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## Clean Diesel Fuel Has School Buses Out Sick With Cold

By ROBERT GUY MATTHEWS

**S**OME SCHOOL districts are blaming a recent federal mandate to switch to a less-polluting diesel fuel for a spate of school-bus breakdowns that left thousands of kids stranded and shivering in the extreme cold this week.

On Monday, when temperatures dipped below zero in East Allen County, Ind., 36 of the county's 155 school buses started up fine, but soon conked out because the new fuel, thickening in the cold, clogged fuel filters. That same day, 30 miles outside of Pittsburgh, Hempfield area schools had the same problem with 26 of their 80 buses. Districts in Kansas and New England reported similar problems.

"The problem doesn't lie with the individual schools," says Lynda Kuchler, transportation director for the East Allen County Schools. "The problem is with the fuel."

In October, the Bush administration required diesel users, including buses and trucks, to begin switching to ultralow-sulfur fuel to reduce air pollution.

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## Clean Fuel Leaves Buses Cold

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tion. The new diesel has 15 parts per million of sulfur, compared with about 500 parts per million for the diesel it's replacing.

The problem comes during the refining process used to attain the ultralow-sulfur ratio. That affects the naturally occurring wax in diesel in such a way that it can cause the fuel to turn from liquid to gel more readily in cold temperatures. Gelled fuel clogs the fuel filters and starves the engine, causing it to stop.

Environmental Protection Agency officials say there is nothing wrong with the fuel. But it may have to be treated with special additives. Or engine warmers—equipment that keeps the engine warm, usually using electricity—may have to be used, they said.

Margo Oge, director of the EPA's office of transportation and air quality, said all diesel fuels gel in subzero temperatures. Both refiners and users have been adding kerosene or other additives to



Gelled diesel silenced Racine, Wis., buses Monday.

diesel fuel for decades in such weather to prevent it from thickening. "The only difference is when you add kerosene now, it must be ultralow-sulfur diesel kerosene," Ms. Oge said.

The ultralow diesel rollout is the biggest change to fuel standards since the country began removing lead from gasoline in the 1970s. Ms. Oge said that while the changeover is going smoothly, part of the problem appears to be

kerosene in fuel provided to school systems.

Patrick Carnicella, transportation director for Westmoreland County schools just outside Pittsburgh, said bus problems caused schools to close Monday and Tuesday, reopening after he figured out the problem. He calculated that the additives cost about 37 cents a gallon, on top of the \$1.93 a gallon the school system pays for the ultralow diesel

confusion over the additives. Some school authorities said they weren't clear that special additives for ultraclean kerosene had to be added. Ms. Oge also said some of the refiners may not have used the proper mix of additives or ultraclean