

Twin Cities getting a Green Fleet

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More than 100 Twin Cities vehicles are about to go “green.”

In the coming months, Minneapolis and St. Paul, and Hennepin and Washington counties, will retrofit at least 15 of their heavy-duty diesel trucks with filters that will reduce pollutant emissions by as much as 50 percent.

The filters will also be applied to at least 100 metro school buses, and Ballpark Authority officials have discussed installing the technology on as many as four vehicles involved with Twins ballpark construction.

The retrofits are part of Project Green Fleet, a program of the Minnesota Environmental Initiative (MEI) that aims to keep local air pollution under control.

“Minnesota is one of the few states in the country, and [the Twin Cities] is pretty much the only metropolitan area of its size, that doesn’t violate any of the federal air quality standards,” said Bill Droessler with MEI. “Not long ago, it became clear that Minnesota was coming close to violating the Clean Air Act and we wanted to find ways to avoid that.”

That drive coincided with a significant push by the Environmental Protection Agency to reduce emissions from diesel vehicles nationwide. Project Green Fleet’s funding comes from EPA grants totaling almost \$200,000.

Part of the EPA initiative is tied to changes in diesel emission regulations that went into effect in January.

New on-road diesel trucks now come equipped with their own emission-reducing filters. Trucks sold before 2007 comprise what the EPA calls the country’s “legacy fleet.” Acknowledging that it will be many years before those trucks are retired, the EPA has set a goal of retrofitting as many as possible with filters — starting with government trucks and school buses.

The filtration program, while new to Minnesota, has been under way in other metro areas for several years, including Chicago, Milwaukee and Madison.

Steve Marquardt, program manager for the Midwest Clean Diesel Initiative, said the EPA has already spent more than \$50 million on clean diesel technology applications since 2004.

That might sound like a lot, but the program is still ramping up. The EPA aims to implement the technology on 1 million diesel vehicles by 2010. After four years of effort, the Midwest Clean Diesel Initiative has affected an estimated 360,000 vehicles thus far. The program could also benefit from an infusion of new money.

President Bush's proposed 2008 budget includes \$35 million in grant money for the program, up from just over \$8 million available this year. While nothing is certain in Washington until the check is cashed, a competing proposal in Congress could give the program as much as \$50 million.

That funding would be backed up with newly approved state money as well.

In the session that just ended, the Legislature allocated \$2.4 million to retrofit school buses across the state with filters.

The funds won't quite cover the cost of filters for all of the 4,000 Minnesota buses eligible for a retrofit, but it will come close.

Droessler called it the largest single investment yet in a metro area that meets clean air standards.

The equipment

For Project Green Fleet, the next step will be to spread the word among fleet owners and operators and introduce them to the technology. Droessler said equipment installation should begin within the next three months.

The filtration equipment itself will be supplied by the Bloomington branch of Donaldson Co., an international filtration solutions company that has seen rapid growth in the advanced filter market since 2004. That's when the EPA formed the Midwest Clean Diesel Initiative and began offering public grants to purchase the filters.

"Most of what's happened in the last four years has been grant-driven," said John Garrett, account manager in the emissions retrofit unit at Donaldson.

The equipment consists of two units: a "diesel oxidation catalyst" and a "closed crank case filtration system."

The diesel oxidation catalyst is basically a high-tech muffler, designed to filter out diesel particulate matter and nitrogen oxide. The tailpipe filter has recently gained recognition, as all 2007 trucks come with the technology installed.

The other system is less known, but tests have shown that a significant amount of the pollution emitted from trucks comes from leakage in the crank case, so a reinforced casing helps to stem the leak.

The filters cost between \$2,000 and \$2,400 to buy and install, and installation generally takes two to three hours.

Donaldson recognizes that the filtration equipment market will eventually become obsolete. But for the next several years, sales are likely to increase substantially as the EPA spreads more grant money throughout the country.

“Eventually the legacy fleet will be addressed, either by being retired, re-powered or retrofitted, but it’s going to take a long time,” Garrett said. “We see this market going on for at least 10 to 15 years.”

Geography and climate

The ultimate goal of these programs — reducing pollution — will rely on the efforts of most if not all large metro areas in the nation.

“Since often a good portion of the pollutants that cause those problems get transported in from other states, we don’t have a lot of control,” said David Thornton, assistant commissioner with the Minnesota Pollution Control Agency.

That works to our advantage most of the time, as Minneapolis and St. Paul benefit from a lack of mountains or other pollution-trapping features in close proximity.

When pollution alerts do occur, they’re typically on hot, sticky days when air from Chicago and other Great Lakes cities hovers over the metro area.

At this point, there is still a “cushion” between current pollution levels in the Twin Cities and the limits set by the EPA, Thornton explained. But that cushion may soon go away.

“We still meet the standards, but EPA is going to propose some new ones and then we’d be just under them,” Thornton said.

Project Green Fleet looks to stem the problem before it starts. But state officials are looking at other ways to reduce emissions as well.

On Aug. 2, a Minnesota Climate Change Advisory Group commissioned by Gov. Tim Pawlenty will narrow a list of recommendations that aim to reduce greenhouse gas emissions throughout the state.

Thornton and Droessler both are participating in the advisory group’s Transportation and Land Use panel, and said filtration systems like those undertaken by Project Green Fleet are being considered as part of the group’s recommendations.

An official climate change impact plan is due to the Department of Commerce next February, with implementation beginning some time next year.