

November 1, 2010

U.S. Environmental Protection Agency
EPA Docket Center (EPA/DC)
Air and Radiation Docket
Attention Docket ID No. EPA-HQ-OAR-2010-0799
Mail Code
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: 1) *Notice of Upcoming Joint Rulemaking to Establish 2017 and Later Model Year Light Duty Vehicle GHG Emissions and CAFE Standards*

2) *Interim Joint Technical Assessment Report: Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards for Model Years 2017-2025*

Dear Docket:

The Northeast States for Coordinated Air Use Management (NESCAUM) is pleased to provide comments on the joint announcement by the U.S. Environmental Protection Agency (EPA) and the National Highway Transportation Safety Administration (NHTSA) *Notice of Upcoming Joint Rulemaking to Establish 2017 and Later Model Year Light Duty Vehicle GHG Emissions and CAFE Standards*. We are also pleased to comment on the agencies' *Interim Joint Technical Assessment Report: Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards for Model Years 2017-2025*. NESCAUM is an association of the air pollution control programs in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. Our organization strongly supports efforts to reduce motor vehicle GHG emissions and fuel consumption and commends the agencies on this step toward establishing standards for model years 2017-2025.

The electricity and transportation sectors are the dominant sources of GHG emissions in the northeast region, with transportation responsible for more than one-third of our region's total. States in the region have helped develop the Regional Greenhouse Gas Initiative (RGGI) to reduce emissions from electricity generation and have adopted the California motor vehicle GHG standards for reducing emissions from transportation. We strongly support the federal effort to develop more stringent standards for the years 2017 through 2025. Our comments focus on the levels of stringency evaluated in the rulemaking notice and technical assessment.

Levels of Stringency Evaluated:

The joint agency notice describes the initial assessment of potential levels of stringency for a national vehicle program for model years 2017-2025. The potential stringencies described include four different levels of annual improvement in GHG emissions and fuel consumption for model years 2017 through 2025: 3%, 4%, 5%, and 6% improvement per year. The 3% scenario corresponds to a fleet average of 47 miles per gallon (MPG) in 2025; the 6% scenario corresponds to a fleet average of 62 MPG in 2025. For reasons detailed below, NESCAUM strongly encourages the agencies to focus future analysis on the 6% annual improvement rate.

Rationale for focusing analysis on the 6% per year improvement scenario:

3% per year improvement (and a corresponding fleet average 47 MPG in 2025): Two of the four paths evaluated for the 3% scenario assume a modest penetration of gasoline-electric hybrid vehicles into the new vehicle fleet by 2025 (3% in the two scenarios), and all four paths assume vehicle mass reductions well within what was demonstrated in a recent Lotus study¹. None of the paths assume introduction of plug-in hybrid or all-electric vehicles by 2025. In 2009, nearly 3% of new U.S. light-duty vehicles were gasoline-electric hybrids and thus the assumption that 3% of new vehicles will be gasoline-electric hybrids by 2025 could be considered a “do nothing” scenario. If gasoline-electric hybrid vehicle sales continue to gain market share, as projected by the Energy Information Administration², total market share would be significantly higher than 3% in 2025.

4% per year improvement scenario: In one of the paths evaluated for the 4% scenario, only 3% of vehicles are expected to be gasoline electric hybrids. In three of the paths, no plug-in hybrid or all electric vehicles are assumed to be in the fleet and the standards are assumed to be met through the introduction of gasoline electric hybrid vehicles and vehicle mass reduction alone. Because this scenario for the most part does not assume introduction of plug-in hybrid or all-electric vehicles and in some cases only modest penetration of gasoline electric hybrids, it understates the potential GHG reductions that can be achieved in the timeframe evaluated. For these reasons, NESCAUM recommends against further evaluation this scenario.

5% per year improvement scenario: In the 5% reduction range, none of the paths evaluated assume plug-in hybrid vehicles will be in the U.S. fleet in 2025 and three scenarios assume no or only 1% of vehicles will be all-electric vehicles. Given that there are already 12 Clean Air Act (CAA) §177 states that have adopted the Zero Emission Vehicle requirement (which requires the introduction of all-electric, fuel cell, and plug-in hybrid vehicles in significant percentages)

¹ Lotus Engineering, “Vehicle Mass Reduction Opportunities,” presentation given at the Mobile Source Technical Review Subcommittee meeting on October 5, 2010. The Lotus study demonstrated that a 44% reduction in mass could be achieved in one type of vehicle.

² U.S. Energy Information Administration, *Annual Energy Outlook 2010, Appendix A: Reference Case.*

NESCAUM believes this scenario also underestimates the potential of these technologies.³ The assumptions about advanced technology vehicle introduction in the 5% case are too conservative and further evaluation should be focused on the 6% reduction case.

6% per year improvement scenario (which corresponds to a fleet average mpg of 62 in 2025):

Only in the 6% annual improvement scenario are advanced technology vehicles assumed to be introduced in significant numbers – paths A, B, and C assume battery-electric vehicles comprise between 4% and 7% of new vehicle sales and up to 2% of the fleet is assumed to consist of plug-in hybrids in 2025. These assumptions are reasonable given the number of all-electric and plug-in hybrid vehicle models that will soon be available on the market, the Zero Emission Vehicle program requirements, and projections by industry representatives about the production of all-electric and plug-in hybrid vehicles.⁴ In the 6% scenario, the level of gasoline electric hybrids is highest (43% to 68% of new vehicles) and assumes that the projected rate of growth for gasoline-electric hybrids will continue through 2025.⁵ This assumption is supported by recent statements made by automobile industry executives and their suppliers.⁶

In summary, NESCAUM encourages EPA and NHTSA to focus their future technical and cost assessments on the 6% scenario, given that this scenario assumes a technically feasible GHG and fuel consumption reduction level for 2025. Focusing future analysis on this scenario would allow for a number of additional combinations of technologies to be evaluated for the 2017-2025 timeframe. For example, scenarios that assume significantly higher percentages of plug-in hybrid vehicles could be evaluated.

Cost Benefit Analysis:

With implementation of any of the scenarios evaluated by EPA and NHTSA, consumers will benefit immediately from lower monthly operating costs. Consumers will benefit most if the agencies adopt and implement either the 5% or the 6% improvement scenarios. In these cases, consumers will realize a lifetime cost savings between \$5,500 and \$7,300 per vehicle.⁷ In no

³ The Zero Emission Vehicle program requires the introduction of plug-in hybrid, all-electric or fuel cell vehicles in 12 states. Vehicle sales in the 12 states exceed 30% of total U.S. vehicle sales.

⁴ Ford's Director of Global Electrification stated that in 2020 10% to 25% of the Ford North American fleet will be electrified, with one quarter of those vehicles being plug-in electric hybrids (EE&E News, January, 2010). Nissan's chief executive Carlos Ghosn, stated all electric vehicles will comprise 10% of vehicle sales by 2020 (Bloomberg News, "Electric DeLorean Foretells Hurdles for Ghosn's Nissan Leaf Car," August 25, 2009).

⁵ The U.S. Department of Energy (AEO 2010) projects that sales of hybrid electric vehicles will double by 2015. JD Power also projects a doubling of hybrid electric sales over the next 5 years.

⁶ In 2009 the Chairman of Bosch predicted that global HEV sales would reach 5 million in 2020 (<http://www.hybridcars.com/news/bosch-electric-cars-decade-or-more-away-25872.html>), and a Toyota executive has stated that by 2020 100% of its powertrains would be some form of hybrid (<http://www.nytimes.com/2007/05/10/business/worldbusiness/10iht-hybrids.1.5648611.html>).

⁷ EPA and NHTSA "Notice of Upcoming Joint Rulemaking to Establish 2017 and Later Model Year Light Duty Vehicle GHG Emissions and CAFE Standards," page 17, September 2010.

case evaluated will the payback period exceed 4.2 years – representing a short payback period with substantial savings for consumers.

NESCAUM looks forward to working with EPA and NHTSA in the development of the proposal for GHG and fuel economy standards for light duty vehicles in the 2017-2025 timeframe. California and the CAA §177 states have pursued a dynamic program for cleaner cars that continually re-visits and re-assesses the state of technology innovation for motor vehicles. We stand ready and willing to assist EPA and NHTSA in ensuring that as new clean vehicle technologies are developed, they are quickly introduced into the vehicle fleet. If you would like more information on efforts by our states, please contact me at ph: 617-259-2022, email: ccooper@nescaum.org.

Sincerely,

A handwritten signature in black ink that reads "Crisli Cooper". The signature is written in a cursive, flowing style.

Transportation Program Manager