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AIR POLLUTION

EPA Could Take Additional Steps to Help Maximize the Benefits from the 2007 Diesel Emissions Standards

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Highlights

Highlights of GAO-04-313, a report to congressional requesters

Why GAO Did This Study

Diesel engine emissions pose health risks, but one major source—heavy-duty diesel vehicles—is critical for our economy. To reduce risks, the Environmental Protection Agency (EPA) has set stringent emissions standards for diesel engines. In 1998, EPA found that some engine makers were violating standards, so they agreed to build engines that meet 2004 standards early, by October 2002. EPA has set even more stringent standards for 2007. GAO was asked to (1) assess the October 2002 deadline's effects on industry and emissions, and (2) obtain stakeholders' views on the readiness of technology for the 2007 standards and EPA's efforts to ensure this. GAO analyzed information from EPA, 10 large trucking companies, the engine makers subject to the early deadline, and other stakeholders.

What GAO Recommends

GAO recommends that EPA consider ways to address concerns about technology costs, reliability, and availability to meet the 2007 standards—such as better communicating with all stakeholders and using an independent panel to assess progress and consider industry incentives. EPA is concerned about some of GAO's findings and fears a panel could delay progress. GAO maintains its findings are well supported and that a panel could ultimately help improve communications, avoid delays, and ensure the benefits are achieved.

www.gao.gov/cgi-bin/getrpt?GAO-04-313.

To view the full product, including the scope and methodology, click on the link above. For more information, contact John B. Stephenson at (202) 512-6225 or stephensonj@gao.gov.

What GAO Found

Implementing the 2004 diesel emissions standards 15 months early disrupted some industries' operations but also helped reduce pollution earlier. More specifically, because some manufacturers had to build new engines sooner than planned, most could not provide trucking companies with prototype engines early enough to test. Concerned that the new engines would be costly and unreliable, some of the companies said they bought more trucks with old engines than planned before October 2002. Our analysis of truck production and financial data also shows this surge. This adversely affected some companies' operations and profits. To meet the increased demand for trucks with old engines, some manufacturers reported that they ramped up production of such engines before October. But when demand subsequently dropped, they had to decrease production and release workers, reducing profits and disrupting operations, at least until demand increased later in 2003. Manufacturers of the new engines also continued to lose market share to manufacturers that either did not have to meet the early date, or that did but chose not to, paying penalties instead. While accelerating the schedule for new engines affected some industries, it accelerated emissions benefits, although not to the extent or in the time frames anticipated. For example, EPA roughly estimated that its agreements with engine manufacturers that violated standards would reduce nitrogen oxide emissions by about 4 million tons over the life of the engines. But because companies initially bought more trucks with old engines and owners are now operating trucks longer, some of the expected emissions reductions will be delayed.

As for the 2007 standards, EPA has taken a number of steps to aid the transition to the new diesel engines and fuel, but some stakeholders would like more help. Most engine, emissions control, and fuel industry representatives said the needed technologies will be ready on time; but other engine, trucking, and fuel representatives have concerns and would like more help to ensure that the technology will be available. For example, manufacturers plan to have limited numbers of prototype engines ready for a few fleets to test by mid- to late-2005—trucking companies say they need new engines 18 to 24 months before the 2007 deadline to test the engines in all weather conditions and to develop their long-term purchasing plans. Some companies, however, are concerned that providing test engines to only a few fleets may not provide the industry as a whole with sufficient information to judge the engines' performance. In addition, they are still concerned that the new engines may be too costly and much less fuel-efficient. As a result, they expect companies will again buy more trucks with old engines before the deadline, disrupting industry operations and emissions benefits. The fuel industry representatives said they can produce the low-sulfur fuel the new engines require on time and see no reason to delay the standards. Nevertheless, they worry the fuel initially may not be available nationwide and it may be difficult not to contaminate it with other fuels in the distribution system. Environmental and health groups do not want to delay the standards or the expected emissions benefits. Some stakeholders would like more information on technological progress. In addition, they would like more reassurance—such as from an independent review panel—that the technology will be ready on time and additional assistance—such as economic incentives—to encourage timely purchases of trucks with the new technologies.