

USED OIL FILTER PUOCC SURVEY SUMMARY
PART I: DATA
10/13/98

In March of 1998, FDEP surveyed 1150 Public Used Oil Collection Centers throughout the state in order to determine their used oil filter recycling activities. The Department received 352 responses to the mass mailing, a response rate of 31%.

The responses are summarized below, correlated to the questions asked in the survey.

Of those responding (N=352):

147 (42%) said they collect DIY UOFs, 34% of these facilities advertise this service.

214 (58%) said they do not collect DIY UOFs. (Note: about 20% of these respondents noted that there was no public demand for such a service.)

Of those collecting and reporting a quantity collected (N=141):

106 (75 %) reported collecting less than 50 filters/month

19 (14%) reported collecting 50-100 filters/month

16 (11%) reported collecting >100 filters/month

Of those reporting on the cleanliness of the filters received (N=124):

88 (71%) reported that the filters were clean when collected

36 (29%) reported that the filters were dirty when collected

Of those reporting on the burden to the business (N=128):

74 (58%) said it was a small burden

52 (41%) said it was a moderate burden

2 (1%) said it was a substantial burden

The average cost of filter management was \$26/barrel
this ranged from a high of \$100/barrel to a low of no charge
(minimum reported charge was \$5/barrel)

Of those reporting why they did not collect filters (N=214, some marking more than one category):

155 (72 %) listed cost as a reason

38 (18%) listed logistics as a reason

34 (16%) listed personnel as a reason

44 (21%) listed time as a reason

Of all the respondents (N=352, some marking more than one category):

155 (44%) indicated that grant funding assistance was desirable

11 (3%) indicated that a state recognition award was desirable

34 (10%) indicated a handler contact list was desirable (Note: the Department mailed a list of registered used oil/filter handlers to these respondents).

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The 31% response rate of the PUOCCs surveyed is considered to be statistically significant for a mail out survey.

The fact that there is almost a 50/50 division between those who do and don't collect used oil filters (UOFs) may be indicative of a possible environmental impact. Neither the ban on landfill disposal, nor the recycling of UOFs has been as well publicized as was used oil. The fact that 20% of the respondents report that there is no public demand for UOF recycling leads to the assumption that many household generated UOFs are being disposed of in landfills as a result of lack of education amongst consumers.

Florida's Used Oil Recycling Program's 13th Annual Report to the Legislature (1998) estimates that approximately 5 million gallons of used oil is generated by household Do-It-Yourselfers (DIYers) who change their own oil in their own vehicles. Assuming approximately one gallon of oil and one UOF per oil change, then 5 million UOFs are generated by households in Florida. As most DIYers probably do not properly drain the UOF for 24 hours, each filter would contain approximately 40% (13 ounces) of the original volume of used oil (Gray Automotive study, 1991). This leads to an estimate that over 2 million gallons of used oil and 2.5 tons of steel are generated by DIYers. Waste-To-Energy facilities manage about 20% of the solid waste generated in Florida (FDEP Report: Solid Waste Management in Florida, June 1997). WTE's are an environmentally sound method of disposal for UOFs as the entrapped oil is burned for energy recovery and the steel is reclaimed after burning. Removing the volume of UOFs managed at WTEs leaves 1.6 million gallons of used oil and two tons of steel disposed of in Florida's landfills via DIY UOFs. Multiplying this over the 10 years since Florida has had a used oil recycling program equals over 20 million gallons of used oil and 20 tons of high grade steel already placed in the ground by DIYers.

The logistics of recycling DIY UOFs seems to be a small or moderate burden on 99% of the respondents. Most of the DIY filters collected (71%) were reported to be relatively clean when they were dropped off. The average cost of \$26/barrel for off-site filter recycling services seems well within normal operating costs for auto repair facilities, who make up a significant portion of the PUOCCs in Florida. However, most of those persons reporting that they did not collect filters cited cost as the main factor (71%).

Summary: DIY UOFs are a slight threat to Florida's environment, though not nearly as significant as that of used oil itself, due to the nature of the material and the quantity generated. Public education would probably adequately address this issue, as it has for used oil recycling. The cost of off-site management is the limiting factor in this issue. The UOF recycling market is still in its infancy and is directly affected by the used oil market, as used oil management companies form the majority of the businesses involved in UOF management. The used oil market is, in turn, tied to the virgin petroleum market. Low virgin petroleum prices cause a tightening of the used oil market. Expected price increases in the global petroleum market will probably cause a reduction in the cost of used oil and UOF management.