

California takes new look at diesel rules

By John Howard

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California's air-quality enforcers dramatically overstated the impact of soot from diesel construction equipment, at least in part because the state's abrupt economic decline idled thousands of vehicles.

Controlling the emissions from off-road diesel equipment – including the vehicles used in heavy construction – has been the subject of debate for years at the Air Resources Board. The construction industry, citing a number of studies, has long complained that ARB's data was skewed.

The issue is more than a scientific discussion. The potential regulations could cost billions of dollars to put into effect, according to estimates from the government as well as private industry. By the ARB's own estimate, based on federal data, diesel pollution results in some 9,000 premature deaths annually, most from respiratory-related illnesses.

The ARB's earlier projections served as the basis of regulations to phase in soot-blocking equipment on diesel fleets beginning this year. The ARB has halted the rules while it reviews its research and findings, which had been sharply challenged by the construction industry and some scientific researchers.

The ARB acknowledged last week during a series of workshops on the issue that its original estimates needed to be reviewed – a review that is currently under way.

The revised rules are expected to be placed before the board in December. The registration piece of the regulations, in which vehicle owners identify their equipment to enable regulators to craft an emissions inventory, already has been completed.

"One of the things we've been doing is going back and looking at the emissions," said Todd Sax, chief of the ARB's mobile source analysis branch. "Part of that is that the recession has had a really serious impact. Since the peak in 2005-06, construction activity has basically dropped by half."

Although far overshadowed by the state's greenhouse gas emissions law, AB 32, the regulations to curb off-road diesel pollutants have a far greater, immediate impact on health and the economy. They are among the most significant regulations ever adopted by the ARB, which has a national reputation for air-quality enforcement.

The ARB currently is considering pushing back the start-up date for the large-fleet regulation – it was supposed to ramp up six months ago - until 2012, but opponents of the rule said it should be scrapped entirely.

"As the agency's own data now makes clear, it is time for the board to repeal its costly and unneeded rule," said Michael Kennedy, the general counsel of the Associated General Contractors, which has long fought the regulation. Kennedy said the ARB's researchers overestimated the impact of the diesel soot by more than three-fold, according to an analysis conducted by Sierra Research and commissioned by the contractors.

The ARB's original projections anticipated nearly 200,000 diesel-driven heavy construction vehicles. Amid the economic slump, however, those numbers were revised downward to less than 150,000. Fewer vehicles mean less pollutants in the air.

"We're revising our fuel-consumption numbers downward from a billion gallons a year to about 220 million gallons," said Mike Lewis, head of the Coalition to Build a Cleaner California. "Also, the fleet is newer and the fleet is not working at full load. The combination of all these factors is that there was a drop in emissions from off-road construction equipment."

"With just a few changes, [CARB] had an opportunity to make this a win-win for California's environment and economy," said Mike Lewis, chairman of the Coalition to Build a Cleaner California and executive vice president of the Construction Industry Air Quality Coalition. "Instead they adopted a rule that is not viable in the real world."

Lewis added that the legislation will cause significant job loss and threaten the survival of many businesses.

Regardless of the fate of the disputed regulations, however, the impact on health of diesel pollutants is clear, the ARB noted.

This week, the board reported that about 9,000 people die prematurely in California due to exposure to what is known as fine-particle pollution, which includes certain kinds of soot from diesel engines.

The ARB report was based on recent scientific findings of the U.S. Environmental Protection Agency, which regularly reviews the nation's air quality. The findings show a connection between exposure to fine particle pollution and premature death, the ARB said.

"This study is further evidence that we are on the right track, and ARB will continue to work with truckers and equipment owners to clean up diesel emissions, improve our air quality and protect public health. ARB is committed to reducing this staggering statistic because one premature death is one too many," ARB Chair Mary Nichols said in a written statement.

Fleet operators, construction-equipment owners, contractors and others have complained about ARB-written regulations requiring the phase-in of new equipment over time to block diesel soot. Environmentalists, citing research by the ARB and other air-quality experts, believe diesel soot represents a long-term, well-documented health hazard.

Earlier, the ARB estimated the economic impact of a diesel regulation at \$4.4 billion to \$5.4 billion, an amount that reflects the costs of equipping trucks with anti-pollution devices that can cost \$20,000 each, or more. The regulation will be phased in over a decade.

"As a result of this review, the U.S. EPA concluded that there is a causal relationship between exposure to fine particle pollution and premature death. A causal relationship indicates the highest level of scientific certainty," the ARB said.

ARB's report estimated that 9,200 premature deaths in California are associated with fine particulate pollution on an annual basis, with a statistical range from 7,300 to as high as 11,000 premature deaths each year. California has the most extensive particulate monitoring network in the nation.

Feds give \$30 million to 'stimulate' clean power project

BY Steven Mayer, Californian staff writer
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Clean Energy Systems Inc. has been working in Kern County for nearly a decade to develop technology needed for zero emission power plants that can burn a variety of fuel sources.

On Wednesday, the Rancho Cordova-based company announced that it will receive another kind of fuel to power its efforts: \$30 million in federal stimulus money.

The funding, made available through the American Recovery and Reinvestment Act, was awarded to help the company continue to develop smokestack-free power generation systems at its Kimberlina Road facility north of Bakersfield.

According to Rep. Jim Costa, D-Fresno, who fought to secure the funding, the project will generate scores of high-paying, full-time jobs and indirectly support thousands more. It could also help clean the valley's polluted air while providing a method to enhance oil production.

"Securing this funding is a major victory for our region's economy and future generations of valley residents," Costa said in a statement. "This project will further spur economic development in the heart of our valley while creating high-paying jobs over the short and long term."

Since 2003, Clean Energy Systems has been developing technology to operate a 5-megawatt demonstration power plant at the Kimberlina facility. The output is not large enough for the facility to be called a commercial power plant, said Keith Pronske, president and chief executive of Clean Energy Systems. Nevertheless, it's enough power to light up 5,000 homes.

Rather, the plant is designed to "prove out" the first of its kind oxy-fuel turbine, which is central to Clean Energy's technology. The turbine can use a diverse set of fuels including natural gas, bio-fuels, refinery off-gases, and gasified petroleum coke, while capturing nearly all the carbon dioxide by pumping it deep beneath layers of porous sandstone and impermeable shale.

Tupper Hull, a spokesman for Western States Petroleum Association, said he doesn't know enough about Clean Energy Systems to comment on the company's efforts. But he said injecting carbon dioxide underground can be a "win-win situation," both for its greenhouse gas-fighting potential and for its tremendous value in domestic oil production.

That's because, eventually, oil producers hope to use the carbon dioxide for enhanced oil recovery.

"I call it the ultimate form of recycling," Pronske said. Not only will millions of tons of carbon dioxide be "sequestered" beneath the Earth's surface so as not to run afoul of tough new laws governing greenhouse gases, but the gas can make it easier to pump heavy crude oil to the surface.

Pronske said Costa has visited the plant and quickly developed a "roll-up-the-sleeves attitude" toward bringing back some taxpayer dollars to the local project. But the company's efforts have also received bipartisan support among many leaders in Congress, he said.

Without the federal seed money, Pronske said, the effort would have been stymied.

Eventually, the Kimberlina plant could grow to become a 20- to 50-megawatt power generator, Pronske said. He would like to see several clean power plants dotting the valley in the not too distant future.

"With this funding, we will be able to accelerate our turbine program to deploy and test the critical components for a zero-emission power plant," Pronske added. "We can make power without pollution a reality years ahead of our previous plans."