

INSIDE: IS INTEREST IN AIR CONDITIONING INCREASING DESPITE ADDED COST? | HOW OILS & LUBRICANTS MAY BE EFFECTED BY PROPOSED GHG RULE | TECHNOLOGY ON THE SCHOOL BUS MAKES SPECIAL (ED) CONNECTIONS

# School Transportation®

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# News



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## TRANS- FORMATION

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# Well-Oiled Machine

The impact of oils, lubricants and fuel treatments on the implementation of the approaching EPA Phase 2 emissions standards targeting greenhouse gases

WRITTEN BY SEAN GALLAGHER

Compliance with the federal Phase 2 proposed rule for reducing greenhouse gases and increase fuel efficiency of medium- and heavy-duty commercial vehicles looms on the horizon with far-reaching impacts to the transportation industry, especially school bus engine and vehicle manufacturers.

The Environmental Protection Agency (EPA) and National Highway Traffic Safety Administration (NHTSA) were wrapping up the public comment period at this report before launching into the tedious process of reviewing and commenting on industry responses, as well as writing a resulting final rule.

Otherwise known as the Phase 2 program, these regulations are proposed to take effect in 2021—model year 2018 for trailers—with full compliance expected by 2027. As it stands now, the Phase 1 program standards are being applied with full implementation projected by 2018. The standards are the product of a widespread appraisal of existing and advanced technologies and extensive stakeholder outreach.

While all parties have focused on engines and



Emissions at school bus facilities, as well as at schools and throughout communities, will improve even more once the EPA implements its latest standards. But first, exactly how to reduce greenhouse gases and how much it will cost manufacturers and operators must be determined, in the end.

vehicles, one facet that has received little attention is what some would consider the lifeblood of engines: Oils, lubricants and fuel treatments. This trio will play a huge role in the future of the Phase 2 program, as each one improves on the performance and environmental impact of engines.

“Re-refined oil decreases greenhouse gases and increases fuel economy,” said Barry McCabe, director of marketing for Safety-Kleen Oil and EcoPower. “By expanding our technology into greater markets, we have gained support from the military and a number of original equipment manufacturers (OEMs), saving both groups money.”

For 50 years, Safety-Kleen has been the nation’s largest re-refiner of used oil and provider of parts cleaning services. The company’s selection of environmentally responsible products and services ensure proper collection, processing, re-refining, recycling and disposal of hazardous and non-hazardous materials. Its services fall into the categories of oil, cleaning and environmental solutions.

Speaking before an EPA/NHTSA panel during an August public hearing in Chicago, McCabe reported the significant carbon reductions achievable through re-refined oil use to lubricate engines as original equipment and for maintenance.

McCabe recommended that manufacturers of applicable vehicles should be allowed to obtain credit for the significant GHG benefits associated with re-refined lubricating oil when this oil was supplied as original fill in the vehicle when sold.

“Allowing OEMs of medium- and heavy-duty vehicles to receive credit for these GHG savings will provide them with additional flexibility to achieve the targets being set by EPA and DOT,” said McCabe.

He continued by stating, “Re-refining used lubri-



cating oil generates significant environmental and energy benefits and has been deemed by federal agencies and national research laboratories as an appropriate use for conserving crude oil, a non-renewable resource.”

He testified that the estimates of the “production of re-refined engine oil generates 70 percent fewer GHG emissions than

production of oil from virgin stock.”

Hydrotex, a Texas-based company that has been a leading manufacturer of high performance lubricants and fuel improvers since 1936, has been at the forefront of lower viscosity synthetic lubricants and greases.

“Hydrotex has a complete line of lubricants designed to reduce the carbon footprint of machinery and vehicles, which are

in direct compliance with EPA goals,” said John Cummins, vice president of product technology.

He pointed out that in order to achieve the standards of reducing carbon dioxide set by the Phase 2 program, companies and school bus fleets have more fuel-efficient engines and vehicles. Friction reduction will be stressed to the limit across every technology.

For more than 15 years of fundamental research, Hydrotex has designed and formulated the lubricants and fuel improver solutions to reduce friction and improve energy efficiency.

According to Cummins, the American Petroleum Institute and the Society of Automotive Engineers will standardize low viscosity engine oils sometime next year. The lubricants Hydrotex markets, he added, “have a positive bottom-line impact by reducing the carbon footprints of our customers.”

Additionally, when vehicles used Hydrotex synthetic low viscosity engine oil, transmission fluid, power steering fluid and differential oils on top of the diesel fuel improver put out by the company, vehicles have “a proven 8-percent fuel economy improvement in Type II testing recognized by the Technology and Maintenance Council of the American Trucking Association,” Cummins explained.

According to a report released by the EPA and NHTSA, medium- and heavy-duty vehicles account for 20 percent of GHG emissions and oil use in the transportation industry, but they only make up 5 percent of the vehicles on the road.

The Phase 2 program, as it stands, would save nearly 1.8 billion barrels of oil, or 75 billion gallons of fuel, over the lifetime of the vehicles subject to the regulations. It would also benefit businesses and consumers by saving the transportation industry billions of dollars in fuel by reducing the costs for transporting goods, along with reducing GHG emissions by 1 billion metric tons.

As for the benefits to society, the EPA and NHTSA report said the program would result in almost \$230 billion over the lifetime of vehicles sold through fuel savings, carbon reductions and health and energy security benefits, as well as travel and refueling benefits. ●



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