

REPORT TO THE LEGISLATURE
FLORIDA'S USED OIL RECYCLING PROGRAM

15th Annual Report

January 2000

INTRODUCTION AND HISTORY

Florida's comprehensive, statewide Used Oil Recycling Program is recognized as one of the most successful in the United States and serves as a national and international model. The Florida Department of Environmental Protection (DEP) has implemented a used oil management program under Sections 403.75 through 403.769, Florida Statutes (F.S.), since 1984. The program consists of a registration and record keeping program for used oil handlers, a permitting program for used oil processors and technical assistance to the public and regulated community. The 1988 Solid Waste Management Act substantially changed public policy toward solid waste management and used oil collection, management, transportation and recycling. New initiatives included a 5% price preference for the purchase of recycled and rerefined used oil by state and local governments, as well as some limited liability exemptions for businesses which accept used oil from the public. The 1988 Legislature approved a one-time appropriation of funds amounting to \$1 million for local government grants for establishing public used oil collection centers and \$1.5 million for statewide incentive/awareness and educational programs aimed at Do-It-Yourself (DIY) oil changers and school students. These funds have been expended and follow-up measures are being taken. The Department continues its regulatory program and, though the number of regulated parties remains relatively stable, the amount of used oil recycled per capita continues to grow.

Florida law contains several bans on the disposal of used oil. As of October 1, 1988, used oil may not be discarded into sewers, drainage systems, septic tanks, surface or ground waters, watercourses, or marine waters. It cannot be mixed or commingled with solid waste to be disposed of in landfills, except for those instances wherein the disposal occurs unknowingly, or is approved by the Department (such as in the case of emergency clean-up of accidental oil spills). Used oil cannot be mixed with hazardous substances or hazardous wastes that make it unsuitable for recycling or beneficial use. It cannot be used for road oiling, dust control, weed abatement, or other similar uses that may release used oil into the environment.

The used oil statutes were amended by the 1993 Legislature. The majority of these amendments were made to make Florida law consistent with the federal used oil regulations,

especially in the use of terms and definitions. A major change required retailers who sell over 500 gallons of oil annually to post signs which display the State's toll free 1-800 number (1-800-741-4DEP[4337]). This number uses a voice mail system to provide the locations of all public used oil collection centers in Florida, indexed by post office zip code.

Chapter 62-710 of the Florida Administrative Code (F.A.C.), addresses used oil management and implements the provisions of state law. It establishes a program for registration, record keeping and reporting by handlers of used oil; certification of used oil transporters; and permitting of used oil processing facilities. The federal used oil management standards which are found in Chapter 40, Part 279 of the Code of Federal Regulations (CFR) are adopted by reference in Rule 62-710.210, F.A.C., effective June 8, 1995. The definitions and forms used in this program are found in Chapter 62-701, F.A.C. (Solid Waste Management).

Section 403.756, F.S., requires the Department to "submit an annual report to the Legislature which summarizes information on used oil collection and recycling, analyzes the effectiveness of this act, and makes recommendations for any necessary changes." This report addresses the status of Florida's Used Oil Recycling Program using data collected during 1998.

RECENT DEVELOPMENTS

Chapter 62-710, F.A.C. was amended, effective December 23, 1996. The most significant change requires Used Oil Processors to obtain a Used Oil Processing Permit. Since this rule became effective, 20 Used Oil Processors have filed permit applications with DEP. Of these applicants, 16 facilities have been granted permits, 3 facilities are still under review and 1 facility is in the process of preparing a new application as it is moving to a new location. DEP charges a \$2,000 application fee to cover the cost to DEP for the permit review. Permitted facilities must provide descriptions of the corporate structure, processing operations, preparedness and prevention, analysis and contingency plans, tank management, closure and employee training. Some items (storage tank integrity, adequacy of secondary containment, and certain portions of the closure plan) require certification by an engineer registered in the state of Florida.

The rule was again amended, effective March 25, 1997. These latest amendments deleted certain obsolete or redundant sections of Chapter 62-710, F.A.C., and centralized some common Solid Waste Management items (e.g. intent, definitions and forms) in Rule 62-701, F.A.C., Solid Waste Management, in order to meet the requirements of Governor Chiles' Rule Reduction Initiative.

USED OIL REGISTRATION AND REPORTING

As of December 1999, 129 individual private and public businesses were included in the registration database, 11 of which are based outside of Florida (see Table 1, Page 13). This is less than the 143 handlers registered in 1998 and is attributed to falling prices in the virgin petroleum market which has a direct, negative impact on those businesses involved in used oil recycling. The high cost of transporting and processing used oil for recycling makes it difficult to compete with virgin crude which was priced at its lowest level since the mid-1980s. This past year has

seen a few company mergers and most of the handlers are now registered for more than one activity. These 129 businesses now occupy 168 sites.

Effective June 8, 1995, Used Oil Filters (UOFs) were banned from landfill disposal and UOF Handlers were required to register with the Department's Used Oil Recycling Program. Many used oil handlers now also manage UOFs to meet customer demand. As of December 1999, the DEP database (Table 1, Page 13) includes 104 UOF Transporters, 75 UOF Transfer Facilities, 28 UOF Processors and 5 UOF End-Users (metal foundries and Waste-To-Energy facilities [WTEs] which accept segregated loads of UOFs from non-registered persons). As a WTE facility will burn the oil contained within a filter for energy recovery and recycle the metal casing, the Rule allows generators of used oil filters who live in one of the 14 counties serviced by a WTE facility to commingle their used oil filters with the rest of their solid waste. The WTE facility, in turn, need not register with the Department to manage commingled filters. Because such a large portion of UOF generators in the state are in areas served by WTE facilities, the reporting requirement for UOF Handlers was made optional within the Rule. As reporting is optional, data regarding UOF management is destined to remain an approximation.

ANNUAL REPORTS FOR CALENDAR YEAR 1998

Transporters and processing facilities must report on the type, quantities, and sources of used oil collected, processed, and end-used. The data from these reports are listed in detail in Table 1, Page 13, are graphically illustrated in the Figures on pages 10 through 12, and are explained in the following sections.

Trends in Used Oil Management in Florida

Figure 1, page 10, shows the trend of used oil management in Florida from 1984 to the present. Overall, the trends (collection, recycling and disposal) show a steady increase in volume over time. This is to be expected, given Florida's steady population growth.

It is difficult to correlate increased rates of used oil recycling to population growth due to many variables. Variables resulting in reduced oil changes include extended vehicle service schedules for newer cars (significant in Florida's large rental fleets) and for those consumers using the new, synthetic oils which have a longer life, the use of on-board, in-line oil filtration systems by truck fleets, and the growth of on-site used oil reconditioning and recycling technologies increasingly employed by industry. Nonetheless, the rate of growth in the volume of used oil collected seems to at least keep pace with the population growth rate.

A significant adjustment is evident in the period between 1993 and 1995. It was during this time that DEP promulgated amendments to both the Used Oil Management standards and, at the same time, adopted standards for the management of Petroleum Contact Water. The changes in definitions of used oil, oily wastes, and petroleum contact water (PCW), along with the fine tuning of the data collected by DEP regarding these activities, resulted in a major data shift. The trend since the shift during rulemaking is interpreted by DEP to be very positive in that the amount of oil actually recycled continues to increase.

Amount of Used Oil and Oily Wastes Collected

In calendar year 1998, 131,731,948 gallons of used oil and oily wastes were reported to have been collected (Figure 2, Page 11). Automotive used oil and oily waste made up 32% of the total amount collected, including 2,564,982 gallons collected from nearly 1125 Public Used Oil Collection Centers. Approximately 19% of the total was industrial oil collected from bulk petroleum and various industrial facilities, and other sources. The remaining 49% of the total was of the mixed type generated by commercial sources (i.e. a combination of automotive and industrial oils). Compared to last year's data, more oil is reported as Mixed, compared to last year's data. This seems to indicate a consolidation of loads by handlers to address the previously described tight market conditions.

Disposition of Used Oil and Oily Wastes

As mentioned in the preceding section, approximately 131,731,948 gallons of used oil were reported to have been collected in Florida during 1998. About 41,795,767 gallons of this figure represent a duplication of data which occurs when used oil transporters report their collections to the Department when the oil is not end-used but rather is transferred to a another facility (Table 1, Page 13). The receiving facility then also reports this same quantity as having been collected at that site. When the on-hand inventory is included and the transferred quantity is removed from the data, a total of 93,714,159 gallons of used oil and oily wastes were reported as collected for management. On the other end, 94,624,851 gallons of used oil are reported as being managed (recycled or disposed). This leaves a difference of 910,417 gallons. According to information provided by industry, there is always a degree of error in tracking used oil because of differences in measuring loads of used oil which are intrinsic to the used oil industry. Most transporters use dip sticks to estimate volume during pick-up and transit. Processors use a more sophisticated measure, using actual weight from certified scales in determining a price per load. It is not uncommon for transporter estimates to differ by 6-12% from the final measured volume, with the mean falling around 7%. The error in this year's annual report calculates to less than 1% of the adjusted total quantity reported to have been collected. This error is the lowest in the program's history and reflects well on the Department's efforts to increase the accuracy of its data collection and management.

Of the 94,624,851, gallons of used oil and oily waste reported as managed, 53,147,873 gallons (56.5%) were recycled as follows (Figure 3, Page 11):

- 40,710,477 gallons (68.4%) were marketed as an on-specification used oil fuel
- 1,330,706, gallons (2.2%) were marketed as an off-specification used oil fuel
- 11,106,690 gallons (18.7%) were marketed for other industrial uses (e.g. phosphate beneficiation)
- 6,328,120 (10.7%) gallons was counted as end of year, on-site inventory

There are some noticeable trends in these when compared to previous years. The amount of oil marketed both as off-specification used oil and for industrial uses has decreased by over 1 million gallons each. The amount of used oil remaining in inventory increased by

just under 1 million gallons. This is probably due to depressed prices and adverse market conditions as previously discussed.

Of all the oil and oily wastes collected, 35,148,858 gallons (43.5% of the total amount of used oil reported managed) ended up as oily wastes. These wastes are primarily condensation water and sediment which are ubiquitous in used oil. When a container of used oil is picked up for transportation, whether in drums or pumped into a vac-truck, these wastes will almost always constitute some significant portion of the used oil load. A significant portion, according to industry reports, ranges anywhere from 4-20%, with the mean around 7%. These oily wastes were managed as follows (Figure 4, Page 12):

- o 516,214 gallons (1.5%) were landfilled (non-liquid sediment)
- o 31,009,431 gallons (88.2 %) were treated as industrial wastewaters
- o 3,623,213 gallons (10.3%) were incinerated

Again, there are significant changes in these data compared to last year. Overall, the volume of oily waste disposal increased by nearly 30% over last year. The Department feels this is probably due to a combination of factors. First, 1998 saw two Category Five hurricanes (Georges and Mitch) cross Florida. Though downgraded by the time they made landfall in Florida, both stalled in their route through the state, resulting in increased rainfall. This would increase the amount of water and sediment infiltrating into used oil storage systems (e.g. secondary containment and oil water separators). Second, a tight oil market causes used oil handlers to pick up lower quality used oil, with higher water or sediment levels, in an effort to maintain adequate inventory and maintain a steady customer base. A third factor is the issue of solid waste management at used oil processing facilities. After the Used Oil Processing Permit was put in place in 1997, the Department noticed that a number of permitted processors were managing what were essentially solid wastes under the used oil management standards. The Department has since taken steps to discourage the blurring of the distinction between solid vs. oily wastes. Facilities which might have managed solid wastes under the more relaxed used oil standards, now manage such wastes under the more stringent solid waste standards. The result is that, rather than stretching the definition of “recycling” beyond the intent of the rule, this material is now properly regulated, managed and reported under the definition of “disposal”.

The trends within the realm of oily waste disposal are encouraging. The amount of solid oily wastes landfilled and incinerated have both dropped, by 0.4 and 3 percent respectively. At the same time, the volume of oily wastes treated through wastewater treatment increased by about 8% over last year. In most cases, wastewater treatment seems to offer more refined and controlable methods of waste cleaning and emissions discharges.

Used Oil Filters (UOFs)

This is the fourth year that UOF management data have been collected. The Department feels this year’s report is the most comprehensive yet, due to refinements in the database and thorough quality control checks of all reports submitted to DEP.

There are a number of difficulties in deriving conclusions with a high degree of confidence from UOF data. First, as the Department's authority to regulate UOFs extends only to the oil trapped within the filter, the reporting of such data was made optional under the rule. Second, UOFs are collected in a number of different ways (e.g. barrels, drums, roll-offs or bins of crushed, uncrushed or shredded filters) and the data are reported using barrel equivalents (1 barrel equals a certain number of filters) and tonnage conversions (converting weight to numbers of filters). Hence, the numbers generated can only be approximations. Furthermore, staff has been unable to obtain sales figures of new oil filters in Florida as this is considered proprietary information by the companies involved in this business. As a result, staff can only estimate the number of filters which are generated in the state. Finally, data on filters generated in areas of the state serviced by Waste-to-Energy facilities are, for the most part, not reported at all. This is assumed to be a significant number of filters as approximately 30% of all solid waste generated in Florida is burned for energy recovery.

Even though the actual reporting mechanisms are weak, the Department continues to use a very liberal estimate of UOF generation in Florida (assuming four filter changes per year for the 12.7 million vehicle registrations estimated for 1998 by the Florida Department of Highway Safety and Motor Vehicles). Based on this assumption, FDEP now estimates that approximately 52 million UOFs are generated in Florida per year.

From the data reported, approximately 18,544,657 UOFs were collected (diverted from landfill disposal). This accounts for approximately 36% of the UOFs generated in Florida. It can be assumed that a majority of the unreported filters are managed by persons served by a WTE facility. Most of the filters reported to have been collected were sent to U.S. Foundry in Dade County which recycles the filters into gray steel, used to produce manhole covers and similar products. The prohibition against the landfill disposal of used oil filters has resulted in the recycling, rather than disposal, of approximately 9,272 tons of steel in 1998. About 427,430 gallons of used oil, trapped within the filter, were collected during the management of these filters and handled under the used oil management standards. Approximately 985,478 UOFs were reported as end of year, on-site inventory. It is very common for filter handlers to store large quantities of filters on-site until a large bulk load can be shipped to a final end user. This practice minimizes transportation costs, allows for thorough draining of used oil from the filters and ensures a maximum value for the clean metal. A slight degree of error can be assumed, based on the variables mentioned at the start of this section. The degree of reporting error for 1998 data was around 1.8%.

PUBLIC USED OIL COLLECTION CENTERS (PUOCCs)

As of December, 1999, Florida had a statewide network of 1,125 PUOCCs. The Department has worked closely with all county Used Oil Coordinators, the Florida Petroleum Council, the Florida Petroleum Marketers Association, and others in the quick-lube oil-change business in establishing this network. As a result of this effort, all but four (rural) counties have more than one location where used oil can be taken for recycling. Major oil companies and hundreds of independent service stations, auto repair shops, quick-lube shops and auto parts

retailers have volunteered to become public used oil collection centers. Discount Auto Parts[®] stores maintain almost 30% of the PUOCCs in Florida. With so many sites state-wide, this major participant helps to ensure the convenience of this program for all Floridians.

The number of PUOCCs participating in this program seems to be stabilizing (Figure 5, Page 12). This past year, some municipalities have consolidated collection sites or initiated curbside recycling programs. At the same time, new businesses continue to register as PUOCCs, taking the place of withdrawn sites. Operators of used oil collection sites who maintain compliance with all applicable management standards are granted certain liability exemptions under Section 114 of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA or Superfund), are granted protection against enforcement penalties related to a release of used oil under Florida Statutes, Section 403.760, but must still assume the significant costs associated with a clean-up. Despite slight fluctuations in the number of PUOCCs, the quantity of used oil collected from household Do-It-Yourselfers (DIYers) continues to increase annually (Figure 5, Page 12).

PUOCCs accepted 2,564,982 gallons of used oil in calendar year 1998, which continues the trend (Figure 5, Page 12) of an average annual increase of about 3%. It is difficult to estimate the number of DIYers in Florida. This year, the Department applied a strict estimate value of 4 oil changes per year per DIYer. The Department feels that in Florida, because of the size of its retirement age population, the vibrant quick lube service business, and large lease fleets, the number of DIYers is probably close to 15%. FDEP estimates that Florida DIYers generate approximately 7.6 million gallons of used oil. This means that Florida is now collecting about 34% of the used oil generated by DIYers.

The Department maintains a toll-free number (1-800-741-4DEP) which uses voice mail to index PUOCCs by post office zip code. Anyone calling this number is prompted to enter their zip code. The system then either reports a listing of PUOCCs in that zip code, or directs the caller to retry adjacent zip codes or leave a taped message for a prompt reply from a Department representative.

EFFECTIVENESS OF THE ACT

One of the main purposes of the Florida Resource Recovery and Management Act, of which the Used Oil Recycling Act (Sections 403.75-403.769, Florida Statutes) is part, is to promote the recovery of resources, such as used oil, which have the potential for further use while protecting the public health and welfare and the environment of Florida. A combination of Florida's growing population, an effective PUOCC program and prohibitions on the uses and disposal of used oil and used oil filters continues to increase the amount and quality used oil available for recycling.

Prohibitions on the land application or disposal of used oil and strict management standards provide the Department's enforcement personnel with laws and authorities that can assist in preventing contamination of surface and ground waters by improper used oil management practices.

The management standards, including the processing permit, were adopted with the input, cooperation and approval of the regulated community. They are based on a common sense approach to regulation which is felt to be protective of the environment and human health while assuring used oil will be recycled to the most practical extent possible.

Recent amendments made state and federal law more consistent and easier on the regulated community. The signage requirement and toll free information number further expand public awareness and increase the amount of used oil which is properly managed.

According to a 1996 report published by the American Petroleum Institute and a 1995 report published by Evergreen Oil Company of California, the collection rate of Florida's Used Oil Recycling Program ranks (respectively) first and second in the nation. The Department attributes this success to: 1) its decision not to manage used oil as hazardous waste; 2) the cooperation of public and private entities in maintaining the PUOCC program; and 3) the Department's use of effective formal education and public information materials.

Technical assistance and information provided to other states and countries indicate that Florida's Used Oil Recycling Program continues to serve as a national and international model of effective used oil management. In 1999, the program has provided assistance to states such as Wisconsin and Alabama and countries such as the Republic of Ireland and the Virgin Islands, in implementing used oil recycling infrastructure, rules, and education materials.

RECOMMENDATIONS

Florida's statewide Used Oil Recycling Program, one of the most comprehensive, extensive, and successful in the United States, continues to grow as it continues to receive national recognition. There is, however, always room for improvement.

The Department is currently preparing to initiate rulemaking to, once again, upgrade the used oil management standards. The purpose of this rulemaking is fourfold: 1) to correct technical errors caused by a flurry of rule amendments under Governor Chiles' Executive Orders Number 95-74 (2/17/95) and 95-256 (7/12/95); 2) to upgrade the minimal insurance requirement for Certified Used Oil Transporters which has not changed since it was set at \$100,000 in 1990; 3) to revise the tank standards to reflect changes in the Department's tank rules; and 4) to clarify the regulation of non-oil related solid waste management at Used Oil Processing facilities. The Department is working closely with the regulated community and does not expect this rulemaking to be contentious.

The Department is continuing to refine the data gathered in assessing the effectiveness of this program for this annual report through explanatory letters, quality control screening of all incoming reports and monthly contributions to the "Oil Drop", the trade publication of the United Association of Used Oil Services (UAUOS), which has a mailing list of over 500 entities involved in the management of used oil.

The Department also continues to work with the UAUOS in setting standards within the industry. These include standards for the management of used oil such as the Association's Used

Oil Transporter Training Program, an industry-wide sampling and analysis procedure for screening oil prior to transport and minimum spill control standards. The UAUOS continues to support the Department in fine tuning the data used to measure the effectiveness of the program and is committed to assist the Department during upcoming rulemaking.

Additional funding is needed to enhance the educational initiatives developed and implemented in 1989-90. During those years, complete formal education curriculum kits were introduced into every public K-1, secondary and post secondary school in the State. The interest, need and demand for such materials continue to grow as these one-time production materials become outdated and the supply is exhausted.

It has also been over ten years since the Department quantified the the DIY segment of the used oil universe. While statutes, rules and data collection have kept pace with the changing nature of both used oil management and population trends, the tools used to measure the effectiveness of the DIY segment are woefully outdated and in need of refinement.

Florida's Used Oil Recycling Program remains on the cutting edge of change as environmental management and regulation evolves into the next century. The focus of both the regulators and the regulated community is shifting steadily towards management schemes which are multi-media (encompassing a number of heretofore separately regulated waste streams) by nature and increasingly incorporate pollution prevention (P2) goals. The object of P2 is to consider all wastes and to generate as little waste as possible. As over 80% of the used oil in Florida is automotive or mixed with automotive, the automotive service industry has been a major stakeholder in this program. More and more of these businesses are moving towards P2 management schemes. Used oil is not so much a stand alone program as it once was. To address this change of focus, Florida's Used Oil Recycling Program has been enhancing its relationship with the Department's P2 staff. Both sections are striving to coordinate and strengthen the communication between their programs. Joint efforts in regulatory and education initiatives have begun as these programs position themselves to assume a proactive role in the changing world of environmental regulation.

A critical step in keeping the Used Oil Recycling Program up to date and at the cutting edge of technology occurred in March 1998 when the program established a presence on the World Wide Web at the Department's internet site. Annual Reports and all fact sheets and forms used in this program are available for downloading at this site. Various education materials are being added to the site. The Used Oil Recycling Program has recently begun to incorporate its data into Geographic Information System (GIS) software which will be used to enhance the information available on its website. The internet address for Florida's Used Oil Recycling Program is http://www.dep.state.fl.us/dwm/programs/used_oil/default.htm.

APPENDIX

The following items are included as appendices to this report:

1. A copy of Chapter 62-710, F.A.C.
2. A copy of those sections of Chapter 62-701, F.A.C., which are relevant to used oil.
3. A copy of those sections of the Florida Statutes which are relevant to used oil.

FIGURES AND TABLES

**Figure 1
Used Oil Management in Florida
1984-1998**

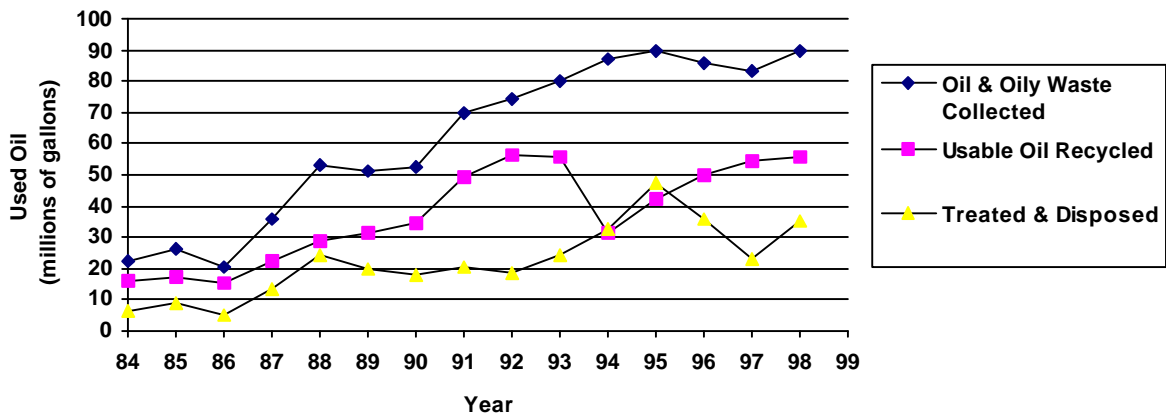


Figure 2
Amount of Used Oil and Oily Wastes Collected in Florida
131,731,948 gallons
1998

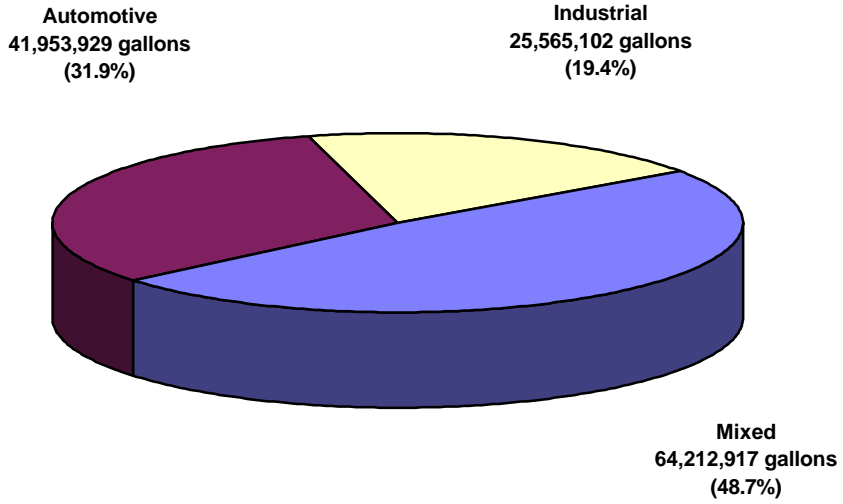


Figure 3
Disposition of Used Oil Recycled in Florida
59,475,993 gallons
1998

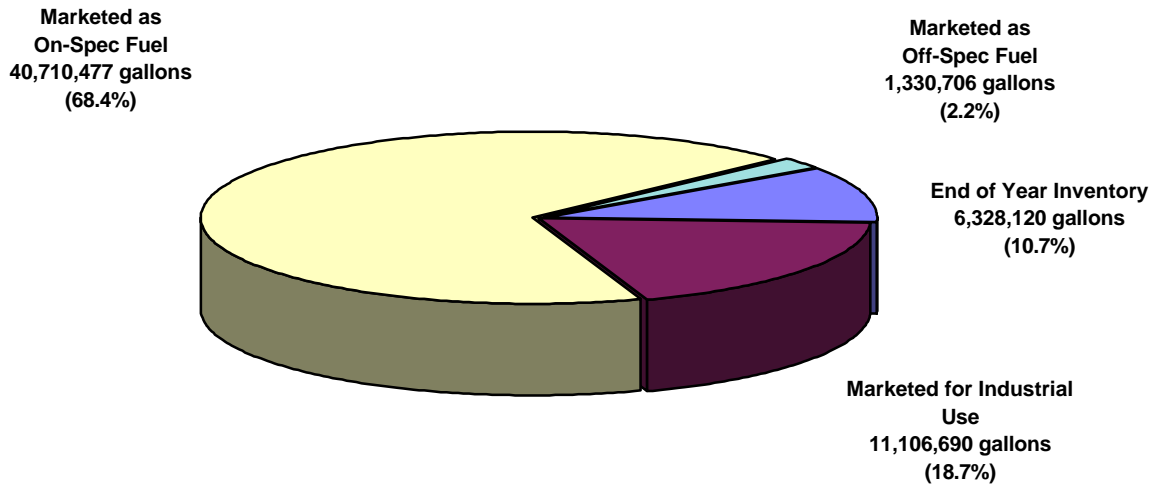


Figure 4
Treatment and Disposal of Oily Wastes in Florida
35,148,858 gallons
1998

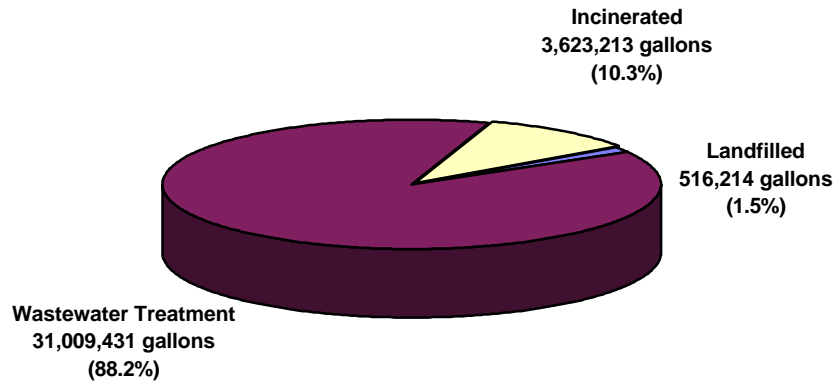
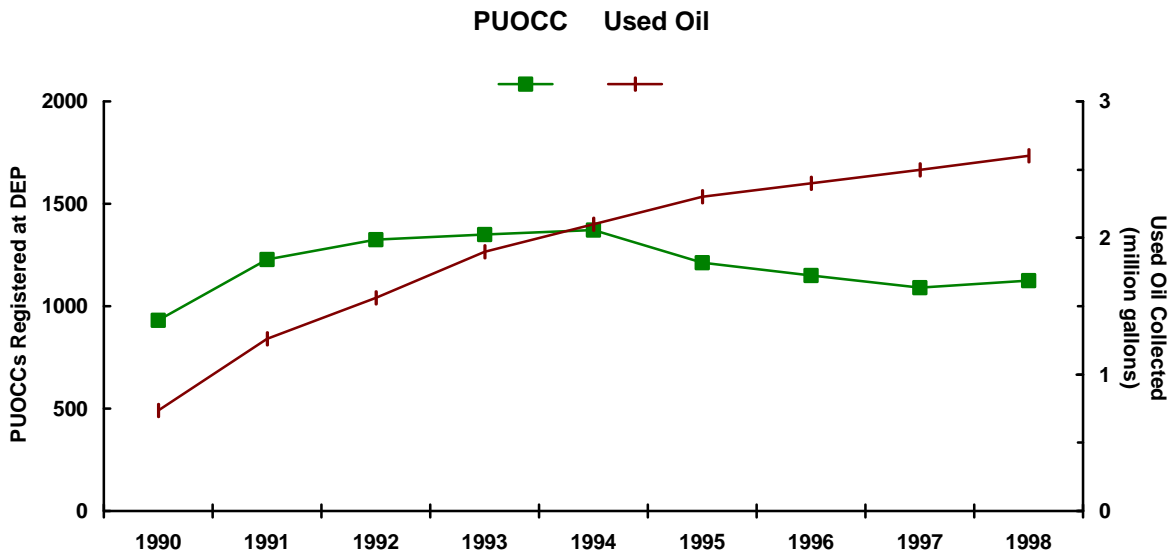


Figure 5
Growth of Florida's Public Used Oil Collection Center Program
1990-1998



**TABLE 1
SUMMARY OF 1998 USED OIL DATA REPORTED TO DEP IN 1999**

I. Used Oil Handlers		II. Used Oil Filter (UOF) Handlers	
129 Companies registered		104 UOF Transporters	
168 Sites registered		75 UOF Transfer Facilities	
126 Used Oil Transporters		28 UOF Processors	
88 Used Oil Transfer Facilities		5 UOF End Users	
42 Used Oil Marketers			
5 Used Oil Burners (off-spec)			
20 Used Oil Processors (19 permitted facilities, 1 permit pending)			
III. Used Oil/Oily Waste Collected			
Automotive	FL: 40,564,707*	Out of State: 1,389,222	Total: 41,953,929
Industrial	FL: 24,565,404	Out of State: 999,698	Total: 25,565,102
Mixed	FL: 63,673,024	Out of State: 978,523	Total: 64,212,917
Totals:	FL: 128,364,505	Out of State: 3,367,443	Total Collected: 131,731,948
*NOTE: This includes 2,564,982 gallons collected by Public Used Oil Collection Centers			
IV. Used Oil/Oily Waste Transferred FL: 30,550,252 Out of State: 11,245,515 Total: 41,795,767			
V. Used Oil Managed			
Marketed as On-Spec	FL: 31,714,714	Out of State: 8,995,763	Total: 40,710,477
Marketed as Off-Spec	FL: 265,138	Out of State: 1,065,568	Total: 1,330,706
Marketed as Industrial	FL: 10,795,342	Out of State: 311,348	Total: 11,106,690
Total:	FL: 42,775,194	Out of State: 1,631,696	Total: 53,147,873
VI. Disposal of Oily Wastes			
Landfilled	FL: 432,281	Out of State: 83,933	Total: 516,214
Treated Wastewater	FL: 28,630,935	Out of State: 2,378,496	Total: 31,009,431
Incinerated	FL: 3,622,333	Out of State: 880	Total: 3,623,213
Total:	FL: 32,685,954	Out of State: 210,204	Total: 35,148,858
VII. Gross Summary of Used Oil Management in Florida			
A. Collection		B. Management	
Total Collected	131,731,948	Total Recycled	53,147,873
+ Beginning Inventory	3,777,978	+End of Year Inventory	6,328,120
= Total on Hand	135,509,926	Total Managed	59,475,993
-Amount Transferred	-41,795,767	+Total Disposed	35,148,858
=Net Total Collected	93,714,159	= Grand Total Managed	94,624,851
Difference between A & B = 910,417 gallons (0.97% of the 93,714,159 gallon Net Total Collected)			
VIII. Used Oil Filter Management*			
Collected	18,544,657	Tons of Steel Recycled	9,272
+Sarding Inventory	563,370	Oil Managed (gals.)	427,430
=Total on Hand	19,108,027	Waste Managed (gals.)	36,078
-End Users & Year End Inventory	18,892,586		
= Unaccounted for	215,441 (1.1% of Total on Hand)		
*According to data submitted to FDEP under the optional filter reporting category on the Used Oil Annual Report.			