

Used Oil Facts

Fact Sheet

Fleet Vehicle Pollution Prevention Options for Used Oil

For organizations that maintain large fleets of vehicles, there are several opportunities to save money and make strides to decrease waste and protect the environment. Two of the options concern oil and oil filter use. **To increase oil life and decrease new oil purchase price, a facility can switch to synthetic oils. To decrease oil filter purchase costs and decrease used oil filter disposal fees and liability, fleets can be easily retrofitted with reusable oil filters⁽¹⁾.**

Because fleet facilities can typically use hundreds of oil filters a year, switching to reusable filters, although it incurs an upfront capital cost, greatly decreases both purchase costs for new disposable filters and disposal fees for used filters. This is because a reusable filter typically lasts the lifetime of the vehicle.

A reusable oil filter is made of an adapter plate (to adapt the filter to the different types of vehicles), a canister, and a metal wire (i.e., stainless steel) pleated mesh filter. This wire filter replaces the paper filter in conventional oil filters. **At every oil change, the wire filter is removed and cleaned in a parts washer or specially designed filter cleaner.** The cleaning process typically takes 5-15 minutes, and is done by the time the oil change is finished⁽²⁾.

Reusable oil filters have been found to be as efficient or even more efficient at removing contaminants from oil than conventional filters. In one study, reusable oil filters removed more wear metals such as aluminum, chromium, copper, iron, lead, and tin from oil than disposable filters. Oil can become contaminated with chemicals during use, most often from the air and coolant systems. Just as with wear metals, used oil from reusable filters contained fewer



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contaminants such as boron, potassium and sodium than the oil from the disposable filters⁽³⁾.

Although the capital costs of purchasing reusable oil filters can seem high, when considering all related costs over time, reusable filters can not only pay back quickly, but they can increase the lifespan of oil, decrease the number of oil changes necessary and improve the vehicle operating conditions.

Switching vehicles to synthetic oils, or synthetic oil blends, greatly increases the time-span between oil changes, sometimes up to 15,000 miles. Changing oil less often means purchasing less new oil and disposing of less used oil. Most synthetic oils don't require special oil filters or operating conditions and can be used in either gasoline or diesel-powered vehicles. Besides the obvious economic and environmental benefits of using synthetics, practical advantages include improved viscosity at low temperatures, increased protection at high temperatures, decreased oil consumption and improved fuel consumption⁽⁴⁾.

References

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