oil regulations, as well as used oil disposal practices. The study yielded the following findings about do-it-yourselfers:

- DIYers are much more likely to be men than women. Over 35 percent of males in the state changed their own oil, while only 15 percent of females did so.
- The average DIYer is under 45 years of age.
- Somewhat surprisingly, respondents with family incomes under \$15,000 were least likely to change their own oil.

The study also examined whether there were any demographic differences between DIYers recycling used oil and those DIYers who did not. The study found the following:

- Education had a significant impact on whether someone recycled. Only 26.4 percent of DIYers with less than a high school education disposed of used oil at an approved collection center. Other recycling rates were 63.7 percent of those individuals with at least a high school degree, 74.5 percent of those with some college, and 88.3 percent for those with a college degree.
- Only 32 percent of families with incomes under \$15,000 disposed of oil at an approved collection center, as opposed to 84.9 percent of respondents with family incomes of \$50,000 or more.

Other research on the industry validates much of what was found in the studies in California and South Carolina. Some specific demographic characteristics highlighted in industry research found that most DIYers:

- Are younger males.
- Are from households with incomes of less than \$50,000 per year.
- Drive older vehicles.
- Live in more rural or agriculturally oriented areas.

Industry research also indicates that two factors may be eroding the do-it-yourself market. First, as quick lubes make oil changes more convenient and offer inexpensive prices, the incentive to change one's own oil is reduced. If an installed-oil change is cheap and convenient, much of the reason for changing one's own oil disappears. Second, most Americans more than 50 years of age do not change their own oil. The average age in the United States continues to increase, putting more of the population into this category.

Disposition of Used Oil

Officials from 23 states and the District of Columbia provided information about the disposition of used oil generated in those jurisdictions. While definitional issues had to be addressed prior to calculating the results from these states, the answers do provide insight into the different methods for the disposal of used oil.

The distinction between re-processing and re-refining sometimes became blurred when states reported data. However, for the purposes of this study, re-refining is defined as refining the used oil to the point that it can be utilized again as petroleum base oil. Re-refined oil must be blended with additives before it can be returned to crankcases. On the other hand, re-processing is processing to the point that the used oil can be used as fuel to produce electricity, used in industrial burners, mixed with asphalts, blended for marine fuel or otherwise blended for use. However, re-processed oil is not of sufficient quality to be used again in lubricating oil applications.

Researchers for this study made every effort to clarify any possible discrepancies in data reported by each state. One should note that the figures from each state were not weighted based on the state's size. As a result, used oil disposal in California carried the same weight in the calculation as used oil disposal in Delaware. Information about each state's responses are included in Table 16—Estimated Disposition of Used Oil. Based on the reported data and this clarification, the results indicate that re-processing into fuel is the overwhelming method of used oil disposal in the United States. States reporting data indicated that 72 percent of the oil disposed in these jurisdictions is currently being reprocessed in one form or another. See Chart 7—Estimated Disposition of Used Oil.

Re-refining accounted for an estimated 3.4 percent of the used oil in the states reporting. However, it is likely that this figure is lower than the actual national re-refining rate. Currently, two re-refineries are operating in the United States: Evergreen Oil in California and Safety-Kleen in Indiana. Several of the states served by these two re-refineries did not report data on the disposition of used oil. As a result, the actual percentage of re-refining may be slightly higher than actually reported.

Space heaters also continue to be utilized for used oil, particularly in northern states with severe winters (i.e., Alaska, Maine, and Massachusetts). Of the states reporting, just over 17 percent of the used oil is being disposed of in this manner. In this category, a space heater is defined as a small heater designed to utilize used oil to provide warmth in automotive repair shops, etc. Industrial heaters are not included in this category.

Finally, several states indicated no knowledge of the disposition of all of the state's used oil or indicated that a certain percentage may be unrecoverable. In addition, Florida officials indicated that their state had one unique use of used oil, phosphate beneficiation.

Table 16—Estimated Disposition of Used Oil

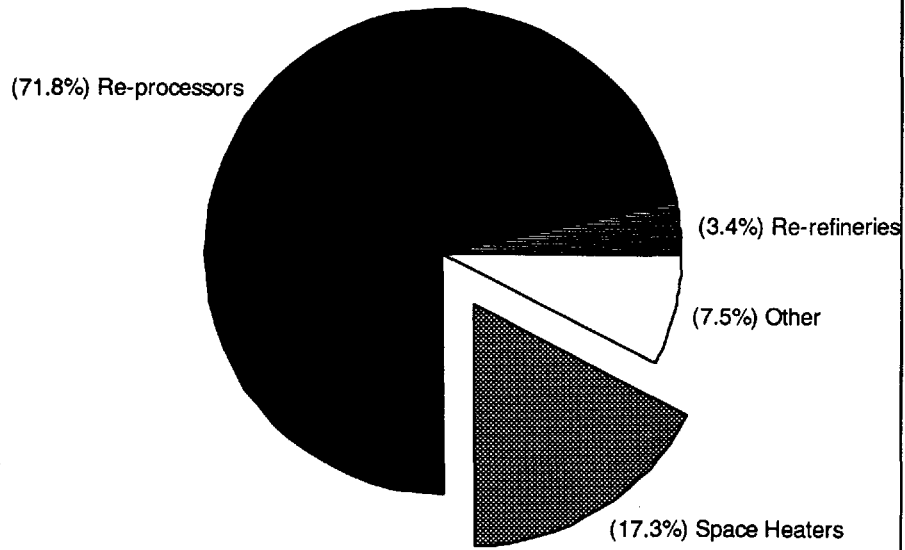
	Re-refineries	Re-processors	Space Heaters	Other	Other Comments	Explanation of Reprocessing Info.
Alabama	3	50	7	40	Industrial fuel; improper disposal.	
Alaska	10	10	70	10	Unknown.	
Arizona	10	85		5		50% asphalt; 35% marine fuel
California	6	52		42	Unrecoverable.	8% asphalt
Delaware		100				
Dist. of Columbia		30	30	40	Unknown.	
Florida		70		30	20% phosphate beneficiation; 10% unknown.	
Georgia		100				
Kentucky		90		10		
Louisiana	20	75	5			
Maine		25	75			
Maryland		100				
Massachusetts		30	70			
Michigan	2	90	5	3	Unknown and lubricants.	
Minnesota	5	95				
Montana	5	47	48			
New Jersey		100				
New York	10	70	20			
North Dakota		80	20			75% asphalt; 5% power generators
Oregon		85	15			
Pennsylvania		60	40			
Rhode Island		100				
Texas	1	99				
Vermont	10	80	10			
TOTAL	3.4	71.8	17.3	7.5		

n = 24 states reporting.

Re-refining means refining to the point that the oil could be re-used as a lubricating oil.

Re-processing includes use in industrial burners, blending, mixing with asphalts, blending for marine fuel, etc.

Chart 7: Estimated Disposition of Used Oil



PURCHASING PREFERENCES

Twenty-four states now have some type of policy encouraging the purchase of re-refined or re-processed oil. Most of these preferences simply encourage the purchase of such products. For example, Illinois asks that state vehicles use “recycled oil whenever possible.” Maine has established a subsidy for companies purchasing used oil burners. Other states, such as Louisiana, require that preference be given to re-refined oil that meets manufacturers’ warranties, provided the oil contains 25 percent re-refined product and does not cost more than five percent more than other oils. Wisconsin encourages state agencies to purchase re-refined oil if it is available in sufficient supply of comparable quality, is available at competitive prices and satisfies applicable standards of the American Petroleum Institute Engine Oil Licensing and Certification System. The federal government also has certain purchasing preferences for recycled products, including re-refined oil.

It should be noted that the American Petroleum Institute has established classification standards for oil utilized in gasoline engines regardless of whether the product is refined or re-refined. As long as the product meets certain performance standards, then re-refined oil (as well as virgin oil) can be API-certified. For an overview of the Institute’s certification system, please see Insert 1—API Engine Oil Licensing and Certification System. In addition, the Federal Trade Commission recently issued a “final rule” on the labeling of re-refined oil (*Federal Register*, October 31, 1995). The rule utilizes API criteria to determine what is essentially equivalent to virgin oil.

INSERT 1**API ENGINE OIL LICENSING AND CERTIFICATION SYSTEM**

The American Petroleum Institute operates a voluntary licensing and certification program that establishes high standards for engine oil quality. The program, which is known as the Engine Oil Licensing and Certification System (EOLCS), was developed by API to provide consumers with the technical information they need to understand the performance and proper use of high quality engine oils. EOLCS licenses and certifies engine lubricants made from both crude oil and used oil that has been refined again.

EOLCS defines, classifies, certifies, and monitors engine oil performance to help motorists get the most out of their vehicles by using motor oils that prolong engine life and maintain the durability of emission control systems. The licensing and certification program makes it easier for consumers to select the right engine oil for their vehicles.

Two symbols—the API Service Symbol, or "donut," and the API Certification Mark, or "starburst"—are the registered marks that identify 2,000 motor oil products sold by 370 marketers worldwide as licensed and certified engine oils. They are the marketer's warranty that it complies with the licensing requirements.

EOLCS is based on a cooperative effort between the oil industry and vehicle and engine manufacturers represented by the American Automobile Manufacturers Association and the Engine Manufacturers Association. Performance requirements, testing methods and limits are established by vehicle and engine manufacturers and the International Lubricant Standardization and Approval Committee, the American Society for Testing and Materials, the Society of Automotive Engineers (SAE) and API.

The Certification Process

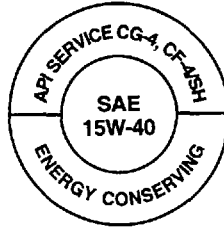
Before an oil can use the service symbol or the certification mark, engine tests are run at different temperatures and operating conditions to determine the oil's ability to protect against rust and corrosion, wear, oil thickening, and deposits and sludge. Additional tests are also run on engine parts, or operation is simulated to show how the oil performs in a variety of driving and weather conditions.

And there is an aftermarket audit to monitor use of the license and the symbols it conveys.

These licensing and certification standards assure motorists that API-licensed engine oils meet rigorous requirements.

API Service Symbol

API's Service Symbol shown below resembles a double circle and appears on the back of a bottle of motor oil. It designates the engine whether gasoline or diesel in which the oil should be used, describes the oil's characteristics and identifies its performance levels, or the conditions under which it should be used.



The top portion describes the oil's performance category. It indicates what engines should use that oil and rates the oil's ability to protect engines against wear, sludge, and corrosion. The designation is based on laboratory and engine tests that measure the oil's ability to control wear, sludge, varnish, oil thickening, rust, bearing corrosion, and piston deposits.

Here are the current API performance categories which appear in the top portion of the symbol:

- SG, for gasoline engines through 1993. Discontinued after December 31, 1995.
- SH, for gasoline engines in cars, vans, and light trucks through mid-1997, the scheduled launch date for the new GF-2 category.
- CD, for certain heavy-duty turbo-charged diesel engines. Discontinued after December 31, 1995.
- CD-II, for two-stroke cycle diesel engines. Discontinued after December 31, 1995.
- CE, for many high performance, four-stroke, and turbo-charged diesel engines. Discontinued after December 31, 1995.
- CF, for off-road indirect injection diesel engines using high sulfur fuel.
- CF-2, for two-stroke cycle diesel engines.
- CF-4, for high performance, four-stroke, and turbo-charged diesel engines.
- CG-4, for high-speed, four-stroke cycle diesel engines used in highway and off-road applications.

The center of the symbol describes the oil's viscosity, its flow characteristics, or thickness at a certain temperature. SAE sets the specifications for determining viscosity.

- The first number indicates low temperature viscosity, or how quickly an engine will start in winter and how well the oil will flow to lubricate critical engine parts at low temperature. Lower numbers mean better low-temperature performance and easier cold-weather starting.
- The second number indicates high-temperature viscosity, or an oil's ability to keep engine parts separated by an oil film at high temperature. Higher numbers mean better high-temperature performance.
- A multi-grade oil—SAE 5W-30, for example—provides good flow capability for cold weather, and retains its thickness for high temperature lubrication. The "W" is for "winter," designating this oil as appropriate for cold-weather use.

The bottom of the symbol tells whether the oil may have energy conserving properties when compared with a standard reference oil in a standard test. Oils labeled "Energy Conserving" have passed this test and produced a 1.5 percent improvement in fuel economy, compared to the reference oil. Oils labeled "Energy Conserving II" achieved a 2.7 percent improvement in fuel economy over the reference oil.

API Certification Mark

The starburst identifies engine oils recommended for specified use, such as in gasoline engines.



The top of the starburst carries the name of the American Petroleum Institute, which administers the licensing system. A marketer need not be an API member to earn certification.

The center of the starburst reads "FOR GASOLINE ENGINES." That identifies the product intended for use in light-duty gasoline engines. Other standards could be developed for light-duty diesel engine oils. If so, products meeting that standard would be marked for diesel use.

At the bottom of the starburst, the word "CERTIFIED" appears. That means the company selling that oil has confirmed that it meets all requirements and that the marketer has signed a formal licensing agreement with API and been granted an API license to use the mark.

For More Information

For general information on engine oil licensing, please call 202-682-8233. To obtain a copy of API Publication 1509, Engine Oil Licensing and Certification System, please call 202-682-8375, or *Contact:* Publications and Distribution, American Petroleum Institute, 1220 L Street, NW, Washington, D.C. 20005.

Regulatory Overview

FEDERAL USED OIL MANAGEMENT STANDARDS

In May of 1992, the United States Environmental Protection Administration issued standards establishing a presumption that all used oil is to be recycled unless a used oil handler disposes of used oil or sends used oil for disposal. EPA also established a rebuttable presumption that used oil containing more than 1,000 parts per million total halogens is a hazardous waste. Please refer to 40 CFR Part 279 for specific requirements. In a separate decision in September of 1992, the EPA issued management standards for used oil generators, transporters and processors/ re-refiners. It should be noted that do-it-yourselfers (i.e., household generators) are exempt from the management standards. The management standards are outlined below (see 40 CFR Part 279 for specific requirements):

Generators (i.e., service stations, vehicle repair shops, and quick lubes) must:

- Keep storage tanks and containers in good condition;
- Label storage tanks "used oil";
- Clean up any used oil spills or leaks to the environment; and
- Use a transporter with an EPA identification number when shipping used oil off-site.

In addition, service stations and vehicle repair outlets that comply with these standards and accept used oil from do-it-yourselfers are eligible for some liability relief under Superfund requirements. However, this relief is conditional upon compliance with the federal management standards and a few other requirements. See section 114(c) of CERCLA (42 USC §9614(c)).

Transporters/collectors must:

- Comply with all generator requirements;
- Obtain an EPA identification number, notify EPA of activities with regard to used oil, and only deliver used oil to an authorized handler;
- Limit storage at transfer facilities to 35 days;
- Provide secondary containment (berms, dikes, retaining walls) for processing and storing used oil;
- Test for halogen; and
- Meet specific tracking and record keeping requirements.

Generators who transport less than 55 gallons of their own used oil are exempt from the transporter requirements.

Finally, processors and refiners must meet all generator and transporter requirements.

In addition, they must:

- Comply with maintenance and operation standards to minimize danger of fire, explosion, and releases of used oil to the environment;
- Develop contingency plans and emergency procedures;
- Follow closure requirements; and
- Meet analysis, tracking, and record keeping and reporting requirements.

Contingency plans used to comply with other regulatory programs may be used to meet these requirements.

Currently, 30 states have adopted the federal used oil management standards, although 12 of these states have made some revisions. Eight additional states plan to adopt the federal regulations. For a list of the states following the used oil management standards, please see Table 17—States Reporting That They Have Adopted the Federal Used Oil Management Standards. For a summary of the history of federal used oil regulations, please see Table 18— Synopsis of Used Oil Regulations: A Federal Register History.

Table 17—States Reporting That They Have Adopted the Federal Used Oil Management Standards (30)

Alabama*	Missouri*
Alaska	Nevada*
Arkansas*	New York*
California*	North Carolina
Colorado	North Dakota
Delaware	Oklahoma
Florida	Oregon*
Hawaii	Pennsylvania
Idaho	South Carolina*
Illinois	Tennessee
Iowa	Utah*
Louisiana*	Vermont*
Maryland	West Virginia
Minnesota*	Wisconsin*
Mississippi	Wyoming

States Indicating They Will Adopt Federal Standards (8)

Connecticut	Ohio
Indiana	South Dakota
Montana	Texas*
New Jersey	Virginia

*Indicates state made some revisions to federal standards.

**TABLE 18—Synopsis of Used Oil Regulations:
A Federal Register History**

<u>Date</u>	<u>Regulation</u>	<u>Description</u>
5/19/80	45 FR 33094	Final rule promulgating first RCRA hazardous waste regulations, regulation of re-use, recycling and reclamation of used oil deferred until later date.
1/11/85	50 FR 1684	Proposed rule addressing used oil burned for energy recovery in boilers and industrial furnaces, 40 CFR Part 266, Subpart E.
11/29/85	50 FR 49166	Final rule implementing regulations for used oil burned for energy recovery in boilers and industrial furnaces, 40 CFR Part 266, Subpart E.
11/29/85	50 FR 49258	Proposed rule to list all used oil as hazardous waste.
11/29/85	50 FR 49212	Proposed rule addressing comprehensive management standards for recycled used oil.
11/19/86	51 FR 41900	Final rule announcing EPA's <u>decision not to list used oil to be recycled as hazardous waste</u> , tentative schedule to decide whether used oil destined for disposal is a listed hazardous waste.
4/13/87	52 FR 11819	Technical corrections notice to November 29, 1985, final rule regulating used oil fuels.
6/27/88	53 FR 24206	Final rule amending TSCA regulations governing burning of used oil containing less than 50 ppm PCBs, 40 CFR 761.20(e). Used oil fuels containing between 2 and 50 ppm PCBs considered "off-specification" and subject to provisions for marketers and burners at 40 CFR 266, Subpart E.
9/23/92	57 FR 21524	Final rule announcing EPA's <u>decision not to list used oil destined for disposal</u> as hazardous waste in response to court decision in <i>Hazardous Waste Treatment Council v. EPA</i> , 861 F.2d 270 (D.C. Cir. 1988). The rule also provided an exemption from the definition of hazardous waste for drained and/or crushed used oil filters, 40 CFR 261.4(b) (15).
7/1/92	57 FR 29220	Technical correction to used oil filter exemption promulgated by the 5/20/92 notice.

12/7/92	57 FR 57649	Final Nuclear Regulatory Commission rule allowing the on-site incineration of contaminated waste oils generated at licensed nuclear power plants.
9/10/92	57 FR 41566	Final rule announcing EPA's decision not to list used oil to be recycled as hazardous waste; promulgating comprehensive management standards for recycled used oil, 40 CFR Part 279; and rescinding 40 CFR Part 266, Subpart E. EPA postponed indefinitely the 9/23/91 proposal to list four residues from the re-processing and re-refining of used oil.
12/10/92	57 FR 58656	Proposed rule under section 608 of the Clean Air Act establishing a recycling program for ozone depleting refrigerants recovered during the servicing of air conditioning and refrigeration equipment. Discussion of regulatory status (including rebuttable presumption) of chlorofluorocarbon (CFC) containing used oils removed from refrigeration units.
3/23/93	58 FR 15435	Final rule making technical corrections to TSCA PCB rules at 40 CFR 761.20(e) to reflect changes from 40 CFR Part 266, Subpart E to Part 279.
3/23/93	58 FR 26420	Technical corrections notice clarifying portions of the 9/10/92 and 5/20/92 final rules. Also clarified that rescinded Subpart E of 40 CFR Part 266 was recodified in 40 CFR Part 279, subparts G and H, and remains in effect and enforceable in all states.
6/8/93	58 FR 32060	Technical corrections to 3/23/93 TSCA notice.
6/17/93	58 FR 33341	Technical corrections to 5/3/93 corrections notice addressing notification requirements for used oil handlers.
5/20/93	58 FR 66336	Advanced notice of proposed rulemaking under section 112 of the Clean Air Act, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for "off-site waste operations." Requests for comment and data from, among other activities, used oil re-refining, and used oil fuel blending activities.
8/31/93	58 FR 46052	Proposal to add used oil test methods for halogens to the third edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA SW-846 (methods 9075, 9076, and 9077).

- 11/19/93** **58 FR 61146 and 61307** Notice of draft National Pollutant Discharge Elimination System (NPDES) general stormwater permit and fact sheet for "scrap and waste material processing facilities" (including used oil) in EPA Regions I, II, III, IV, VIII, IX, and X.
- 2/11/94** **59 FR 6640** Notice of Report to Congress on cement kiln dust. Solicitation of comment regarding burning of used oil in cement kilns and chemical composition of residual dust.
- 3/4/94** **59 FR 10550** Final rule clarifying certain provisions of 40 CFR Part 279 as applied to the petroleum refining industry. Also clarifies applicability of the "processor" standards to certain activities not originally intended to be regulated as "processing."
- 4/20/94** **59 FR 18852** Proposed comprehensive procurement guideline designated vehicular lubricating oil as a material than can be recovered (i.e. government purchasing preference for re-refined lube oil).
- 4/25/94** **59 FR 21076** Regulatory Agenda, Effluent Guidelines and Standards for the Centralized Waste Treatment Industry (facilities that receive hazardous or non-hazardous wastes from off-site for treatment or recovery), projected proposal date of December 1994.

STATE HAZARDOUS WASTE LISTINGS FOR USED OIL

Five states have adopted a more stringent approach to used oil management by declaring used oil as a hazardous waste. These states are California, Massachusetts, Rhode Island, Vermont, and New Jersey. Missouri previously considered used oil hazardous but “de-listed” used oil after the federal government issued its management standards. In addition, New Jersey officials were considering “de-listing” used oil at the time of the printing of this publication.

FEDERAL USED OIL FILTER MANAGEMENT STANDARDS

In May of 1992, the U.S. Environmental Protection Agency also issued regulations governing the disposal of used oil filters. This ruling eased the management requirements for used oil filters by indicating that non-terne plated filters that have been gravity hot-drained need not be tested to determine if they are hazardous. These filters are now automatically considered non-hazardous. Terne is an alloy of lead and tin, previously utilized as a corrosion-inhibitor in some heavy duty filters. It should be noted that all major U.S. manufacturers of oil filters had ceased production of terne-plated filters as of January 1, 1993.

The EPA listed several methods of hot-draining non-terne plated filters, including:

- Puncturing the filter dome end and hot-draining, or
- Hot-draining and crushing, or
- Dismantling and hot-draining, or
- Any other equivalent hot-draining method.

Hot-draining is defined as draining the filter at or near engine operating temperature, but no less than 60 degrees Fahrenheit. The federal standards recommend draining the filters for 12 hours.

STATES WITH MORE STRINGENT FILTER DISPOSAL REQUIREMENTS

As with used oil, a number of states have adopted more stringent used oil filter disposal requirements. Three states (Rhode Island, Texas, and Minnesota) have banned all oil filters from landfills. A fourth state, Florida, has banned commercially generated oil filters from landfills, but still allows household-generated DIY filters to be disposed of as solid waste. Finally, California considers used oil filters hazardous waste unless they are recycled.

For an overview of the various state filter regulations, please see Table 19—Used Oil Filter Regulation Summary, courtesy of the MEMA Environmental Institute. However, one should note that this summary is not intended to be a complete overview of the regulations and should only be used for comparative purposes.

Table 19—Used Oil Filter Regulation Summary

State	Landfill	Contact Person	Comments
Alabama	Yes	205-271-7700 Terry Shipman	12 hour hot-draining recommended
Alaska	Yes	907-465-5168 Jeffrey Hurst	12 hour hot-draining recommended
Arizona	Yes	602-207-4140 Robert Verville	12 hour hot-draining recommended
Arkansas	Yes	501-562-6533 Bob Finn	12 hour hot-draining recommended
California	Yes	916-322-4742 Claudia Moore	2 options—recycle or manage as hazardous waste; storage limits; bill of lading requirements
Colorado	Yes	303-692-3300 Scott Klarich	12 hour hot-draining recommended
Conn.	Yes	203-566-4869 George Dews	24 hour hot-draining required; can puncture & drain; state prefers crush & drain
Delaware	Yes	302-739-3689 Karen J. Anthony	12 hour hot-draining recommended
DC	Yes	202-727-1800 Carl Williams	12 hour hot-draining recommended
Florida	No	904-488-0300 Rick Neves	Landfill ban by commercial generators; filter generators & processors must register with state or contract with registered processor to manage their used filters; filters must be stored in leak-proof container; annual reports.
Georgia	Yes	404-362-2537 Rick Cothran	12 hour hot-draining recommended
Hawaii	Yes	808-586-4240 George Teramoto	24 hour hot-draining or crushing; cannot be contaminated with a hazardous waste
Idaho	Yes	208-334-5898 John Brueck	12 hour hot-draining recommended
Illinois	Yes	217-524-3300 Mark Schollenberger	Undrained, uncrushed filters subject to special waste regulations including manifesting & special hauling requirements; drained, crushed filters destined for recycling are considered scrap metal. Drained, crushed filters destined for disposal must have a hazardous waste determination done.
Indiana	Yes	317-233-4994 Mike Penington	12 hour hot-draining recommended
Iowa	Yes	515-281-8912 Paul Lundy	12 hour hot-draining recommended; retailers that sell used oil filters must display consumer info. booklets
Kansas	Yes	913-296-1120 Richard Bronaugh	12 hour hot-draining recommended
Kentucky	Yes	502-564-6716 Paul Rawlings	landfill operator can refuse filters; must have no free-flowing oil, pass TCLP & paint filter test
Louisiana	Yes	504-765-0249 John Rogers	12 hour hot-draining recommended
Maine	Yes	207-287-2651 Richard Kaselis	12 hour hot-draining recommended
Maryland	Yes	410-631-3386 Horacio Tablada	12 hour hot-draining recommended
Mass.	Yes	617-292-5887 Nancy Wrenn	12 hour hot-draining required
Michigan	Yes	616-456-5071 Dale DeKraker	12 hour hot-draining recommended; generator is responsible for determining if filter is terne-plated
Minnesota	No	612-297-8330 Paula O'Keefe	DIY & commercial landfill ban; if recycled, no testing; if not recycled, manage as hazardous waste
Miss.	Yes	601-961-5377 David Lee	12 hour hot-draining recommended
Missouri	Yes	314-751-3176 Karen Northrup	12 hour hot-draining required
Montana	Yes	406-444-1430 Lara Dando	12 hour hot-draining recommended
Nebraska	Yes	402-471-2186 Dave Johnson	12 hour hot-draining required
Nevada	Yes	702-687-4670 Tim Murphy	12 hour hot-draining recommended
N.H.	Yes	603-271-2942 Christopher Way	1 hour hot-draining required
N.J.	Yes	609-292-8341 Robin Heston	If used oil filter meets empty container definition, then not regulated as a hazardous waste—all free flowing oil must be removed & no more than 2.5 cm of oil residue can be left; must puncture filter anti-drain back valve.
N.M.	Yes	505-827-2860 Jim Condiss	24 hour hot-draining recommended
N.Y.	Yes	518-457-7337 Bill Mirabile	12 hour hot-draining recommended
N.C.	Yes	919-733-4996 Margaret Babb	24 hour hot-draining required
N.D.	Yes	701-328-5166 Stephen Herda	12 hour hot-draining recommended
Ohio	Yes	614-644-3020 Arthur Coleman	12 hour hot-draining recommended

Table 19—Used Oil Filter Regulation Summary (Continued)

State	Landfill	Contact Person	Comments
Okla.	Yes	405-271-5338 Chris Crosley	12 hour hot-draining recommended; if more than 1 55-gallon drum, need departmental approval prior to disposal
Oregon	Yes	503-229-5562 Rick Volpel	12 hour hot-draining recommended
Penn.	Yes	717-787-7381 Scott Walters	12 hour hot-draining recommended
R. I.	No	401-277-2797 Robert Nero	Corporate generators—24 hour hot-draining required with crushing if being recycled, otherwise manage as hazardous waste, storage limited to 90 days and papers documenting filter handling must be kept for three years.
S.C.	Yes	803-896-4204 Deborah McCoy	12 hour hot-draining recommended
S.D.	Yes	605-733-3153 Carrie Jacobson	12 hour hot-draining recommended
Tenn.	Yes	615-532-0871 J.W. Darden	Landfilled filters must be drained & crushed & are managed as special waste; recycled filters are not subject to hazardous waste regulation but if filter is dismantled, recycler must certify that gasket & media are non-hazardous.
Texas	No	512-239-6765 Jane Scheidler	Cradle to grave regulation of filters; strict standards; all handlers must register with TNRCC
Utah	Yes	801-538-6170 Jon Parry	12 hour hot-draining recommended
Vt.	Yes	802-241-3888 Marc Roy	Filters must be drained for 4 hours; all oils must be collected & filter must not exhibit a hazardous characteristic
Virginia	Yes	804-527-5138 Steven Frazier	12 hour hot-draining recommended
Wash.	Yes	360-407-6106 David Knightingale	24 hour hot-draining required
W.V.	Yes	304-558-3370 Ollie Harvey	24 hour hot-draining required
Wisc.	Yes	608-264-9209 Andy Swartz	Can be treated as solid waste if not mixed with a listed hazardous waste and must be gravity hot-drained for 12 hours
Wyoming	Yes	307-777-7752 Timothy Link	48 hour hot-draining recommended

Neither MEMA nor the Filter Manufacturers Council nor their affiliates or members can guarantee the accuracy of the information provided. Efforts have been made by telephone and written communication to obtain the most up-to-date and accurate information possible; but no assurances can be given, and the information should be used by the questioner at his or her own risk. Should there be any question about the proper procedures for the disposal of used filters or other waste materials, you should seek individual professional advice from your state or local agency. Moreover, the information provided is the property of the MEMA Environmental Institute, Inc. and the Filter Manufacturers Council, and may not be duplicated or provided to others without the express written permission of the MEMA Environmental Institute. Information provided to the American Petroleum Institute courtesy of the Filter Manufacturers Council and the MEMA Environmental Institute. This data was last updated in September of 1995.

Overview of Used Oil Filter Collection Efforts

Officials from the following nine jurisdictions indicated that they have now implemented formal used oil filter collection programs:

- Arkansas
- California
- Connecticut
- District of Columbia
- Minnesota
- Oklahoma
- Rhode Island
- South Carolina
- Texas

Unfortunately, little data is available for actual numbers of oil filters collected per state. However, a recent survey conducted by the Filter Manufacturers Council indicates that filter recycling is growing. The Council surveyed 69 filter processors (companies that prepare filters for final disposition at steel mills by dismantling, shredding or crushing). Of these companies, 36 provided information about filter processing rates. In 1994, these 36 companies processed an estimated 56 million used oil filters. However, the same companies had already processed approximately 44 million filters as of June 30, 1995. These figures are not exact because, in some instances, 55-gallon drums or tons of filters processed must be converted to actual numbers of filters. If these companies simply maintained the same processing rate for the remainder of 1995—and evidence indicates that the processing industry is growing—the companies would have managed close to 90 million filters in 1995. Considering that waste-to-energy recovery facilities were not included in this survey and more than 30 processing companies did not respond, the recycling rate for all used oil filters (passenger car and heavy duty truck filters) could reach 25 percent prior to the beginning of 1996. This figure is based on the approximately 420 million filters sold in 1993. One should note that filters were first recycled in late 1991. An estimate of filters sold per state is included as Table 20—Estimated Light Duty Oil Filters Sold in Each State in 1994.

A separate survey conducted by the Motor and Equipment Manufacturers Association and the Car Care Council found that many consumers are willing to recycle both used oil and filters. The survey was conducted at maintenance check points in 14 states as part of National Car Care Month in October of 1994. Of the 900 participants completing survey questions regarding used oil and filter disposal, 42 percent indicated they take used oil filters to service outlets or government-operated recycling centers, as opposed to disposing of the filters as solid waste. These survey respondents showed an even higher tendency to return used oil to service outlets or government-operated collection centers at 85 percent.

Additional information about filter recycling efforts can be obtained by contacting the Filter Manufacturers Council through the Used Filter Hotline at 1-800-993-4583 (1-800-99-FILTER). This service provides a summary of oil filter disposal regulations for all 50 states, the District of Columbia, Puerto Rico, and 10 Canadian provinces. The hotline also lists over 120 companies providing filter management services throughout the country and indexes these companies by the states they serve.

Table 20—Estimated Light Duty Oil Filters Sold in Each State in 1994*

State	Vehicle Miles of Travel Fed. Highway Admin.—1992 (in Millions)	Vehicle Registrations by State Fed. Highway Admin.— 1993	Est. Number of Light Duty Oil Filters Sold by State in 1994
Alabama	45,762	3,360,000	7,002,721
Alaska	3,841	500,000	796,860
Arizona	35,047	2,793,000	5,573,831
Arkansas	23,081	1,524,000	3,368,241
California	262,548	22,472,000	43,240,913
Colorado	28,927	2,894,000	5,165,227
Connecticut	26,459	2,557,000	4,638,124
Delaware	6,892	557,000	1,103,535
Florida	114,311	10,494,000	19,507,645
Georgia	77,904	6,096,000	12,281,936
Hawaii	8,066	775,000	1,409,612
Idaho	10,764	1,031,000	1,878,015
Illinois	87,642	7,980,000	14,893,423
Indiana	57,072	4,623,000	9,148,373
Iowa	23,926	2,749,000	4,613,079
Kansas	24,163	1,960,000	3,875,830
Kentucky	38,062	3,023,000	6,043,477
Louisiana	33,853	3,140,000	5,808,061
Maine	12,151	977,000	1,940,778
Maryland	41,896	3,763,000	7,069,972
Massachusetts	47,348	3,619,000	7,382,156
Michigan	84,219	7,394,000	14,048,595
Minnesota	41,162	3,557,000	6,811,747
Mississippi	26,239	1,997,000	4,082,789
Missouri	53,254	4,066,000	8,298,737
Montana	8,525	932,000	1,598,121
Nebraska	14,621	1,373,000	2,524,640
Nevada	10,897	950,000	1,811,304
New Hampshire	10,067	881,000	1,676,563

Table 20—Estimated Light Duty Oil Filters Sold in Each State in 1994* (Continued)

State	Vehicle Miles of Travel Fed. Highway Admin.—1992 (in Millions)	Vehicle Registrations by State Fed. Highway Admin.— 1993	Est. Number of Light Duty Oil Filters Sold by State in 1994
Oklahoma	35,119	2,789,000	5,575,941
Oregon	27,926	2,651,000	4,849,458
Pennsylvania	89,200	8,309,000	15,337,690
Rhode Island	7,676	616,000	1,224,884
South Carolina	35,049	2,581,000	5,370,641
South Dakota	7,218	731,000	1,297,365
Tennessee	49,994	4,751,000	8,686,541
Texas	163,329	12,880,000	25,845,017
Utah	16,307	1,277,000	2,571,811
Vermont	6,019	467,000	945,099
Virginia	63,447	5,398,000	10,418,315
Washington	49,386	4,451,000	8,348,557
West Virginia	16,478	1,278,000	2,586,894
Wisconsin	47,628	3,813,000	7,591,371
Wyoming	6,217	497,000	990,229
Dist. of Columbia	3,562	262,000	545,521
Total	2,239,828	192,865,000	370,000,000

*Estimated total U.S. replacement sales of light duty (i.e., passenger car and light truck) oil filters is courtesy of the Filter Manufacturers Council and the Motor and Equipment Manufacturers Association. Total includes estimated sales for passenger car and light truck applications only. Filter sales per state are calculated by examining the percentage of national vehicle miles of travel each state has, plus the percentage of national vehicle registrations allocated to each state. Total U.S. light duty filter sales based on statistical reporting by members of the Filter Manufacturers Council.

Key Statistical Findings—Summarized

Several factors have an apparent impact on the success of state used oil collection programs, particularly total funds spent on grants and total funds spent on public education.

To some degree, expenditures on grants actually impact the average number of collection centers in a state. However, the high degree of impact is limited to public-run centers, as opposed to centers operated voluntarily by the private sector. The two states spending less than \$100,000 per year on grants reported an average of 765 collection centers (both private and government-operated). States spending more than \$100,000 on grants annually averaged a total of an additional 112 collection outlets (877) per state.

Grant funding also impacts total gallons collected, although only five states provided adequate data to examine this variable. In addition, the type of oil collected (DIY, service-installed, industrial) may not always be consistently reported. Two states spent less than \$100,000 on grant programs each year and averaged collecting just over 5 million gallons. On the other hand, three states spent more than \$100,000 annually on grants and collected an average of 26 million gallons each. One should note that the number of gallons collected can be difficult to compare since some states include commercial and industrial oils in figures reported.

In general, increased expenditures in the area of public education also had a positive impact on total centers in operation. However, spending had to reach a fairly high threshold before having an impact. States spending under \$60,000 on public education programs averaged a total of 444 collection points (six states). States spending more than that amount on public education (three states) averaged 1,067 collection points. It should be noted that in some instances the larger states, such as California, were the states spending more on grants and public education. As a result, the huge volume of oil available for collection in California may distort these figures.

Finally, states operating hotlines for DIYers to call and locate a used oil collection point collected about twice as many gallons as those states that did not. States with hotlines reported collecting, on average, more than 14 million gallons in 1993 (13 states). States without hotlines reported that collection figures averaged just over 3.5 million gallons in 1993 (five states). Increased success also was evident at government-operated collection points in states with hotlines. Three states without hotlines on average collected just less than 391,000 gallons at government-run centers in 1993. Eight states with hotlines collected nearly double that amount at government-operated centers, on average collecting more than 611,000 gallons per state. Once again, the number of gallons collected may be distorted in some states that only have a total figure for all oil, including industrial oils.

For specifics, please refer to Table 21—Statistical Findings.

Table 21—Statistical Findings

SPENDING ON GRANTS (n = 6 states reporting.)

Amount Spent	Average Number of Collection Locations	Total States in This Category
<\$100,000	765	2
>\$100,000	877	4

SPENDING ON GRANTS (n = 5 states reporting.)

Amount Spent	Average Quantity of Oil Collected	Total States in This Category
<\$100,000	5 million gallons	2
>\$100,000	26 million gallons	3

SPENDING ON PUBLIC EDUCATION (n = 9 states reporting.)

Amount Spent	Average Number of Collection Locations	Total States in This Category
<\$60,000	444	6
>\$60,000	1,067	3

STATES OPERATING DIY USED OIL COLLECTION HOTLINES (n = 18 states reporting.)

Operating Hotline	Collected in State in 1993	Total States in This Category
No	3.6 million gallons	5
Yes	14.3 million gallons	13

STATES OPERATING DIY USED OIL COLLECTION HOTLINES (n = 11 states reporting.)

Operating Hotline	Avg. of Gallons Collected at Govt.-Run Centers in 1993	Total States in This Category
No	390,964 gallons	3
Yes	611,442 gallons	8

State Narratives

The data in this section was reported by the states based on available information as of the Summer of 1995.

ALABAMA

Quick Facts:

Used Oil Collection Centers	- 250
Gallons Collected in State (1993)	- 9,000,000 (DIY and installed)
State Sponsored Program	- Project R.O.S.E. (Recycled Oil Saves Energy)

Program Contact:

Sheri Powell
 Project R.O.S.E.
 University of Alabama
 Department of Chemical Engineering
 Tuscaloosa, AL 35487
 205/348-4878

Alabama has one of the nation's oldest used oil collection programs. Entitled Project R.O.S.E. (Recycled Oil Saves Energy), the state's used oil program was established in 1977. The program, which is administered through the University of Alabama's Department of Chemical Engineering, has an annual budget of \$75,000. The budget is strictly used for public education and administrative overhead. No funds are available for recycling equipment. However, the state has a separate grant program for all recyclables, including used oil. It is funded through a Department of Energy block grant.

The state's regulatory authority lies within the Land Division, Resource Conservation and Recovery Act (RCRA) Compliance Branch of the Alabama Department of Environmental Management. The state adopted the federal management standards for used oil as of January 1995.

Alabama currently has 50 government-operated collection centers and about 200 collection locations operated by private businesses. These include service stations, quick lubes, car dealerships, and retailers. Government-operated centers successfully collected 800,000 gallons of oil from do-it-yourselfers (DIYers) in 1993. In that same year, privately run locations collected 8.2 million gallons of oil (both service installed and DIY). To assist DIYers, Project R.O.S.E. operates a toll-free number to provide callers with the location of drop off centers in their area. Future initiatives for Project R.O.S.E. include used oil collection at marinas.

ALASKA

Quick Facts:

Used Oil Collection Centers	- 15
Total Gallons Collected in State	- Unknown
State Sponsored Program	- No specific state program.

Regulatory Contact:

Jeffrey B. Hurst
 Environmental Specialist III
 Solid and Hazardous Waste Program
 Division of Air and Water Quality
 Department of Environmental Conservation
 410 Willoughby Ave., Suite 103
 Juneau, AK 99801-1795
 907-465-5150

The state of Alaska does not administer a used oil collection program. However, officials are aware of five government-operated collection centers and 10 used oil collection locations operated by private businesses. Prior to 1992, the state sponsored a household hazardous waste collection program, which included the collection of used oil. However, due to budgetary constraints, these are now administered by local communities and local businesses. At least eight cities maintain Household Hazardous Waste Collection Programs.

The state's regulatory authority rests with the Department of Environmental Conservation, Air and Waste Quality Division, Solid and Hazardous Waste Program. The federal used oil management standards became effective in 1993. U.S. EPA administers RCRA (Resource Conservation and Recovery Act) programs in Alaska, since it is a non-authorized state (i.e., the state is not federally authorized to run its own state RCRA program).

The state faces unique obstacles to used oil collection, including remoteness of communities; limited road systems (much of Alaska can only be reached by air or water); high costs of recycling (especially transportation); and the vast distances involved.

ARIZONA**Quick Facts:**

Used Oil Collection Centers	- 310
Gallons Collected in State (1994)	- 11,400,000 (Total used oil collected)
State Sponsored Program	- Limited public education and grant program.

Regulatory Contact:

Robert Verville
 Used Oil Compliance Manager
 Arizona Department of Environmental Quality
 Waste Programs Division
 3033 North Central Ave.
 Phoenix, AZ 85037
 602-207-4140

While Arizona does not have a formal used oil collection program, the state does have limited funding for education based on a fee for burning used oil. The state charges six cents per gallon for burning on specification used oil (i.e., used oil that does not contain a certain level of other ingredients that would make the mixture hazardous under federal standards). In addition, if someone chooses to burn off-spec oil (i.e., used oil that exceeds the allowable level for certain items that may be considered hazardous such as arsenic, cadmium, chromium, or lead), then the charge increases to 20 cents per gallon.

The state funds a few grants for public education, recycling costs and used oil storage tanks. One recent \$55,000 grant included a pilot program to establish used oil filter collection in the Phoenix metropolitan area.

The state regulates used oil through the Department of Environmental Quality, Waste Programs Division. However, Arizona has yet to adopt the federal management standards for used oil.

State officials estimate that there are approximately 310 used oil collection centers throughout Arizona. In 1994, used oil collectors reported accepting 11.4 million gallons of used oil (service-installed and DIY).

ARKANSAS

Quick Facts:

Used Oil Collection Centers	- 35
Gallons Collected in State (1994)	- 3,600,000 (Total used oil collected)
State Sponsored Program	- No specific state program.

Contact:

Suzanne Smith Hirrel
 Extension Specialist - Waste Management
 Arkansas Department of Pollution Control and Ecology
 Recycling Division
 P.O. Box 8193
 Little Rock, AR 72219-8913
 501-562-6533

Arkansas does not administer a formal used oil collection program. However, there are a number of municipalities collecting oil from do-it-yourselfers, including Batesville, Pocahontas, Blytheville, Huntsville, Madison County, Eureka Springs, and Little Rock. The state does mandate that each county have municipal collection centers for at least three problematic waste streams. Used oil is one of the materials that counties may collect under this program. Some of these centers are funded through grants from landfill tipping fees.

Used oil programs are administered by the Arkansas Department of Pollution Control and Ecology. In 1994, the state adopted the federal management standards for used oil with some revisions.

State officials now know of at least nine government-run locations and 26 private businesses operating collection points. Used oil collection is now available in more than 40 percent of the state's 76 counties. In 1994, used oil haulers reported collecting 3.6 million gallons from throughout Arkansas. In addition, in less than one year, the state collected more than 50,000 used oil filters through an innovative public-private partnership. Wal-Mart provided limited grant funding for three rural counties to purchase filter crushing equipment. In turn, the state worked with Nucor-Yamato Steel to develop an end market for filter scrap. The pilot program began in late 1994 and only preliminary results were available at the time of this study.

CALIFORNIA

Quick Facts:

Used Oil Collection Centers	- 1,500
Gallons Collected in State (1994)	- 77,000,000 (Total used oil collected)
State Sponsored Program	- Funded through fee on virgin oil.

Program Contact:

Robert Boughton
 Senior Waste Management Specialist
 California Integrated Waste Management Board
 8800 Cal Center Drive
 Sacramento, CA 95826
 916-255-2327

The state administers an elaborate program to encourage used oil recycling, with a budget of \$22 million and 30 employees. Both public and private oil collection is common throughout the state by municipalities, retailers, and vehicle maintenance and repair outlets. The state provides block grants for used oil collection of up to \$1,100,000 based on a community's size. This funding can be used to provide storage tanks, provide public education, establish curbside collection, establish drop off centers, and pay for actual recycling costs. All funding for the program comes from a four cent fee on each quart of packaged oil sold in the state. A DIYer can receive reimbursement for this fee once used oil is returned to a certified collection center. In order for collection centers to receive reimbursement costs, both government and business-operated locations must meet extensive reporting requirements.

The state's used oil programs are administered by the California Integrated Waste Management Board. In January of 1995, the state adopted the federal used oil management standards. However, the state did revise the standards substantially.

Currently, 300 government-operated and 1,200 business-operated oil collection locations are in existence throughout the state of California. The state's efforts resulted in 77 million gallons of used oil being collected during 1994, including vehicle and industrial oil. This figure includes 786,000 gallons collected through curbside collection in several of the state's municipalities. The state estimates that a total of 113 million gallons of used oil should be available for collection annually. (Note: Most states use total amount of oil sold when calculating collection percentages; California calculates how much may be available for collection since some oil is consumed in internal combustion engines and is otherwise unrecoverable. As a result, the state's collection percentage may appear higher than other states.)

Beginning in July 1995, the state started a pilot program to encourage used oil filter collection. As of August 1995, five cities had implemented curbside filter collection and two more cities planned to start such programs.

COLORADO

Quick Facts:

- Used Oil Collection Centers - Unknown.
- Total Gallons Collected in State - Unknown.
- State Sponsored Program - No specific state program.

Regulatory Contact:

Scott Klarich
 Environmental Protection Specialist
 Colorado Department of Public Health and Environment
 Hazardous Materials and Waste Management Division
 4300 Cherry Creek Drive South
 Denver, CO 80222
 303-692-3369

Colorado does not administer a used oil collection program. However, the state does offer a loan program for general waste diversion, which could include used oil. The state also has limited certification requirements for public used oil collection centers. State officials know of public collection programs in at least two cities (Westminster and Longmont) and three counties (Adams, Larimer, and Jefferson).

The state regulates used oil through the Hazardous Materials and Waste Management Division of the Colorado Department of Public Health and Environment. The state adopted federal used oil management standards in November 1994.

While little specific information on collection of used oil is available from the state, Colorado did report that Evergreen Oil Company, a re-refinery in northern California, is now collecting approximately 500,000 gallons per year from commercial locations in the state.

CONNECTICUT

Quick Facts:

- Used Oil Collection Centers - 120
- Gallons Collected in State (1993) - 9,624,052 (721,724 DIY gallons collected, remainder is installed; 735,054 gallons of DIY oil were collected in 1994)
- State Sponsored Program - Provided through general fund.

Contact:

Inga Rubecka
 Processing Technician
 Department of Environmental Protection
 Bureau of Waste Management
 Recycling and Hazardous Waste Engineering and Enforcement
 79 Elm St., Fourth Floor
 Hartford, CT 06106-5127
 203-424-3365

Connecticut funds a used oil collection program through general funds. The program has been in existence since 1988. The state offers grants for capital expenditures to local

governments or recycling regions for the purchase of storage tanks, providing spill containment areas, or for public education.

The state's program is administered through the Department of Environmental Protection's Bureau of Waste Management, Recycling and Hazardous Waste Engineering and Enforcement Division. The state has adopted a portion of the federal used oil management standards. However, waste oil is classified as a non-RCRA hazardous waste and must be collected and transported to a permitted waste facility.

Approximately 120 centers collect used oil throughout the state. Permitted public collection centers must meet a number of requirements, including use of a licensed hauler and spill containment areas. Municipal recycling centers collected more than 700,000 gallons of used oil in fiscal 1994, while used oil haulers reported collecting a total of more than 9.5 million gallons of used oil in 1993.

DELAWARE

Quick Facts:

- Used Oil Collection Centers - 45
- Gallons Collected in State (1994) - 97,790 (DIY Only)
- State Sponsored Program - Funded through landfill tipping fee.

Program Contact:

Rich Von Stetten
 Recycling Manager
 Delaware Solid Waste Authority
 1128 S. Bradford St.
 Dover, DE 19903-0455
 302-739-5361

Legislation in 1991 mandated establishment of general recycling centers throughout the state of Delaware, including used oil drop-off centers.

The state's programs are administered through the Delaware Solid Waste Authority. The state adopted federal used oil management standards in the summer of 1994.

Delaware officials reported knowledge of 45 government-operated used oil collection centers throughout the state. In 1994, these centers collected just under 100,000 gallons of used oil, up from 16,811 gallons during the first year of the program, 1991. Star's Delaware City refinery processes the used oil into gasoline and other petroleum products.

DISTRICT OF COLUMBIA

Quick Facts:

- Used Oil Collection Centers - 28
- Gallons Collected (1994) - 146,000 (60,000 gallons DIY)
- State Sponsored Program - Limited congressional funding.

Contact:

Carl Williams
 Program Manager
 District of Columbia Energy Office
 613 G St., NW, Suite 500
 Washington, DC 20001
 202-727-4700

The District of Columbia receives limited funding through the Federal Energy Extension Service. As a result of only receiving \$2,000 for this project each year, the District does not offer grants.

The program is managed through the District of Columbia Energy Office. The District has not adopted federal oil management standards.

Currently, four public centers and 24 centers run by private businesses are collecting used oil in the District. These efforts resulted in the collection of an estimated 60,000 gallons by government-operated centers and 86,000 gallons collected by private businesses in 1994. Both government and business-operated collection points have some certification requirements.

FLORIDA

Quick Facts:

Used Oil Collection Centers	- 1,370
Gallons Collected in State (1994)	- 80,000,000 (Total collected; 1,900,000 DIY)
State Sponsored Program	- Funded through Water Quality Trust Fund.

Program Contact:

Rick Neves
 Environmental Specialist
 Florida Department of Environmental Protection
 Waste Management Division
 MS 4555 / 2600 Blair Stone Road
 Tallahassee, FL 32399-2400
 904-488-0300

Florida established a used oil collection program in 1988. At that time, the state provided grants to establish collection centers; however, this funding had a sunset provision and has not been reestablished. Currently, a one cent per quart fee on virgin oil provides funding to a Water Quality Assurance Trust Fund. This trust fund provides for the clean up of contaminated sites and salaries for two individuals working with used oil collection.

The state's programs are administered by the Division of Waste Management of the Florida Department of Environmental Protection. The state adopted the federal used oil management standards in April 1995.

Currently, there are a total of 1,370 used oil collection centers throughout the state. These centers are certified, and thus they must file an annual report and utilize licensed haulers. The state also operates a toll-free hotline and requires retailers selling more than 500 gallons of oil each year to post signs about oil recycling and the availability of collection centers. In 1994, more than 80 million gallons (DIY, installed and industrial) of used oil were collected throughout the state. At least 1.9 million gallons of DIY oil were collected from public used oil collection centers in 1993, the latest year with specific breakdowns available.

Florida utilizes one unique end use for used oil. Some used oil is utilized in phosphate beneficiation during phosphate mining.

While no formal government-initiated oil filter collection efforts are under way at this time, the state does ban commercially generated used oil filters from landfills and there are a number of private oil filter management companies collecting used filters.

GEORGIA**Quick Facts:**

- | | |
|-----------------------------|-------------------------------------|
| Used Oil Collection Centers | - Unknown. |
| Gallons Collected in State | - Unknown. |
| State Sponsored Program | - No specific program for used oil. |

Contact:

Rick Cothran
 Program Manager
 Georgia Department of Natural Resources
 Environmental Protection Division
 4244 International Parkway
 Atlanta, GA 30354
 404-362-2591

The state of Georgia does not administer a used oil collection program. However, some private collection does exist through service stations, quick lubes, and some recycling centers.

The state regulates used oil through the Environmental Protection Division of the Georgia Department of Natural Resources. The state has not adopted the federal used oil management standards.

While the state does not have a specific used oil program, the city of Columbus is operating a curbside used oil program.

HAWAII**Quick Facts:**

- | | |
|-----------------------------|-------------------------------------|
| Used Oil Collection Centers | - Unknown. |
| Gallons Collected in State | - Unknown. |
| State Sponsored Program | - No specific program for used oil. |

Contact:

George Teramoto
 Environmental Engineer
 Department of Health
 Office of Solid Waste Management
 Solid and Hazardous Waste Branch
 919 Ala Moana Boulevard, Room 210
 Honolulu, HI 96814
 808-586-4240

The state of Hawaii does not administer a specific program for used oil collection. However, efforts are under way at the county level through an Environmental Response Revolving Fund. Some counties use collection centers, while others have contracted household hazardous waste collection days.

The federal used oil management standards became effective in March of 1993, since Hawaii is not authorized to administer its own RCRA program. Used oil is regulated through the Solid and Hazardous Waste Branch of the Office of Waste Management in the Department of Health.

IDAHO**Quick Facts:**

- Used Oil Collection Centers - Unknown.
- Gallons Collected in State - Unknown.
- State Sponsored Program - No specific program for used oil.

Contact:

John Brueck
 Hazardous Materials Policy and Standards Supervisor
 Idaho Department of Health and Welfare
 Division of Environmental Quality
 1410 N. Hilton St.
 Boise, ID 83706
 208-334-5898

Idaho does not administer a formalized used oil collection program. However, a state program for used oil collection is being considered. Used oil recycling is also included in household hazardous waste collection days in a number of the state's larger cities.

Used oil is regulated through the state's Department of Health and Welfare, Division of Environmental Quality. The agency adopted federal used oil management standards in February of 1994.

ILLINOIS**Quick Facts:**

- Used Oil Collection Centers - Unknown.
- Gallons Collected in State - Unknown.
- State Sponsored Program - Voluntary collection encouraged.

Contact:

Michael Nechvatal
 Manager, Solid Waste Management Section
 Illinois Environmental Protection Administration
 2200 Churchill Road
 Springfield, IL 62706
 217-785-8604

The state of Illinois has no formalized used oil collection program. However, the state does encourage recycling and urges retailers to post signs indicating the nearest used oil collection center.

Used oil is regulated through the Illinois Environmental Protection Administration, Solid Waste Management Section. The state has adopted the federal used oil management standards.

In 1991, the University of Illinois Center for Solid Waste Management and Research conducted an extensive study on used oil management in Illinois. The study estimated that the state generates more than 44 million gallons of used engine oil annually and an additional 25 million gallons of used industrial oil. The study also found that the state had approximately 170 used oil collection points operated by private businesses and government entities.

INDIANA**Quick Facts:**

- | | |
|-----------------------------|-------------------------------------|
| Used Oil Collection Centers | - Unknown. |
| Gallons Collected in State | - Unknown. |
| State Sponsored Program | - No specific program for used oil. |

Contact:

Mike Pennington
 Environmental Manager
 Indiana Department of Environmental Management
 100 N. Senate Ave.
 P.O. Box 6015
 Indianapolis, IN 46206-6015
 317-233-4994

The state of Indiana does not administer a used oil collection program. However, municipal recycling is occurring in the city of Indianapolis. In addition, some funding is available through household hazardous waste grants. These could include demonstration sites, curbside waste collection programs, and permanent waste collection centers.

Used oil is regulated through the Indiana Department of Environmental Management. The state planned to adopt the federal used oil management standards in late 1995.

IOWA**Quick Facts:**

- | | |
|-----------------------------|---|
| Used Oil Collection Centers | - 850 |
| Gallons Collected in State | - Unknown. |
| State Sponsored Program | - Funded through landfill tipping fees. |

Contact:

Marilyn Kragulski
 Environmental Specialist
 Iowa Department of Natural Resources
 Waste Management Assistance Division
 Wallace State Office Building
 Des Moines, IA 50319
 515-281-8308

Iowa administers a small used oil collection program funded through landfill tipping fees. However, the program's annual budget is only \$5,000 and represents 12 percent of one full-time employee for administration and education. The state also funds general recycling grants, which may include collection of used oil. Landfill alternative grants have been awarded for several programs which include used oil collection. The state mandates that all retailers of oil post signs stating that they will either take used oil back or list the nearest collection site. If no convenient oil collection site is near, it is the responsibility of oil retailers in the area to help establish one.

Used oil programs are administered by the Waste Management Assistance Division of the State Department of Natural Resources. The state adopted the federal used oil management standards in 1993.

Currently, the state estimates approximately 10 government-operated and 840 private-

operated used oil collection locations are in existence. In addition, 71 oil burners are listed with the EPA where used oil is burned for energy recovery. The state operates a toll-free hotline informing the public of the location of collection centers. While exact data on used oil collected annually is sketchy, the state did collect more than 54,000 gallons of used oil at 63 household waste collection events from 1988 to 1993. The state also has encouraged private companies to establish recycling centers. For example, Amana Refrigeration, Inc. began a recycling program for employees in 1990. The program became so successful that the recycling center was expanded and extended to the public. In three years, the center collected close to 7,000 gallons of used oil, among other recyclable materials.

KANSAS

Quick Facts:

- Used Oil Collection Centers - Unknown.
- Gallons Collected in State - Unknown.
- State Sponsored Program - No specific program for used oil.

Contact:

Richard Bronaugh
 Special Waste Coordinator
 Kansas Department of Health and Environment
 Bureau of Waste Management
 Forbes Field, Bldg. 740
 Topeka, KS 66620
 913-296-1120

Kansas does not operate a formal used oil collection program. However, there are some municipal collection programs, as well as collection through household hazardous waste programs and private efforts at quick lubes, service stations, parts retailers, and a number of Wal-Mart stores. Some private businesses also collect used oil filters.

Kansas has not adopted federal used oil management standards. The state's regulatory authority rests with the Bureau of Waste Management in the Department of Health and Environment.

KENTUCKY

Quick Facts:

- Used Oil Collection Centers - 273
- Gallons Collected in State (1994) - 11,339,521 (Total collected, DIY and installed).
- State Sponsored Program - Supported through general funds.

Contact:

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 Environmental Program Coordinator
 Department of Environmental Protection
 Waste Management Division
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Kentucky administers a used oil collection program with a limited budget of approximately \$25,000 through a Department of Energy grant. This includes approximately one third of a full-time employee's effort. Collection occurs at municipal centers, service repair outlets, and retailers.

Kentucky has not adopted the federal used oil management standards. The state's used oil program is administered through the Waste Management Division of the Department of Environmental Protection.

Currently, there are 273 used oil collection centers listed with the state. DIYers can locate a collection point through a state-operated toll-free hotline. Based on data from used oil haulers, the state reported that 11,339,521 gallons (DIY and service installed) of used oil were collected in 1994, up approximately 13 percent from the previous year.

LOUISIANA

Quick Facts:

- Used Oil Collection Centers - 250
- Gallons Collected in State - Unknown.
- State Sponsored Program - Voluntary state program.

Contact:

John Rogers
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Louisiana established used oil collection centers as a result of legislation adopted in 1991. While the legislation authorized grants for used oil collection, no funding has been allocated. Municipal collection centers are in place in Lafourche Parish and Iberia Parish.

In March of 1995, the state adopted the federal used oil management standards with some revisions. The state administers used oil programs through the Solid Waste Division of the Department of Environmental Quality.

There are approximately 50 government-operated and 200 private business-operated used oil collection centers throughout the state. Prominent businesses involved in collection include Wal-Mart stores, Exxon Service Stations, Minit Oil Change, Jiffy-Lube, Simple Simon, Speede Oil Change, and Texaco. The state is working on additional collection points through NAPA Auto Parts stores, BP stations, Mobil Oil stations, and Chevron stations. The state operates a toll-free hotline for DIYers to obtain information about the closest collection center. The state also requires that oil retailers post signs about recycling in general and the location of the closest collection center.

MAINE

Quick Facts:

- Used Oil Collection Centers - 78
- Gallons Collected in State - Unknown.
- State Sponsored Program - Voluntary program; no funded collection program.

Contact:

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 Maine Department of Environmental Protection
 Hazardous Materials and Solid Waste
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Maine operates a voluntary collection program, including municipal collection at waste transfer facilities. The program first became operational in 1978 to encourage proper disposal of DIY oil.

The state's program is administered through the Hazardous Materials and Solid Waste Division of the Department of Environmental Management. Maine has yet to adopt the federal used oil management standards.

The state estimates that approximately 78 used oil collection centers are now operational but did not have data on the amount of used oil collected annually. The state believes that as much as 75 percent of used oil generated in the state is being utilized through used oil space heaters.

MARYLAND**Quick Facts:**

Used Oil Collection Centers - 600
 Gallons Collected in State (1994) - 575,391 (DIY Only)
 State Sponsored Program - Supported through general funds.

Contact:

Patricia A. Tantum
 Program Manager
 Maryland Environmental Service
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 410-974-7282

The state of Maryland first developed a used oil collection program in 1978; however, it did not become fully operational until 1988. The program now includes two full-time employees and a total budget of \$94,208. The budget includes educational materials, the purchase of tanks and decals, and salaries for the two employees. The state does not operate a grant program. Collection locations are available at municipalities, retailers, automotive service outlets, and marinas.

The state's program is administered through the Maryland Environmental Service. Maryland adopted the federal used oil management standards during the summer of 1995.

Currently, Maryland has 200 government-operated collection centers and 400 privately operated centers. The state does have some certification requirements for collection points, including use of a licensed hauler. In 1994, the state reported collection of 575,391 gallons of used oil from DIYers at government-operated collection centers. From 1989 to 1994, the state collected more than two million gallons of used oil. During the first six months of 1995, the state reported collecting more than 300,000 gallons from DIYers, once again showing a trend of collecting more DIY oil each year. The state

promotes the program through a toll-free hotline that provides DIYers the location of the nearest used oil collection center. Other promotional efforts include booths at recycling fairs and conferences, public service programs at several local television stations in the Baltimore and Washington areas, and ongoing presentations to schools and civic organizations. Finally, retail stores are required to post signs about recycling and the location of collection centers.

MASSACHUSETTS

Quick Facts:

- Used Oil Collection Centers - 118
- Total Gallons Collected in State - Unknown.
- State Sponsored Program - Requires retail oil sales outlets to take back oil.
Major legislative changes pending as of 1995.

Contact:

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The state has been encouraging used oil collection since at least 1974, when a law requiring retailers to accept used oil was passed. The program's budget is through the state's general fund and does not include a separate line item. Most recent grant efforts provided funding to approximately 25 cities and towns. There are now 118 publicly run used oil collection centers.

State oil programs are administered through the Hazardous Waste Division of the Massachusetts Department of Environmental Protection. As of the summer of 1995, the state had not adopted the federal used oil management standards. However, the state planned to introduce new legislation that would implement a voluntary recycling initiative in late 1995 or early 1996.

The state has indicated that the required collection program has not worked, since for all practical purposes, it is unenforceable. According to a letter announcing a public forum to discuss a new proposal, the previous regulations have "not been upheld by many retailers, who contest the requirement that small stores selling motor oil have a collection facility and trained personnel." The letter goes on to say that consumers complain about having to save their receipt in order to have the oil collected and the state's environmental agency has found enforcement of the law to be difficult due to inadequate staff to police the numerous retail outlets. In addition, a 1994 investigative article by the *Boston Herald* found that 19 of 40 Boston-area oil-retail outlets refused to accept used oil as required by current state law. Gas stations and automotive shops were the most likely retailers to accept returned oil with 18 of the 21 polled agreeing to take back the oil. Supermarkets and department stores were the least likely with only two of six taking back the used oil. Legislation being considered as of late 1995 included aspects of the American Petroleum Institute's model legislation and would place an incentive fee on packaged oil sales in the state that could be redeemed once used oil is returned to a proper disposal location.

As of 1995, all retailers of oil—from service stations to quick lubes to mass merchan-

disers to grocery stores—are required to serve as collection locations for used oil. In addition, the state requires all collection centers to utilize a licensed hauler and establish spill containment areas. Public centers are required to operate a minimum number of hours. The state provided no information about the total amount of used oil collected each year, but does operate a phone number in order for DIYers to find the location of the nearest collection center.

MICHIGAN

Quick Facts:

- Used Oil Collection Centers - Unknown.
- Gallons Collected in State - Unknown.
- State Sponsored Program - No specific program for used oil.

Contact:

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 Michigan Department of Natural Resources
 Waste Management Division
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 616-456-5071

Michigan does not operate a specific program for the collection of used oil. Previously, the West Michigan Environmental Action Council operated a used oil collection program. However, this program is no longer in existence.

Used oil standards are developed by the Waste Management Division in the Department of Natural Resources. Michigan has not yet adopted federal used oil management standards, but will likely adopt something closely resembling these standards in 1996 or 1997.

Private collection efforts through service stations, quick lubes, and parts stores are now under way in the state. However, no exact data is available from these programs. The state does believe that most used oil (90 percent) is disposed of through fuel blending (re-processing).

MINNESOTA

Quick Facts:

- Used Oil Collection Centers - 1,300
- Gallons Collected in State - 4,500,000
- State Sponsored Program - Funded through title transfer fee.

Contact:

Paula O'Keefe
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 Minnesota Pollution Control Agency
 Hazardous Waste Division
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Minnesota funds a used oil collection program through the use of motor vehicle title transfer fees. In operation since 1978, the program has an annual budget of \$140,000, split almost evenly between administration (including education), grants to establish collection programs, and a fund for reimbursement for handling contaminated oil. Grants are provided for tanks to local governments. The program has one employee.

Used oil is regulated through the Hazardous Waste Division of the Minnesota Pollution Control Agency. The state planned to adopt the federal used oil management standards (with some revisions) during late 1995. The state has previously banned both used oil and used oil filters from landfills. Legislation passed in the summer of 1995 would require any retail outlet that sells more than 1,000 oil filters annually to either take back both used oil and filters or contract with another facility to take these waste products on their behalf. As of the fall of 1995, the state was conducting an impact study on this legislation. The legislation is scheduled to go into effect as of July 1, 1996.

Minnesota officials estimate that there are approximately 100 government-operated collection centers for used oil and up to 1,200 collection locations operated by private businesses. In 1994, the state estimated collecting a total of 4.5 million gallons of used oil, although exact figures were not known. The state operates a hotline to provide do-it-yourselfers with the location of the closest collection center.

MISSISSIPPI

Quick Facts:

Used Oil Collection Centers	- 45
Gallons Collected in State	- Unknown.
State Sponsored Program	- No specific program for used oil.

Contact:

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The state of Mississippi does not operate a specific used oil collection program. However, some limited used oil collection can be funded as part of the state's household hazardous waste program. Local governments can receive grants to collect oil and hazardous waste up to 75 percent of the cost of the collection program. Applications must be approved through the state's Hazardous Waste Division.

The Hazardous Waste Division is the section of the Department of Environmental Quality that regulates used oil in the state of Mississippi. The state adopted federal used oil management standards in early 1993.

State officials estimate that approximately 45 private businesses now collect oil from DIYers. They include service stations, quick lubes, and parts retailers. The state provides a brochure about used oil collecting, including a list of used motor oil collection centers.

MISSOURI

Quick Facts:

- Used Oil Collection Centers - Unknown.
- Gallons Collected in State - Unknown.
- State Sponsored Program - Legislation passed in 1995. Program under development.

Contact:

Karen Northup
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Until 1995, the state of Missouri had no formal used oil collection program. However, legislation passed in 1995 revising the state's solid waste laws and requires that the Department of Natural Resources conduct a public education program on proper used oil management. In addition, the program requires certain signs at retail oil sales outlets. Finally, the legislation approved a program to provide grants to establish collection centers which will be funded through the state's existing solid waste management fund.

While it is unclear exactly which agency will administer this grant program, the Division of Environmental Quality of the Department of Natural Resources is responsible for used oil regulations. Previously, the state listed used oil as a hazardous waste. However, Missouri adopted federal used oil management standards (with revisions) in 1994. The state does not yet know how many used oil collections centers will ultimately be established. However, the state will operate a hotline to provide this information to do-it-yourselfers.

MONTANA

Quick Facts:

- Used Oil Collection Centers - 71
- Gallons Collected in State (1994) - 27,841 (primarily DIY)
- State Sponsored Program - No specific program for used oil.

Contact:

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 Waste Management Division
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 406-994-3451

The state of Montana does not sponsor a specific program for used oil collection. However, several local entities are collecting used oil, including the cities of Bozeman, Butte, and Helena and several counties (Flathead, Park, and Lake). In certain instances,

tax credits may be available for individuals purchasing recycled products, including oil, or for the purchase of property involved in recycling efforts.

Adoption of the federal used oil management standards was pending in the state as of mid-1995. Used oil programs are administered out of the Waste Management Division of the Montana Department of Environmental Quality.

In 1994, 27,841 gallons of used oil were collected through several state agencies. Currently, the state is aware of approximately 15 private oil collection points and 56 government-operated collection centers. The state requires that retailers post signs about the closest collection point.

NEBRASKA

Quick Facts:

- Used Oil Collection Centers - 133
- Gallons Collected in State - Unknown.
- State Sponsored Program - No specific program for used oil.

Contact:

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 402-471-4210

Nebraska does not operate a used oil collection program. However, approximately \$3 million is available for solid waste recycling projects each year. One of the state's two grant programs awards all funds at the beginning of each grant period, while a second program allocates funds through a reimbursement process. However, these grants are not specifically aimed at used oil collection.

The state has not adopted federal oil management standards. All state oil regulations are administered through the Air and Waste Management Division of the Nebraska Department of Environmental Quality.

Most used oil recycling is coordinated through the Nebraska State Recycling Association in Omaha. The association lists 21 municipal collection centers and 112 private businesses collecting used oil. The association provides DIYers with the location of the nearest collection center. Some private businesses also collect used oil filters, but these efforts are not widespread.

NEVADA

Quick Facts:

- Used Oil Collection Centers - 102
- Gallons Collected in State - Unknown.
- State Sponsored Program - No specific program for used oil.

Contact:

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 Nevada Division of Environmental Protection
 Bureau of Waste Management
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 702-687-4670, Ext. 3018

Nevada has no formal used oil collection program. However, some general promotional and public education materials are available. General recycling grants can be utilized for collection of used oil, but are not allocated specifically for this purpose.

The state adopted federal used oil management standards, with some revisions, in 1992. These standards are administered through the Bureau of Waste Management of the Nevada Division of Environmental Protection.

Nevada officials know of two government-operated and approximately 100 privately run used oil collection locations throughout the state. In addition, a special University of Nevada small business assistance program provides free consultations about problematic wastes. This information is provided to help small businesses remain in compliance with provisions of the Resource Conservation Recovery Act (RCRA).

NEW HAMPSHIRE**Quick Facts:**

Used Oil Collection Centers - 145
 Gallons Collected in State - Unknown.
 State Sponsored Program - New program paid for by fee on virgin oil.

Contact:

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In 1994, the state of New Hampshire adopted a used oil collection program which became operational in 1995. The program provides grants to establish or enhance municipal collection centers and is funded through a one cent per quart fee on packaged virgin oil. The program has an estimated annual budget of \$208,000. While much of this funding is allocated to staffing and administration, up to \$75,000 is specifically set aside for grants. Grants are capped at \$1,500 per year per project and can pay for storage tanks, spill containment areas, public education, or any other expense which will enhance the collection of DIY oil.

The state's program is administered through the Waste Management Division of the New Hampshire Department of Environmental Services. The state has not adopted federal oil management standards.

To date, little information is known about the amount of used oil being collected annually. However, 124 communities now collect small quantities of do-it yourself oil and 21 private businesses are collecting oil from the public.

NEW JERSEY**Quick Facts:**

- Used Oil Collection Centers - 250 government operated; an extensive number of centers operated by private businesses.
- Gallons Collected in State (1993) - More than 11,000,000 (DIY and Installed) 1,706,746 DIY gallons collected
- State Sponsored Program - Used oil take back requirements.

Contact:

Ann Paff
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 New Jersey Department of Environmental Protection
 Solid and Hazardous Waste Division
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New Jersey funds a used oil collection program through local taxes and some landfill tipping fees. The program has been in existence since 1987. The state administers a general recycling grant program that reimburses municipalities \$10 per ton of recycled material, including oil.

Used oil is regulated through the Solid and Hazardous Waste Division of the Department of Environmental Protection. Since the state considers used oil a hazardous waste, all collection centers must use a licensed hauler.

The state requires that anyone in the oil change business take back used oil. In addition, all state vehicle re-inspection stations are required by law to take back used oil. The state estimates that approximately 2,500 business-operated and 250 government-operated collection locations currently exist. Retailers are also required to post signs about recycling. These regulations were all provisions of the state's Mandatory Recycling Act. Do-it-yourselfers can call a phone number with the environmental agency in order to receive a referral to their county's recycling coordinator. Each county can provide a list of collection points. In 1993, the state collected 1.7 million gallons of used oil at public collection centers. Haulers reported collecting 9.2 million gallons of oil at private collection locations (this number includes a significant amount of installed oil).

NEW MEXICO**Quick Facts:**

- Used Oil Collection Centers - Unknown.
- Gallons Collected in State - Unknown.
- State Sponsored Program - No specific program for used oil.

Contact:

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 Program Manager
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 505-827-0197

New Mexico does not operate a specific program for collecting used oil. However, some municipalities collect used oil through household hazardous waste days. In addition, there are facility grant programs that could include collection of used oil, but the applicant would need to be recycling multiple products.

Used oil programs are administered by the Solid Waste Bureau of the New Mexico Environmental Department. The state has not adopted federal used oil management standards.

Little information is available through the state about private collection efforts. However, state officials did indicate that both service outlets and automotive retailers collect used oil in some locations.

NEW YORK**Quick Facts:**

- | | |
|-----------------------------|---|
| Used Oil Collection Centers | - 30 government-operated; Extensive number of private business collection locations |
| Gallons Collected in State | - Unknown. |
| State Sponsored Program | - Used oil take back requirements. |

Contact:

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 New York State Department of Environmental Conservation
 Division of Solid and Hazardous Materials
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The state of New York operates an extensive used oil collection program funded through consumer charges and local taxes. The state also requires that any retail outlet selling oil must collect used oil from do-it-yourselfers. In addition, municipalities collect oil at drop-off centers and through curbside programs.

The state's used oil program was adopted in 1978. It is administered through the Division of Solid and Hazardous Materials of the Department of Environmental Conservation. Two employees are responsible for regulatory oversight.

Any service outlet selling more than 500 gallons of oil annually or any retail outlet selling 1,000 gallons of oil per year is required to accept up to five gallons of used oil per person per day at no charge. Retailers can contract with another establishment for these services provided that the store posts signs directing consumers to the drop-off center. The state estimates there are 30 municipal collection centers and approximately 10,000

private centers that are required by law to take back used oil. Collection centers must use a licensed hauler, have a containment area, and post requirements for acceptance. In addition, used oil collection tanks must be registered with the state. While exact data is not available, the state estimates that approximately 44 million gallons of used oil are collected annually. However, this includes both DIY and installed oil.

NORTH CAROLINA

Quick Facts:

- Used Oil Collection Centers - 348
- Gallons Collected in State (1993) - 391,178 (DIY Only)
- State Sponsored Program - No specific program for used oil.

Contact:

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 N.C. Department of Environment, Health, and Natural Resources
 Solid Waste Section
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 Raleigh, NC 27611
 919-733-2178, Ext. 216

The state of North Carolina does not operate a specific used oil collection program, but some private efforts are under way. Although state environmental agency officials had pushed for a more extensive program in 1995, the legislature did not pass the proposal.

North Carolina adopted the federal used oil management standards in October of 1993. These standards are regulated through the Solid Waste Section of the Department of Environment, Health, and Natural Resources.

State officials currently know of 54 municipal collection centers and 294 collection locations operated by the private sector. Government-operated collection centers reported receipt of just under 400,000 gallons of do-it-yourself oil in 1993. The state is now trying to develop more used oil collection centers, as well as used oil filter collection programs. These efforts are being spearheaded by the N.C. Office of Waste Reduction and the state's Cooperative Extension Service.

NORTH DAKOTA

Quick Facts:

- Used Oil Collection Centers - 75
- Gallons Collected in State - Unknown.
- State Sponsored Program - No specific program for used oil.

Contact:

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 Division of Waste Management
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 701-328-5166

North Dakota did not have a state-sponsored used oil collection program as of mid-1995. However, a program was under development and should be implemented in 1996. Private collection efforts by repair outlets and parts retailers already exist. In addition, most cities with permitted landfill facilities are equipped to accept used oil.

Once operational, the used oil program will have funds of approximately \$9,000 for administration, \$10,000 for education programs, and \$20,000 for grants. Grants will be utilized for storage tanks, spill containment areas, and public education. The state program is to be administered through the Division of Waste Management of the Department of Health. The federal used oil management standards became effective in North Dakota as of January 1, 1994. Once the state's used oil collection program is established in 1996, the state will begin operating a hotline for DIYers to obtain a list of used oil collection centers. Approximately 25 government-operated and 50 privately run collection locations currently exist.

OHIO

Quick Facts:

Used Oil Collection Centers	- 190
Gallons Collected in State	- Unknown.
State Sponsored Program	- No specific program for used oil.

Contact:

Idiko Pallos
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Solid and Infectious Waste Management
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While the state of Ohio does not operate a formal used oil collection program, some solid waste districts collect oil during household hazardous waste collection events. In addition, some private collection efforts are under way at service outlets and retailers. The state provides general recycling grants to solid waste management districts, counties, or municipal corporations with a population of more than 50,000 through the Recycle Ohio program.

The state plans to adopt the federal used oil management standards in 1996. Used oil is currently regulated through the Solid and Infectious Waste Management Division of the Ohio Environmental Protection Agency.

Ohio requires that each of the state's 52 solid waste management districts have a strategy for managing household hazardous waste, including used oil. In addition, the state lists approximately 190 private used oil collection centers, including gas stations, quick lubes, parts stores, and mass merchandisers.

OKLAHOMA

Quick Facts:

Used Oil Collection Centers	- 96
Gallons Collected in State	- Unknown.
State Sponsored Program	- No specific program for used oil.

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 Public Information and Education Division
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 Oklahoma City, OK 73117-121
 405-271-7353

Oklahoma does not operate a specific program to collect used oil. However, private sector collection efforts are under way and specific municipal programs are taking place in the city of Harrah and the community of Deep Fork.

The state adopted the federal used oil management standards in 1992. Used oil is regulated through the Department of Environmental Quality.

Currently, the state is aware of 12 government-operated and 84 private business-operated used oil collection locations. The state does have a regulation requiring retailers to post signs about general oil recycling.

OREGON**Quick Facts:**

Used Oil Collection Centers - 172
 Gallons Collected in State (1993) - 592,964 (DIY Only)
 State Sponsored Program - Garbage fees include cost of recycling.

Contact:

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 Waste Reduction Specialist
 Oregon Department of Environmental Quality
 Waste Management and Cleanup Division
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 503-229-5253

The state of Oregon funds a used oil program through garbage fees. The program's budget is approximately \$60,000 with 80 percent allocated to administration and overhead and 20 percent allocated to educational programs. One individual spends half of his time on this program. Some grant money is available, but not specifically for used oil recycling. To date, no grant funds have been allocated specifically for used oil.

The state adopted the federal used oil management standards, with revisions, in March of 1994. The program is administered through the Waste Management and Cleanup Division of the Department of Environmental Quality.

The state lists 123 public collection centers (garbage hauler depots, etc.) and 49 private locations, not including service stations and quick lubes. The state also offers curbside collection in most cities with a population of more than 4,000. Curbside used oil programs now operate in more than 100 cities, including approximately 40 with populations less than 4,000. In 1993, just under 600,000 gallons of DIY used oil were collected through state efforts. A special Used Oil Recovery Committee has been trying to develop additional collection efforts.

PENNSYLVANIA**Quick Facts:**

- Used Oil Collection Centers - 850
- Gallons Collected in State - Unknown.
- State Sponsored Program - Supported through general funds.

Contact:

William D. LaCour
 Pennsylvania Used Oil Recovery Coordinator
 Pennsylvania Department of Environmental Protection
 Division of Waste Management
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 717-787-7382

Pennsylvania enacted a used oil collection program in 1982. With an annual budget of \$100,000, the program has one employee. Seventy percent of the program's budget goes to administration and overhead, 20 percent to education, and 10 percent to supplies.

The state, which administers used oil collection programs through the Waste Management Division of the Department of Environmental Protection, follows the federal used oil management standards.

As of 1995, state officials were aware of approximately 800 private businesses serving as used oil collection locations and 50 government-operated centers. Private centers include service stations, quick lubes, car dealerships, retailers, and auto body repair shops. The state requires retailers to post signs about recycling and about the location of collection centers. In addition, the state operates a toll-free hotline in order to provide do-it-yourselfers with information about used oil collection.

RHODE ISLAND**Quick Facts:**

- Used Oil Collection Centers - 34
- Gallons Collected in State (FY 1995) - 148,960 (DIY Only)
- State Sponsored Program - Fee on virgin oil.

Contact:

Thomas E. Armstrong
 Waste Oil and Used Oil Filter Collection and Recycling Program Administrator
 Department of Environmental Management
 Office of Environmental Coordinator
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 401-277-3434, Ext. 4412

Rhode Island operates a used oil collection program funded through a 5 cent per quart fee on virgin oil. While the program generates \$1 million for waste disposal, approximately \$320,000 goes to the used oil collection program. Municipal collection centers operate in several communities in the state.

The used oil program is administered through the Office of Environmental Coordination of the Department of Environmental Management. The state lists used oil as a hazardous

waste and has not adopted federal used oil management standards.

The state requires that public collection centers utilize a licensed hauler and provide spill containment centers. In addition, these centers provide quarterly reports to the state. In the last fiscal year ending June of 1995, the state collected 148,960 gallons of used oil. In addition, 21,200 used oil filters were collected during this same time frame.

SOUTH CAROLINA

Quick Facts:

- Used Oil Collection Centers - 353
- Gallons Collected in State (1994) - 600,320 (Primarily DIY)
- State Sponsored Program - Fee on virgin oil.

Contact:

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South Carolina operates a unique "Used Oil Partnership" with cooperation from the Department of Health and Environmental Control, the state Department of Transportation, the South Carolina Petroleum Council, and Santee Cooper, a quasi-public electric utility. The used oil program is funded through a two cent per quart fee on virgin oil. With a budget of \$1.4 million, the program provides grants of more than \$600,000 each year. The state also allocates \$200,000 for education and \$70,000 for administration.

The Santee Cooper electric utility began collecting used oil in 1990. In 1991, legislation required that the state insure all counties provide DIY collection sites. These programs are administered through the Division of Solid Waste Management of the Department of Health and Environmental Control. The state adopted the federal used oil management standards, with some revisions, during the summer of 1995.

The state funds grants for storage tanks, actual recycling costs, spill containment areas, public education, concrete pads, curbside collection, and oil filter and oil bottle collection programs. The state currently knows of 279 government-operated and 74 private sector collection points. To be certified, these centers are required to use a licensed hauler, provide a spill containment area, and utilize approved containers. These centers also must provide annual reports. In 1994, the state collected 439,555 gallons of used oil at government-operated collection centers and 160,765 gallons at privately run collection points. During the same year, the state collected 45,082 used oil filters.

SOUTH DAKOTA

Quick Facts:

- Used Oil Collection Centers - 75
- Gallons Collected in State - Unknown
- State Sponsored Program - Voluntary program.

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 South Dakota Department of the Environment and Natural Resources
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South Dakota operates a voluntary used oil collection center as a cooperative effort between the state's environmental agency and the oil industry. General solid waste grant funds can be accessed for oil recycling by local governments, nonprofit organizations, and the private sector.

Adoption of the federal used oil management standards was pending as of mid-1995. However, used oil is regulated through the South Dakota Department of Environment and Natural Resources.

The state currently lists 75 private used oil collection centers operated by quick lubes, service stations, and car dealerships. In addition, the state has established a toll-free hotline in order to provide collection location information to do-it-yourselfers.

TENNESSEE**Quick Facts:**

Used Oil Collection Centers	- 307
Gallons Collected in State	- Unknown.
State Sponsored Program	- Funded through 2 cent per quart fee on virgin oil.

Contact:

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Tennessee funds a used oil collection program through a two cent per quart fee on all packaged oil sold in the state. The program has an annual budget of \$1,214,200 and funds six employees (two regulatory officials; one person in technical assistance; one person in administration; and two people to administer grant programs). Grants can fund storage tanks, spill containment areas, public education, used oil burning space heaters, and halogen test kits. Local governments, nonprofit organizations, and private businesses are all eligible for grants.

The program is operated through the Division of Solid Waste Assistance of the Department of Environment and Conservation. The state adopted the federal management standards in 1994.

The state currently lists 105 government-operated collection centers and 202 private businesses providing collection points. If receiving grant funding, a collection facility must provide annual reports on the disposition of used oil and total gallons collected.

However, the state does not yet have good data on the amount of used oil collected each year. The state operates a toll-free hotline to provide DIYers the location of the nearest used oil collection center.

TEXAS

Quick Facts:

- Used Oil Collection Centers - 1,348
- Gallons Collected in State (1994) - 1,377,027 (DIY and Installed) 361,010 DIY gallons collected
- State Sponsored Program - Funded through 1 cent per quart fee on virgin oil.

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Texas funds its used oil collection program through a one cent fee on each quart of packaged oil sold in the state. The fee was reduced from two cents to one cent in 1995. The approximately \$4 million budget for fiscal year 1996 includes \$1.5 million for grants, \$700,000 for enforcement, \$500,000 for education programs, and \$335,000 for administration. Additional funds will be utilized for a superfund trust and three percent is allocated to the revenue collection agency. Grants are awarded to local governments, councils of governments, and private businesses with a cap of \$50,000. Funds can be used for storage tanks, spill containment areas, public education, security fencing, lighting, and other site preparation. A grant review committee is being established for 1996.

The state's program is operated through the Municipal Solid Waste Division of the Texas Natural Resource Conservation Commission. The state plans to adopt the federal used oil management standards, with revisions in early 1996.

Currently, the state lists 321 government-operated collection centers and 1,027 private businesses providing used oil collection points. To be registered with the state, a collection center must use a licensed hauler, advertise its existence, provide certain containers and a spill containment area, and remain open a minimum number of hours. Centers provide annual reports to the state, including gallons collected, the name of transporters, and the ultimate disposition of the used oil. In 1994, the state reported collection of 361,010 gallons at government-operated centers and 1,016,017 gallons at private collection locations. The state also collected more than one million used oil filters during 1994.

UTAH

Quick Facts:

- Used Oil Collection Centers - 203
- Gallons Collected in State (1994) - 5,709,792 (Total DIY and installed)
- State Sponsored Program - Funded through 4 cent per quart fee on virgin oil.

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Utah funds an extensive used oil collection program through a four cent per quart fee on packaged virgin oil. The fee currently generates \$675,000 each year, with approximately \$357,000 allocated to administer a used oil collection program. Of this, \$50,000 goes to provide grants, \$50,000 is allocated to education programs, \$30,000 is allocated to DIY collection centers and \$230,000 is provided for administration and personnel. The program was adopted in 1993 and became operational in 1994.

The state adopted the federal used oil management standards with some revisions in early 1994. Used oil programs are administered through the Used Oil Section of the Solid and Hazardous Waste Division of the Department of Environmental Quality.

The state reports a total of 203 used oil collection centers. These centers are required to keep certain records and use licensed haulers. Collection centers provide quarterly reports to the state. In 1994, these centers collected a total of 5,709,792 gallons of used oil. The state also operates a toll-free hotline to assist DIYers in locating the nearest collection center.

VERMONT**Quick Facts:**

Used Oil Collection Centers	- 38
Gallons Collected in State	- Unknown.
State Sponsored Program	- Basic program to fund collection tanks for municipalities.

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Vermont provides grant funding for used oil collection tanks to municipalities or solid waste management districts. These tanks are normally located at waste transfer stations or recycling depots. No specific funds are dedicated to this program.

The state is planning to adopt the federal used oil management standards, with some revisions, in 1996. Used oil collection efforts are administered through the Division of Environmental Assistance, Department of Natural Resources.

The state currently reports a total of 38 government-operated collection centers. These centers are required to provide a spill containment area, use specific types of containers,

and utilize licensed haulers. They provide annual reports of the total gallons of do-it-yourself oil collected. However, no specific data is available at this time. The state has recently provided grant funding to help establish curbside collection in a metropolitan area by retrofitting a collection truck. In addition, the state is examining methods to include used oil filter collection in its efforts.

VIRGINIA

Quick Facts:

Used Oil Collection Centers	- 161
Total Gallons Collected in State	- 6,793,600 (DIY and installed)
State Sponsored Program	- Local government funded.

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Virginia collects used oil through both government-operated and private sector collection points. The state recently completed a demonstration project in Bath County. In fiscal year 1993-94, the project received 210 gallons of used motor oil. In addition, commercial establishments received nearly 200 gallons per month. The state cited three reasons for the lack of participation at the collection centers: lack of convenience; a desire to make purchases at the same location of drop-off centers; and the fact that the public is more accustomed to going to commercial businesses to recycle.

The state expected to adopt the federal used oil management standards in late 1995. Used oil regulations are currently administered through the Department of Environmental Quality.

In 1991, the state collected nearly 2.5 million gallons of used oil. That number increased to nearly 6.8 million gallons in 1993. Additional research is planned, including a study that will examine the disposal of all vehicle waste. The study will take place in 1996. Previous research indicated that 28 counties, 11 cities, and three towns had no used motor oil collection facilities.

WASHINGTON

Quick Facts:

Used Oil Collection Centers	- Unknown.
Gallons Collected in State (1993)	- 1,225,676 (Primarily DIY)
State Sponsored Program	- Limited program.

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The state works with local municipalities to provide used oil collection centers and maintains a list of drop-off points. As part of the state's Superfund Act, seven-tenths of one percent of the wholesale market value of petroleum products or toxic chemicals goes into a Toxic Controls Account. Some funding is available through this account for recycling grants, including used oil. In addition, each county must have a used oil collection program and include a sign at municipal collection sites. The state also operates a hotline referring DIYers to local recycling programs.

The state has not adopted the federal used oil management standards. Washington's used oil management standards are administered through the Department of Ecology's Hazardous Waste and Toxics Reduction Division.

A specific count of used oil collection centers is not available. However, 1,225,676 gallons of used oil were collected in 1993.

WEST VIRGINIA

Quick Facts:

- Used Oil Collection Centers - 55
- Gallons Collected in State - Unknown.
- State Sponsored Program - Funded through illegal dump cleanup monies.

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West Virginia funds a limited used oil collection program through monies allocated for the cleanup of illegal dumps. In many instances, fire departments operate collection centers. In addition, some private repair outlets and retailers operate collection centers.

The state adopted the federal used oil management standards in June of 1995. These regulations are administered through the Office of Waste Management of the Department of Environmental Protection.

The state is aware of at least 55 used oil collection centers. However, no data is available about the quantity of used oil collected on an annual basis. The state does operate a toll-free hotline to provide DIYers the location of the nearest collection point.

WISCONSIN

Quick Facts:

- Used Oil Collection Centers - Unknown.
- Gallons Collected in State - Unknown.
- State Sponsored Program - Limited program.

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Wisconsin requires that every city, village, or town with a population of less than 50,000 maintain at least one used oil collection facility. Towns having between 50,000 and 100,000 inhabitants must have two collection facilities. Towns of greater than 100,000 must have at least three, plus one additional facility for every additional 100,000 people. The only funding is for a portion of one staff person's salary.

The Wisconsin Department of Natural Resources is responsible for used oil programs; however, the Department of Industry, Labor, and Human Relations regulates the storage of flammable liquids, including oil. As a result, this department must approve used oil collection tanks. The state officially adopted the federal used oil management standards during the summer of 1995.

While unsure how much oil is collected each year, the state does require that registered collection facilities use a licensed hauler, have spill containment areas, provide certain kinds of containers, and advertise their existence. Retailers must post signs about recycling, and any retailer not collecting used oil must post the location and hours of the closest available collection point.

WYOMING**Quick Facts:**

Used Oil Collection Centers	- Unknown.
Gallons Collected in State	- Unknown.
State Sponsored Program	- No specific program for used oil collection.

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The state of Wyoming does not offer a specific used oil collection program. However, there are some collection tanks at municipal landfills.

The state's environmental agency is the Department of Environmental Quality. However, the U.S. Environmental Protection Agency administers all aspects of the state's Resource Conservation Recovery Act (RCRA) programs. The state did adopt federal used oil management standards during 1995.

Used Oil Collection Programs in U.S. Territories

AMERICAN SAMOA

Quick Facts:

Used Oil Collection Centers	- 8
Gallons Collected	- Unknown.
Program	- Funded through a federal grant.

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American Samoa has a limited used oil collection program funded through a federal grant. The program began in 1990.

Used oil collection is governed by the territory's Environmental Protection Agency. The territory currently has eight collection centers. Once collected, the used oil is utilized in an industrial boiler. The territory also prints a basic flyer about oil collection. The flyer is bilingual.

PUERTO RICO

Quick Facts:

Used Oil Collection Centers	- Unknown.
Gallons Collected	- Unknown.
Program	- No specific program for used oil collection.

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Currently, Puerto Rico does not have a used oil collection program. However, as of late 1995, the territory had pending legislation that would place a 25 cent fee on each quart of packaged oil sold in Puerto Rico. The proposed legislation would also adopt the federal used oil management standards. Environmental programs are currently administered through the Puerto Rico Solid Waste Management Authority.

Island officials estimate that 6.4 million gallons of motor oil are sold each year in Puerto Rico to support the 1.6 million registered vehicles. The Puerto Rico Gasoline Retailers Association estimates that only 30 percent is sold at service stations, with the remainder sold at retail stores.

Canadian Provinces

ALBERTA

Quick Facts:

- | | |
|-----------------------------|---|
| Used Oil Collection Centers | - 6 community pilots |
| Liters Collected | - 94,000 from Nov. 93 to Jan. 95. |
| Program | - Eco-Center Initiative Being Developed |

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A private nonprofit association, the Alberta Used Oil Management Association, is now developing an industry-based used oil and filter collection program based on Eco-Centers. The program would be funded by a five cent (Canadian) fee on virgin oil. The industry-backed proposal is supported by the provincial government. Four staff members would administer the program that would return incentive payments to collectors of used oil.

The proposal would require retailers to post signs about the closest oil collection center. In turn, the association is operating a toll-free hotline about collection centers. The province estimates that 40 percent of all used oil is re-refined; 50 percent is used for industrial fuel; and 9 percent is used for dust abatement and other uses. One percent is used in space heaters.

During a pilot period in six communities, the Eco-Center Program has collected 94,000 liters of used oil, 16,000 oil filters, and 122,000 used oil containers. The initiatives are a result of industry groups forming the Western Canada Used Oil / Container / Filter Task Force in 1993.

BRITISH COLUMBIA

Quick Facts:

- | | |
|-----------------------------|------------------------------------|
| Used Oil Collection Centers | - Unknown. |
| Liters Collected | - 26,000,000 (total) |
| Program | - Used oil take back requirements. |

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In British Columbia, anyone selling oil must serve as a collection center or contract with someone within four kilometers. Sellers must use licensed haulers, advertise their existence, and meet certain container and spill containment requirements. The province adopted these regulations in 1992 and administers them through the Environmental Protection Division. The province does operate a toll-free hotline to inform DIYers of the closest collection center. During the last fiscal year, the province reported collecting 26 million liters of used oil (DIY and installed).

NEW BRUNSWICK

Quick Facts:

- Used Oil Collection Centers - 5
- Liters Collected (1993) - 5-6 million (estimate)
- Program - No specific program for used oil collection.

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New Brunswick does not administer a specific program for used oil collection. However, some service stations, retailers, and other facilities provide used oil collection facilities. In addition, the province collects oil during household hazardous waste collection days. Of an estimated 21.5 million liters of lubricants sold in 1993, the province collected between 5 and 6 million liters.

The province's environmental regulations are administered through the Department of the Environment.

NOVA SCOTIA

Quick Facts:

- Used Oil Collection Centers - Unknown.
- Liters Collected - Unknown.
- Program - New regulations will establish used oil take-back requirements.

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Nova Scotia adopted used oil regulations in November of 1988 and amended the regulations in April of 1995. The amendments now require sellers of crankcase oil to provide or contract to provide used oil return facilities for use by their customers. These new regulations also require signs detailing the closest drop-off center. While the Department of the Environment is not actively involved in administering the used regulations currently, the new regulations require used oil collectors to provide annual reports to the Department as of April 1, 1996.

ONTARIO

Quick Facts:

- | | |
|-----------------------------|--|
| Used Oil Collection Centers | - 325 |
| Liters Collected | - Unknown. |
| Program | - Voluntary program in place. Product stewardship program under development. |

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Ontario currently administers a voluntary used oil collection program and is considering a more comprehensive product stewardship program. Currently, 325 collection centers accept used oil from DIYers. The current program was developed jointly by the Ministry of the Environment and the Ontario Section of the Canadian Petroleum Products Institute.

PRINCE EDWARD ISLAND

Quick Facts:

- | | |
|-----------------------------|-----------------------------|
| Used Oil Collection Centers | - Unknown |
| Liters Collected | - Unknown. |
| Program | - Minimal program in place. |

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Prince Edward Island has a limited used oil collection program. However, some service repair outlets and retailers do collect used oil. The program first became operational in 1992 due to new regulations. The province is providing signs to sales outlets to promote recycling.

SASKATCHEWAN**Quick Facts:**

Used Oil Collection Centers	- 41
Liters Collected	- Unknown.
Program	- Program under development.

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Saskatchewan is now developing a comprehensive used oil and filter collection program. The province estimates that 53 million liters of oil are sold annually. The province currently has 17 government-operated facilities and 24 private collection locations. Officials indicate that many private sector locations charge a fee for used oil collection. Collection centers must utilize a licensed hauler, maintain spill containment areas, utilize waste manifests, and maintain certain types of collection containers.

The province began examining the problem of collecting used oil and filters in early 1993 by developing the Waste Management Advisory Group, a joint stakeholder/government group. Through two workshops, information and advice were collected from more than 100 stakeholders. The outcome of this group's work will be a province-wide collection infrastructure. While final details have not been worked out, Saskatchewan Environment and Resource Management plans to work with industry to implement a program by mid-1996.

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Abstract: Municipal recycling efforts are spreading and becoming more elaborate. Many programs now go beyond conventional items to include such troublesome materials as batteries, motor oil, antifreeze and paint.

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Abstract: In November 1992, industry leaders said that the election of Arkansas Governor Bill Clinton as US president might help oil and gas. However, the hope, expressed at the American Petroleum Institute's (API) annual meeting in New York, depends on Clinton's refusal to pursue his campaign energy and environmental promises — or on failure of the resulting policies if he implements them. Ron W. Haddock, chairman of API's strategic planning oversight group, said that API is launching a broad environmental initiative to help industry meet public and political expectations. Included among the main components for the API STEP program, started in 1990, are 1. A set of management practices that will help focus the management of environmental, health, and safety issues within companies, 2. The Marine Spill Response Corp., the world's largest spill response organization, which is expected to be fully operational by August 1993, and 3. Strategic plans for used motor oil recycling, operating hazards, groundwater protection, and air emissions reduction.

6. API Member Companies Consider Self-Regulation on Environmental, Other Issues. 1992. *Oil & Gas Journal* 90(11):26-27.

Abstract: Member oil companies of the American Petroleum Institute (API) are reviewing a set of management practices as part of a broad environmental and safety initiative called Strategies for Today's Environmental Partnership (STEP). FINA Inc. President and Chief Executive Officer Ron W. Haddock, who heads an API group handling parts of the STEP program, said companies have been asked to respond to the proposed management practices by June 1992. The proposed STEP practices would be required for all API members. Haddock said that practices help managers focus on environmental, health, and safety issues, leading to actions to improve environmental programs. The STEP program sets up strategic plans in used motor oil recycling, operating hazards, groundwater protection, and air toxics. Haddock said Congress should make clear that economic effects are important in environmental regulations.

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Abstract: Despite low virgin oil prices, refining is in the midst of a renaissance, thanks to cleaner technologies and recently instituted procurement policies. The recycled motor oil industry is discussed.

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Abstract: Companies such as Texaco and Sunoco are implementing programs to recycle oil that consumers bring in to their locations. A number of lubricant retailers have also become leaders in the do-it-yourself movement, in addition to government-run recycling centers. In Maryland, there are 151 government-operated recycling centers. Other state leaders in used oil recycling are Florida and Michigan. Another approach to collecting used oil is through household hazardous waste collection. The California Department of Conservation reported that, in 1990, some 207,244 gallons of used oil were collected at the curb in 43 communities. Major processors collect or buy from transporters an estimated 559 million gallons of used oil, or 80 percent of this market, and they reprocess the used oil to fuel oil firms, burners, asphalt, marine and construction companies, and other users. The improper disposal of DIY used oil signifies one example of a household by-product that can impose serious costs.

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Abstract: Ashland Oil Inc. and its Valvoline Instant Oil Change, SuperAmerica, and Ashland Branded units will form an oil collection network in the Charleston, WV, area.

13. Augestein, David M. 1994. Proper Disposal of Used Oil Filters. *Fleet Equipment* 20(1):10.

Abstract: When properly drained, used oil filters generally used by fleets are not subject to EPA hazardous waste rules. Still, proper used filter disposal has become an issue facing fleet managers and environmental specialists responsible for vehicle maintenance operations. As with any waste material, one must examine how the material is regulated by EPA and by state and local regulations. Several states have specific rules concerning disposal. Some fleets crush filters prior to disposal. This will significantly reduce the amount of retained oil.

14. Augestein, David M. 1995. Used Oil Management Standards. *Fleet Equipment* 21(3):10-12.

15. Bailey, Jeff. 1991. Less Old Motor Oil Heads Down the Drain. *The Wall Street Journal*, 19 August.

Abstract: Used motor oil is increasingly being re-refined at places such as Safety-Kleen's new refinery in East Chicago, IN, into new lubricants and fuels instead of being poured down the drain or burned by industry.

16. Bailey, Jeff. 1994. Curbside Recycling Programs Divert Little Trash from Dumps, Study Finds. *The Wall Street Journal*, 4 October.

Abstract: A study, due to be released on October 5, 1994, indicates that popular curbside collection of recyclable materials from homes diverts only a small portion of U.S. trash from dumps and incinerators, but is adding hundreds of millions of dollars annually to the nation's sanitation bill.

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Abstract: Riverdale, GA, residents can pour used motor oil into milk jugs or plastic soft drink bottles and leave them on the curb to be recycled. The service is part of a two-month-old curbside program in the city where every Saturday is recycling day.

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Abstract: Volunteers from Fulton, GA, Clean County Commission will be stationed in the parking lot outside the Recycling Center to collect used motor oil, old magazines, tin cans, and cardboard boxes on Nov. 9, 1991.

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Abstract: Despite a push toward recycling, in 1990 do-it-yourselfers changing their own automotive oil annually threw away 11 times the oil (120 million gallons) spilled by Exxon Valdez (11 million gallons).

20. Birkland, Carol. 1992. Service at Your Door. *Fleet Equipment* 18(8):34-35.

Abstract: Two new companies, VehiCare and Prestone Technology Systems Inc., have entered the mobile service business. VehiCare provides preventive maintenance and vehicle inspections on site. One advantage for customers of VehiCare's mobile service is schedule flexibility. Much of the company's work is done at night or on weekends when vehicles are not in service. Also, for larger companies that have their own mechanics, using the mobile service allows them to concentrate on more complex repairs and inspections while VehiCare handles routine service. Prestone has developed a patented system for antifreeze recycling. In order to promote the system, Prestone has licensed its trademark and recycling technology to American Fluid Technology Inc., which will sell mobile antifreeze recycling franchises to operate mobile vans throughout North America under both companies' brand names. The vans will serve commercial fleet operations, service stations, and automobile dealerships.

21. Birkland, Carol. 1993. Avoid the Hazards of Waste. *Fleet Equipment* 19(8):56-59.

Abstract: Recycling offers far-reaching benefits although most fleet shops find that determining the best way to recycle or properly dispose of shop waste is a constant challenge. Gray Automotive Products Co. notes that crushing used oil filters is not only a viable method for extracting oil from used filters, it is also more environmentally sound since crushed filters occupy less volume than uncrushed filters. Crushed filters can mean a reduction in cost of handling, storing, and shipping of hauling used oil filters. Lincoln Automotive, a major producer of vehicle fluid systems and recovery equipment, has introduced a used oil filter crusher. Kent-Moore also offers an oil filter crusher for heavy-duty oil filters, and Fleetguard markets the Oberg Oil Filter Press, which is powered by hydraulics. Lead acid batteries are also monitored by the EPA and regulated by states. GNB Battery Technologies offers a comprehensive recycling program for its customers, and Interstate Battery System of America Inc. and Delco Remy also recycle batteries.

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Abstract: Oil re-refining, resource recovery, industrial waste and recycling centers.

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Abstract: Despite more than 10 years of regulatory review and analysis and 8 major rules on the issue of whether to regulate used oil as hazardous waste, the battle continues on choosing the best approach that minimizes the hazards associated with the management of used oil while concurrently encouraging used oil recycling. The latest installment to the controversy relates to a final rule issued on May 1, 1992, in which the Environmental Protection Agency (EPA) announced that used oil that is disposed will not be listed as a hazardous waste. However, the rule does not answer the question of whether used oil that is recycled, which constitutes over 90 percent of all used oil, will be regulated as hazardous waste. The EPA did promise that it soon will make a final decision on whether to list as hazardous waste used oil that is recycled. In addition, the EPA announced that it will decide whether management standards in lieu of or in tandem with listing are necessary for recycled used oil.

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Abstract: Elgin, IL-based Safety-Kleen Corp. operates the world's largest oil re-refinery on a 15-acre site in East Chicago, IN. Each year the plant recycles 96 million gallons of oily wastes into clean motor oil marketed under the America's Choice and America's Pride brand names.

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Abstract: Riverdale, GA, is about to begin one of the most extensive curbside recycling programs in the state. The city will collect aluminum and bi-metal cans, plastics, glass of all colors, magazines, and used motor oil once a week.

35. Chanil, Debra. 1992. Adding Value to Motor Oil. *Discount Merchandiser* 32(3):62-68.

Abstract: The buyer-vendor relationship is undergoing a change for the better as motor oil manufacturers strive to make their promotion programs retailer-friendly. At Quaker State, this means retailer-activated promotions that retailers can schedule at their own discretion. Pennzoil is offering a menu of programs, where the retailer chooses from seven different types of on-the-shelf, turn-key promotions. Valvoline is offering three value-added rebate programs for 1002. Valvoline's Dennis Doggett says that the company has shifted from a heavily discounted brand to a value-added brand, which means bringing many services to retailers. Additional services include advancements in EDI programs with major retailers, as well as a comprehensive oil recycling program. Doggett believes these programs pay off. Overall, Valvoline had a strong 1991.

36. Clinton Policy: Used Recycled Materials. 1994. *Journal of Soil & Water Conservation* 49(1): 45-46.

Abstract: By order of President Clinton, federal agencies must double the amount of recycled products they purchase. The agencies are required to use recycled motor oil retread tires on government vehicles.

37. Cogan, R. 1990. Recycling Lubricants. *Motor Trend* 42:122.

Abstract: Automobile lubrication, petroleum waste, and recycling.

38. Coghlan, Andy. 1993. Mobile Cleaner Sucks Up PCBs. *New Scientist* 139(1886):18.

Abstract: The UK's electric industry has developed a method for safely recycling oil that is contaminated with PCBs in the process. The decontamination method is discussed.

39. Collier, T.S. 1992. Oil Industry Decision Making: A Focused Approach. *Proceedings, 1992 Permian Basin Oil and Gas Recovery Conference, March 18-20, Richardson, Texas: Society of Petroleum Engineers of AIME, 483-489.*

40. Cook, J. 1990. What Have You Done for Me Tomorrow? *Forbes* 145 (February): 210.

Abstract: Petroleum waste, recycling.

41. Cordell, Actor. 1991. Give Used Oil a Second Chance. *Atlanta Journal and Atlanta Constitution*, 4 July.

Abstract: At the request of Petro Pure Environmental Services in Sandy Springs, GA, a recycling center operated by Sandy Springs Clean and Beautiful will become one of the company's pickup points for oil.

42. Courtwright, M.L. 1990. Used Oil, Don't Dump It, Recycle It. *Machine Design* 62:81.

Abstract: Charts and graphs on used oil sources, final disposition of used oil, waste oil treatment, etc.

43. Crow, Patrick. 1993. Browner's Views on Environment. *Oil & Gas Journal* 91(3):19.

Abstract: EPA administrator Carol Browner's views on environmental protection are discussed. Browner says the EPA should develop rewards for businesses that develop pollution prevention and recycle strategies.

44. Croy, Lynn K. 1992. Calculating the Real Cost of Recycling. *World Wastes* 35(7):46-51.

Abstract: Because every community is different, any analysis of recycling must be completed individually. The key elements in any recycling program are: 1. Knowledge of the markets, 2. Knowledge of citizen interests and ideas, 3. Effective public education, 4. Knowledge of alternatives available, 5. Knowledge of the waste stream, and 6. An ability to focus on incremental activities that are flexible and expandable. As a backup to the information provided by weight records, some localities have chosen to conduct onsite waste stream analyses, literally sorting through the trash. Alternative systems to be evaluated include: 1. Drop-off facilities, 2. Curbside collection, 3. Collection-storage facility, 4. Co-collection system, and 5. Material recovery facilities. If the program is for municipal solid waste only, it is important to realize that the average household produces only a small fraction of recyclable materials. If only household recyclables are collected, the cost savings may not be as significant as they appear.

45. Cullen, David. 1992. Managing Hazardous Shop Waste. *Fleet Owner* 87(3):56-58.

Abstract: Fleet maintenance shops are discovering that they have attracted the attention of various government agencies intent on controlling hazardous wastes. Common sense combined with technology continues to be the most potent weapon for managing vehicle maintenance procedures. A variety of products, equipment, and services are available for controlling and reducing hazardous waste materials in the shop. Used motor oil, which is the highest volume waste produced by truck shops, can be disposed of straightforwardly on-site. The choices for disposal are fairly clear. Only waste oil generated on-site may be used for energy recovery. Industry experts say that the best way to dispose of used oil filters is to drain, crush, and drum them. State laws differ regarding how shops may treat spent engine coolant. Generally, fleets can have the coolant hauled away by a reclaimer or recycle it in-house. Safety-Kleen Corp has announced the launch of a used oil filter collection-recycling service.

46. Davani, Behnam, Bill Sanders, and Greg A. Jungclaus. 1992. Residual Fuel Oil as Potential Source of Groundwater Contamination. *ASTM Special Technical Publication*, No. 1075, 299-311.

47. Deadle, D.J. 1994. Lubricants Recycling. *Industrial Lubrication and Tribology* 46(4):5-7.

48. Debate Continues Over Listing Used Oil as a Hazardous Substance. 1992. *Aftermarket Business* 102(1):4.

49. Defouw. 1989. Waste Oil Management for a Small Quality Generator. *Hazardous & Industrial Waste Minimization Practices*. Philadelphia: American Society for Testing & Materials.

Abstract: Conference paper reviewing one small business' oil management system including collection, cleaning, and storage through recycling of waste, where possible.

50. Department of the Navy. 1985. *Final Report: Used Oil and Solvent Recycling Guide*.

Abstract: Guide describes safe disposal of used oil and outlines steps to implement a used oil program including technical background information.

51. Deye, Robert E. 1993. Who Will Pay? Subsidies or Taxes for Recycling in the Heartland. *Resources, Conservation and Recycling* 9(4):237-253.

52. Dunsay, Jonathan. 1994. Correcting the Dysfunctional and Inefficient Recycling Markets: Placing Recyclables on the Chicago Board of Trade. *Supramolecular Science* 22(1):16-32.

53. Earle, Joe. 1992. Roswell's Recycling Just Weeks Away. *Atlanta Constitution*, 9 July.

Abstract: Roswell, GA, will begin curbside collection of recyclable materials in the summer of 1992 in what city officials say will be the largest municipal program in Georgia.

54. Edmond, M. 1991. Is the Used Oil Recycling Program in Jeopardy? *National Petroleum News* 83 (February):35.

Abstract: Includes related articles on disposing of used oil filters and on do-it-yourself recyclers.

55. Egan, P. 1990. Last Tag. *Road & Track* 41 (June):16.

Abstract: Petroleum waste and recycling.

56. Energy and Environmental Research Corporation. 1988. *Guide to Oil Waste Management Alternatives for Used Oil, Oily Wastewater, Oily Sludge, and Other Wastes Resulting from the Use of Oil Products*. April.

Abstract: The report presents results of a study of oil waste management alternatives. The study includes regulations, established and emerging technologies, environmental impacts of oil waste management. It is the companion volume to "Oil Waste Management Alternatives Symposia—Conference Proceedings."

57. Entropy, Inc. 1994. *Metals Emissions from the Combustion of Used Oil Fuel: Phase I, Literature Search and Survey*. Washington, D.C.: Used Oil Recycling Coalition.

58. Environmental Protection Agency's Proposal to List All Used Oil as Hazardous Waste. 1991. *The Weekly of Business Aviation* 53(22):209.

59. Even If You're on the Right Track, You'll Get Run Over If You Just Sit There: Source Reduction and Recycling in the Oil Field. 1993. *Proceedings*. SPE/EPA Exploration and Production Environmental Conference. Richardson, Texas: Society of Petroleum Engineers, 623–629.

60. Exxon to Collect Used Oil For Recycling. 1991. *Hardware Age* 228(11):28.

61. Falconer, M., T. Wilson, and P.K. Beynon. 1986. Re-refining Used Lubricating Oils. *Pollution Engineering* 18(6).

Abstract: Incorporating oil recovery, rerrefineries and recycling. A second generation of technology using distillation/hydrotreatment has now been developed allowing used lubricating oils to be re-refined to "equivalent to virgin oil" standards.

62. Fields, Howard. 1991. EPA Throws Used Oil Question Open. *Recycling Today* 2(10):44.

63. Foil Oil. 1994. *Los Angeles Times*. 28 May.

Abstract: An editorial highlights the 18-month campaign kicked off during the week of May 28, 1994, by the city of Los Angeles, the American Oceans Campaign, and Unocal Corp., which encourage residents to recycle motor oil.

64. Furnaces Offer a Safe Way to Dispose of Oil. 1992. *Successful Farming* 90 (April):60.

65. Gelspan, Ross. 1991. Motor Oil Pollution of Water Uncurbed. *Boston Globe*, 23 December.

Abstract: Alarmed by contamination of drinking water sources by car owners who illegally dump their used motor oil in the sewer or the ground, the Massachusetts Legislature required all motor oil retailers to take back consumers' waste oil for recycling.

66. Gies, Glenda. 1995. Drop Off Recycling as a Low Cost Alternative. *BioCycle* 36(3):30-33.

Abstract: As Canadian municipalities expand waste diversion programs, officials are exploring options to keep costs under control. One possibility is the use of drop off depots as an alternative to curbside collection. While drop off programs are expected to cost a fraction of curbside, issues such as participation, convenience, and material quality are raised as possible disadvantages. In June 1990, the Calgary City Council approved a pilot project to test curbside and drop off depot collection systems for recyclable materials. By December 1990, the first of seven sites was opened, with the remaining six sites established by early February 1991. After the pilot tests Calgary decided to stop curbside collection and expand the depot system. During 1994, the 29 operating sites received a total of 8,606 metric tons of materials, including 7,338 metric tons newspapers and magazines. A significant factor affecting container recovery rates in the Calgary program is the provincial deposit system for plastic, glass, and metal containers. The recycling strategies of Amabel, Ontario; Gananoque, Ontario; and Laval, Quebec, are discussed.

67. Goldman, Matthew. 1991. What Do Those Recycling Numbers Mean? *Waste Age* 22(2):53-54.

68. Grogan, Peter L. 1993. Target Seattle. *BioCycle* 34(10):82-83.

Abstract: The recycling program in Seattle, Washington, is not just a residential curbside collection program. It is a whole series of programs, each at different developmental stages. Some of the programs that will close the gap between the estimated 45 percent and the 60 percent goal are not yet implemented or, in some cases, not fully implemented. A review of the city's Recycling Potential Assessment Report leads to the conclusion that the city is on track of meeting its goal unless it decides not to fully implement some of its programs. An article in the *Wall Street Journal* by reporter Bill Richards stressed that recycling is not working there in Seattle. However, his article has many factual errors. The *Wall Street Journal* has not accurately reported on recycling issues and has especially missed the mark on end-use markets. Seattle will continue to be attacked for its success. Critique based on truth is healthy and vital, and cities should be questioned about the environmental and financial soundness of their programs.

69. Grogan, Peter L. 1994. Why Not Just Throw It in the River? *BioCycle* 35(12):80.

Abstract: According to a study funded by Keep America Beautiful, Inc. and conducted by Franklin Associates, recycling and composting as currently practiced have limits that will be reached by the end of the 1990s. To reach national average recovery scenario levels of 25 percent to 35 percent, curbside collection will need to double by the year 2000. This will lead to more costly recycling programs. There are some states, primarily in the Rocky Mountain region, that have demonstrated no leadership in the area of recycling, composting, and waste reduction. Yet, by averaging in the numbers from the less accomplished states, the success of the more progressive states such as Oregon, Washington, and Florida are negated. After reading the study, one could easily conclude that residential recycling has had little or no impact on reducing the nation's waste stream, especially given that recycling is said to be so expensive. The numbers aside, it is no longer the environmental community pushing for recycling—it is the public.

70. *Guide to Used Oil Regulations*. Washington, D.C.: Thompson Publishing Group.

71. Halverson, Richard. 1991. Green Issues Confront Automotive Industry; Oil Recycling Debated. *Discount Store News* 30(19):5(3).

72. Hauck, Thomas B. 1992. Used Oil Recycling: An Issue for the 90s. *Business Mexico* 2(11):32-34.

Abstract: About 269 million gallons of used oil, representing about 68 percent of the total used oil generated throughout Latin America and the Caribbean, enter some type of used oil management system. The methods used include collecting, recycling for reuse, and burning for fuel. An estimated 33.4 million gallons, or 7.8 percent of the total amount of used oil, are collected by recycling companies, entities which collect from third parties and use the product themselves. Some acceptable uses for used oil are coker feed, synthesis gas, industrial boiler fuel, and re-refining. Concerns associated with used oil recycling include cost, dumping, prevention, collection, and education. Consumers, retailers, and the oil industry can take the following steps to reuse oil: 1. Develop used oil collection center networks. 2. Encourage the public to properly dispose of used oil. 3. Support the establishment of laws and regulations requiring retailers of significant quantities of lubricants to provide on-premise collection facilities or arrange for an alternative collection within a reasonable proximity of their location.

73. Hayes, Dennis. 1991. Don't Just Dump Oil. *USA Today*, 12 July.

Abstract: Dennis Hayes tells of the dangers used motor oil poses to the environment, and discusses recycling and disposal of motor oil.

74. Hegberg, Bruce, William Hallenbeck, and Gary R. Brenniman. 1991. Used Oil Management in Illinois. Prepared by the University of Illinois Center for Solid Waste Management and Research. July.

75. Hermann, Ferdinand. 1994. Environmental Considerations for Product Design for the German Market. *Proceedings*. Design for Manufacturability Conference, 1994. New York: ASME, 35-37.

76. Hobbs, Benjamin F., Bradley H. Rouse, and David T. Hogg. 1993. Measuring the Economic Value of Demand-Side and Supply Resources in Integrated Resource Planning Models. *IEEE Transactions on Power Systems*. 8(3):979-987.

77. Hong, P. 1991a. Lube Jobs: Thieves Rustling Used Oil. *Business Week*, 4 November, 1(3).

78. Hong, P. 1991b. Old Motor Oil Is Dirty—But Is it Toxic? *Business Week*, 29 April, 86E.

Abstract: Covers the powers and duties of the Environmental Protection Agency; petroleum waste and recycling; and the rules and regulations for the recycling industry.

79. Hong, P. 1992. Throwing Brickbats at Big Oil's Recycling Act. *Business Week*, 11 May, 33(1).

Abstract: Petroleum industry, environmental policy, and recycling.

80. Hughes, Connie. 1994. Times Getting Harder. *World Oil* 215(8):57-67.

81. Indianapolis Collects Oil. 1991. *American City & County* 106(9):50.

Abstract: Indianapolis-area motorists who change their motor oil have a new option when disposing of their used oil.

82. Jackson, Cheryl. 1991. In Recycling, Water and Oil in Mix. *Chicago Tribune*, 10 July.

Abstract: Safety-Kleen Corp of Elgin, IL, has opened a new facility that will process 75 million gallons of used automotive and industrial oils annually, converting it into 43 million gallons of high-quality base lubricating oil and petroleum products.

83. Johnston, Brooke, Robin Averitt, Arthur Yann, Rhonda Sanderson, Jonathan Barlett, Richard Rennick, and Pat Swisher. 1992. *Franchising World* 24(2):37-47.

Abstract: Because franchise companies represent more than 35 percent of U.S. retail sales, they are in a unique position to be active in the movement to protect the environment. Some of the franchise companies that are making significant contributions to preserving the environment include: 1. Duds N Suds, the nation's leading laundry franchise, is taking that lead with a variety of corporate-initiated changes such as a phosphate-free detergent and recyclable paper products. 2. Speedee Oil Change & Tune-Up, a preventive engine maintenance services franchise, recycles used motor oil and is investigating a recycling program for used oil filters.

84. Junkins, Randy D. 1993. Compliance Alert. EPA's Used Oil Management Standards. *Die Casting Engineer* 37(3):54-55.
85. Kitchens, Bradley S. 1993. Management Considerations of Risk and Return in the Oil and Gas Industry. *Proceedings*. American Society of Mechanical Engineers. New York: ASME, 1-10.
86. Knack, Ruth, Christine Luboff, James Uttley, Frederick Steiner, Jim Schwad, and Elizabeth Feinberg. 1993. *Planning* 59(8):14-18.

Abstract: Local officials across the U.S. are tightening up zoning codes and permitting processes to consider the problems presented by recycling facilities. Some are using a model ordinance prepared by the California Department of Conservation, which defines types of centers and establishes standards for cleanliness, traffic, parking, and noise. Other trends in recycling include stopping the problem before it starts, focusing on market development, linking recycling to jobs, and broadening definitions. For example, in Seattle, Washington, efforts are under way to reduce waste up front by educating the public, implementing a trial composting program, and adding items for recycling to curbside collection. The city of Phoenix, Arizona, has transformed a solid waste management facility with a transfer station and recycling center into an educational facility that invites public visitation.

87. Knapp, Bill. 1995. Automated Collection, Tailor-Made. *World Wastes* 38(2):3.
88. Knott, David. 1995. Oil Recycling Moves Upscale. *Oil & Gas Journal* 93(11):32.

Abstract: The U.K.'s National Rivers Authority (NRA) and oil companies are promoting oil recycling with a network of collection points for waste lubricants. The market opportunity for recycling oil in the U.K. is discussed.

89. Kovski, Alan. 1992a. Hazwaste Listing for Used Oil Looks Less Likely. *The Oil Daily*, No. 9938, 3(1).
90. Kovski, Alan. 1992b. Two Environmental Regulations Reach Deadline for Cut-Off. *The Oil Daily*, No. 9929, 1(2).

Abstract: Hazardous waste "mixture," "derived from" rules overturned by federal appeals court.

91. Kronfeld, A.M. 1989. Used Oil's Frightening Future. *Waste Age* 20(7):169-174.
92. Kuster, T. 1990. Oil Recycling Helps Safety-Kleen. *American Metal Market* 98:10.
93. Kuster, T. 1991. Used Oil's Filter Recycling Plan Wins Approval. *American Metal Market* 99:10.
94. Kuuva, Markku, and Mauri Airila. 1994. Conceptual Approach on Design for Practical Product Recycling. *Proceedings*. Design for Manufacturability Conference, 1994. New York: ASME, 115-123.

95. Lange, Hoard B., and William C. Rovesti. 1991. Fuel Oil Management System. Residual Oil Tank Management. Fuel Strategies for Conventional and Unconventional Fuels. American Society of Mechanical Engineers, Fuels and Combustion Technologies Division FACT 11:57-64, 6-10 October.
96. Ledbetter, G.H. 1988. Used Oil and Its Regulation in the United States. Force Institute of Technology. 30 September.
97. Lee, Patrick. 1991. Firms Searched in Toxic Waste Investigation. *Los Angeles Times*, 9 May.
- Abstract:** Petroleum Recycling Corp, a Signal Hill, CA, oil recycling firm, and Wright Terminals Corp. of Long Beach, CA, were targets of May 7, 1991, search by local investigators seeking evidence that the firms illegally shipped and stored toxic wastes.
98. Lohof, A. 1991a. *Used Oil Management in Selected Industrial Countries*. API Publication No. 064. Washington, D.C.: American Petroleum Institute.
99. Lohof, A. 1991b. Where Has All the Used Oil Gone? Where Can It Go? *International Environmental Affairs* 3(4):259.
100. MacAllister, D.J., Ron Day, and M.D. McCarmack. 1993. Expert Systems: A Five-Year Perspective. *Proceedings*. Petroleum Computer Conference. Richardson, Texas: Society of Petroleum Engineers, 209-218.
101. Maddox, Cedric W. 1991. Recycling Information Is Available to Atlantans. *Atlanta Constitution*, 24.
- Abstract:** W. Cedric Maddox, director of the Atlanta Bureau of Sanitary Services, responds to a March 29, 1991, column by Marilyn Geewax discussing the difficulty of recycling spent motor oil, in a letter to the editor.
102. Manning, Anita. 1991. Garage Does Its Share to Repair Cars, Environment. *USA Today*, 3 October.
- Abstract:** Jeff Shumway is the owner of Ecotech Autoworks in McLean, VA, a mechanic shop that recycles oil, scrap metals, and dead batteries among other things.
103. McCarthy, Rebecca. 1991. Recycling Your Motor Oil Saves Landfill Space, Energy. *Atlanta Constitution*, 23 January.
- Abstract:** National energy policy since 1980 has not reduced the U.S.'s dependence on finite fossil fuels, including foreign oil; it hasn't produced more fuel-efficient engines, or supported research for alternative sources of energy. But there is something individuals can do—recycle.
104. Menge, Ewell, and Keith Nicholson. 1993. Used Oil as an Alternative Boiler Fuel—Promises and Problem. *Proceedings*. IEEE Southeast Conference. Piscataway, New Jersey: IEEE Service Center, 6.
105. Miller, Chaz. 1993. Household Hazardous Waste. *Waste Age* 24(5):97-98.
106. Morse, H.N. 1990. Used Oil Discharge. *Air Waste Management Assoc.* 40(6):945.
107. Mueller Associates, Inc. 1989. Waste Oil: Reclaiming Technology, Utilization, and Disposal. Springfield, VA: National Technical Information Service.
108. Murphy, M. 1989. Missouri Lawmaker's Bill May Energize Struggling Used Oil Recycling Business. *Oil Daily*, 30 March, 5.
- Abstract:** Missouri law and legislation on used oil recycling.

109. Naj, Amal Kumar. 1993. Lab Notes: Forget Recycling, Turn Plastics Back into Oil. *The Wall Street Journal*, 19 September.

Abstract: Researchers at the University of Kentucky's Institute for Mining and Minerals are currently working on the most economical way to commercialize a method of turning plastics back into crude oil as an alternative to recycling. One engineer, Mehdi Taghiei, estimates that the plastic wastes produced in the U.S. can generate over 80 million barrels of oil a year, or about five days of U.S. supply.

110. National Bureau of Standards. 1986. *Environmental Standard Developed for Used Lubricating Oil*. July.

111. Nobbe, George. 1993. Greasing the Wheels of Progress—With Recycled Oil. *Omni* 15(4):27.

Abstract: Lyondell Petrochemical has developed a procedure used to recycle used motor oil into high-quality gasoline and home heating fuel. The process is briefly discussed.

112. Oil Companies Do a Burn Over Attacks on Used Oil Recycling. 1992. *National Petroleum News* 84(6):22(1).

113. Oil for Recycling Won't Be on Hazardous Waste List. 1991. *Wall Street Journal*.

114. Oil Recyclers Target Do-It-Yourselfers. 1988. *BioCycle* 29(4):46-47.

Abstract: Article on Project ROSE, Alabama's comprehensive used oil program that assists the do-it-yourselfer (DIYer) oil changes in recycling efforts and provides collection/recycling information.

115. O'Keefe, William F. 1992. A Major Oil Polluter Just Might Be You. *The Wall Street Journal*, 11 December.

Abstract: William F. O'Keefe responds to the Oct. 13, 1992, article "Many of Competitiveness Council's Beneficiaries Are Firms That Make Big Donations to the GOP" and says that the characterization of the EPA's used-oil environmental threat is the 60 percent of Americans who improperly dispose of some 200 million gallons of used oil each year.

116. Parker, S.T. 1991. Used Oil Reclassification May Lead to Costly and Unwieldy Permitting. *Oil Daily*, 26 June, 5.

Abstract: Petroleum waste and recycling, API reports, laws and regulations.

117. Parrish, Michael. 1992. Recycler Finds Growing Niche in Slippery Business. *Los Angeles Times*, 14 August.

Abstract: Evergreen Oil Co., a small Newark, CA, company which recycles waste motor oil, has gained national attention and has become a popular issue in the presidential campaign.

118. Patel, J.A. 1992. Round Table Discussion on Used Oil Recycling and Re-refined Base Oils. *Preprints* 37(4):1383. Washington, D.C.: Division of Petroleum Chemistry, American Chemical Society, Books and Journals Division.

119. Pendleton, Scott. 1991. Industry Recycles More Motor Oil. *Christian Science Monitor*, 22 October.

Abstract: The petroleum industry's effort to recycle used motor oil is discussed. Companies such as Mobil Corp. and Exxon Co. have announced in 1991 that 3,000 or more service stations will act as drop-off points for used oil.

120. Pettitt, Joe. 1991. What to Do With Used Oil. *Hot Rod* 44 (April):114.

Abstract: Petroleum waste, lubricating oils, and recycling.

121. Pyziak, Tom, and Dennis W. Brinkman. 1993. Recycling and Re-refining Used Lubricating Oils. *Lubrication Engineering* 49(5):339–346.
122. Rabasca, Lisa. 1994. State Recycling Rates Plateau. *Waste Age* 25(6):48–52.
123. Raffalli, Mary. 1992. Science Times: Bacteria Recycle Oil in Searing Spot in Sea. *The New York Times*, 22 December.

Abstract: According to a study published recently in the journal *Science*, bacteria that live beneath the ocean floor without oxygen or sunlight survive by recycling crude oil and other materials containing sulfur which are deposited into the seas.

124. Ramirez, Lee E. 1992. Recycling Used Oil: Keeping It Affordable. *Solid Waste and Power* 5(6):

Abstract: Addresses cost of collection programs.

125. Ray, Gregory, and Christine Dillon. 1991. Used Oil Re-refining Without Hazardous Waste Byproducts—a Case History of Evergreen Oil. *NLGI Spokesman* (National Lubricating Grease Institute) 54(12):9–11.
126. Recycle Auto Wastes. 1992. *Popular Mechanics* 169 (May):98–99.
127. Recycle Masters. 1994. *Editor & Publisher* 127(14):4E–5E.

Abstract: At the State Journal-Register in Springfield, IL, everyone takes recycling seriously as they recycle everything except lunch leftovers. Recycling involving newsprint, ink, fixer, solvents, plates, and press oil is described.

128. Redd, Adrienne. 1994. Recycling on the Streets of Philadelphia. *World Wastes* 37(8):40–47.

Abstract: The Philadelphia Recycling Office (PRO) is profiled. Philadelphia typifies the challenges posed by curbside collection in large cities with urban problems. Education is the PRO's primary focus. Flyers list the PRO's number for general information about recycling and another number at the streets department for collection questions or complaints. Since its resources are limited, the PRO must operate in a practical, no-nonsense manner. Because the costs of collecting recyclables were initially much higher than the costs of trash collection, the incentive to make the program more efficient was strong. Philadelphia, which has been and continues to be plagued with budget problems, could not afford to subsidize the recycling program. The PRO attempts to provide recycling and bring down its costs in several ways. Details are provided.

129. Re-refiner Fluidizes Tank Residue Using Portable Mixer. 1994. *Oil and Gas Journal* 92(36):104.
130. Rhodes, Anne. 1994. New Process Effectively Recovers Oil from Refinery Waste Streams. *Oil and Gas Journal* 92(33):92–94.
131. Riggle, David. 1993. Dropoffs Take on Added Significance. *BioCycle* 34(2):32–35.

Abstract: Economics and relative ease of implementation are just two reasons dropoffs are valued recycling alternatives to curbside collection. Programs in Delaware, Maine, Virginia, Tennessee, and Pennsylvania are examined.

132. Rippon, R.E. 1990. Recycling Issues Involving Used Oil. Canadian Waste Management Conference, October 3–5.

Abstract: From the Canadian Waste Management Conference October 3–5, 1990.

133. Robinson, M.A. 1986. Evaluation of Used Automotive Oil Co-Firing Practices for Compliance with Used Oil Regulations and Environmental Quality Requirements. Naval Surface Weapons Center. May.
134. Shapek, Raymond A. 1993. Data Collection and Analysis to Improve the Quality and Effectiveness of Recycling Education Programs. *Resources, Conservation and Recycling* 9(3):223-224.
135. Shook, Phil. 1992. Decision Time Nears on Used Oil Hazardous Waste Listing. *National Petroleum News* 84(5):41-44.

Abstract: Larry Northup, executive director of the Convenient Automotive Service Institute (CASI), says a decision not to list oil as a hazardous waste by the Environmental Protection Agency (EPA) would have to be supported by the development of used oil management standards that are needed to trigger the Superfund liability exemption for motor oil installers who abide by management standards and collect do-it-yourself oil. The EPA is considering three options on used oil, and two of those options would result in some or all of used oil being declared hazardous. Many industry groups believe that a hazardous listing would increase the cost of disposal and would ignore the most serious problem—indiscriminate disposal of used oil by DIYers. A related issue that is critical to the fast lube industry is the handling of used oil filters. On the federal level, CASI endorses the EPA proposal exempting filters that have been mechanically crushed. The group wants the exemption expanded to include filters that have been gravity drained or disassembled.

136. Simon, Rich. 1994. Save a Whale by Recycling Your Oil. *Los Angeles Times*, 31 October.

Abstract: A campaign in Los Angeles in late October 1994 to encourage people to recycle used motor oil is discussed.

137. Sims, B.C., and L.L. Savage. 1995. Fast Track to Effective Waste Minimization: Government and Industry Working Together. *Proceedings. SPE/EPA Exploration and Production Environmental Conference 1995*. Richardson, Texas: Society of Petroleum Engineers, 123-136.
138. Siuri, William D., Jr. 1993. Turning Tires and Oil into Alternative Fuel. *World Wastes* 36(10):20-23.

Abstract: Scrap tires and used oil are being converted to energy sources through the tire liquefaction process in an effort to use these resources, most of which end up in landfills. In Texaco's tire liquefaction process, shredded tire chunks are placed in a liquefaction reactor to dissolve in hot oil. Since the temperature is relatively low, less than 700 degrees F, this method acts as a mild cracking process rather than pyrolysis, another tire recycling method. Two liquid products are produced: 1. a light, condensate oil, and 2. a heavy, fuel oil-like tire oil. The light condensate oils can be refined into gasoline diesel, heating fuel, or other chemicals. The small amount of Btu gas produced in the process is used in the reactor's process heaters. The carbon black from the process can be mixed with the tire oil and used as a fuel or a material in asphalt production. Other uses for the tire oil are discussed.

139. Solomon, Caleb. 1992. Environment: Refiner Begins Making Gasoline from Used Oil. *The Wall Street Journal*, 11 February.

Abstract: Lyondell Petrochemical Co. has begun processing used motor oil into gasoline at a rate of about 7.5 million gallons a year and hopes to reach a rate of 30 million gallons by the end of 1992. The method used in the process does not require new technology and is at least a partial answer to the environmental problem of disposal of the oil.

140. South Carolina Institute of Public Affairs. 1993. *South Carolina Used Oil Partnership State Survey*. Spring.

Abstract: Profiles do-it-yourselfers and efforts to collect DIY oil in South Carolina.

141. Souza-Couch, Lorien, Lee Hornberger, and Tim Hight. 1994. Recyclability List for Designers. *Proceedings. Annual Technical Conference—ANTEC*. Brookfield, Connecticut: Society of Plastics Engineers, 2868-2870.

142. Steuteville, Robert. 1992. Collecting the Unusual. *BioCycle* 33(7):38-40.

Abstract: Many municipalities are expanding their curbside recycling programs to include more materials. Some communities collect additional items to comply with landfill bans, while others want to divert waste or avoid problems with disposal of hazardous substances. Lee County's curbside program has collected textiles since October 1988. Prior to that time textiles went into a landfill. Officials in Ann Arbor, Michigan, believe there are two purposes for recycling—waste diversion and proper handling of hazardous materials. The city began collecting motor oil at curbside in the early 1980s. Ann Arbor also collects automobile batteries and household batteries, both at curbside and at a dropoff site. The problem of illegal dumping was a motivating factor for Charlotte, North Carolina, to start collecting white goods at curbside. A small but growing number of municipalities have included milk carton and aseptic drink packages in curbside collection programs.

143. Steuteville, Robert. 1993. Successful Dropoffs for Used Oil. *BioCycle* 34(12):58-60.

Abstract: Recycling is growing for used motor oil as communities try to keep it out of the landfill and away from the water table. Dropoff centers, the most common recycling option, are discussed.

144. Steuteville, Robert, Jay Freeborne, and Fulton Rockwell. 1994. Trends in Curbside Recycling. *BioCycle* 35(7):30-35.

Abstract: The sheer variety of ways to extract bottles, newspapers, and other materials from the waste stream is one of the most marvelous aspects of the recycling program explosion. The extent of commingling and source separation, variable rates for refuse, and the variety of recyclables collected vary among individual programs. Despite the multitude of differences, some trends are emerging, according to *BioCycle* survey of a dozen municipalities. More curbside programs are adding corrugated, magazines, mixed paper and kraft, resulting in commingled paper streams. Compaction in curbside collection is a trend. Recycling costs are competitive with refuse collection costs in most of the municipalities. The majority of programs continue to change and expand, even after they reach substantial levels of diversion.

145. Tai, O.K., W.P. Bhan, and D.W. Brinkman. 1986. Hydrofinishing of Re-Refined Used Lubricating Oil. National Institute for Petroleum and Energy Research. January 31.

146. Tarrer, Arthur R. Demetallation of Used Oil to Facilitate Its Utilization as a Fuel. Hazardous and Industrial Solid Waste Minimization Practices. Philadelphia: American Society for Testing and Materials.

Abstract: Conference paper on waste processing, chemical treatment, and the separation process.

147. Tate, Nick. 1995. Motor-Oil Recycle Law Goes Down the Drain. *The Boston Herald*, 5 April.

Abstract: Discusses Massachusetts requirement that retailers take back used oil and lack of compliance.

148. Teintze, Linda M. 1992. Used Oil Issues and Opportunities. *Preprints* 37(4):1356-1366. Washington, D.C.: Division of Petroleum Chemistry, American Chemical Society, Books and Journals Division.

149. Thomas, G.A.N., and Geoffrey Thorp. 1993. Upstream Oil and Gas Industry's Initiative in the Development of International Standards. *Proceedings*. Asia Pacific Oil and Gas Conference. Richardson, Texas: Society of Petroleum Engineers, 127-135.

150. Tocci, L. 1991a. Recycler Finds Use of Fuel Profitable and Says It Benefits the Environment. *Oil Daily*, 29 April, B-5.

151. Tocci, L. 1991b. Rerefining: Wave of the Future? *Oil Daily*, 29 April, B-5.

152. Trickle Down—Disposing of Used Motor Oil. 1991. *Consumer Reports* 56 (April):210.
- Abstract:** Lubricating oils and recycling; environmental aspects of recycling.
153. Troy, K. 1989. Preliminary Data Summary for the Used Oil Reclamation and Rerefining Industry. September.
- Abstract:** The summaries contain data on industrial facilities in various industries discharging pollutants in their wastewaters and considers whether EPA should pursue regulations to control such discharges.
154. Truini, Joseph. 1993. Used-Oil Update. *Home Mechanix* 89(774):8.
- Abstract:** The toxic chemicals and heavy metals in just one oil change can permanently ruin a million gallons of fresh water. People who change their own motor oil should drain it into a sealed container and take it to a service station that will have it recycled.
155. Used Oil Compromise Viewed as Major Breakthrough, Possible RCRA Fix. 1992. *Inside EPA* 13(7):1(2).
- Abstract:** Congressional compromise on used oil management standards, passage of Resource Conservation and Recovery Act amendments.
156. *Used Oil State Law Digest*. 1992. Washington, D.C.: American Petroleum Institute.
157. U.S. EPA. 1986. *Memo: Information on Used Oil Recycling of Gas Stations and Other Vehicle Service Facilities*. August.
158. U.S. EPA. 1988a. *Final Report: Review of Curbside Used Oil Recycling Programs in the United States*. EPA Contract No. 68-01-7053, Assignment No. 67.
159. U.S. EPA. 1988b. *How to Set Up a Local Used Oil Recycling Program*.
- Abstract:** Manual to help local officials or civic groups set up programs to encourage do-it-yourselfers to recycle their motor oil.
160. U.S. EPA. 1992. *Evaluation of Three Oil Filter Designs for Pollution Prevention Effectiveness*. April.
- Abstract:** Evaluating two ways of minimizing used oil and discarded oil filters, including reusable filters, filters that reduce the rate at which engine oil deteriorates in quality, allowing the oil to be used longer between oil changes without harm to engine life, generate less oil and filter wastes due to fewer oil changes.
161. U.S. EPA Office of Solid Waste and Emergency Response and Franklin Associates Limited. 1984. *Composition and Management of Used Oil Generated in the United States*. September.
162. Villena-Denton, V. 1986. ASTM Developing New Tests to Aid Recycled Oil. *Oil Daily*, 8 December, B-4.
- Abstract:** ASTM research, fuel oil testing, recycling petroleum products.
163. Voorhees, Philip H. 1992. Perspectives on the Generation and Management of Used Oil in the U.S. in 1991. Lexington, Massachusetts: Clayton Environmental Consultants. November 5.

164. Waste Oil Collection Hitting on Most, If Not All, Cylinders. 1995. *National Petroleum News* 87(2):48-49.

Abstract: According to David Augustein, chairman of the Environmental Resource Institute, 99 percent of used oil is handled properly today. Used oil collectors include quick lube outlets, service stations, mass merchandisers, auto repair shops, and automobile dealers. All have a stake in retail used oil collection. With enforcement officials watching closely, most used oil generators are making sure that their used oil operations are in order. Rughann Epperson, an Amoco service station dealer, says used oil collection storage, treatment, testing, and transference to hauler have all been addressed properly at her station since it began generating used oil in 1959. Epperson uses a \$90 hand-held hazardous material detector paid for by Amoco.

165. Weisskopf, Michael. 1991. Recycling: Safety vs. Convenience—Toxic Waste Label for Used Oil Mullied. *The Washington Post*, 4 September.

Abstract: The EPA is seeking public comment on a series of regulatory options intended to encourage recycling of the 500 million gallons of used motor oil generated each year by individuals and small businesses.

166. Weisskopf, Michael. 1992. Oil Recycling Success Provides Support for Differing Messages. *The Washington Post*, 26 October.

Abstract: The differences between President Bush and Bill Clinton over environmental regulations are analyzed.

167. Wentz, C.A., and F. Basler. 1991. The Dechlorination of Used Oil Products. *Hazardous Waste, Hazardous Materials*. 55-68.

Abstract: Study on how to produce a low-chloride product from various used oil sources. The effect of processing conditions on the removal of chlorides from organic and inorganic components in the oil was also studied.

168. What's New in Oil Filtration. 1994. *Fleet Owner* 89(10):268.

Abstract: The cost and hassle of disposing of old oil filters and drained crankcase oil from truck engines are prompting some fleet managers to extend oil-drain intervals. Some are not changing oil at all, which decreases downtime even more. According to TF Purifier, one fleet of Class 8 tractors put on over 800,000 miles per vehicle without changing the oil. The fleet changes filter elements after 20,000 miles instead of 46 quarts of oil. Fleetguard is working on newer technologies using high-efficiency media such as combinations of glass fiber, cellulose papers, and other manmade fibers. Baldwin is working on a combination of glass fiber and glass strands and paper that provides more capacity and efficiency. AC-Delco sees a trend toward extended drain intervals, with many fleets using synthetic oil and filters capable of handling the longer drains.

169. White, John R. 1992. Legislature Mulling a Plan to Collect, Recycle Used Motor Oil Statewide. *Boston Globe*, 14 November.

Abstract: John R. White discusses a bill before the Massachusetts Legislature that would establish used-oil collection sites and/or institute curbside collection of used oil statewide. The collection costs would be paid by a fee added to the price of packaged motor oil sold over the counter.

170. White, Kathleen M. 1995. Burbank Recycle Center: A Star Attraction. *Waste Age* 26(2):75-78.

171. Winter, Christine. 1995. Dirty Rotten Shame That Louts Spoil Recycling Plans. *Chicago Tribune* 17 March.

Abstract: Christine Winter laments the passing of the Elk Grove Village, IL, motor-oil recycling program because residents were dropping off everything from model airplane fuel to paint remover at the designated site.

172. Witten, Matthew. 1990. The State of the State: Recycling in Vermont. *Resource Recycling* 9(10):65(3).

Abstract: Act 78, passed in Vermont in 1987, mandated user fees for waste disposal sites, increasing statewide attention to solid waste management issues. Since then, statewide recycling has increased from 9 percent to 20 percent. A 1990 law provides economic incentives for municipalities to enact recycling programs within the next three years. The state has also developed composting programs, used oil collection programs, education and technical support programs, and market development programs.

173. Wood, E. 1986. New York State Report Focuses on Used Oil: Waste Oil Management Program Report. *Oil Daily*, 8 December, A-4.

174. Woodsy, Randy. 1993. Puget Sound's Other Success Today. *Waste Age* 24(7):7.

175. Zissler, M. 1991. Oil Recycling Becoming Profitable Growth Industry. *South Florida Business Journal* 11 (February 18):16.

Appendix A—Contacts

USED OIL CONTACTS

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Appendix B—Related Associations and Additional Sources of Information

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Call for EPA used oil recycling newsletter
or EPA Environmental Fact Sheet on used
oil management standards.

800-424-9346

RCRA Hotline

703-920-9810

Call for a copy of the Federal
Register notice.

24. Has your state adopted the federal used oil management standards? Yes Yes, With Revisions No
 If yes, when were they adopted? _____
 Does your state provide further limitations on liability to used oil collection centers? Yes No

25. How much oil (in gallons) was collected by your state during the following years?

Public Collection Program			Private Collection Programs		
1990 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>	1990 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>
1991 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>	1991 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>
1992 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>	1992 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>
1993 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>	1993 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>
1994 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>	1994 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>
1995 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>	1995 _____	estimate <input type="checkbox"/>	reported <input type="checkbox"/>

26. In your estimation, what percentage of oil changes are performed by the DIYer in your state? _____
27. Does your state require an annual report to the legislature? Yes No (If yes, please enclose a copy.)
28. What do you see as some of the reasons DIYers do not participate in used oil collection programs?
 Education Convenience Other (specify) _____
29. What are some of the barriers to establishing collection programs that your state has experienced?
 Fear of Contaminated Oil Liability Funding Other _____
30. What special efforts has your state made to help the used oil collection program succeed? _____
-
31. Does your state operate a used oil filter collection program? Yes No
 If Yes, how many DIY filters were collected during 1994? _____ (Please attach information on your filter collection program if available.)

Thank you for taking the time to complete the information requested. Please feel free to enclose any relevant materials. A copy of the final report will be sent to you upon its completion. If you have any questions, please call Carol Meyer or Greg Griggs at (919) 549-4800 or write to the National Used Oil Collection & Recycling Study, Educational & Research Foundation of MEMA, Inc., P.O. Box 13966, Research Triangle Park, NC 27709-3966.

Appendix D —API Model Legislation

THE USED OIL COLLECTION ACT (AS OF AUGUST 1994)

Section 1

TITLE

This bill shall establish in _____ "The Used Oil Collection Act."

Section 2

PURPOSE

The legislature finds and declares that approximately ___ million gallons of used oil are generated each year in the state and that this oil is a valuable resource which can be utilized as an environmentally acceptable source of energy or as clean re-refined products. Despite this potential value, a significant amount of used oil is improperly disposed of resulting in a significant environmental problem and a waste of a valuable energy resource.

The legislature finds that although there is an existing system for the collection and recycling of used oil generated by business and industry, private citizens have only limited access to that system and often dispose of their used automotive oil on land or in landfills, sewers, drainage systems, septic tanks, surface or ground waters, and elsewhere.

It is the intent of the Legislature to reduce the amount of improperly disposed used oil by providing incentives to increase the number of certified collection facilities for used oil. Therefore, a Used Oil Collection Fund is created for: the establishment and maintenance of public used oil collection facilities and programs that support used oil collection and recycling; the development of management standards for used oil collectors, transporters, and recyclers; and the promotion of educational programs to encourage the public to dispose of used oil properly.

CLASSIFICATION

Used oil shall not be designated as a hazardous waste or hazardous substance. If the federal government preempts the state's classification, the fund shall be used to properly manage used oil after the effective date of the federal law or regulation.

Section 3

DEFINITIONS

Unless a different meaning is required by the context, the following definitions shall apply throughout this act:

- A. Do-It-Yourselfer (DIYer) is an individual who removes used oil from the engine of a light duty motor vehicle, small utility engine, non-commercial motor vehicle, or farm equipment owned or operated by such individual.
- B. Department means the _____ (i.e., Department of Health and Environmental Control);
- C. Used Oil Collection Center means a facility, including fixed locations, tanks, trucks, and containers, which accepts used oil from DIYers and which constitutes an approved centralized collection center for used oil;
- D. Fund means the Used Oil Collection Fund created by this Act;
- E. Automotive oil includes any oil classified for use in an internal combustion engine, crankcase, transmission, gear box, or differential for an automobile, bus or truck, lawn mower, or household power equipment.
- F. Recycle means to prepare used oil for energy recovery or reuse as a petroleum product by reclaiming, reprocessing, re-refining or other means to utilize properly treated used oil as a substitute for petroleum products provided that the preparation and use is safe, legal, and environmentally sound.
- G. Used oil means any oil which has been refined from crude or synthetic oil and, as a result of use, becomes unsuitable for its original purpose due to loss of original properties, or presence of impurities, but which may

be suitable for further use and may be economically recyclable. Used oil does not include oil filters that have been drained of free flowing used oil or oil contaminated materials.

H. Retailer means anyone who sells automotive oil to the consumer.

Section 4 USED OIL COLLECTION FUND

A. There shall be established a State Used Oil Collection Fund. The Used Oil Collection Fund shall be restricted to the uses described in the Act and shall be administered by the Department.

[Ideally, collection of used DIYer oil should be supported and funded by state general funds, grants, or service fees. For that mechanism Article B is suggested.]

- B. 1. There shall be appropriated annually by the state legislature into the Used Oil Collection Fund funds sufficient to carry out the uses described in this Act.
2. The Department may apply for, request, solicit, contract for, receive, and accept gifts, grants, donations, and other assistance from any source to carry out its powers and duties under this chapter.
- C. [Because of different state needs and the variety of constitutional, statutory and administrative rules and procedures extant, if additional funding provisions are needed, they must be drafted on a state-by-state basis. The oil and gas industry association local representative will assist in this endeavor. Any fee on petroleum products to fund the Used Oil Collection Fund should apply only to sales of all automotive oil, as defined, in bulk and packaged form.]

Section 5 ADMINISTRATION OF THE USED OIL PROGRAM

The State Used Oil Collection Fund established by Section 4 shall be used as follows:

- A. A toll free telephone number shall be established by the Department and maintained for the purpose of disseminating information concerning the locations and operating hours of DIYer Used Oil Collection Centers within the state as well as information concerning the availability, dates and requirements for curbside collection where available; in addition, information regarding alternate locations that accept commercial used oil should also be available.
- B. The Department may award grants, subsidies and or loans to municipalities, counties and other government entities to establish DIYer Used Oil Collection Centers at publicly owned facilities such as fire stations, police barracks, highway departments, county garages, public landfills, or other suitable public or private locations and provide technical assistance to persons who organize such programs. In order to be eligible for reimbursement, such facilities shall be open at least ____ days per week with a regular schedule of not less than ____ hours per day and shall be attended.
- C. The Department may award grants and subsidies to any approved local government entities or private collectors which offer or include as part of residential garbage collection services curbside collection of used DIYer oil from households. The reasonable costs of household containers, truck retrofitting, tanks and similar costs associated with the curbside collection of used DIYer oil shall be eligible for reimbursement from the fund.
- D. All Used Oil Collection Centers must meet minimum standards as established by the Department.
- E. In order to be eligible for reimbursement from the fund, collection facilities shall accept DIY oil in quantities not to exceed five gallons per person per day.
- F. Used Oil Collection Centers shall transfer used DIYer oil only to certified transporters and shall maintain records of all volumes of material collected, including the identity of the hauler and the name and location of the recycling facility.

- G. The _____ Used Oil Collection Fund shall indemnify and hold harmless any Used Oil Collection Center for all costs arising out of used DIYer oil collected from the public which is unsuitable for reuse or recycling, results from spills and/or contamination, or results from the additional liability associated with the operation of the Used Oil Collection Center.
- H. Use of the fund for administrative expenses will be limited to those expenses directly incurred in the administration of the Used Oil Collection Program, and will not exceed _____ of the fund. Since costs should decline after the program is fully implemented, and since the economic value of used oil will fluctuate, a periodic sunset review should be mandated at least every five years to determine whether continuation of the fee is necessary and if the fee rate is appropriate. In no circumstance shall the fund be used for purposes other than those set out in this Act.
- I. At least once per year, the Department shall submit a report to the legislature on the used oil collection program. The report shall include 1) the total amount of funds collected from the environmental fee; 2) the total amount expended from the Used Oil Collection Fund during the preceding calendar year; 3) information identifying each grant recipient, the amount of each grant received, and the proposed use of the grant monies; 4) the number of gallons of used oil collected under the oil collection program; 5) the cost of developing and administering the used oil collection program; and a calculation of the per gallon cost of the used oil collection program, including the administrative cost of the program.
- J. The Secretary of the Department shall appoint an advisory committee for the used oil collection program. The advisory committee shall consist of seven members who shall serve at the pleasure of the Secretary. Those serving on the advisory committee should represent the various interests affected by the used oil collection program. The advisory committee shall recommend criteria for selecting recipients of the grants that may be paid from the Used Oil Collection Fund and shall recommend recipients of these grants.

Section 6

OTHER USES OF THE FUND

The principal purpose of the _____ Used Oil Collection Fund shall be to reimburse local government entities for approved costs associated with curbside collection and public Used Oil Collection Centers as set forth in section 5 of this Act, including proper disposal of the used DIYer oil. In addition, the Department shall develop and allocate funds for:

1. Public education programs concerning the proper handling and recycling of used DIYer oil;
2. Advertising, training and unique incentives that include direct payments to selected non-government, certified Used Oil Collection Centers, and other programs to promote the collection and recycling of used DIYer oil from the public.

Section 7

LIMITATION OF LIABILITY

- A. A person or the state may not recover from the owner, operator, or lessor of a Used Oil Collection Center any costs of response actions resulting from a release of used oil collected at the center or in subsequent handling or disposition by others if:
1. The owner, operator, or lessor of the collection center does not mix the used oil collected with any hazardous substance;
 2. The owner, operator, or lessor of the collection center does not accept used DIYer oil that the owner, operator, or lessor knows contains hazardous substances; and
 3. The Used Oil Collection Center is in compliance with management standards issued by the Department and the used oil is removed from the premises by a certified transporter.
- B. For purposes of this section, the owner, operator, or lessor of a Used Oil Collection Center may presume that a quantity of less than five gallons of used oil accepted at any one time from any member of the public is not mixed with a hazardous substance as defined under the federal Comprehensive Environmental Response Compensation and Liability Act, provided that the owner or operator acts in good faith.

- C. This section applies only to activities directly related to the collection of used oil by a Used Oil Collection Center. This section does not apply to grossly negligent activities related to the operation of a Used Oil Collection Center.

Section 8 CERTIFICATION OF USED OIL COLLECTION CENTERS

The Department shall develop certification requirements for DIYer Used Oil Collection Centers that shall require, at a minimum, that such centers:

- A. Accept uncontaminated used DIYer oil from the general public in quantities up to five gallons per person per day;
- B. Participate in the state toll free telephone used oil information network system;
- C. Meet the minimum requirements for hours of operation as established by the Department; and
- D. Demonstrate that it complies with all state regulations concerning tank structure and integrity, maintenance, supervision, employee training, and housekeeping.

Section 9 TRANSPORTERS

- A. The Department shall develop certification procedures for transporters accepting used oil from public, private, and commercial collection facilities. Such certification shall include:
 - 1. A requirement that the transporter demonstrates familiarity with state regulations and proper used oil management rules;
 - 2. A requirement that the equipment used in such transportation is in good mechanical condition and is suitable for the transportation of used oil;
 - 3. A requirement of proof of liability insurance or other means of financial responsibility, as established by the Department;
 - 4. A showing that all record keeping and reporting practices are in compliance with all applicable regulations;
 - 5. Documentation that all used oil is delivered to qualified customers or certified recyclers.
- B. Where used oil is sold directly by the transporter to an end-user, documentation must include test results showing that said used oil meets all applicable regulatory standards.
- C. The Department shall require that transporters file an annual report which specifies the type and quantity of used oil transported, collected, and recycled during the preceding year.
- D. Any person who annually transports over public highways more than 55 gallons of used oil must be a certified transporter.
- E. The Department shall promulgate regulations establishing procedures for the certification of transporters.

Section 10 RECYCLERS

- A. The Department shall develop management standards for used oil recycling.
- B. The recycler must be in compliance with all federal, state, and local regulations and have all necessary permits.
- C. The Department shall require an annual report which specifies the quantity and source of used oil recycled

during the preceding year.

- D. Each recycler shall report on an annual basis the total products produced, sold, used in the business, or disposed of during the preceding year.

Section 11 PROHIBITED ACTS

- A. Other than provided for in a state or federal discharge permit, no person shall intentionally:
1. Discharge used oil into sewers, drainage systems, septic tanks, surface waters, groundwaters, water courses, or marine waters;
 2. Collect, store, recycle, use or dispose of used oil in any manner which endangers the public health or welfare;
 3. Dispose of used oil in any landfill;
 4. Mix or commingle used oil with hazardous substances that make it unsuitable for recycling or beneficial use.
- B. Used oil may not be used for road oiling, dust control, weed abatement, or similar uses which have the potential to cause harm to the environment.
- C. Any person who violates this section shall be guilty of a gross misdemeanor and shall be liable for fines not to exceed _____ dollars per violation per day. This provision may be enforced by a state, county, or municipal law enforcement official.

Section 12 RETAIL SALES OF AUTOMOTIVE OIL

- A. Any retailer of automotive oil that is not a collection center shall post and maintain at or near the point of automotive oil display or sale, a durable and legible sign (minimum size of eight and one-half by eleven inches) informing the public of the importance of proper collection and disposal of used DIYer oil and the toll free number for used oil information.

Appendix E—Sample Educational Material from Selected States

The following samples of educational material are included in this appendix on the pages indicated.

STATE AND TERRITORIAL MATERIALS

American Samoa Waste Oil Collection Flyer
 Arkansas Environmental Bulletin on Used Motor Oil
 Arkansas Environmental Bulletin on Used Oil Filters
 California Used Oil Fact Sheet
 California Oil Recycling Enhancement Act Fact Sheet
 California Fact Sheet on Frequently Asked Questions by Generators of Used Oil
 California Integrated Waste Management Board's Used Oil Filter Pilot Program
 California Integrated Waste Management Board Availability of Grant Funds Fact Sheet
 Connecticut Used Engine Oil Fact Sheet
 Iowa Recycle Used Oil Sign
 Maryland Poster
 Mississippi Proper Disposal of Motor Oil Brochure
 Montana Recycle Used Oil Signage
 New Hampshire Environmental Fact Sheet: Household Disposal of Used Oil
 Oregon Used Oil Collection Poster
 Pennsylvania Brochure: Recycle Used Motor Oil
 South Carolina Flyer on Recycling Used Motor Oil
 South Carolina GOFER Program Brochure
 South Carolina Flyer on Used Oil Management Standards for Farmers
 South Carolina Flyer on Used Oil Filters
 Tennessee Used Oil Sign
 Utah Recycled Used Oil Sign

NATIONAL MATERIALS

U.S. EPA Brochure: Collecting Used Oil for Recycling/Reuse: Tips for Consumers Who Change Their Own Motor Oil and Oil Filters (March 1994)
 U.S. EPA Brochure: Recycling Used Oil: What Can You Do? (June 1989) Canadian Petroleum Products Institute: A Simple Solution for Taking Used Motor Oil Off Your Hands

MATERIALS AVAILABLE THROUGH THE AMERICAN PETROLEUM INSTITUTE

Consumer Materials
 Public Awareness Advertisements
 Bumper Stickers, Buttons, and Logo Art
 T-Shirts
 Student Poster Art Contest Materials
 Materials for Oil Retailers
 Counter Cards and Brochures
 Collection Center Materials
 Participation Brochure
 Signage
 Decals and Stickers

MATERIALS AVAILABLE THROUGH THE FILTER MANUFACTURERS COUNCIL

How to Choose a Filter Management Company Brochure

EDUCATIONAL MATERIALS FROM AMERICAN SAMOA

American Samoa Environmental Protection Agency



Waste Oil Collection

The American Samoa Environmental Protection Agency has established a waste oil collection program. Waste oil from cars and other equipment can be taken to a local collection center where it will then be burned by Samoa Packing in an approved boiler.

Why Collect Waste Oil?

1. Waste oil that is dumped on the ground can contaminate our ground water, making our water unsafe to drink.
2. If waste oil is dumped in or near a stream it can be carried to the ocean and harm fish, corals and birds.
3. Collecting waste oil helps to preserve the environment for the future, so our children can have a beautiful Samoa.



Waste Oil Collection Steps:

1. Store waste oil in a covered container.
2. Do not mix solvents, or other wastes with the waste oil.
3. Take your waste oil to one of the following waste oil collection centers.

EJ Trucking	
Futiga	688-7255
Morris Scanlan	
Utulei	633-5494
Nuuuli Gas Express	699-2961
Satala Gas Express	644-1298
Accord's Collision and Towing	
Tafuna	699-1633
Langkilde Service Station	
Fagatogo	633-5320
Amua Gas Express	
ASPA Power Plant - Tafuna	699-1147

FOR MORE INFORMATION CONTACT:
 American Samoa Environmental Protection Agency
 633-2304

EDUCATIONAL MATERIALS FROM ARKANSAS

Environmental **BULLETIN: Used Motor Oil**

What Happens to the Oil?

Most used motor oil is reprocessed into industrial grade fuel oil. Prior to blending with virgin oil, it is treated to remove water and sediments.

Through re-refining, used oil can be used over and over without losing its lubricating quality. Only one gallon of used oil is required to produce 2.5 quarts of lubricating oil; whereas 42 gallons of crude oil would be needed.

Facts:

Approximately 1.2 billion gallons of motor oil are used each year in this country. Of this amount, about 550 million gallons are recycled and burned as fuel or re-refined into lubricants, asphalt extenders and flotation oils. The US EPA believes the remaining 570 million gallons are improperly disposed in sewers, onto the ground surface or discarded into household trash.

“Do-it-yourselfers” (DIY) who change their own automobile motor oils account for one-third of the disposal problem. Of the 200 million gallons generated by DIY



annually, only about 14 percent is recovered through recycling. This means individual automobile owners dispose 172 million gallons of used oil annually, in ways that pollute the environment.

Recycling can conserve our natural resources, protect the environment and save consumers money. However when improperly disposed, used oil can contaminate the soil, surface and groundwater.

How to Recycle Oil?

Used motor oil should be drained from the vehicle into a clean drain or drip pan. Use a funnel or carefully pour used motor oil from the drip pan into a suitable recycling container; don't rinse the residual oil down the drain.

What is a suitable recycling container? A container with a tight fitting lid, such as a clean milk

jug; clear, clean 3-liter soda bottle or specially designed oil collection container. **CLEAN** is the key word. **NOTHING** but used motor oil should be put in the container. Other substances such as antifreeze, wiper fluid, bleach or gasoline will contaminate the oil and make it unsuitable for recycling. If you don't take your used oil to a recycling center immediately, clearly label it “used oil” and keep out of the reach of children and pets.

Oil is being collected at the oil filter crushing sites listed on the back or check with a local service station or automotive related business.

What Kind of Oil Can be Recycled?

Used motor oil from cars, trucks, RV's, farm equipment and lawnmowers can be reprocessed. Used motor oil should not be mixed with ANY other fluids.

WHY NOT DUMP OIL ?

One oil change from one car engine poured into a storm drain can create an eight-acre oil slick, harming aquatic life and stunting or killing aquatic plants.

Just one quart of oil will ruin the taste of 250,000 gallons of water.

Many small oil spills can be as harmful in the long run as one big spill.

Environmental BULLETIN: Used Oil Filters

Oil Filter Recycling

Recycling steel and oil from filters conserves nonrenewable resources and landfill space and prevents oil from contaminating land and water. It is best to keep used oil filters (UOF) out of landfills since it is difficult to completely remove the used oil.

Recycling a ton of UOF saves 10 cubic yards of landfill space and produces 1700 pounds of high quality steel, and prevents depletion of natural resources.

Recycling all oil filters generated in the U.S. in 1994 would result in the recovery of an estimated 161,500 tons of steel and 17.8 million gallons of used oil.

Used oil filter scrap is being recycled into concrete reinforcement bar (rebar), fence posts, I-beams and cast iron manhole covers.

*This recycling pilot project is sponsored by the Arkansas Recycling Coalition, participating local governments, Cooperative Extension Service - University of Arkansas, Arkansas Department of Pollution Control and Ecology and is funded by a grant from the Wal*Mart Foundation. Other partners include Allied Signal, J. V. Manufacturing, Nucor-Yamato Steel, Safety Kleen, Speciality Environmental Services, and Steel Recycling Institute.*

Facts:

420 million oil filters are sold annually, 85 percent are for passenger cars and light trucks, 15 percent are for heavy duty vehicles. Ninety percent or 360 million oil filters are being landfilled every year.

Fifty percent of passenger car filter sales (178.5 million filters) are to "do-it-yourselfers" (DIY). Only one to two percent of DIY generated oil filters are estimated to be currently recycled.

Every year 3.5 to 4 million oil filters are generated in Arkansas.




What Can You Do?

Three counties in Arkansas are piloting a project to recycle used oil filters. If you reside in or near Independence, Mississippi or Randolph Counties you can recycle oil filters at no cost.

It is best to hot-drain (drain at near engine operating temperature) filters after removing them from the vehicle, filters should be drained preferably for 24 hours and then taken to the oil filter collection site.

Hot draining removes more oil from the filter, but if not possible, cold drain the filters and place in a leak proof container such as a coffee can with lid or resealable plastic bag. Take the filter and used oil to the collection site.

Where to Recycle Used Oil Filters

-  Mississippi County/Blytheville - oil & filter collection at the City Incinerator, Elm & Wilson Streets, 8:00 am to 2:00 pm, Monday - Friday, 763-7381, and at the county landfill.
-  Randolph County/Pocahontas - oil & filter collection at the City Shop, Marr & Cedar Streets, 892-3924.
-  Independence County/Batesville - oil & filter collection at the Recycling Center - 875 Lawrence Street, 793-8892, 8:00 am to 4:30 pm Monday - Friday and Saturday 8:00 am to noon.

EDUCATIONAL MATERIALS FROM CALIFORNIA



FACT SHEET

USED OIL

What Is Used Oil?

Any oil that has been refined from crude oil and has been used is "used oil." The term "used oil" also applies to any oil that is no longer useful to the original purchaser as a consequence of extended storage, spillage or contamination with non-hazardous impurities such as dirt and water.

In California, used oil is a hazardous waste. The hazards associated with used oil result from the various additives used in its manufacture and from the heavy metal contaminants picked up from use in the internal combustion engine.

What are the Hazards?

Oil poured down household drains, or directly onto the ground, can work its way into the waters of the state.

Illegally disposed of oil can pollute the groundwater with contaminants such as lead, magnesium, copper, zinc, chromium, arsenic, chlorides, cadmium and polychlorinated biphenyls (PCBs). One quart of oil can pollute 250,000 gallons of drinking water.

Crankcase oil drainings have been reported to account for more than 40 percent of the total oil pollution of our nation's harbors and waterways.

What is the Law?

Since its implementation on January 1, 1987, California's Management of Used Oil Act (SB 86) has prohibited the disposal of used oil by discharge to sewers, drainage systems, surface or groundwaters, water courses or marine waters, by domestic incineration or burning as a fuel, or by deposit on land, unless otherwise authorized by law.

Can Used Oil be Recycled?

Used oil is recyclable. Two and one half quarts of lubricating oil is gained by re-refining one gallon of used oil.

Unfortunately, not enough recycling is occurring. In 1990, 290 million gallons (mgal) of oil were sold in California, of which 165 mgal became potentially available for collection. Only 113 mgal were collected, and of this amount only 77.5 mgal were recycled, just 47 percent of the used oil that was available.

What is California Doing?

Although there is already an extensive motor oil recycling program in place in California, the California Integrated Waste Management Board is trying to provide more opportunities for recycling used oil.

As a result, many service stations now accept used motor oil from the public for a nominal charge, provided the oil has no water or materials added to it. A number of California cities have regular curbside pickup of used oil; several others have dropoff facilities. A number of communities holding household hazardous waste collection events have publicized the local waste oil recycling programs. Hazardous waste haulers have provided communities without used oil recycling programs with waste oil tanks for oil collection at collection events.

How Do I Properly Dispose of Used Oil?

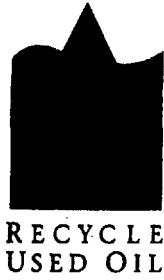
You can participate in oil recycling by following these tips:

- Drain the used oil into a clean container with a tight fitting cap. A one gallon plastic milk jug works well.
- Do not mix the recovered oil with any other liquid, and make sure the oil is free from dirt, leaves and other debris.
- Take the oil to a used oil collection site.

Call your local health department or the California Integrated Waste Management Board's Recycling Hotline at 1-800-553-2962 to find the locations of household hazardous waste collection programs and used oil collection sites in your area.

8800 CAL CENTER DRIVE
SACRAMENTO, CA 95826

FOR MORE
INFORMATION CONTACT
THE CALIFORNIA
INTEGRATED WASTE
MANAGEMENT BOARD
AT 916.255.2296



CALIFORNIA OIL RECYCLING ENHANCEMENT ACT FACT SHEET

SUMMARY

The California Oil Recycling Enhancement Act (Act) was passed by the California State Legislature in 1991 and became effective on January 1, 1992. The California Integrated Waste Management Board (Board) oversees the implementation of the Act.

The primary purpose of the law is to discourage the illegal disposal of used oil, a hazardous material, through recycling. Program benefits include recovery of a natural resource, and protection of public health and the environment.

FINANCIAL INCENTIVES

Beginning October 1, 1992, oil manufacturers must pay to the Board four cents (\$0.04) per quart, or sixteen cents (\$0.16) per gallon, of lubricating oil sold or transferred in the state or imported into the state.

Then, beginning April 1, 1993, the Board may pay a recycling incentive fee of four cents (\$0.04) per quart of lubricating oil recycled to certified used oil collection centers, industrial generators, and curbside collection programs. The used oil must be transported by a used oil hauler to a certified oil recycling facility.

In addition, funds will be available to electric utilities after April 1, 1993, for used lubricating oil generated and used by a utility for electrical generation subject to compliance with Health and Safety Code specifications.

CERTIFICATION REQUIREMENTS

CALIFORNIA
INTEGRATED
WASTE
MANAGEMENT
BOARD

Certification -- To be eligible for the recycling incentive fee, a used oil collection center must become certified. The Board will certify used oil collection centers (certified centers) prior to April 1, 1993. A used oil collection center is a business, governmental entity, or nonprofit organization which accepts used lubricating oil from the public, and is exempt from hazardous waste facility permit requirements of the Health & Safety Code.

8800
CAL CENTER DR.
SACRAMENTO
CA 95826
(916) 255-2200

Requirements -- Certified centers must accept at no charge, during business hours, a maximum of 20 gallons of used lubricating oil from a person, per day, in containers not larger than 5 gallons. A certified center must offer the \$0.04 per quart recycling incentive to the public for used lubricating oil. However, they may accept "donations" of used lubricating oil from the public.

PRINTED ON
RECYCLED PAPER

Certified centers must provide information to the Board and public regarding the manner of acceptance of used lubricating oil, post on-site signs (design, size, and message subject to Board approval), and periodically advertise through local media.

SUBSIDIES TO DISPOSE OF CONTAMINATED OIL

Reimbursement for disposal costs may be available to certified centers if used oil is contaminated in excess of that which occurs in normal use, rendering it infeasible for recycling (e.g., >1000 ppm total halogens). Reimbursement is available to certified centers upon establishment of procedures ensuring contents of accepted oil from the public are not mixed with other hazardous wastes. To be eligible for reimbursement, a shipment may not contain more than five gallons of contaminants, and a certified center may not be reimbursed for more than one shipment, and no more than \$5,000 in disposal costs per calendar year.

GRANTS AND LOANS

The Board may issue grants and loans:

To City and County Governments. Block grants in a total annual amount equal to \$10,000,000 are available based on population if a local government submits a plan, implements specific types of lubricating oil collection programs, and files annual reports with the Board.

To Nonprofit Entities. Grants may be available to nonprofits for projects which include one or more of the following: establishing used oil collection centers; providing containers and other supplies for the public to store used lubricating oil for pickup or return to Centers; and/or obtaining equipment and establishing procedures to comply with federal, state, and local law with respect to collection handling, and storage of used oil.

To Any Qualified Applicants. Grants or loans may be available for research, testing, and demonstration projects to develop uses for recycled oil.

INDUSTRY REPORTING REQUIREMENTS

The Act includes specific reporting requirements which affect oil manufacturers, used oil haulers, and used oil recycling facilities. On a quarterly basis, oil manufacturers report sales of lubricating and industrial oils. In addition, used oil haulers and used oil recycling facilities must report the quantities of used oil transported and recycled, respectively.

PROGRAM IMPLEMENTATION STATUS

Emergency regulations are in place for reporting registration and certification aspects of the used oil recycling program. Staff is developing non-emergency regulations for certification, registration and grant aspects of the program. For additional information call the Board at (916) 255-2891.



**RECYCLE
USED OIL**

California Integrated Waste Management Board's Used Oil Filter Pilot Program

Over 14 million oil filters are sold in California each year to people who change their own oil. It is estimated that 90% of these filters, along with the used oil they contain, end up in municipal solid waste landfills. Used Oil Filters contain about one pound of steel and may hold between two and eight ounces of used oil, even if drained. Undrained used oil filters may contain up to one quart of oil. As a result, millions of gallons of used oil and thousands of tons of steel are discarded each year.

The California Oil Recycling Enhancement Act was amended January 1, 1995 to allow the California Integrated Waste Management Board (Board) to establish a pilot program for the recycling of used oil filters. The pilot program will be operated in conjunction with the Board's Used Oil Recycling Program for two years starting July 1, 1995. The program will help the Board study the costs of collection and the barriers to recycling used oil filters from the public.

Who can participate in the Board's used oil filter pilot program?

The Board, in cooperation with local governments, will select approximately 50 certified used oil collection centers and 10 registered used oil curbside collection programs to volunteer as participants. Participants will be selected throughout the state to reflect a variety of collection center types such as quick lubes, retail stores and public drop-off locations, and a diversity of collection center locations such as urban and rural.

How will the pilot program work?

The used oil filter pilot program will be designed very similarly to the Board's used oil recycling program. Requirements are explained below for both certified used oil collection centers and registered curbside collection programs to qualify for the recycling incentive.

Certified used oil collection centers:

A certified used oil collection center that agrees to participate in the pilot program and is selected by the Board must accept used oil filters from the public at no charge and verbally offer a recycling incentive of \$0.04 per filter. The center will be required to maintain a log of customers who bring in used oil filters for recycling. The log must include the number of filters brought in, amount of recycling incentive paid and customer's signature. While advertising is required of pilot program participants, current used oil program advertising can be modified to include the center's acceptance of oil filters in conjunction with used oil.

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WASTE
MANAGEMENT
BOARD

8800 CAL CENTER DR.
SACRAMENTO
CA 95826
(916) 255-2200

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Used Oil Filter Pilot Program

Registered curbside collection programs:

Any registered curbside collection program operator who agrees to participate in the pilot must accept drained used oil filters from their curbside customers. Each curbside program must provide semi-annual notice to their service area customers that they accept used oil filters at the curb. Each program operator must keep records showing the total number of used oil filters collected at the curb.

In addition to the requirements explained above, each program participant will agree to:

1. Follow all applicable requirements of the Public Resources Code and Health and Safety Code regarding operational standards for certified used oil collection centers and registered curbside collection programs.
2. Submit quarterly reports to the Board including, but not limited to, information on the number of used oil filters collected from the public, the cost of collection, recycling and advertising, and the amount of recycling incentive paid, if applicable.

On which used oil filters can I collect a recycling incentive payment?

You may request \$0.04 for each used oil filter you accept from members of the public, or pick up at the curb. There is no reimbursement for used oil filters you remove from your customer's vehicles or generate from your own business.

How can I receive a recycling incentive payment from the Board?

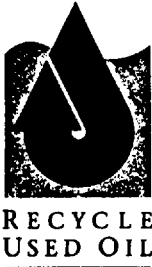
Each program participant must submit a used oil filter claim if they wish to receive the recycling incentive. A complete claim package will consist of a completed claim form, copies of bills of lading from your used oil filter transporter, copies of logs and the quarterly report. Used oil filter claims should be submitted along with used oil claims and are due to the Board 45 days following the end of a quarter in which the used oil filters are transported.

Is there any money available to help pay for program costs?

The Board has limited funds for the pilot program which are only available to local governments. Local governments can assist program participants with related program costs such as curbside containers, curbside truck retro-fitting, advertising or publicity and hauling fees.

How can I get additional information, or an application, for the Board's Used Oil Filter Pilot Program ?

To learn more about participating in the Board's used oil filter pilot program call Carla Repucci at (916) 255-2647 or (916) 255-2891.



Attention: Generators of Used Oil

**The California Integrated Waste Management Board
has \$\$ for you**

If you purchase lubricating oil for use in equipment you own or operate, you may qualify to register as an industrial generator with the California Integrated Waste Management Board's (Board) Used Oil Recycling Program. As a registered industrial generator, you are eligible to file a claim and receive money for the used lubricating oil that you recycle.

How does the program work?

Receipts for new lubricating oil purchased in California should reflect a \$0.16 per gallon recycling incentive fee. This fee is a result of the California Oil Recycling Enhancement Act which is designed to discourage the illegal disposal of used oil. By registering as an industrial generator, you qualify to receive \$0.16 per gallon for used oil transferred to a certified recycling facility. Only registered industrial generators are eligible to receive the \$0.16 per gallon recycling incentive payment from the Board.

How do I register as an Industrial Generator?

To register as an industrial generator, simply contact the Board and ask for a "Registration" application. Complete the short application and submit it to the Board for review. That's all--and you never have to reapply!

What documents are required to file a claim?

Once you become a registered industrial generator, you will receive a registration packet from the Board containing information which will help you file a claim. To file a claim, you will need to submit:

- 1) a claim form (provided by the Board),
- 2) copies of your purchase receipts for new lubricating oil showing that the recycling incentive fee has been paid, and
- 3) copies of the manifest or modified manifest receipts provided by your used oil hauler showing how much used lubricating oil was delivered to a certified recycling facility.

How do I learn more about the program?

Contact the Board's Used Oil Recycling Program at 8800 Cal Center Drive, Sacramento, California, 95826 or call (916) 255-2891.

Revised 1/95

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**RECYCLE
USED OIL**

Frequently Asked Questions by Generators of Used Oil

What is the Oil Recycling Enhancement Act?

The California Oil Recycling Enhancement Act (Act), which is administered by the California Integrated Waste Management Board (Board), is a law designed to discourage the illegal disposal of used oil. This law requires oil manufacturers to pay to the Board \$0.16 for each gallon of lubricating oil sold in California. Registered industrial generators and curbside collection programs, and certified collection centers are eligible to receive \$0.16 for each gallon of used lubricating oil recycled.

What must I do to be certified?

To be eligible for certification by the Board, your center must accept used lubricating oil from the public at no charge during the hours that the center is open and offer the \$0.16 per gallon to them. A certified center must also provide notice to the public, through on site signs and periodic advertising in local media, of the centers acceptance of used lubricating oil.

If I currently accept used oil from the public, am I required to become a certified collection center?

A business that currently accepts used oil from the public is not required to become certified. However, certified centers are eligible to claim the recycling incentive on all used oil generated by the center. For example, if a service station is also a certified center, it may claim the \$0.16 per gallon for used oil recycled from their customers' cars serviced at the station, and they do not have to reimburse the public for that oil. In addition, nothing prevents a person who brings in their oil for recycling from donating the recycling incentive to the center.

What is an industrial generator?

An industrial generator of used oil is defined as an entity which buys and uses lubricating oil only for equipment owned or used by the entity (Public Resources Code section 48614). You may be an industrial generator if, as a part of your day-to-day business operations:

- 1) You use automobiles, buses, trucks, planes, trains, heavy equipment, or other machinery powered by an internal combustion engine;
- 2) Your business changes the lubricating oil in these vehicles or heavy equipment; and
- 3) The used oil is transferred to a certified recycling facility by a used oil hauler.

What type of paperwork will I be required to submit to receive the recycling incentive?

To be eligible to receive a recycling incentive payment, you must first apply to become a certified collection center, or a registered industrial generator or curbside collection program. Once the Board has processed the application and notified you that your program has been certified or registered you must submit a recycling incentive reimbursement claim to receive payment of the recycling incentive. You may not submit more than three claims in a quarter. In addition to completing the claim form, each claim must also include both purchase receipts showing that the \$0.16 per gallon recycling fee was paid and manifests or modified manifest receipts from used oil haulers.

To be eligible for reimbursement of the recycling incentive, a claim must be submitted no later than the last day of the month following the end of the quarter within which the used lubricating oil is hauled to a certified recycling facility. Claims need not be submitted for a quarter if no used lubricating oil is hauled for that quarter.

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Once my program is certified or registered, can I claim the recycling incentive on oil recycled retroactively to the start of the program?

The Act and supporting regulations established a quarterly claim period. For each year: the first quarter begins January 1 and ends March 31; the second quarter begins April 1 and ends June 30; the third quarter begins July 1 and ends September 30, and; the fourth quarter begins October 1 and ends December 31. You must be certified or registered in the program during a quarter for which you file a claim. In other words, if your program is registered or certified during March of 1994, you can file a claim on oil recycled during January and February, 1994, but not for any oil recycled prior to January 1, 1994. If your program is certified or registered on the last day of a quarter (March 31, 1994, in this example) you may still file a claim for oil recycled in that quarter. If your program is certified or registered on the first day of a quarter (April 1, 1994) you may not file claims on oil recycled in the previous quarter (January - March, 1994).

Why is my used oil hauler asking me to estimate the amount of lubricating oil and industrial oil in my storage tank?

As part of this program, used oil haulers must submit quarterly reports to the Board which include estimates of the amount of lubricating oil and the amount of industrial oil picked up from their customers. Therefore, by keeping track of the proportions of industrial and lubricating oils that go into your tank, the hauler will be able to get an accurate account.

Are there any grants available from the Board to help set up a collection center?

Local governments are eligible for "block grants" to establish and administer certified used oil collection centers or curbside collection programs. These grants will be distributed based on population. The first grants should be awarded in January of 1994 and annually thereafter. For more information regarding grants call (916) 255-2429.

Can I be placed on a mailing list to get additional information on this program?

If you wish to be added to the Board's mailing list of interested parties, or if you would like to obtain more information about the Program or request an application, please call the Board at (916) 255-2891.

DEFINITIONS

"Lubricating oil", as it is defined in Public Resources Code, Section 48618, includes any oil which is intended for use in machinery powered by an internal combustion engine. Lubricating oil includes oil intended for use in an internal combustion engine crankcase, transmission, gearbox, or differential in an automobile, bus, truck, vessel, plane, train, heavy equipment, or other machinery powered by an internal combustion engine. Lubricating oil also includes consumer additives which are intended to be mixed with lubricating oils in an internal combustion engine. Lubricating oil does not include oil intended for use in a 2-cycle engine where the oil is entirely consumed during usage.

"Industrial oil", as it is defined in Public Resources Code, Section 48616, includes, but is not limited to, any compressor, turbine, or bearing oil, hydraulic oil, metal-working oil, or refrigeration oil. Industrial oil does not include di-electric fluid.

EDUCATIONAL MATERIALS FROM CONNECTICUT

Used Engine Oil

Produced by Office of Pollution Prevention, and the Bureaus of Air, Water, and Waste Management
Connecticut Department of Environmental Protection

May 1995

What is it?

Used engine oil is crankcase oil that has been used in internal combustion engines. Used oil is required to be recycled in Connecticut. (In this case, recycling includes burning for energy recovery.)

What is the problem?

Used engine oil is only a problem if mismanaged. Because it is insoluble, persistent, and may contain toxic chemicals and heavy metals, used oil that is spilled on the ground, poured down storm drains, or disposed of with trash, can pollute surface water or ground water.

* One gallon of used oil can pollute 1 million gallons of fresh water -- a year's supply for 50 people.

* Oil spilled or dumped on land reduces soil productivity and may contaminate well water.

* Used oil can foul sewage treatment processes.

* Oil films on surface water

blocks sunlight, impairs photosynthesis, and prevents the replenishment of dissolved oxygen, which can lead to fish kills.

Is it Hazardous ?

Used engine oil is a non-RCRA Hazardous Waste in Connecticut. However, it may be classified hazardous if mixed with a hazardous waste.

Managing Used Oil

Vehicle repair shops must:

(1) Test the used oil for total metals and halogens to determine if it is on-specification (or off), and to determine if it is non-hazardous. Maintain records on site.

(2) Contract with a permitted waste oil transporter to haul oil to a permitted recycling or disposal facility. For a list of permitted commercial transporters, contact DEP Waste Bureau at (203) 424-3372. OR

(3) Burn the used oil for energy recovery, i.e. to heat

your garage, in space heaters, provided that the heater burns only used oil that is generated on-site or received from "do-it yourself" oil changers. The heater must meet design specifications including, a) have a maximum design capacity of not more than 0.5 million Btu per hour and b) vent the combustion gases from the heater to outside the building.

If you are considering burning used oil on site, contact DEP's Waste Bureau at 203-424-3372 and Air Bureau at 203-424-3443.

What Happens to Used Oil?

Used oil can be re-refined into lubricating oil, treated and used as feedstock in the manufacture of other products, or reprocessed as fuel oil. As there is no substitute for motor oil in internal combustion engines, pollution prevention strategies for used oil focus on its proper handling to minimize risk to the environment.

You conserve resources by the proper handling and processing of used oil.

* Re-refining used oil takes about 1/3 of the energy needed to refine crude oil to lubricant quality.

* One gallon of used oil provides the same 2.5 quarts of lubricating oil as 42 gallons of crude oil.

Storing Used Engine Oil

Used crankcase oil should be stored in a secure collection tank or drum, separate from other wastes. No permit is needed to install an above ground collection tank, unless required at the local level, if only oil generated on site is stored in the tank. Underground tanks are not recommended.

The tank should be designed and managed according to the following guidelines.

1) Locate the tank in an above ground area that will prevent any vandalism, unauthorized access, fire or explosion possibility, and release of oil to the environment.

2) Place the tank on an impervious base that provides for secondary containment equal in volume to the capacity of the storage tank. If a dike is built it should be roofed to prevent rain water accumulation.

3) Clearly label the tank "Used Engine Oil Only."

4) Keep the tank locked when not in use.

5) Appoint one person to be responsible for monitoring oil storage and contacting a licensed waste oil transporter to haul the oil to a treatment facility for processing. Visually inspect the tank on a regular basis for leaks or malfunctions, and keep written inspection records.

6) Do not mix gas, paint thinners, solvents, pesticides, antifreeze, or other potentially hazardous materials with oil--the mix will be considered hazardous waste.

7) Instruct all employees who handle used oil about the proper operation and management of the oil storage area.

8) Use kitty litter, saw dust, or a commercially available product to absorb oil from minor spills.

9) If you store greater than 1,320 gallons of used oil or have a single above-ground used oil storage tank larger than 660 gallons, federal law requires you to prepare a Spill Prevention and Countermeasures Plan. Prepare a Plan describing the actions that the tank manager and other personnel must take in response to vandalism, theft, fires, explosions, or release of oil to the environment. Call DEP's

Waste Bureau, 203-424-3332 for further information on complying with Federal requirements for preparation of a spill prevention plan.

10) Keep records of used oil testing and collection.

Take Care To:

* Separate transmission and crankcase oil to increase potential recyclability.

* Never dump used oil on the ground or dispose of oil through a storm drain, septic tank, dry well, sewer, or dumpster.

* Never contaminate used oil by mixing it with any other substance. Mixing could contaminate the whole tank, requiring it to be disposed of as hazardous waste.

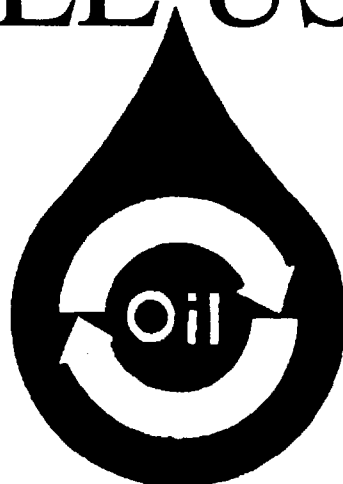
* Store oil properly to prevent accidental release to the environment.

Did you know?

Approximately 10 million gallons of used oil was collected by licensed transporters from Connecticut's automotive and vehicle repair shops in 1993.

EDUCATIONAL MATERIALS FROM IOWA

RECYCLE USED OIL



- Conserve Energy ●
- Reuse Limited Resources ●
- Protect Iowa's Drinking Water ●

Used Oil Collection Location(s)

Collection during regular business hours



State law *prohibits* disposal of waste oil
in a landfill or into a state waterway.

Used oil is a
household hazardous material.

For more information call:

The Waste Assistance Hotline

1-800-367-1025

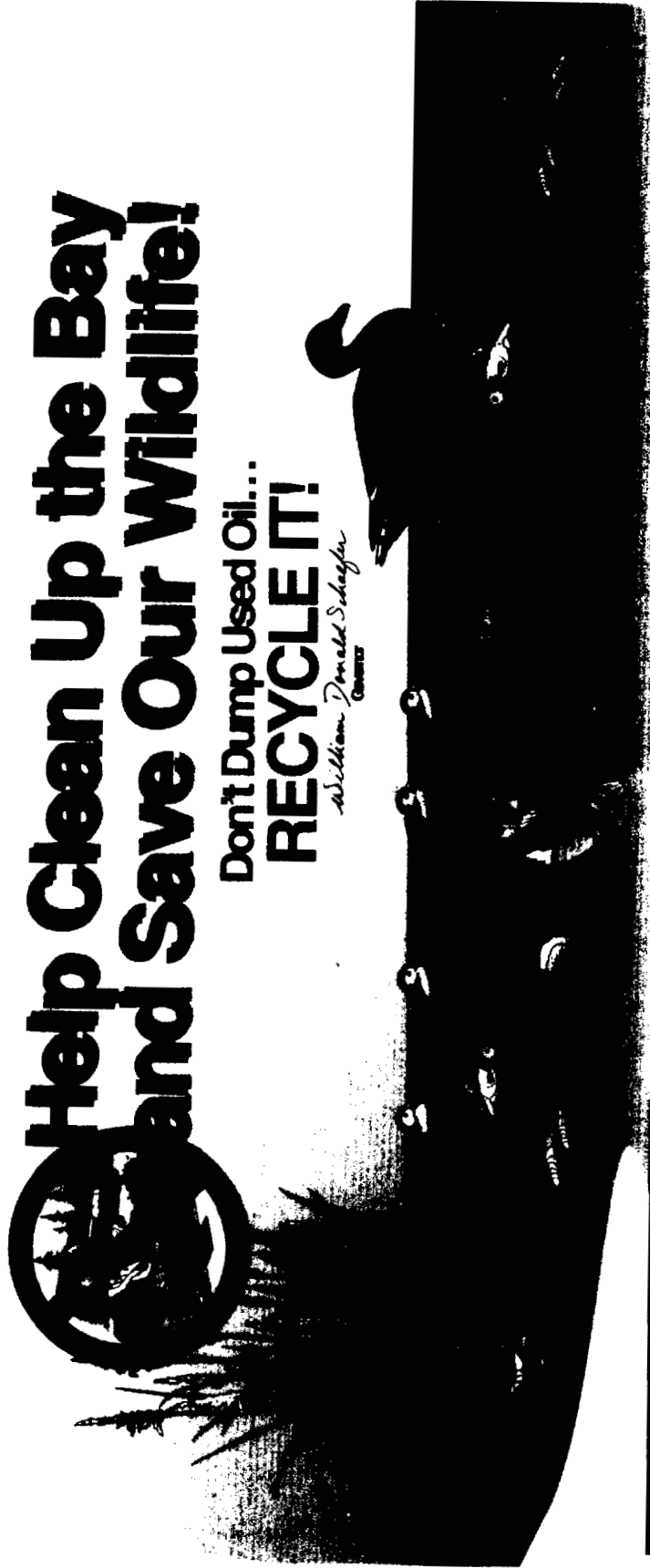


EDUCATIONAL MATERIALS FROM MARYLAND

Help Clean Up the Bay and Save Our Wildlife!

Don't Dump Used Oil...
RECYCLE IT!

William Donald Schaefer
GOVERNOR



1-800-I RECYCL
(1-800-473-8888)

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MARYLAND ENVIRONMENTAL SERVICE

CHESAPEAKE BAY TRUST

pepco Revere

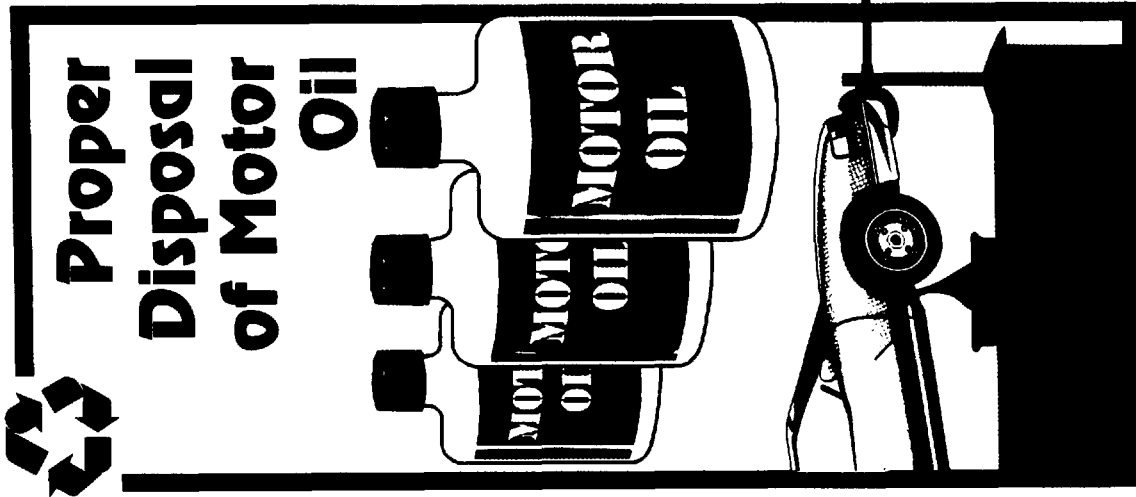
Mobil

MONROEMERY COUNTY RECYCLE

Eye Washington Group Smart Thinking

Restoring The Chesapeake

EDUCATIONAL MATERIALS FROM MISSISSIPPI



Pollution Prevention Program
 Mississippi Department of Environmental Quality
 P. O. Box 10385, Jackson, Mississippi 39289-0385

Mississippi Department of Environmental Quality
 Pollution Prevention Program
 P. O. Box 10385
 Jackson, Mississippi 39289-0385

USED MOTOR OIL RECYCLERS

Commercial Recyclers	
Mississippi	Alabama
M & E Oil Service Route 1, Box 164-B Braxton, MS 39044 601/847-3075	Aaron Oil Company Mobile, AL 205/666-8143
Waste Oil Collectors Old Spanish Trail Gautier, MS 39533 601/497-4585	Arkansas
Industrial Oil Service 5246 B Greenway Drive Jackson, MS 39209 601/922-2265	Guiley Oil Company 1000 South 8 West Memphis, AR 901/527-9840
Resource Recovery P O Box 180248 Jackson, MS 39218 601/936-6500 or 1-800-622-8897	Louisiana
* Industrial Pollution Control 10 Polindexter Road Jackson, MS 39204 1-800-238-2448	National Oil Service 14890 Intracoastal Dr. New Orleans, LA 504/245-9021
* Safety-Kleen 120 Richardson Drive Jackson, MS 39213 601/922-1421	Tennessee
* Specialty Oil Company 990 Commerce Street Jackson, MS 39225 1-800-256-9288	Able Energy Company 1245 Channel Avenue Memphis, TN 901/942-1523
	Purified Lubricants, Inc. 3997 Lamar Avenue Memphis, TN 38118 901/363-8900
	Environmental Filter Removal, Inc. 8280 Clairmont Mesa Blvd, Suite 117 San Diego, CA 92111 (800) 244-1202 or (619) 569-6925 or 6791 *Filters Only*

*Commercial/Residential Quantities

Your Used Motor Oil Is A Valuable Resource. Please Recycle It!!!

Printed on Recycled Paper

USED MOTOR OIL: DISPOSE OF IT PROPERLY!!

Used motor oil disposed of improperly can be very hazardous to the environment. Recycling your used motor oil helps protect the environment and save energy because:

- * One gallon of used motor oil can contaminate 1 million gallons of fresh water - a year's supply of water for 50 people.
- * The amount of used motor oil disposed of improperly by Do-It-Yourselfer auto mechanics every two and a half weeks is roughly equivalent to the amount of oil spilled by the Exxon Valdez supertanker in Alaska - 11 million gallons!
- * One gallon of used oil that is re-refined will produce 2.5 quarts of lubricating oil, but it takes 42 gallons of crude oil to produce the same 2.5 quarts of lubricating oil.
- * Re-refining used motor oil takes only one-third the energy of refining crude oil to lubricant quality.
- * Americans who change their own motor oil throw away 180 million gallons of recoverable motor oil every year, while only 20 million gallons are recycled.
- * If the 180 million gallons of used motor oil that is disposed of improperly by Do-It-Yourselfers' each year were

recycled, it could produce enough energy to power 360,000 homes each year or could provide 96 million quarts of high-grade quality motor oil.

- * The United States generates a total of 1.3 billion gallons of waste oil each year of which 800 million gallons are recycled and 500 million gallons are disposed of improperly.
- * If we re-refined the 1.3 billion gallons of waste oil generated in the United States each year, we would save 1.3 million barrels of oil per day, or half the daily output of the Alaska pipeline!
- * 40% of the pollution in America's waterways is from used motor oil.
- * Used motor oil often contains toxic metals such as lead, cadmium, arsenic, and chromium, which can seep into water tables if dumped on the ground.

The failure to recycle used motor oil in the United States represents not only an environmental and human health hazard, but a missed opportunity to reduce our nation's dependence on foreign oil.

WHAT YOU CAN DO!

1. NEVER dispose of used motor oil: on the ground; in a ditch, creek, river, or lake; in a storm sewer; or in the garbage.

2. Pour your used motor oil into a clean leak proof plastic container with a screw on top (milk jug or empty oil containers, etc.) and put the top on firmly to prevent leaking or spilling.

3. DO NOT mix used motor oil with anything else, such as gasoline, solvents, antifreeze, pesticides, etc.

4. Take your used motor oil (limit quantities to 1 to 5 gallons) to one of the locations listed in this brochure. Please take it to them during normal business hours!

5. Prior to discarding your used oil filter, punch an air hole in the dome end of the filter and in the antidrains back valve (if present) located at the flat end of the filter. Allow oil to drain from both ends of the filter for several hours. Pour this oil in with the rest of your used motor oil for recycling. When you take your used motor oil to one of the listed recyclers, ask them if they'll also take your used oil filter. Some of the companies not only take used motor oil, but also recycle used oil filters.

For additional information on the proper disposal of used motor oil and filters in Mississippi, contact the Mississippi Department of Environmental Quality in Jackson at (601) 961-5171.



USED MOTOR OIL RECYCLERS

Residential Motor Oil

<p>Bay Vista Service & Repair 285 Gulfwater Drive Biloxi, MS 39531 5 gallons/person</p> <p>Coahoma Tires Highway 61 South Clarksdale, MS 38614 1 gallon/person</p> <p>Speed Lube 403 Highway 80 West Clinton, MS 39056 5 gallons/person</p> <p>Applewhite's Inc Beasley Road Gautier, MS 39553 601/497-4130 5 gallons/person</p> <p>Pennzoil Lube & Go 2004 Highway 82 North Greenwood, MS 38930 1.5 gallons/person</p> <p>Speedee Oil Change & Tune Up 301 Pass Road Gulfport, MS 39507 5 gallons/person</p> <p>Speedee Oil Change 3214 Hardy Street Hattiesburg, MS 39401 5 gallons/person</p> <p>Speedee Oil Change 5032 Hwy 98 Hattiesburg, MS 39401 5 gallons/person</p> <p>Acey's Auto & Wrecker 827 McDowell Road Jackson, MS 39204 5 gallons/person</p> <p>JB's Oil Service 5758 Terry Road Jackson, MS 39212 5 gallons/person</p>	<p>Scotty's Auto Care 4950 I-55 North Jackson, MS 39211 5 gallons/person</p> <p>Scotty's Auto Care 2665 Lakeland Drive Jackson, MS 39216 5 gallons/person</p> <p>Speed Lube 1755 Lakeland Drive Jackson, MS 39216 5 gallons/person</p> <p>Zip Lube 3073 Terry Road Jackson, MS 39212 5 gallons/person</p> <p>Harold's Quick Lube & Detail Service 1517 Bush Dairy Road Laurel, MS 39440 5 gallons/person</p> <p>Delaware Exxon I-55 & Delaware Ave. McComb, MS 39648 1 gallon/person</p> <p>Sullivan's Service Center 916 West Jackson Avenue Mendenhall, MS 39114 5 gallons/person</p> <p>America's Super Lube 3700 8th Street Meridian, MS 39307 5 gallons/person</p> <p>College Park Auto & Quick Lube 815 53rd Avenue Meridian, MS 39307 5 gallons/person</p> <p>Dee's Automotive Specialists, Inc. 5024 Poplar Springs Dr. Meridian, MS 39301 5 gallons/person</p>
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CONTINUED ON BACK



<p>Advanced Lubrication Center 2101 West Avenue Oxford, MS 38655 5 gallons/person **takes used oil filters**</p> <p>Classy Chassis Quick Lube 1703 Denny Avenue Pascagoula, MS 39567 2 gallons/person</p> <p>Speed Lube 5630 Hwy 80 East Pearl, MS 39208 5 gallons/person</p> <p>The Oil Change 106 Old Corinth Road Petal, MS 39456 5 gallons/person \$0.10/qt and \$1.00/filter</p> <p>DBA Speedee Oil Change 310 Hwy 43 South Piquemore, MS 39466 5 gallons/person</p> <p>Pit Stop 561 Highway 49 South Richland, MS 39218 5 gallons/person</p> <p>Scotty's Auto Care 334 Highway 51 Ridgeland, MS 39157 5 gallons/person</p> <p>Texaco Express Lube 6543 Old Canton Road Ridgeland, MS 39157 5 gallons/person</p>	<p>Valvoline Instant Oil Change 758 Stateline Road & 160 West Goodman Rd. Southaven, MS 5 gallons/person</p> <p>Green Oaks Exxon 600 Highway 12 West Starkville, MS 39759 2 gallons/person</p> <p>Rowe's Rapid Oil Change Highway 12 West Starkville, MS 39759 2 gallons/person</p> <p>All Wal-Mart stores with automotive service garage centers will accept used motor oil in quantities up to 3 gallons.</p> <p>All full service Exxon stations will accept used motor oil in quantities up to 1 gallon.</p> <p>Valvoline Instant Oil Change - Memphis 2046 Union 5996 Mt. Moriah 6845 Winchester 4213 Summer 3202 Austin Peay Hwy</p> <p>Exxon Stations Memphis Locations Only Allerds Exxon - 1856 Poplar Central Avenue Exxon 2462 Central EDS Exxon - 1675 Madison</p>
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NOTE: Please take your used motor oil to these locations during normal business hours. They take used motor oil as a service to the public so please abide by their wishes. Thanks!

Pollution Prevention Program

Mississippi Department of Environmental Quality
P. O. Box 10385, Jackson, Mississippi 39289-0385

EDUCATIONAL MATERIALS FROM MONTANA

Recycle



Used Oil Collection Sites

Location

Hours

_____	_____
_____	_____
_____	_____
_____	_____

For more information contact:
Department of Health and Environmental Sciences
SOLID AND HAZARDOUS WASTE BUREAU
406-444-1430

EDUCATIONAL MATERIALS FROM NEW HAMPSHIRE

ENVIRONMENTAL Fact Sheet

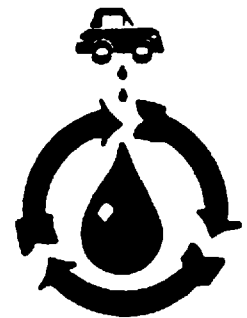


NHDES Technical Bulletin # WMD-1994-16

HOUSEHOLD DISPOSAL of USED OIL

- **The Problem**

Approximately 3 million gallons of used oil are generated in New Hampshire each year. As much as 50% of this amount may be generated by Do-It-Yourself (DIY) oil changers. Used oil is the result of normal use in motor vehicles and motorized equipment. After use, this DIY used motor oil may contain a number of contaminants, including metals and organic chemicals. Proper disposal of used oil is important to help prevent contamination of surface waters and groundwater which serve as drinking water supplies.



Only one pint of oil produces a one acre slick on surface water which may kill plants, fish and other wildlife. One quart of oil may contaminate 250,000 gallons of groundwater and make it unsafe to drink. DIY used motor oil should not be disposed of in the trash or on the ground where it may seep into groundwater and contaminate drinking water supplies. It should not be spread on roads or driveways or poured down storm sewers where it may be carried to lakes and streams.

- **The Solution**

DIY used oil from motor vehicles and motorized equipment should be collected and stored in clean, leakproof containers that are clearly marked as containing used oil. Containers should be carefully transported to a nearby collection location for proper recycling or disposal. It is important that the DIY used motor oil not be contaminated with any other wastes such as gasoline or antifreeze. A comprehensive list of communities and businesses which accept small quantities of DIY used motor oil is attached.

- **The Goal**

The goal is for DIY used motor oil to be recycled or reused. Although collection centers are not required to test used oil, DES suggests that the collection center perform some degree of testing on the DIY used motor oil. The New Hampshire Hazardous Waste Rules, Part Env-Wm 807, establishes contamination levels for used motor oil. If the level of contamination is within the DES limits, the DIY used motor oil may be used as fuel in oil waste burners or given to a used oil marketer. If levels are above the limits, or if the collection center suspects that the used motor oil is mixed with hazardous waste, then the collection center must manage the used motor oil as a hazardous waste and dispose of it appropriately.

- **The Future**

DES' Waste Management Division has developed regulations concerning used motor oil management. Up-to-date management options for used oil reclamation have also been formulated. Increasing public awareness on the proper disposal of DIY used motor oil is very important. A brochure entitled "Used Oil - Let's Recycle It" is available to assist in educational efforts.

Since July 1989, communities have had the authority to assess an additional fee on motor vehicle registration for the purpose of collecting and disposing of motor vehicle waste (used motor oil, tires and batteries). Communities may use this authority to establish their own DIY used motor oil collection centers and encourage their residents to dispose of used oil at the designated locations.

- **Summary**

DIY used motor oil poses a significant threat to our environment if not properly handled and disposed. Proper management involves collection for energy recovery and recycling.

For more information, contact:

Christopher Way

NH Department of Environmental Services - Waste Management Division

6 Hazen Drive, Concord, New Hampshire 03301-6509

Telephone: (603) 271-2942

New Hampshire Department of Environmental Services
Waste Management Division
(603) 271-2047

COMMUNITIES WHICH ACCEPT SMALL QUANTITIES OF WASTE MOTOR OIL

<u>Community</u>	<u>Collection Location</u>	<u>Contact Phone Number</u>
Acworth	Transfer Station	835-6631
Albany	Conway Transfer Station	356-2272
Allenstown	Recycling Center	485-5460
Alton (Bay, Center)	Town Landfill/Highway Shed	875-2101
Andover	Town Landfill	735-5332
Antrim	Bennington Landfill	588-2189
Ashland	Town Landfill	968-3166
Auburn	Recycling Center	483-2214
Barnstead	Pittsfield Incinerator	435-6237
Barrington	Town Landfill	664-9007
Bartlett	Transfer Station	356-2950
Bedford	Town Landfill	472-3070
Bennington	Town Landfill	588-2189
Bethlehem	Sanco Landfill	869-3366
Bow	Transfer Station	228-1201
Bradford	Recycling Center	938-2526
Bridgewater	Bridgewater/Hebron Incinerator	744-8938
Brookline	Town Landfill	673-8855
Canaan	Lebanon Recycling Center	298-7872
Candia	Town Landfill	483-8101
Canterbury	Town Landfill	783-4123
Center Harbor	Meredith Town Garage	279-6352
Charlestown	Transfer Station	826-3201
Chester	Town Landfill	887-3636
Chesterfield	Recycling Center	256-3016
Chichester	Pittsfield Incinerator	435-6237
Claremont	Transfer Station	542-7020
Concord	Recycling Center	224-0890
Conway	Transfer Station	356-2272
Deerfield	Town landfill	463-8811
Deering	Hillsboro Landfill	464-3877
Derry	Town Landfill	432-6144
Dorchester	Rumney Transfer Station	523-7524
Dover	Public Works Garage	742-4568
Dublin	Town Landfill	563-8470
Dunbarton	Town Landfill	774-3451
Durham	Town Landfill	868-1001
Eaton	Conway Transfer Station	356-2272
Epping	Transfer Station	679-5441
Epsom	Pittsfield Incinerator	435-6237
Exeter	Public Workw Garage	778-0594

EDUCATIONAL MATERIALS FROM OREGON

WHAT YOU CAN DO WITH YOUR USED MOTOR OIL

You can conserve energy and protect the environment by draining your used oil into a resealable plastic container and taking it to the used motor oil depot listed below:

NEAREST DEPOT
ADDRESS
HOURS

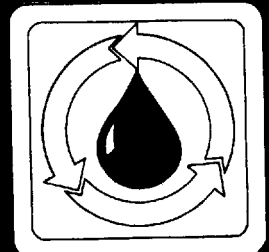
CURBSIDE RECYCLING FOR USED OIL now available

In most Oregon cities, your garbage hauler will pick up and recycle your used oil and other recyclable material (usually newspaper, glass, tin cans, aluminum, and cardboard).

Contact your garbage hauler for more information.

For additional recycling locations or information, call:

234-3000 (Portland Metro Area)
1-800-452-4011 (toll-free statewide)



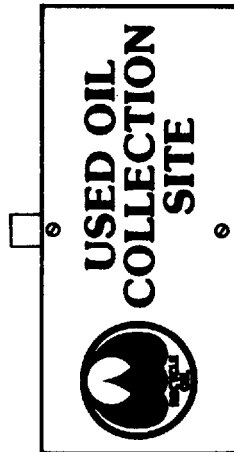
CONSERVE ENERGY RECYCLE USED MOTOR OIL

This sign required by law ORS
Do not remove

EDUCATIONAL MATERIALS FROM PENNSYLVANIA

HOW TO RECYCLE YOUR USED MOTOR OIL

- Pour all collected used oil into a clean, empty, sealable container such as a plastic milk jug. Specialized used oil containers can be purchased at local auto parts stores.
- Do not mix used motor oil with any other substances, such as antifreeze, paint or other chemicals.
- Locate the nearest used oil collection site. Look for the Recycle Oil symbol at local service stations or call the Pennsylvania Recycling Hotline at 1-800-346-4242 and ask where the participating collection sites are in your area.
- At the collection site, ask an attendant where to deposit used oil. Don't leave your container of used oil at the site unattended. And take your empty container home with you to use again.



For more information call the Pennsylvania Recycling Hotline or contact your County Recycling Coordinator.



PROTECT THE ENVIRONMENT

Help Us Update Our List:

The list of sites which will accept used motor oil from do-it-yourselfers requires constant revisions. You can help!

- 1) Tell us if you locate a place that can be added to the statewide list.
- 2) Tell us if you find a site which we have listed that will no longer accept used oil.

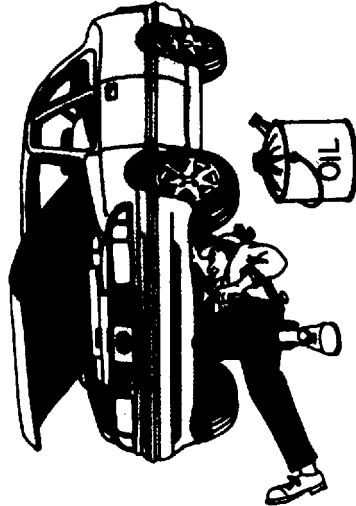
For more information contact:
Pennsylvania Recycling Hotline
at
1-800-346-4242

RECYCLE USED MOTOR OIL

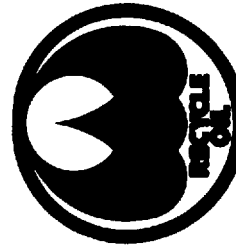
Sponsored by:
Pennsylvania Energy Office
and
Department of Environmental Resources

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Recycled Paper 



*When you do-it-yourself,
do it right.*



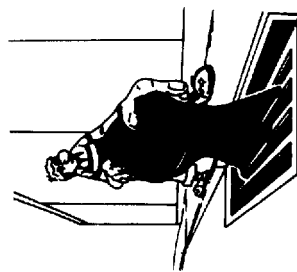
Contact the
**Pennsylvania
Recycling
Hotline**
1-800-346-4242

DO YOU CHANGE YOUR OWN MOTOR OIL?

If you're one of millions of Do-It-Yourself (DIY) oil changers in Pennsylvania, you should know about the dangers of improper oil disposal and how you can participate in Pennsylvania's Used Oil Recycling Program.

Some Used Oil Facts

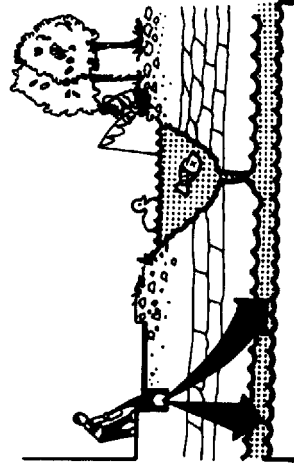
- Do-it-yourself oil changers in Pennsylvania dispose of 11 million gallons of used oil each year.
- It is estimated that at most 14% (1.5 million gallons) of this oil is recycled.
- The other 9.5 million gallons of used oil is dumped -- into sewers, on the ground, and into the trash.



Dumping used oil sends the oil and its contaminants into ground and surface water. Used oil is the largest single source of oil pollution (over 40%) in our nation's waterways.

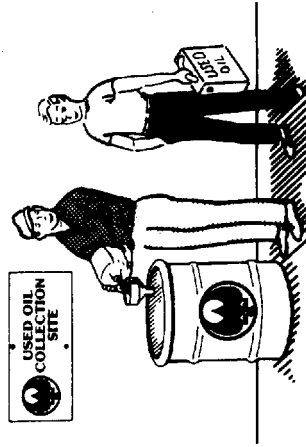
USED OIL CAN POLLUTE OUR ENVIRONMENT

- Used motor oil may contain toxic substances such as lead, benzene, zinc, cadmium, and arsenic.
- Used oil is not removed from the sewage treated at wastewater treatment plants. In fact, some plants use processes that can create additional pollutants from the chemicals present in used oil.
- Just one quart of oil is enough to create a two-acre sized oil slick on surface water.
- Oil is harmful to aquatic life. For example, oil kills organisms in the water that fish rely on as a food source.
- A gallon of used oil can ruin a million gallons of freshwater -- a year's supply for 50 people.



RECYCLING OIL PROTECTS THE ENVIRONMENT AND SAVES RESOURCES

- Oil doesn't wear out; it just gets dirty. Used oil can be re-refined into lubricating oil that is equal in quality to lubricating oil made from crude oil.
- If all the DIY oil generated were recycled, it would save Pennsylvania 103,000 barrels of oil per day.
- If all the used oil disposed by do-it-yourselfers in Pennsylvania were recycled, it could produce enough energy to power 17,100 homes annually.



You can help protect the environment and save resources by taking your used oil to one of the many collection sites that have volunteered to accept used oil from the public.

EDUCATIONAL MATERIALS FROM SOUTH CAROLINA

EX For Your Information . . .

**DHEC's
Office of Solid
Waste Reduction
and
Recycling**

Recycling Used Motor Oil... It's the Law!

Ever changed the oil in your car and then wondered what to do with the used oil? Ever wonder what your neighbor does with his?

Oil Facts

- ❖ non-renewable resource
- ❖ can be re-refined into recycled motor oil
- ❖ can be burned for energy

If you haven't given much thought to proper disposal of used oil, you should. Improper disposal of used oil is against the law. In fact, the S.C. Solid Waste Policy and Management Act of 1991 prohibits the disposal of used oil in county and municipal landfills. And the Pollution Control Act makes dumping used oil on the ground or in waterways illegal as well. Violation of either of these laws can result in fines up to \$200 or \$10,000, respectively. So what do you do with that container of oil sitting in your garage? Recycle it.

Figures For Thought...

The U.S. Environmental Protection Agency estimates that about 60 percent of all Americans change the oil in their cars themselves. In South Carolina, estimates are that these do-it-yourselfers improperly dispose of about 1 million gallons of used oil each year. How much damage can 1 million gallons of used oil cause? Well, **consider that only one gallon of used oil can potentially destroy 1 million gallons of fresh water** - enough to supply 50 people with drinking water for a year. Furthermore, it only takes one pint of used oil to create a slick on water one acre in size. Although day-to-day dumping of used oil does not receive the media coverage generated by a large tanker spill, over time the results are the same. Our environment pays the price for our carelessness and indifference.

To help do-it-yourself oil changers better understand the proper disposal of used oil, the S.C. Department of Health and Environmental Control formed the S.C. Used Oil Partnership in 1992. Along with DHEC's Office of Solid Waste Reduction and Recycling, this public-private partnership consists of Santee Cooper, the S.C. Petroleum Council and the S.C. Department of Transportation. Since the Partnership's creation, used oil collection in the state has increased dramatically from 46,000 gallons in 1991; to 256,000 gallons in 1992; and more than 485,000 gallons in 1993.

Waste Product or Energy Source?

What happens to all that collected oil? Used oil is a vital source of energy. Two gallons of used oil can provide enough energy to power the average household for about 24 hours. It can also be re-refined to create recycled motor oil and can be used to produce other petroleum-based products such as diesel fuel, greases and other lubricants. So collecting and recycling used oil not only protects the environment from the harmful effects of pollution, it also conserves a valuable non-renewable resource.

You Can Do It!

- ❖ **Drain**
- ❖ **Store**
- ❖ **Dispose at Collection Site**

How do you get involved? It's simple. After draining used oil from your vehicle, put it in a clean container with a tight-fitting lid. You may want to consider purchasing a specially-designed container made just for used oil. These containers can be found at local automotive supply and hardware stores. But there are many other acceptable containers which you probably already have around your home. For instance, a plastic milk jug with a screw cap works extremely well, as does a plastic bucket with a snap down lid. And once you've completed your oil change, you can always carefully pour the used oil into the quart or gallon plastic bottles which contained the new oil.

Once you've collected the used motor oil, simply take the oil to one of the more than 300 used oil collection sites in South Carolina. Each county has at least one site and most counties have many more. So chances are there's a collection site near you.

Call DHEC To Find A Collection Site

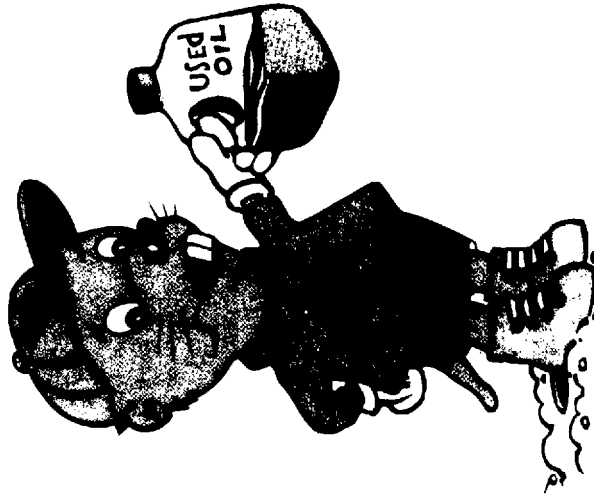
How do you find these collection sites? Just call the DHEC's Office of Solid Waste Reduction and Recycling. The Office has a toll-free information number and can help you locate the used oil collection site nearest to you. That number is 1-800-SO-USE-IT (1-800-768-7348).

So remember, don't pour your future down the drain, South Carolina. Recycle used motor oil. It's the law.

EPI provides general information on environmental topics. Readers are encouraged to reproduce this material. For more information about solid waste issues, please contact the S.C. Department of Health and Environmental Control's, Office of Solid Waste Reduction and Recycling, 2600 Bull Street, Columbia, SC 29201, or call 1-800-768-7348.

Written, Edited and Designed by the Office of Solid Waste Reduction and Recycling staff.
 August 1994
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Give Oil For Energy Recovery



P.O. Box 2946101
Moncks Corner, SC 29461-2901



100% Recycled Paper



Santee Cooper started Project GOFER to give do-it-yourselfers all over South Carolina a place to properly dispose of their used motor oil. So GOFER It! Give Oil for Energy Recovery.

All used oil collected will be burned for energy recovery, thereby eliminating the improper disposal of used oil and benefiting all South Carolinians.

Give Oil For Energy Recovery

Why Collect Used Oil?

Save Energy and a Resource

Used oil has nearly twice the energy-producing value of coal. One gallon of used motor oil can be used to generate 18 kilowatthours of electricity.



Two gallons of used oil will provide electricity to run the average household for about 24 hours, or . . .

- Cook 48 meals in the microwave oven
- Blow dry your hair 216 times
- Vacuum your house for 15 months
- Watch TV for 180 hours

Protect the Environment

- One gallon of used oil will contaminate 1 million gallons of water



- Do-it-Yourselfers improperly dispose of at least 200 million gallons of used oil nationwide each year. That's the equivalent of 20 Exxon Valdez spills per year.

How To Do It

Drain used oil into a suitable container using a funnel to keep the container clean and making it easier to pour. A large plastic jug with a tight fitting cap or similar container from a hardware or auto supply store are considered to be suitable containers.

Take the used oil to the nearest GOFER used oil collection station. Call 1-800-753-2233 to find the closest collection station to you.

There will be over 200 Gofers collection sites by late 1993.



The deposited used oil is picked up regularly from the collection station by qualified transporters. The transporters deliver the used oil to a Santee Cooper Energy Recovery Facility to produce electric power.

To Learn More

Call 1-800-753-2233

or write:

Project GOFER
Santee Cooper
P.O. Box 2946101
Mail Code A-203
Moncks Corner, SC 29461-2901

Dos and Don'ts

Never mix used motor oil with anything else, such as: anti-freeze, gasoline, paint thinner, carburetor cleaner, solvents, or water.

Reuse your used oil containers if possible. Never dispose of them at the collection station.

No containers larger than 5 gallons. For information on acceptance of used motor oil from commercial, industrial, business, and large volume sources, call Environmental Services at 1-761-4095.

Help keep collection stations clean.

Minimize spillage from containers when pouring into collection tanks.

Do not overfill the collection station tanks.

Deliver your used oil during collection station hours of operation. Do not leave full containers at the collection station.

If tank is full, please do not leave your container. Call 1-800-753-2233.

EX For Your Information . . .

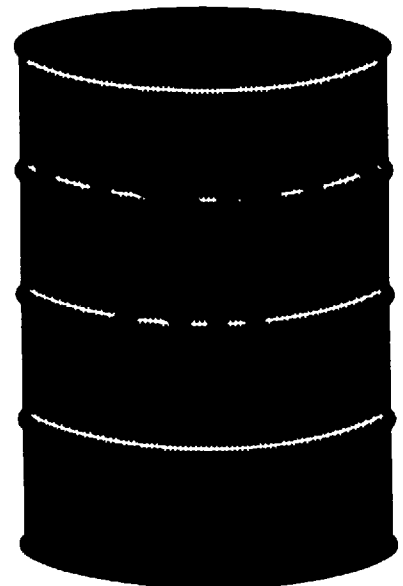
**DHEC's
Office of Solid
Waste Reduction
and
Recycling**

USED OIL MANAGEMENT STANDARDS FOR FARMERS

Solid Waste Management: Used Oil, Regulation 61-107.279

Farmers who generate an average of 25 gallons of used oil per month or less in a calendar year from vehicles or machinery used on the farm are not subject to the requirements of this regulation.

Used oil generated from farm machinery is not considered "do-it-yourselfer" used oil.



Farmers who generate more than 25 gallons of used oil in a month are required to store the used oil in a container with no leaks or visible rusting. The container must be labeled "Used Oil."

Farmers who transport more than 55 gallons of used oil at any time are required to register with the S.C. Department of Health and Environmental Control.

S.C. Solid Waste Policy and Management Act of 1991, Section 44-96-160

The discharge of used oil into sewers, drainage systems, septic tanks, surface water or ground water, or any other waters of this state, or onto the ground is prohibited.

The mixing or commingling of used oil with hazardous substances that make used oil unsuitable for recycling is prohibited.

The use of used oil for road oiling, dust control, weed abatement, or other similar uses that have the potential to cause harm to the environment is prohibited.

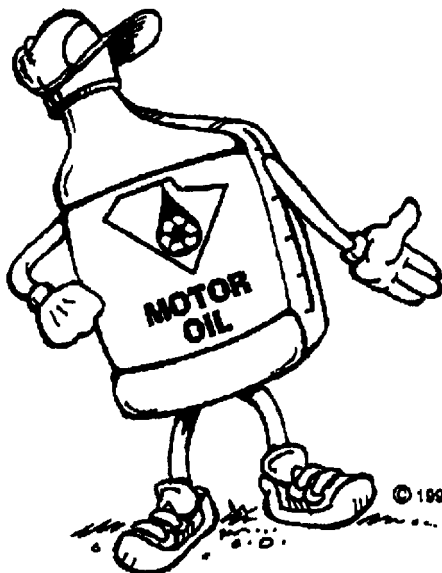


Pollution Control Act, Section 48-1-90

It is unlawful for any person, directly or indirectly, to throw, drain, run, allow to seep or otherwise discharge into the environment organic or inorganic matter, including sewage, industrial wastes and other wastes, except as in compliance with a permit issued by DHEC.

FOR MORE INFORMATION

You should contact Debra Carter-McCoy at DHEC's Office of Solid Waste Reduction and Recycling at 1-800-768-7348.



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FYI provides general information on environmental topics. Readers are encouraged to reproduce this material. For more information about solid waste issues, please contact the S.C. Department of Health and Environmental Control's Office of Solid Waste Reduction and Recycling, 2605 Bull Street, Columbia, SC 29201, or call 1-800-768-7348.

Written, Edited and Designed by DHEC's Office of Solid Waste Reduction and Recycling staff.
June 1995
Printed on recycled paper
Recyclable

EX For Your Information...

**DHEC's
Office of Solid
Waste Reduction
and
Recycling**

Proper Disposal of Used Oil Filters

While most South Carolinians are aware that improper disposal of used motor oil is against the law, many are not sure what to do with the used oil filter. Some of the questions often asked include:

Is the disposal of used oil filters regulated by law? Can I put used oil filters in a landfill? Do I have to do anything special to the filters before I dispose of them? Can used oil filters be recycled? What kind of products can be made from used filters? Is there any place I can take my filter to be recycled?

The following fact sheet answers these and other questions. But remember, the answer may depend on the county you live in.

According to the Law...

Used oil regulations which will be debated by the S. C. Legislature during the 1995 session basically follow federal guidelines for filters established by the U.S. Environmental Protection Agency. According to the regulations, used oil filters are considered a non-hazardous waste material and, as such, are exempt from hazardous waste regulations. The regulations also allow for disposal of used oil filters in county and municipal landfills. In fact, only four states, California, Minnesota, Rhode Island and Texas, have banned used oil filters from landfills.

The problem with disposal of filters in landfills, however, is that each used filter still contains several ounces of used oil that can leak from the filter. In fact, estimates are that a typical used oil filter can contain anywhere from one cup to one pint of used oil. Many larger filters may even contain as much as a full quart of used oil. This extra oil can lead to serious problems for the ground-water supplies surrounding the landfill.

So, What About the Oil?

In order to minimize the amount of used oil that enters South Carolina's landfills through used oil filters, the proposed regulations require that all filters be hot drained for a minimum of 12 hours before disposal. This may be done by puncturing the filter's dome end or back valve or dismantling the filter. Once the oil has been drained from the filter, the oil should be disposed of at a used oil collection site. By taking the time to drain your filter before taking it to the landfill, you'll be protecting the environment from the harmful effects of used oil.

What About Recycling?

The process of collecting and recycling used oil filters is relatively new. But our knowledge and resources are expanding rapidly. On a national level, at least 20 million used oil filters were processed and recycled into new steel products in 1993, resulting in recovery of 8,500 tons of steel. Properly recycled oil filters result in a quality grade steel scrap that is used to produce concrete reinforcement bars, construction grade steel products, fence posts, manhole covers and consumer products like paper clips and wire. In fact, if we could recycle all the used oil filters in the nation generated in 1994, we would be able to recover 161,500 tons of steel and 17.8 million gallons of used oil. In South Carolina, several counties are already collecting used oil filters for recycling. And many more counties plan to offer this service in the future. Recycling used oil filters not only protects our environment and cuts down on landfill usage, it also conserves natural resources.

How Can the Public Help?

You can do your part to help the environment by performing a few simple steps.

1. When changing the oil in your vehicle, always dispose of the used oil at a proper collection site.
2. After removing the used oil filter from your vehicle, puncture or dismantle the filter and allow it to hot drain for at least 12 hours.
3. Once the filter has drained, place it in a leak-proof container such as a sealable plastic bag or coffee can for transport.
4. If available in your county, take the filter to a filter recycling collection site. If such a site is not available in your area, take the filter to your county or municipal landfill.

For More Information...

If you need more information on filter collection programs in your county, please call the S. C. Department of Health and Environmental Control's Office of Solid Waste Reduction and Recycling at 1-800-SO USE IT (1-800-768-7348).

FYI provides general information on environmental topics. Readers are encouraged to reproduce this material. For more information about solid waste issues, please contact the S.C. Department of Health and Environmental Control's, Office of Solid Waste Reduction and Recycling, 2600 Bull Street, Columbia, SC 29201, or call 1-800-768-7348.

Written, Edited and Designed by the Office of Solid Waste Reduction and Recycling staff.

August 1994

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EDUCATIONAL MATERIALS FROM TENNESSEE

Attention Do-It-Yourselfers USED AUTOMOTIVE OILS ARE RECYCLABLE

Tennessee law requires you to properly dispose of used automotive oil and oil filters.

For more information on used oil disposal and the location of a used oil collection center near you,

call toll-free 1-800-287-9013.

**PLEASE DON'T POLLUTE
TENNESSEE'S SOIL AND GROUNDWATER**

Note: Commercial handlers of used oil and oil filters may be subject to more stringent requirements than those specified for do-it yourselfers.



Tennessee Department of Environment and Conservation. Authorization No. 327424, 4,000 copies. This public document was promulgated at a cost of \$.04 per copy. October, 1994

The Tennessee Department of Environment and Conservation is committed to principles of equal opportunity, equal access and affirmative action. Contact the Tennessee Department of Environment and Conservation EEO/AA/ADA Coordinator, (615)532-0103, for further information. Hearing impaired callers may use the Tennessee Relay Service (1-800-848-0298).

RECYCLED PAPER

EDUCATIONAL MATERIALS FROM UTAH

PREVENT POLLUTION



RECYCLE USED OIL

"It is against the law to dispose of used oil on the ground (such as road oiling, dust control or weed suppressants), in a landfill, or in any sewer, surface, or groundwater. To find out where you may properly dispose of used oil for recycling in your area, call 1-800-458-0145.

Oil mixed with other substances may not be recyclable. Do not mix your used oil with other substances, such as antifreeze, carburetor cleaners, paint thinner, or other solvents." (SB12)

1-800-458-0145



Utah Department of Environmental Quality
Division of Solid and Hazardous Waste

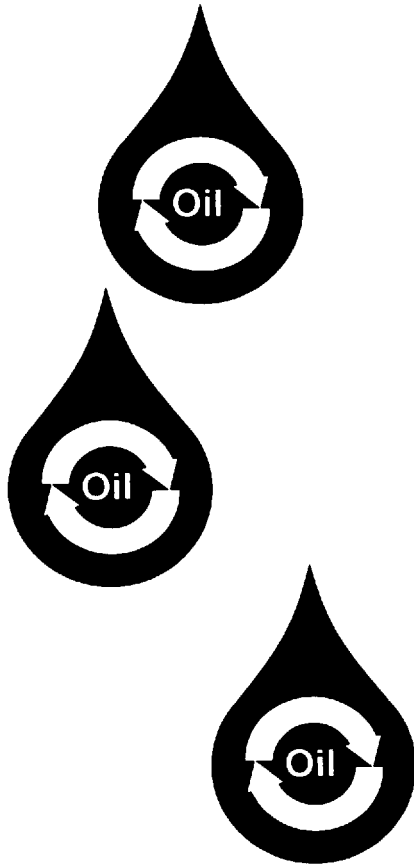
EDUCATIONAL MATERIALS FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY

United States Environmental Protection Agency EPA/530-SW-89-039B June 1989

Solid Waste And Emergency Response (OS-305)

EPA Recycling Used Oil

What Can You Do?



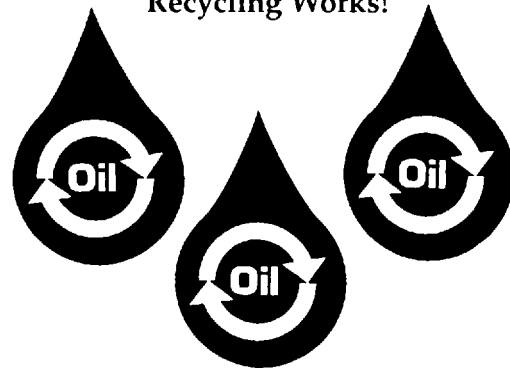
Why Recycling Your Oil Helps The Environment And Saves Energy

o Used oil from a single oil change can ruin a million gallons of fresh water--a year's supply for 50 people. Used oil is insoluble, persistent, and can contain toxic chemicals and heavy metals. It's slow to degrade. It sticks to everything from beach sand to bird feathers. Used oil is a major source of oil pollution in our nation's waterways.

o "Do-it-yourselfers"--consumers who change their own oil--generate at least 200 million gallons of used oil every year. Americans who change their own oil throw away 120 million gallons of recoverable motor oil by dumping it on the ground, by pouring it down stormdrains, or by putting it in trash cans.

o Recycling this oil would save the United States 1.3 million barrels of oil per day. One gallon of used oil provides the same 2.5 quarts of lubricating oil as 42 gallons of crude oil.

Recycling Works!



Printed on Recycled Paper

What Can You Do?

RECYCLE !

Today, almost 60 percent of the nation's automotive oil is changed by consumers themselves.

Recycle used oil from cars, trucks, boats, motorcycles, recreational vehicles, and lawnmowers.

It's easy to recycle used oil . . .

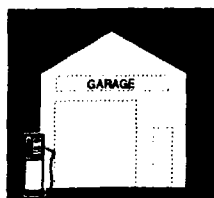
Put your used oil in a clean plastic container with a tight lid.



Don't mix it with anything else (paint, gasoline, solvents, antifreeze, etc.).



Take it to a service station or other location that collects used oil for recycling.



Call your local or state government to find out where.

The more waste we generate, the more we have to treat, store, and dispose of. So recycling makes more sense today than ever.

Improper waste management costs money—your money! You pay in higher consumer prices, taxes for environmental cleanups, and increased health care costs, when wastes are improperly managed.

Recycling saves money *and* protects the environment. So help be part of the solution, not part of the problem. Recycle used oil and other household materials, such as newspaper, glass, metals, and plastic.

If your community has an oil recycling program, join it. If it doesn't, start one. Write for EPA's manual entitled "How to Set Up A Local Program To Recycle Used Oil" at the address below or call EPA's RCRA/Superfund Hotline at 1-800-424-9346 (in Washington, DC, 382-3000).

Remember:

Environmental quality is everybody's business, and everybody can do a lot to help.

U.S. Environmental Protection Agency
Office of Solid Waste
401 M Street, SW
Washington, DC 20460

United States
Environmental Protection
Agency

EPA 530-F-94-008
March 1994

Solid Waste and Emergency Response (5305)

Collecting Used Oil for Recycling/Reuse

Tips for Consumers Who Change Their Own Motor Oil and Oil Filters



U.S. Environmental Protection Agency
Office of Solid Waste
RCRA Information Center (5305)
401 M Street, SW,
Washington, DC 20460

Official Business
Penalty for Private Use, \$300

 Printed on paper containing at least 50% recycled fiber.

For years, motor oil commonly was reused or discarded in ways that neither protected the environment nor conserved its resource value. In the United States alone, an estimated 200 million gallons of used motor oil are improperly disposed of by being dumped on the ground, tossed in the trash (ending up in landfills), and poured down storm sewers and drains. Just one gallon of used oil has the potential to contaminate up to one million gallons of drinking water. Additionally, used oil that ends up in the country's rivers, lakes, and streams can threaten aquatic life.

If all of the used oil that is improperly disposed of were properly managed, the United States could save thousands of barrels of oil each day. Used oil that is properly handled can be re-refined into lubricants, processed into fuel oils, and used as raw materials for the refining and petrochemical industries.



CHANGING YOUR OWN MOTOR OIL

1 Turn off the engine, block the wheels, and set the parking brake before getting under your car. To avoid burns, make sure that the engine is not too hot. Consult your owner's manual for directions.

2 Remove the drain plug on the bottom of the engine's oil pan and allow the used oil to drain from your car into a suitable container, such as a drip pan.



3 If you are changing your oil filter, do it next and follow the directions below, and on the filter. Regardless, replace the drain plug in the bottom of the engine's oil pan. Make sure that it's tight.

4 Carefully add the new engine oil. Although most cars take four to five quarts of oil, always check your owner's manual for the amount of oil required and the recommended grade of motor oil to be used. Do not overfill.

5 With the parking brake still set, and in a well-ventilated area, start the engine of the car. The oil pressure light may be on, but should go out after a few seconds. Once the light goes out, allow the engine to run for a few minutes.

6 Turn off the engine and check the oil level. Also, check around the oil filter and drain plug for oil leaks.

7 So you know when to change your oil next, write down the date and mileage, as well as grade and brand of motor oil you installed.

8 Use a funnel or carefully pour the used oil from the drip pan into a suitable recycling container (see below). Reuse the drip pan; don't rinse the residual oil down the drain.



9 Protect the environment and conserve resources by taking your used oil to your nearest public used oil collection center, such as a service station or lube center. Also look for the "oil drop." This is a petroleum industry symbol indicating that used oil is collected for recycling/reuse.



RECYCLING YOUR USED OIL

After draining the oil from your car's crankcase, pour the oil into a clean, leakproof container with a screw-on top. Many household containers are suitable, including original motor oil containers. **Never use containers that held household chemicals, such as bleach.** Make sure that the container has a secure lid so it cannot spill.



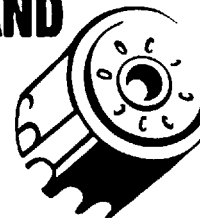
Containers specifically designed for carrying used motor oil also may be purchased at automotive supply stores.

If you don't take your used oil to a recycling center immediately, never temporarily store it in any container that once held food, beverages, or chemicals. Regardless of the type of container used for carrying or storing used oil, be sure it is clean, clearly labeled "Used Oil," and kept out of the reach of children and pets.

Take the container to the nearest used oil collection center. If your community doesn't have a collection center, check with your local service station or an automobile maintenance facility (such as a lube center, repair shop, or car dealership).



CHANGING AND RECYCLING YOUR OWN OIL FILTER

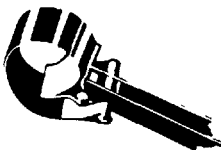


Where it's practical and cost effective, empty used oil filters are being collected for recycling. Check with the used oil collection facility where you take your used motor oil to see if it accepts used oil filters, or if it can direct you to a place that does. If you don't have any facilities in your area that recycle used oil filters, the empty used filter usually can be wrapped in newspaper and disposed of

with your regular household trash. Check with your trash collection service before discarding the filter because some states don't allow used oil filters to be landfilled.

Whether you recycle or dispose of your used oil filter, it must be drained of used oil. Special handling is required to properly drain an oil filter:

1 Use a filter wrench (if necessary) to loosen the old oil filter. Carefully remove the used filter.



2 Drain the filter of any oil. Using a sharp tool, puncture a hole in the dome end of the filter or through the ant drain back valve located on the flat end of it. The most effective method for properly draining the filter is to puncture the ant drain back valve or the filter dome and allow the used oil to flow into a container appropriate for recycling it. (Ant drain back valves are present in most automotive and light duty truck filter models. The valve consists of a rubber flap that creates a vacuum to prevent oil from draining back into the engine when it is not running. Puncturing the filter breaks the vacuum and allows the "trapped" oil to be recovered for recycling.)

3 Place the flat end of the punctured filter on the used oil collection container and drain as much used oil as possible out of the filter. It is important for used oil filters to be drained a minimum of 12 hours near engine operating temperature and above room temperature (approximately 60°F).

4 Install the new oil filter according to the manufacturer's instructions. Coat the rubber seal on it with a small amount of oil, then replace it. Do not use a filter wrench to tighten the new filter as this may damage the filter. Instead, tighten it snugly with your fingers, following the directions supplied with the filter.

HELP SAFEGUARD THE ENVIRONMENT

For further information, call your local or state government environmental agency for details regarding used oil recycling programs in your area.

Remember: environmental quality is everybody's business, and everyone can help. Developing smart recycling habits makes good sense. Recycling saves money, and it protects our environment. So become a part of the solution, recycle your used motor oil and oil filters, along with newspaper, glass, metals, plastic, yard trimmings, and other materials.

If your community has a recycling program, join it. If an existing community program doesn't include used oil recycling, expand it so that it does. If there's no program available, start one. Ask for EPA's manual entitled *How to Set Up a Local Program to Recycle Used Oil* by calling EPA's RCRA Hotline at 1-800-424-9346.



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EDUCATIONAL MATERIALS FROM THE CANADIAN PETROLEUM PRODUCTS INSTITUTE

**A SIMPLE SOLUTION FOR
TAKING USED MOTOR OIL
OFF YOUR HANDS.**



Used Oil Recycling Program



The Problem

Some 250 million litres of used lubricating oil (engine oil, transmission fluid, gear oil) disappear into the Canadian environment each year. Dumping this oil into landfill sites, sewers or on the ground contributes to environmental pollution and wastes a non-renewable natural resource.

But if collected, used oil can be recycled and reprocessed for use again as a lubricant or fuel.

That's why collecting used oil for recycling is so important.

Doing Our Part

The Canadian Petroleum Products Institute (CPPPI), your provincial government and your local oil retailer have started a program to collect and recycle used lubricating oil. To make the program work, we're asking consumers to bring back their oil to the nearest collection centre. (Your retailer can advise you.)

Government regulations making oil collection mandatory will ensure that each retailer either provides a collection depot or can direct customers to a nearby depot.

You Can Make A Difference

Here's what you can do:

1. Any used oil collected from your car, lawnmower, or other machinery should be stored in a clean, child-proof container.
2. Do not contaminate the oil with other household liquids such as solvents, paint thinner, or bleaches. (Contaminated oil will not be accepted by retailers.)
3. Return your oil to the point of purchase, or your nearest collection centre, whichever is more convenient.

A Simple Solution...

Returning used oil is simple and safe. By participating in this program you will be:

- Helping to protect the environment against needless pollution;
- Preserving a non-renewable resource;
- Demonstrating your commitment to recycling and proper waste management.

For more information, talk to your local lubricating oil retailer, or call your provincial ministry of the environment.



**MAKE EVERY DROP COUNT:
RECYCLE USED OIL**

S'OCCUPER DE SES HUILES USÉES, C'EST PAS COMPLIQUÉ



Programme de recyclage des huiles usées



En quoi consiste le problème?

Au Canada, environ de 250 millions de litres d'huiles lubrifiantes (huile à moteur, fluide de transmission et huile pour engrenage) disparaissent chaque année dans l'environnement. Le déversement de ces huiles dans les décharges, dans les égouts et dans le sol est une source de pollution. Sans compter qu'on gaspille du même coup une ressource naturelle non renouvelable.

Si ces huiles usées faisaient l'objet d'une collecte, elles pourraient être recyclées et réutilisées comme lubrifiant ou comme carburant.

*Voilà pourquoi il est important de récupérer
les huiles usées aux fins de les recycler.*

Chacun doit faire sa part

L'Institut canadien des produits pétroliers (ICPP), votre gouvernement provincial et votre détaillant d'huile ont lancé un programme visant à récupérer et à recycler les huiles lubrifiantes usées. Toutefois, le programme ne peut fonctionner que si les consommateurs rapportent leurs huiles au centre de collecte le plus près de chez eux. (Votre détaillant peut vous fournir de plus amples renseignements.)

Des règlements gouvernementaux rendront obligatoire la collecte des huiles usées et forceront chaque détaillant à offrir un service de collecte ou à diriger ses clients vers un dépôt situé tout près de là.

Votre geste est important

Voici ce que vous pouvez faire:

1. Toute huile usée provenant de votre auto, de votre tondeuse ou de toute autre pièce de machinerie devrait être déposée dans un contenant propre, à l'épreuve des enfants.
2. Ne contaminez pas l'huile en y ajoutant d'autres liquides domestiques comme des solvants, du diluant à peinture ou de l'eau de Javel. (Les détaillants refuseront l'huile contaminée.)
3. Rapportez vos huiles usées au point de vente ou au centre de collectes le plus rapproché. Choisissez le site qui vous convient le mieux.

Une solution toute simple...

Rapporter ses huiles usées, c'est pas compliqué et c'est sans danger. En participant à ce programme :

- vous protégerez l'environnement contre une pollution inutile ;
- vous conserverez une ressource non renouvelable ; et
- vous démontrerez que vous prenez au sérieux le recyclage et la gestion adéquate des déchets.

Pour plus de renseignements, communiquez avec votre détaillant d'huiles lubrifiantes ou avec le ministère de l'Environnement de votre province.



**CHAQUE GOUTTE COMPTE :
RECYCLEZ VOS HUILES USÉES**

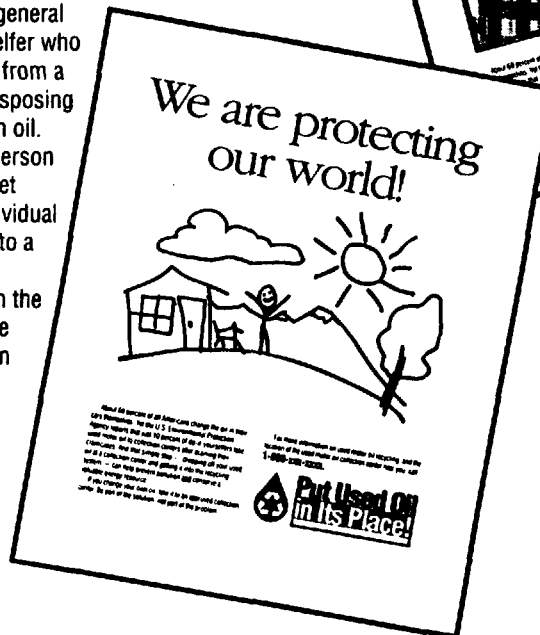
EDUCATIONAL MATERIALS FROM THE AMERICAN PETROLEUM INSTITUTE

Consumer materials for local promotion of used motor oil recycling

Use both versions of these public awareness ads to reach your audience and to start your program off with an upbeat and educational message.

These public service advertisements are for placement in local magazines, newspapers and shopping guides. Small sizes and flexible dimensions help publishers get out an important environmental message. The full text for use in either ad is printed on the reverse side of this form. There is room for you to customize your print ads with a collection center location and/or phone number.

Both ads are targeted at the general consumer—the do-it-yourselfer who is currently buying motor oil from a retail establishment and is disposing of it after he changes his own oil. The photo version shows a person working on a car, with an inset photo showing the same individual placing the used motor oil into a collection container. The illustrated version focuses on the positive results of an effective used oil recycling program on the environment as seen through the eyes of a child. You may want to try both versions, for variety, in the publications you are using.



Sizes available are:

Magazine full page:
Image area 7"x 10"

Newspaper:
Full page
Half page island
Quarter page

Ads may usually be enlarged or reduced up to 20% to accommodate a less common size requirement.

<p>Order form # 807-20018 # 807-20019</p> <p>Please type or print clearly:</p> <p>Name _____</p> <p>Title _____</p> <p>Address _____</p> <p>City / State / Zip _____</p> <p>Telephone _____</p> <p>Tax I.D. # _____</p>	<p>Please send me the following camera-ready artboards:</p> <p>Photo ad, in 4 sizes \$ 245.00</p> <p>Illustrated ad, in 4 sizes \$ 245.00</p> <p>Total Price \$ _____</p> <p>(Each package contains art boards for ads and instructions for printing)</p> <p>For custom changes, refer to reverse side of form.</p> <p>Send completed order form with payment to: Used Oil Recycling Program American Petroleum Institute 1220 L Street, NW Washington, DC 20005 (Prices may change without notice.)</p>
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API collects tax in the following states: AL, AK, CT, DC, MO, NE, NJ, NY, NC, ND, OH, PA, RI, SC, TN, TX, VT, VA, WA, WI, IL, IN, IO, KS, KY, ME, MD, MA, MI, MN, WV. Please include appropriate tax.



TEXT FOR ADS

About 60 percent of all Americans change the oil in their cars themselves. Yet the U.S. Environmental Protection Agency reports that just 10 percent of do-it-yourselfers take used motor oil to collection centers after draining their crankcases. And that simple step — dropping off your used oil at a collection center and getting it into the recycling system — can help prevent pollution and conserve a valuable energy resource.

If you change your own oil, take it to an approved collection center. Be part of the solution, not part of the problem.

For more information on used motor oil recycling, and the location of the used motor oil collection center near you, call **1-800-xxx-xxxx**.

Please print clearly the 800 number and/or address you wish to add to the copy:



recycled paper

Consumer materials for local promotion of used motor oil recycling

Bumper sticker

Camera-ready artwork is available for this direct message bumper sticker to print in the three logo colors—PMS 313 blue, PMS 375 green, and black. Size is 12" x 4".



Button

Camera-ready artwork for a rectangular button, 2 3/4" x 1 - 3/4", is available to print in the three colors—PMS 313 blue, PMS 375 green, and black.



Specialty use logo art

Camera-ready artwork of the Put Used Oil in Its Place logo is available for use on specialty items such as key rings, coffee mugs, labels, notepads, book marks, etc. Please note when ordering which artwork you require—the one-color or the three-color version. Standard size available is illustrated above as one-color art.

<p>Order form # 807-20020 # 807-20021 # 807-20022 # 807-20023</p> <p>Please type or print clearly:</p> <p>Name _____</p> <p>Title _____</p> <p>Address _____</p> <p>City / State / Zip _____</p> <p>Telephone _____</p> <p>Tax I.D. # _____</p>	<p>Please send me the following camera-ready artboards:</p> <p>Specialty logo: One color art @ \$ 20.00 _____ Three-color art @ \$ 30.00 _____</p> <p>Bumper sticker art board @ \$ 75.00 _____ Button art board @ \$ 75.00 _____</p> <p>Total Price \$ _____</p> <p>(Each package contains art board with instructions for printing)</p> <p>Send completed order form with payment to: Used Oil Recycling Program American Petroleum Institute 1220 L Street, NW Washington, DC 20005 (Prices may change without notice.)</p>
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Consumer materials for local promotion of used motor oil recycling

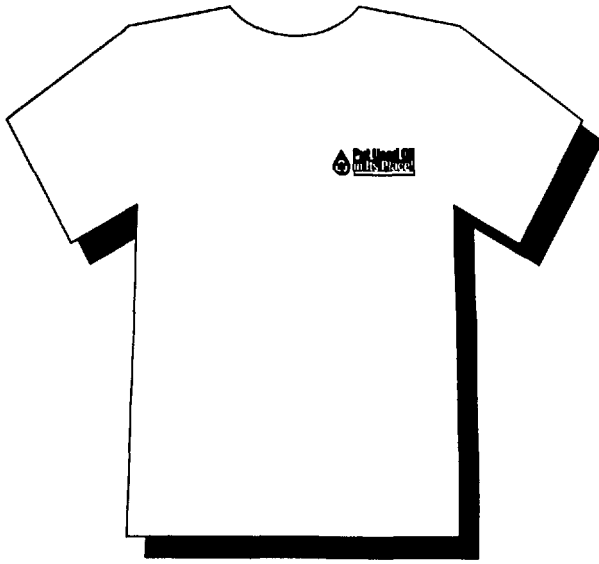
T-Shirt

AVAILABLE IN LOTS OF 50.

A cotton T-shirt available in 50% cotton/50% polyester blend, silk-screened in the three logo colors (PMS 313 blue, PMS 375 green, and black), and with short sleeves, this shirt is a great promotional tool.



Put Used Oil in Its Place!



Front, with pocket sized logo



back

<p>Order form # 807-20003</p> <p>Please type or print clearly:</p> <p>Name _____</p> <p>Title _____</p> <p>Address _____</p> <p>City / State / Zip _____</p> <p>Telephone _____</p> <p>Tax I.D. # _____</p>	<p>Please send me the following:</p> <p>T-shirts, (in quantities of 50 or more)</p> <p>_____ Small _____ Medium _____ Large _____ X-Large</p> <p>_____ x \$ 11.00 = _____</p> <p>Total Price \$ _____</p> <p>Send completed order form with payment to: Used Oil Recycling Program American Petroleum Institute 1220 L Street, NW Washington, DC 20005 (Prices may change without notice.)</p>
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Educational materials for local promotion of used motor oil recycling



Create enthusiasm and spark community support for your recycling program through a student poster art competition.

Students studying the used motor oil recycling curriculum are encouraged to create a color illustration of their concept of the environmental benefit of used oil recycling. Contestants are provided with size requirements for the drawing and whether the drawing should be one or multi-color.

Competition levels may be community, county, or statewide, with the winning entry (chosen by a jury of official state

collection center representatives) used as the illustration in this poster format, which then can be printed and distributed to advertise the used oil recycling program.

This poster format is camera-ready, with printing instructions. You set up and schedule the competition. Pick a winner, and you have a poster. We recommend that the poster be printed on a coated recycled paper. Size of the poster is 24" X 20".

<p>Order form # 807-20014</p> <p>Please type or print clearly:</p> <p>Name _____</p> <p>Title _____</p> <p>Address _____</p> <p>City / State / Zip _____</p> <p>Telephone _____</p> <p>Tax I.D. # _____</p>	<p>Please send me the following camera-ready artboards:</p> <p>Poster format mechanical with instructions \$ 95.00</p> <p><i>(Price includes shipping and handling)</i></p> <p>(Package contains art board and instructions for printing)</p> <p>Send completed order form with payment to: Used Oil Recycling Program American Petroleum Institute 1229 L Street, NW Washington, DC 20005 <i>(Prices may change without notice.)</i></p>
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API collects tax in the following states: AL, AK, CT, DC, MO, NE, NJ, NY, NC, ND, OH, PA, RI, SC, TN, TX, VT, VA, WA, GA, IL, IN, IO, KS, KY, ME, MD, MA, MI, MN, WV, WI. Please include appropriate tax.



Oil retailer materials for local promotion of used motor oil recycling

Counter card

Provide vital information at the point of sale with this effective display.

Distribute this in-store display with built-in pocket for holding promotional brochures to retailers in your area who sell motor oil. Customers will receive useful information about proper used motor oil recycling from a pocket-held brochure. Space is provided in the brochure so that you may customize with an "800" telephone number. This two-color counter card measures 11 x 14", with a built-in pocket and sturdy easel support, which all fold flat for easy mailing.



Brochure

This informational brochure outlines the used motor oil pollution problem and lists practical steps everyone can take to protect our environment. It is a great handout for environmental groups, civic organizations, scouts, etc. It is a great envelope stuffer — fits easily in a standard business envelope and in the pocket of the counter card, at left. The size is (3" x 7"). Space is provided so that the brochure can be customized with your collection center address or phone number.

Text of the brochure appears on the back of this form. The type in italics indicates text that can be customized for your state; when ordering this brochure, please follow the instructions on the back of this form to include your customized text alterations. *Please note: Changes to this brochure are available only in a specific area noted by italic type.*

Order form # 807-20012 # 807-20013		Please send me the following camera-ready artboards:	
Please type or print clearly:		Counter card with built-in pocket @ \$ 75.00 = \$ _____	
Name _____		Retailers brochure @ \$ 75.00 = \$ _____	
Title _____		Total Price = \$ _____	
Address _____		(Package contains art board and instructions for printing)	
City / State / Zip _____		Send completed order form with payment to:	
Telephone _____		Used Oil Recycling Program	
Tax I.D. # _____		American Petroleum Institute	
		1220 L Street, NW	
		Washington, DC 20005 (Prices may change without notice.)	



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Americans aren't afraid to get their hands dirty. That's particularly true when it comes to working on their cars and trucks: 60 percent of Americans change their own motor oil.

The U.S. Environmental Protection Agency reports that just 10 percent of the people who change their own motor oil take it to collection centers and get it into the recycling system. Much of the 200 million gallons of used motor oil generated by do-it-yourselfers each year is dumped down sewers, drains or on the ground.

To protect the environment and preserve valuable natural resources, the state has established a voluntary used motor oil recycling program. Since it is voluntary, we need your help to make it work.

All you need to do is take your used motor oil to a collection center. This simple step can have a big payoff: you'll be helping to protect the environment. Because the oil gets recycled, you'll help the nation get more out of its energy resources.

Promote conservation and prevent pollution by following these steps to prepare used motor oil for recycling:

- **After draining the oil from your car's engine, put it in a clean plastic bottle — such as the kind used for milk — with a lid that screws on tightly.**
- **Do not use paint cans and other metal containers, or plastic bottles once used for bleach, cleaners, antifreeze, gasoline or solvents. Their residue can contaminate the oil.**
- **Take your container of used motor oil to a designated collection center. In some areas, special stickers or signs identify such centers. Drain oil filters completely and dispose of them properly.**

To locate a used oil collection center near you, check the list included in this brochure. Or call the toll-free used oil hotline.



recycled paper

Collection center materials

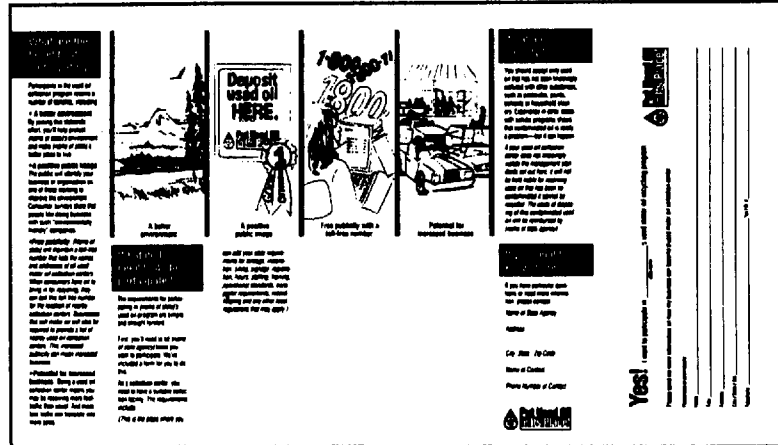
for local promotion of used motor oil recycling

INSIDE

Participation brochure

This 8-panel brochure, available as camera-ready art boards customized for your state, has a tear-off return panel to make it easier for potential participants to sign up for your used oil collection program. It gives vital information to anyone considering becoming a collection center. The brochure answers commonly asked questions and gives step-by-step guidance on setting up a local used motor oil collection center. The flat size of the brochure is 16" X 9", folding to 4" X 9".

Text of the brochure appears on the back of this form. The type in italics indicates text that can be customized for your state; when ordering this brochure, please follow the instructions on the back of this form to include your customized text alterations.



OUTSIDE

Order form # 807-20011

Please type or print clearly:

Name _____

Title _____

Address _____

City / State / Zip _____

Telephone _____

Tax I.D. # _____


Please send me the following camera-ready artboards:

Brochure

Total Price \$ 250.00

(Package contains art board and instructions for printing)

Send completed order form with payment to:
Used Oil Recycling Program
American Petroleum Institute
1220 L Street, NW
Washington, DC 20005 (Prices may change without notice.)



API collects tax in the following states: AL, AK, CT, DC, MO, NE, NJ, NY, NC, ND, OH, PA, RI, SC, TN, TX, VT, VA, FA, GA, IL, IN, IO, KS, KY, ME, MD, MA, MI, MN, WV, WI. Please include appropriate tax.



Every year, millions of gallons of used automobile lubricating oil are dumped in backyards, landfills and storm drains by do-it-yourselfers. Because used motor oil can be reused for a variety of purposes, this practice wastes a valuable natural resource. Improperly disposed used motor oil can pose potentially serious environmental problems.

To help protect the environment and preserve a valuable resource, *(name of state)* has established a voluntary used oil recycling program to collect used motor oil from do-it-yourselfers and ensure that it is recycled.

The success of this program depends on establishing a network of convenient, easily accessible used oil collection centers throughout *(name of state)* where do-it-yourselfers can take used motor oil for recycling. Because this program is voluntary, *(name of state agency)* is depending on other state agencies, local governments, environmentally friendly organizations and businesses that have facilities for changing oil to make this program work. We're looking for volunteer collection centers.

What are the benefits of participating?

Participants in the used oil collection program receive a number of benefits, including: **D**

- **A better environment.** By joining this statewide effort, you'll help protect *(name of state)*'s environment and make *(name of state)* a better place to live.
- **A positive public image.** The public will identify your business or organization as one of those working to improve the environment. Consumer surveys show that people like doing business with such "environmentally friendly" companies.

F *Free publicity.* *(Name of state)* will maintain a toll-free number that lists the names and addresses of all used motor oil collection centers. When consumers have oil to bring in for recycling, they can call this toll free number for the location of nearby collection centers. Businesses that sell motor oil will also be required to provide a list of nearby used oil collection centers. This increased publicity can mean increased business.

• **Potential for increased business.** Being a used oil collection center means you may be receiving more foot-traffic than usual. And more foot-traffic can translate into more sales.

What do I need to do to participate?

The requirements for participating in *(name of state)*'s used oil program are simple and straight forward.

First, you'll need to let *(name of state agency)* know you want to participate. We've included a form for you to do this.

As a collection center, you need to have a suitable collection facility. The requirements include:

I *(This is the place where you can add your state requirements for tankage, installation, siting, signage, registration, hours, staffing, training, operational standards, transporter requirements, record-keeping and any other local regulations that may apply.) PLEASE NOTE— Up to 100 words available to fill this area of brochure.*

What about liability?

You should accept only used oil that has not been knowingly polluted with other substances, such as pesticides, paints, solvents or household cleaners. Experience in other states with similar programs shows that contaminated oil is rarely a problem—but it can happen.

J *If your used oil collection center does not knowingly violate the management standards set out here, it will not be held liable for receiving used oil that has been so contaminated it cannot be recycled. The costs of disposing of this contaminated used oil will be reimbursed by *(name of state agency)*.*

If you need to know more

If you have particular questions or need more information, please contact:

Name of State Agency **K**
Address
City, State Zip Code
Name of Contact
Phone Number of Contact

Instructions

When providing your customized copy, please use the letter code next to the italic area to identify its placement in text. Please limit your text changes to the length indicated.



recycled paper

Collection center materials

for local promotion of used motor oil recycling

These signs identify collection centers.

These three versions give you an opportunity to vary the way in which a collection center is identified. The eye-catching graphics are clear and concise and print in blue, green and black. The size of these window signs is 20" X 24".

The artboards come with printing instructions and with some room for you to personalize the sign. We recommend that the sign be printed on an appropriate recycled paper and that the recycled symbol be imprinted in the bottom right-hand corner. Please note on the order form below which version you are ordering.



A



B



C

Order form		Please send me the following camera-ready artboards:	
	# 807-20006	Sign A @ \$ 120.00	\$ _____
Please type or print clearly:	# 807-20007	Sign B @ \$ 120.00	\$ _____
	# 807-20008	Sign C @ \$ 95.00	\$ _____
Name _____		Total Price	\$ _____
Title _____		(Package contains art board and instructions for printing)	
Address _____		Send completed order form with payment to:	
City / State / Zip _____		Used Oil Recycling Program	
Telephone _____		American Petroleum Institute	
Tax I.D. # _____		1220 L Street, NW	
		Washington, DC 20005 (Prices may change without notice.)	

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Collection center materials

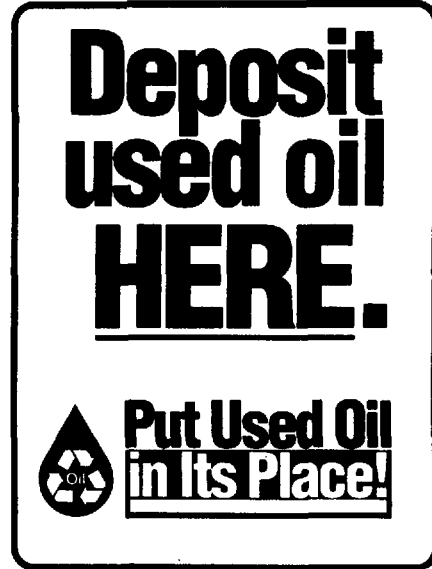
for local promotion of used motor oil recycling

Let the public see where you are. Identify your collection center efficiently and effectively with this decal and sticker.

Strong visual identification is the strength of both of these items, available as camera-ready artwork.

The decal is suitable for application to glass. With its attention-getting graphics, it plainly identifies an authorized collection center. The size is 8-1/2 X 6-1/2 inches. Service centers can show their support for used oil recycling by displaying this decal.

The sticker, also with strong graphic appeal, is designed to adhere to the collection tank itself.



Sticker



Decal

<p>Order form # 807-20009 # 807-20010</p> <p>Please type or print clearly:</p> <p>Name _____</p> <p>Title _____</p> <p>Address _____</p> <p>City / State / Zip _____</p> <p>Telephone _____</p> <p>Tax I.D. # _____</p>	<p>Please send me the following camera-ready artboards:</p> <p>Decal @ \$ 75.00= \$ _____</p> <p>Sticker @ \$ 75.00= \$ _____</p> <p>Total Price= \$ _____</p> <p>(Package contains art board with photo(s) and instructions for printing)</p> <p>Send completed order form with payment to: Used Oil Recycling Program American Petroleum Institute 1220 L Street, NW Washington, DC 20005 (Prices may change without notice.)</p> 
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EDUCATIONAL MATERIALS FROM THE FILTER MANUFACTURERS COUNCIL

How to Choose a Filter Management Service

The filter hotline is a toll-free service available to corporate and government generators of used vehicle filters. Callers to the hotline are given a summary of their state's filter management regulations, referrals to companies that provide filter management services to their state and a referral to the state governing agency.

Interested companies may reach the filter hotline by dialing **1-800-99-FILTER** Monday through Friday between the hours of 9 a.m. and 6 p.m. (Eastern time). The hotline is sponsored by the Filter Manufacturers Council and is administered by the MEMA Environmental Institute.



Members

- AC Delco Systems Division of General Motors
- Air-Maze Corporation
- AlliedSignal / FRAM
- APT, Inc.
- Baldwin Filters
- Caterpillar, Inc.
- Champion Laboratories / Luber-finer
- Donaldson Company, Inc.
- Farr Company
- Filtran Division, Sealed Power Technologies
- Fleetguard, Inc.
- Ford Parts & Services Division
- Hastings Manufacturing Company
- Kaydon Corp.
- Nelson Industries, Inc.
- Parker Hannifin Corp., Filtration Group
- Puroator Products, Inc.
- Staradyne Automotive Corp.
- Torril Industries, Inc.
- Wix Corporation Division, Dana Corp.



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How to Choose a Filter Management Service



MEMA Environmental Institute

Questions

Filter management firms vary in size and the services they provide. To make sure you are selecting a firm that best suits your needs, the following definitions are offered to assist you. Remember that a company may provide one or more of the following types of services.

Transporter: A company that transports (not simply arranges for transport) used filters.

Processor: A company that itself shreds, crushes or otherwise prepares a filter for its ultimate disposal or end use.

Recycler: A company that itself produces a new product from used filters.



■ What is the ultimate disposition of the filters? (e.g., recycled, if so, into what? disposed of in landfill?)

■ What requirements must the generator meet to satisfy the transporter's, processor's, and recycler's specifications for the filters? (e.g., drained, punctured, kept in spill-proof containers)

■ Does the company have all appropriate licenses and permits required by the state and/or federal regulators allowing them to handle used oil filters?

■ Does the company provide a written contract that provides the following:

□ Price?

□ Exact services provided by the vendor? (e.g., frequency, what is done to the filters, who else handles the filters?)

□ Your responsibilities as a generator? (e.g., other wastes allowed in containers, type of containers, draining requirements?)



Checklist

■ Has general liability insurance
□ Name of Company
□ \$ Amount

■ Has environmental liability insurance
□ Name of Company
□ \$ Amount

■ Specifications generator must meet

■ Site visit to see how filters are handled/stored



Disclaimer

Note: Neither the MEMA Environmental Institute nor the Filter Manufacturers Council nor their affiliates or members can guarantee the accuracy of the information provided. The questions and checklist provided in this brochure are not meant to be an exhaustive list of decision points nor do they constitute legal advice. Rather, they are meant to serve as basic guidance when choosing a service.

Questions You Should Ask

When researching a prospective filter management company, there are certain questions you should ask of each company. The following list of questions is meant to be used as a guideline only. You should tailor the questions to your individual needs and circumstances.

■ Does the company have general liability insurance? environmental insurance? (If "yes" to either, it does not mean that your responsibility is gone.) What specific events are covered by these policies? Do they adequately protect your business?

■ Will the company provide you with the names and phone numbers of business references?

■ Do you receive an audit trail from each point that the filters are handled? What other companies are handling your filters? Do these other companies comply with environmental regulations?

■ Does the company have any past or pending environmental enforcement actions? How long have they been in the filter business? What related services do they provide for other automotive wastes and how are these materials managed?

■ What is done to the filters? How are they processed? (e.g., crushed, shredded, dismantled)



Just a short time ago, most used oil filters were disposed of in landfills. Today, a few states have banned the landfill disposal of used oil filters, or placed other regulations on their management. All states require that the filters, at a minimum, be drained of all free-flowing oil before they are disposed.

The burgeoning filter management industry—transporting, processing and recycling—is growing at a rapid pace. The purpose of this brochure is to help generators of used filters choose a filter management firm and to make sure that their filters are handled properly. This brochure provides you with a list of basic questions to ask when choosing a company that provides a filter management service.

Proper handling and disposition benefits everyone. Where recycling is chosen as a management method, the environment is better protected through the recovery of natural resources, such as used oil and scrap ferrous metal. Plus, your customers will feel good knowing that you are taking steps that are environmentally responsible.



Definitions

The members of the Filter Manufacturers Council want to encourage the proper handling of used filters. As a generator, you are responsible for making sure that the used oil filter is managed in a responsible manner, and in accordance with all environmental requirements. Your decision to choose a filter management company is a critical one. You should ask as many questions as possible about the company and be sure that you know how your filters are being handled and by whom. After all, as a generator, you continue to be liable for the product that originates in your shop.

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