

Cleaner diesel at pumps today Shift Promises to Cut Pollution

By Paul Rogers
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Ask most people about diesel fuel, and a common image comes to mind: sooty, foul-smelling black clouds pouring from the tailpipes of 18-wheel trucks and city buses.

Today marks the beginning of the end for those clouds.

In a major step toward reducing smog -- and public-health risks from soot -- all new diesel fuel sold in California starting today must be a new, dramatically cleaner-burning blend, required under state and federal rules that have been in the works for more than five years.

Air-pollution officials are comparing the landmark new fuel changeover to regulations that required lead to be removed from gasoline a generation ago. The new diesel contains 97 percent less sulfur than traditional diesel.

The new fuel's health benefit partly comes from its chemical makeup, but mainly from the fact that it will be combined with dramatically cleaner truck and bus engine standards that take effect nationally for new diesel engines starting with the 2007 model year. Running on the clean fuel, those engines will put out 90 percent

less soot and nitrogen oxides than current engines.

"You won't see anything coming out of new diesel engines. The black puff of soot will be gone," said Matt Haber, deputy air-division director for the U.S. Environmental Protection Agency's regional office in San Francisco.

"I'm sure there are some people who will miss it, but not many."

When diesel has high levels of sulfur, as the previous diesel did, it clogs filters and other devices that can be put on the engines of older trucks and buses to reduce smog. The new fuel will allow such filters to be retrofitted on thousands of existing trucks and buses statewide in the coming years.

The new "ultra-low-sulfur" diesel will increase diesel fuel prices by an estimated 3 to 5 cents a gallon, maybe less, said Jerry Martin, a spokesman for the California Air Resources Board.

But the cost is worth it because the new fuel is expected to have significant health benefits, saving

society money in the long run, he said.

The soot that comes from diesel and, to a lesser extent, gasoline, is considered among the most harmful types of air pollution. Microscopic particles can lodge in the lungs of people, exacerbating asthma and other respiratory problems, particularly among children who ride in old school buses, the elderly or people who live near freeways and ports. The particles also can migrate to the bloodstream, causing heart problems.

"Diesel particulate matter has an enormous cardiological effect. It irritates blood vessels of the heart and can increase heart attacks and strokes," said Dr. Thomas M. Dailey, chief of pulmonary medicine at Kaiser Permanente Medical Center-Santa Clara.

"This is a big step. It is a significant accomplishment."

California is putting the new fuel on the road early. It will be phased in for the rest of the United States starting Oct. 15 through 2010.

The EPA estimates the new clean diesel, combined with the new diesel engine standards, will prevent an estimated 8,300 premature deaths, 5,500 cases of chronic bronchitis and, among children, 17,600 cases of acute bronchitis nationally every year.

Unlike with other regulations, the new fuel and engine standards -- put in place during the final days of the

Clinton administration -- were not met with lawsuits and long political battles from the oil and trucking industries.

The reason: By the mid-1990s, medical research increasingly was showing the public-health threat from old diesel engines. The oil and trucking industries worried that California, and eventually the nation, might try to severely restrict or ban diesel eventually.

So they worked to improve it, and the EPA worked well with refineries and engine makers to tweak the rule as industry needed, said Allen Schaeffer, executive director of the Diesel Technology Forum. The industry group represents diesel engine makers and vehicle companies, and is based in Maryland.

"There were concerns about the details when the rule first came out, but by and large everybody realized these were the pathways to the future," Schaeffer said. "It's an investment in the future of diesel. Now we have cleaner fuel and low emissions."

Because California's smog standards are so strict in general, no automakers have sold new diesel cars in the state for years. That could change.

Automakers that sell diesel cars in other states -- such as Jeep, Mercedes-Benz and Volkswagen -- are expected to start selling them in California in the next few years. Other automakers, such as Honda,

Toyota and BMW, are likely to offer some diesel engines in their cars and trucks, too.

Already, nearly half the new cars sold in Europe have diesel engines. New diesel technology provides 40 miles per gallon or more in many cases, which also reduces emissions of greenhouse gases.

“This is a rehabilitation of diesel. It is incredibly clean, and abundant and efficient,” said Tupper Hull, a spokesman for the Western States Petroleum Association.

Environmentalists and health groups support the changeover. They note, however, that millions of old diesel

trucks and buses need to be retrofitted with particle traps and filters -- which cost \$5,000 to \$15,000 each -- to get the faster reductions in diesel pollution.

California has the nation's leading program to do that. The Air Resources Board offers \$140 million a year in grants to bus fleets, private companies and other entities with large diesel fleets. But California has 1.2 million diesel engines and it will take time to make a dent.

“Just about every diesel engine that can have a particle trap on it should. That's our goal,” said Bonnie Holmes Gen, a spokeswoman for the American Lung Association of California.