

**Testimony of Northeast States for Coordinated Air Use Management
On Notice of Proposed Rulemaking: Tier 3 Motor Vehicle Emission and Fuel Standards
[EPA-HQ-OAR-2011-0135]**

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My name is Matt Solomon. I am Transportation Program Manager for the Northeast States for Coordinated Air Use Management. NESCAUM is the association of air pollution control agencies in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. I am speaking today in recognition of the air quality, public health and environmental benefits that will accrue in our region if EPA promulgates the Tier 3 regulation.

NESCAUM and our member states are committed to clean vehicles, as evidenced by the adoption of the California Low-Emission Vehicle (LEV) program in seven of our member states. While the Tier 3 vehicle emission standards would not directly affect emissions from new vehicles sold in these states, they would reduce pollution transport from neighboring regions and ensure that out-of-state vehicles operating within our region have comparably low emission characteristics. More importantly, the Tier 3 fuel standards would improve air quality in the Northeast by significantly reducing emissions from the existing fleet. By harmonizing vehicle emission standards with those in the California program, Tier 3 would facilitate compliance by automobile manufacturers, enabling them to harness economies of scale by deploying advanced emission control technologies in all new vehicles sold nationwide.

While Tier 2 vehicles are significantly cleaner than their predecessors, motor vehicles remain the largest source of ozone-forming pollutants in the region. EPA first committed to proposing Tier 3 standards in 2008 to help states meet the National Ambient Air Quality Standard (NAAQS) for ozone, and is late in delivering the much needed reductions from the light-duty vehicle sector. It is both feasible and appropriate to set new federal exhaust and evaporative emission standards and clean gasoline requirements comparable to those already in place in California.

The low sulfur gasoline provisions in the proposed Tier 3 rule would provide critical air quality, public health and environmental benefits in the Northeast. Cleaner gasoline allows pollution control equipment on cars and trucks to operate more effectively and can significantly reduce oxides of nitrogen (NO_x) and other vehicle emissions. The introduction of 10 parts-per-million sulfur gasoline would result in a very large and nearly immediate reduction in NO_x emissions from the existing fleet of gasoline vehicles. Lower sulfur gasoline also facilitates the deployment of advanced technologies to improve fuel economy and reduce greenhouse gas emissions, which would help mitigate the impacts of climate change, reduce gasoline consumption and save consumers money. One of the most promising near-term technologies for reducing fuel consumption, lean-burn gasoline direct injection or GDI, is impractical without lower-sulfur gasoline.¹ In addition, the rule as proposed would lead to lower emissions of nitrous oxide (N₂O) and methane (CH₄), more than offsetting any greenhouse gas increase at refineries associated with fuel desulfurization.²

Motor vehicles are the Northeast's largest source of NO_x, which is the most important contributor to elevated regional ozone concentrations and an important precursor to fine particulate matter (PM_{2.5}) formation. These pollutants are responsible for tens of thousands of premature deaths, hospital admissions, and lost work and school days in the U.S. annually. Reductions in NO_x associated with the Tier 3 rule would also help states meet the new nitrogen dioxide NAAQS and reduce the environmental impacts of acid rain, coastal marine eutrophication, and regional haze.

¹ U.S. EPA and NHTSA, 2010. *Final Rulemaking to Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards: Joint Technical Support Document*. (EPA-420-R-10-901) sec 3.4.2.5, p3-79

² U.S. EPA, 2013. *Draft Regulatory Impact Analysis, Tier 3 Motor Vehicle Emission and Fuel Standards*. 2013. p 7-123; and *Proposed Rule: Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards*, pp74-75

National and regional NO_x controls, including those for motor vehicles, have proven to be extremely effective in lowering ambient levels of ozone in the eastern U.S. NESCAUM estimates that the Tier 3 low sulfur gasoline provisions alone would reduce NO_x emissions in the eastern U.S. by more than 175,000 tons per year.³ These NO_x reductions would benefit air quality and public health in the Northeast by: (1) lowering the “ozone reservoir” that forms in the eastern U.S., and (2) reducing the amount of low-level NO_x emissions and pollutants derived from NO_x that are transported into the Northeast/Mid-Atlantic region.

Even with the projected benefits associated with programs currently in effect, many of our most populous areas are predicted to be nonattainment for the current 75 ppb ozone NAAQS in 2015. Attaining the standard in these areas will require additional NO_x reductions within our region as well as in upwind areas that contribute to the region’s pollution burden. Tier 3 is the most significant strategy that the federal government could implement to help states attain and maintain the NAAQS for ozone. The combined near-term benefits of the low sulfur gasoline provisions and the increasing benefits of the tailpipe standards would help areas that need additional reductions to attain, and assist other areas to stay in attainment.

According to the petroleum industry’s own estimates, the proposed Tier 3 program would reduce peak monthly 8-hour ozone by up to 1.2 ppb in 2022.⁴ Although opponents of the proposed rule characterize this reduction as insignificant, in fact it is very substantial, and greater than could be achieved by any other known, practical measure in the same timeframe. Further, the benefits of the new emission standards would increase over time with fleet “turnover.” Reductions not achieved through the Tier 3 program and other federal measures would have to come from additional controls on local sources.

³ NESCAUM, 2011. “Assessment of Clean Gasoline in the Northeast and Mid-Atlantic States.” Available online at <http://www.nescaum.org/topics/fuels>

⁴ ENVIRON International Corporation, 2013. “Effects of Light-duty Vehicle Emissions Standards and Gasoline Sulfur Level on Ambient Ozone.” Available online at <http://www.api.org/~media/Files/News/2013/13-April/ENVIRON-Sep2012-Effects-of-LDV-Emiss-Stds-Gasoline-Sulfur-level-on-Ozone.pdf>

Two additional provisions in the proposed rule would contribute to improved air quality and reduce public exposure to toxic contaminants in gasoline. Tier 3 would reduce total evaporative emissions to near-zero levels from all affected vehicles. Hundreds of thousands of California-certified vehicles currently on the road in our region already meet this standard. In addition, the rule would require the use of a gasoline-ethanol blend in place of indolene as an emissions certification fuel. Given the prevalence of ethanol as a blended component of motor gasoline, the proposed certification fuel specifications would better reflect real-world fuel blends. This would ensure that certification testing more accurately reflects emissions from in-use vehicles.

Emissions standards have been shown to be very cost effective in terms of public health outcomes. A recent EPA study⁵ found that the health benefits resulting from implementation of the 1990 Clean Air Act Amendments exceed costs by a factor of 3 to 1 under the most conservative assumptions; under assumptions considered most likely, benefits exceed costs by a factor of 30 to 1.

In addition to critical air quality, public health and the environmental benefits, Tier 3 would promote economic growth and create jobs throughout the U.S. According to the Manufacturers of Emission Controls Association, the emission control technology industry provides 65,000 domestic jobs and accounted for \$12 billion in economic activity in the U.S. in 2010.⁶

⁵ U.S. EPA, 2011. "The Benefits and Costs of the Clean Air Act from 1990 to 2020." Available online at <http://www.epa.gov/cleanairactbenefits/prospective2.html>

⁶ Manufacturers of Emission Controls Association, 2011. Press release: "MECA Highlights Economic Benefits of Mobile Source Emissions Control Industry." Available online at <http://www.meca.org/galleries/default-file/MECA%20economic%20benefits%20press%20release%20031111.pdf>

In summary, the air quality, public health and environmental benefits associated with Tier 3 would be substantial not just in the Northeast but across the country. The standards are achievable using commercially available technologies, and the cost would be recovered many times over through reductions in morbidity and mortality throughout the nation. In the absence of Tier 3, similar levels of emission reductions would have to be accomplished by further controlling local sources, an unfair economic burden on local businesses when more cost-effective national programs are available.

Thank you.