



United States Government Accountability Office
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September 30, 2011

The Honorable Barbara Boxer
Chairman
The Honorable James M. Inhofe
Ranking Member
Committee on Environment and Public Works
United States Senate

The Honorable Fred Upton
Chairman
The Honorable Henry A. Waxman
Ranking Member
Committee on Energy and Commerce
House of Representatives

Subject: *Environmental Protection Agency and Department of Transportation,
National Highway Traffic Safety Administration: Greenhouse Gas Emissions
Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty
Engines and Vehicles*

Pursuant to section 801(a)(2)(A) of title 5, United States Code, this is our report on a major rule promulgated by the Environmental Protection Agency (EPA) and Department of Transportation, National Highway Traffic Safety Administration (NHTSA), entitled "Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles" (RINs: 2060-AP61; 2127-AK74). We received the rule on August 18, 2011. It was published in the *Federal Register* as final rules on September 15, 2011, with a stated effective date of November 14, 2011. 76 Fed. Reg. 57,106.

These final rules establish a comprehensive Heavy-Duty National Program that will reduce greenhouse gas emissions and fuel consumption for on-road heavy-duty vehicles. NHTSA's final fuel consumption standards and EPA's final carbon dioxide (CO₂) emissions standards are tailored to each of three regulatory categories of heavy-duty vehicles: Combination Tractors; Heavy-duty Pickup Trucks and Vans; and Vocational Vehicles. The rules include separate standards for the engines that power combination tractors and vocational vehicles. Certain rules are exclusive to the EPA program. These include EPA's final hydrofluorocarbon standards to control

leakage from air conditioning systems in combination tractors, and pickup trucks and vans. These also include EPA's final nitrous oxide (N₂O) and methane (CH₄) emissions standards that apply to all heavy-duty engines, pickup trucks, and vans. EPA's final greenhouse gas emission standards will begin with model year 2014. NHTSA's final fuel consumption standards will be voluntary in model years 2014 and 2015, becoming mandatory with model year 2016 for most regulatory categories. Commercial trailers are not regulated in this phase of the Heavy-Duty National Program. EPA is also finalizing provisions allowing light-duty vehicle manufacturers to use CO₂ credits to meet the light-duty vehicle N₂O and CH₄ standards, technical amendments to the fuel economy provisions for light-duty vehicles, and a technical amendment to the criteria pollutant emissions requirements.

Enclosed is our assessment of EPA's and NHTSA's compliance with the procedural steps required by section 801(a)(1)(B)(i) through (iv) of title 5 with respect to the rule. Our review of the procedural steps taken indicates that EPA and NHTSA complied with the applicable requirements.

If you have any questions about this report or wish to contact GAO officials responsible for the evaluation work relating to the subject matter of the rule, please contact Shirley A. Jones, Assistant General Counsel, at (202) 512-8156.

signed

Robert J. Cramer
Managing Associate General Counsel

Enclosure

cc: Nicole Owens
Director, Regulatory Management Division
Environmental Protection Agency

REPORT UNDER 5 U.S.C. § 801(a)(2)(A) ON A MAJOR RULE
ISSUED BY THE
ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TRANSPORTATION,
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENTITLED
"GREENHOUSE GAS EMISSIONS STANDARDS AND
FUEL EFFICIENCY STANDARDS FOR MEDIUM- AND
HEAVY-DUTY ENGINES AND VEHICLES"
(RINS: 2060-AP61; 2127-AK74)

(i) Cost-benefit analysis

The Environmental Protection Agency (EPA) and Department of Transportation, National Highway Traffic Safety Administration (NHTSA) (collectively, "the agencies") analyzed the costs and benefits of these final rules. The agencies estimate that the combined standards will reduce CO₂ emissions by approximately 270 million metric tons and save 530 million barrels of oil over the life of vehicles sold during the 2014 through 2018 model years. At a 3-percent discount rate, the agencies estimate that these rules will cost \$8.1 billion and provide \$7.3 billion in net societal benefits and \$50 billion in private fuel savings for a net benefit of \$49 billion (present lifetime value in 2009 dollars). At a 7-percent discount rate, the agencies estimate that these rules will cost \$8.1 billion and provide \$6.7 billion in net societal benefits and \$34 billion in private fuel savings for a net benefit of \$33 billion (present lifetime value in 2009 dollars).

(ii) Agency actions relevant to the Regulatory Flexibility Act, 5 U.S.C. §§ 603–605, 607, and 609

The agencies determined that these final rules will not have a significant economic impact on a substantial number of small entities.

(iii) Agency actions relevant to sections 202–205 of the Unfunded Mandates Reform Act of 1995, 2 U.S.C. §§ 1532–1535

The agencies determined that these final rules contain no federal mandates for state, local, or tribal government under the Act and contain no regulatory requirements that might significantly or uniquely affect small governments. The agencies did determine that these final rules contain a federal mandate that may result in expenditures of \$100 million (\$134 million adjusted for inflation) or more for the private sector in any one year. The agencies state that they believe the

program represents the least costly, most cost-effective approach to achieve the statutory requirements of the rules.

(iv) Other relevant information or requirements under acts and executive orders

Administrative Procedure Act, 5 U.S.C. §§ 551 et seq.

On November 30, 2010, the agencies issued a proposed rule. 75 Fed. Reg. 74,152. The agencies also held two public hearings on the rules on November 15 and 18, 2010. 75 Fed. Reg. 67,059 (Nov. 1, 2010). The agencies received over 41,000 comments, including over 3,000 unique comments, from industry, environmental organizations, states, and individuals. The agencies address the public comments in the final rules.

Paperwork Reduction Act, 44 U.S.C. §§ 3501–3520

The agencies determined that these final rules contain information collection requirements under the Act which have been submitted to the Office of Management and Budget (OMB) for review. The agencies estimate that 34 manufacturers will be affected by the reporting and recordkeeping requirements for a total annual information collection burden of 58,064 hours.

Statutory authorization for the rule

EPA promulgated these rules under the authority of sections 202(a), 202(d), 203–209, 216, and 301 of the Clean Air Act. 42 U.S.C. §§ 7521(a), 7521(d), 7522–7525, 7541–7543, 7550, and 7601. NHTSA promulgated these rules under the authority of section 103 of the Energy Independence and Security Act of 2007. 49 U.S.C. § 32902(k).

National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321–4347

NHTSA prepared a Draft Environmental Impact Statement (EIS) including soliciting public comment on the Draft EIS. 75 Fed. Reg. 33,565 (June 14, 2010); 75 Fed. Reg. 66,756 (Oct. 29, 2010). NHTSA received 3,048 written comments as well as comments at two public hearings. On June 24, 2011, EPA published the Final EIS. 76 Fed. Reg. 37,111. The agencies concluded that environmental analysis and public involvement process complied with the applicable regulations.

National Technology Transfer Advancement Act, 15 U.S.C. § 272 note

The Act directs the agencies to use voluntary consensus standards in their regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. For CO₂, N₂O, and CH₄ emissions and fuel consumption from heavy-duty engines, the agencies will collect data over the same tests that are

used for the heavy-duty highway engine program for criteria pollutants. This will minimize the amount of testing done by manufacturers, since manufacturers are already required to run these tests. For CO₂, N₂O, and CH₄ emissions and fuel consumption from complete pickup trucks and vans, the agencies will collect data over the same tests that are used for EPA's heavy-duty highway engine program for criteria pollutants and for the California Air Resources Board. This will minimize the amount of testing done by manufacturers, since manufacturers are already required to run these tests. For CO₂ emissions and fuel consumption from heavy-duty combination tractors and vocational vehicles, the agencies will collect data through the use of a simulation model instead of a full-vehicle chassis dynamometer testing. This will minimize the amount of testing done by manufacturers. The agencies therefore concluded that EPA's compliance assessment tool satisfies the description of a consensus.

Executive Order No. 12,866 (Regulatory Planning and Review)

The agencies determined that these major rules are economically significant under the Order because it is likely to have an annual effect on the economy of \$100 million or more. The rules were reviewed by OMB.

Executive Order No. 13,045 (Protection of Children)

The agencies believe that the environmental health or safety risk addressed by these rules may have a disproportionate effect on children. EPA has estimated reductions in projected global mean surface temperatures as a result of reductions in greenhouse gas (GHG) emissions associated with the final standards in these rules. Children may receive benefits from reductions in GHG emissions because they are included in the segment of the population that is most vulnerable to extreme temperatures. For non-GHG pollutants, EPA has determined that climate change is expected to increase regional ozone pollution, with associated risks, particularly for children, in respiratory infection, aggravation of asthma, and premature death.

Executive Order No. 13,132 (Federalism)

The agencies determined that these final rules do not have federalism implications under the Order as they will not have a substantial direct effect on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.