



Air Resources Board



Matthew Rodriguez
Secretary for
Environmental Protection

Mary D. Nichols, Chair
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Edmund G. Brown Jr.
Governor

August 28, 2015

Administrator Mark R. Rosekind
U.S. Department of Transportation
National Highway Traffic Safety Administration
Docket Management Facility, M-30
1200 New Jersey Avenue, SE
Washington, DC 20590
Docket No. NHTSA-2014-0074

Dear Administrator Mark R. Rosekind:

The State of California's Air Resources Board (ARB) appreciates the opportunity to comment on the National Highway Traffic Safety Administration's (NHTSA) Draft Environmental Impact Statement (EIS) of Phase 2 Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, Model Years 2018-2027, as published in the Federal Register on June 19, 2015.

ARB staff has reviewed NHTSA's Draft EIS and, in general, is supportive of its findings. However, we believe the EIS is lacking adequate discussion of one significant negative environmental impact projected from the Phase 2 standards, as well as discussion of any mitigation of that potential impact.

The U.S. Environmental Protection Agency (U.S. EPA) projects approximately a 10 percent increase in tailpipe emissions of toxic diesel particulate matter (PM) due to the increased use of auxiliary power units (APU) during extended idle operation resulting from the proposed Phase 2 standards (Table III-2, Phase 2 Notice of Proposed Rulemaking (NPRM)¹). In reviewing the Draft EIS, we were surprised to find no mention of the increased diesel PM emissions from APUs as a result of Phase 2 compliance. Although the NPRM projects that the diesel PM increases will be somewhat mitigated by upstream decreases in PM emissions, decreases in upstream emissions (from refining, transportation of fuel, etc.) will occur in different locations than the anticipated emission increases and hence will do little to mitigate or offset the health risk posed by increased tailpipe emissions. The anticipated increases in diesel PM from APU use are

¹ Phase 2 Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles; Notice of Proposed Rulemaking; 40 CFR 1036; 40 CFR 1037; 40 CFR 86; <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2014-0827-0002>.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

avoidable if U.S. EPA were to take regulatory action by adopting requirements already in place in California.

The Draft EIS does acknowledge that Phase 2 will increase APU use and discusses general environmental impacts from APU applications (e.g., the decrease of carbon dioxide and oxides of nitrogen emissions compared to when the truck engine is idling, upstream impacts such as extraction, fuel production, manufacturing, and transportation of APUs). However, we believe the EIS incorrectly claims that the use of APUs will decrease PM emissions. The life cycle analysis for APUs cited in the Draft EIS relies on outdated estimates based on sulfur levels in fuel that are no longer legal and that are inconsistent with today's truck technology (Draft EIS, page. 6-29) and hence presents erroneous conclusions. Specifically, the Gaines and Brodrick Hartman (2009) study cited used sulfur fuel with 500 parts per million (ppm) sulfur. Such 500 ppm sulfur fuel is incompatible with the use of diesel particulate filters (DPF), which have been required on all new heavy-duty trucks since the 2007 model year. The current allowable sulfur level for diesel fuel is 15 ppm, which enables use of DPFs. As correctly acknowledged in the U.S. EPA's NPRM, use of APUs will significantly increase, not decrease, tailpipe diesel PM emission. We recommend revising the Draft EIS to remove the incorrect conclusions regarding APU's decreasing overall PM emissions and to add a discussion of the actual projected increases in such emissions.

Because the Draft EIS did not mention the projected increase in tailpipe diesel PM emissions, it also did not include a discussion of mitigating measures in response to this issue in the chapter on mitigation, Chapter 8. We recommend that a discussion on such mitigation should be added. ARB staff believes mitigation should consist of requiring DPFs on APUs nationally. Further information regarding the California requirement for DPFs on APUs is available at <http://www.arb.ca.gov/msprog/cabcomf/cabcomf.htm> and title 13 California Code of Regulations 2485.

In 1998, ARB identified diesel PM as a toxic air contaminant. Numerous studies have shown diesel PM's adverse effects on human respiratory and cardiovascular systems and its contribution to increased morbidity and mortality. Further details regarding diesel PM health effects is available on ARB's website at <http://www.arb.ca.gov/research/diesel/diesel-health.htm>.

The health risk posed by diesel PM is one of the largest public health problems tackled by ARB in recent decades, and even after an extensive control program including a series of air toxic control measures in California (see for example the mobile source measures listed at <http://www.arb.ca.gov/toxics/atcm/atcm.htm>), diesel PM remains responsible for 60 percent of the known risk for air contaminants. Hence, controlling diesel PM remains a huge priority for ARB.

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The PM 2.5 increases projected for the Phase 2 regulation are very significant – an increase of 1,631 tons and 2,257 tons of nationwide PM 2.5 in 2035 and 2050², respectively. To put those emission increases in perspective, they are greater than the entire projected reductions of 1,058 tons statewide diesel PM in 2023 from ARB's Truck and Bus Regulation³.

Thank you for the opportunity to comment. Should you have any questions regarding our comments, please contact me or Ms. Kim Heroy-Rogalski, Manager, at (916) 327-2200, or by email at Kim.Heroy-rogalski@arb.ca.gov.

Sincerely,



Richard W. Corey
Executive Officer

cc: Kim Heroy-Rogalski, Manager
Strategic Planning and Development Section
Mobile Source Control Division

United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phase 2 Docket

² Phase 2 Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles; Notice of Proposed Rulemaking; 40 CFR 1036; 40 CFR 1037; 40 CFR 86; <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2014-0827-0002>.

³ Staff Report: Initial Statement of Reasons for Proposed Rulemaking – Proposed Amendments to the Truck and Bus Regulation, page 33.

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