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September 25, 2017

James Tamm  
Chief, Fuel Economy Division  
National Highway Traffic Safety Administration  
U.S. Department of Transportation  
1200 New Jersey Avenue SE.  
Washington, DC 20590

Submitted via Regulations.gov.

Re: Notice of Intent to Prepare an Environmental Impact Statement for  
Model Year 2022-2025 Corporate Average Fuel Economy Standards.  
Docket No. NHTSA-2017-0069

Dear sir:

The American Lung Association appreciates the opportunity to provide comments and resources on the July 26 Notice of Intent to prepare an Environmental Impact Statement (EIS) related to 2022-2025 fuel economy standards released by the National Highway Traffic Safety Administration (NHTSA). The Lung Association provides this information in support of strong fuel efficiency standards based on the health benefits of reductions in emissions from fuel use, especially due to positive impacts on the climate.

Federal and state vehicle emissions and efficiency standards adopted in 2012 were carefully researched, negotiated and are being achieved ahead of schedule.<sup>1</sup> These standards reflect the urgent action needed to protect public health against climate change and an ongoing dependence on fossil fuels for passenger transportation. NHTSA should retain the existing 2021 standards as a baseline for comparison in the No Action alternative. Since the adopted standards are well within reach, no reason exists to alter them.

Currently, air pollution records from the U.S. Environmental Protection Agency (EPA) document that millions of Americans experience air that is unhealthy to breathe.<sup>2</sup> Vehicle fuels and emissions play a significant role in near-term health impacts and represent a main contributor to climate pollution that exacerbates air pollution challenges and amplifies many other

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threats to public health. Transportation sources produced more than one quarter of the nation's greenhouse gas emissions (27 percent) in 2015. The transportation sector increased those emissions more since 1990 than any other sector, according to EPA.<sup>3</sup> Because of this, vehicle standards should be evaluated on the pathway to achieving healthy transportation options for all Americans, recognizing that the severe harms caused by traffic pollution<sup>4</sup> are not borne equally across the nation<sup>5</sup>.

Therefore, the Lung Association offers the following recommendations for consideration in the EIS on the impacts of alternatives for the 2022 to 2025 fuel economy standards as outlined in the July 26 Notice of Intent.

**NHTSA should include a thorough discussion of the health effects of emissions from the downstream and upstream sources involved**, similar to and updated from the discussion contained in the 2012 EIS. However, many of these sources have had requirements for emission reductions adopted and implemented since the 2012 EIS; those changes should be reflected in the analysis.

**Downstream sources directly expose millions of Americans to harmful pollution.** The health effects of tailpipe emissions of carbon monoxide, nitrogen oxide, sulfur dioxide, particulate matter, volatile organic compounds (VOCs) and the multitude of hazardous air pollutants are borne by the millions of Americans who live near and work on or near busy highways. As noted in the Health Effects Institute study on near-road exposure, approximately 30 to 45 percent of people in North America live where they face higher exposure to traffic pollution.<sup>6</sup> In addition, millions more are exposed to the secondary pollution created by the particulate matter and ozone produced from the reaction of those tailpipe emissions in the atmosphere.

**Upstream sources add to the burden.** Oil and gas extraction produce direct and indirect emissions as well, including VOCs, many of which are hazardous air pollutants. Emissions from upstream sources that are considered should include emissions from the refining, processing, storage, transport and distribution of these fuels, including emissions from heavy duty diesel equipment, marine vessels, and pipelines. Emissions from electricity generating utilities are upstream sources for electric vehicles.

**Regulatory changes have begun to reduce some of these emissions, factors that should be updated in the modeling.** NHTSA should include all the updated requirements for both downstream and upstream sources in the new EIS. Among the most impactful, the changes resulting from the Tier 3 standards now in place will reduce emissions from existing fleet now on the road, as well as provide greater emissions reductions going forward than had been forecast in the 2012 EIS assessment. In particular, the impact on emissions of SO<sub>2</sub> should be significantly lower than in the previous assessment due to the lower sulfur content of the gasoline used in all gasoline-powered vehicles. Further, since the standards for reducing methane and VOCs from new oil and gas extraction remain in place, those should be included in the forecasting for future air pollution and climate.

Regulatory changes, fuel changes and expanded solar and wind capacity have reduced emissions from electric generation as well. NHTSA acknowledged that several crucial rules addressing emissions from power plants had not been included in the 2012 EIS, including the Mercury and Air Toxics Standards and the final rule for the 2011 Cross State Air Pollution Rule. EPA also updated the Cross State Air Pollution Rule in 2016 to reduce transported emissions to meet the 2008 ozone standard, so that measure should be included in the modeling. Solar and wind capacity has expanded, especially in parts of the nation, with solar having more than double the net generation in 2012.<sup>7</sup>

**Increase in use of electric vehicles and hybrids should be included in the assessment.** The Lung Association has supported increased use of zero emission vehicles, a trend which is increasing as technology changes, including improved batteries with reduced costs. In one recent forecast, the use of electric vehicles is expected to increase significantly by 2040.<sup>8</sup>

**However, changes in key policy and regulatory measures that would continue or increase emissions are under review by the courts or under reconsideration by the Trump Administration and should also be addressed in the modeling.** For example, the Supreme Court stay of the Clean Power Plan blocks uniform implementation of that rule that would reduce emissions of carbon pollution and provide co-benefits of reducing emissions of other pollutants from power plants, including oxides of nitrogen, sulfur dioxide and particulate matter.<sup>9</sup>

**NHTSA must carefully consider impacts of climate change on public health in the EIS.** Released in 2016, the *Impacts of Climate Change on Human Health in the United States: A Scientific Assessment* provided the most recent summary of the research outlining these risks to the United States. This grim summary of risks to human health launches the report:

Climate change is a significant threat to the health of the American people. The impacts of human-induced climate change are increasing nationwide. Rising greenhouse gas concentrations result in increases in temperature, changes in precipitation, increases in the frequency and intensity of some extreme weather events, and rising sea levels. These climate change impacts endanger our health by affecting our food and water sources, the air we breathe, the weather we experience, and our interactions with the built and natural environments. As the climate continues to change, the risks to human health continue to grow.<sup>10</sup>

This review echoed reports previously produced by several public health and medical organizations, including the Asthma and Allergy Foundation of America's *Extreme Allergies and Global Warming*, issued with the National Wildlife Foundation in 2010<sup>11</sup>; the American Public Health Association's *Climate Change: Mastering the Public Health Role*, in April 2011<sup>12</sup>; and the American Thoracic Society's workshop on Climate Change and Human Health published in 2012<sup>13</sup>.

**The existing EPA emission standards for 2025 should serve as the basis for proposed action analyzed in the NHTSA EIS to establish final 2025 fuel economy standards.** Harmony within the standards should remain as the goal of the original 2012 partnership between EPA, NHTSA and the California Air Resources Board (CARB). Weakened fuel economy targets combined with potentially weakened emission standards would be at cross purposes with public health. Through detailed review by state and federal agencies, the existing standards have been found to be appropriate, cost-effective and readily achievable:

Final Determination issued by U.S. EPA in January 2017: *"the standards are also projected to be achievable through multiple feasible technology pathways at reasonable cost -- less than projected in the 2012 rulemaking -- and with significant direct benefit to consumers in the form of net savings due to purchasing less fuel."*<sup>14</sup>

Mid-Term Review report issued by CARB in January 2017: *"Consistent with the draft 2016 [Technical Assessment Report] and Final Determination, updated analysis confirmed that the technology is available to readily meet, if not exceed, the current 2022 through 2025 model year national GHG emission standards at the same or lower cost than originally projected when the standards were adopted in 2012, predominantly with advanced gasoline engines and transmissions."*<sup>15</sup>

In conclusion, NHTSA should include a full assessment of the public health and climate impacts in this new EIS, following updated information and using approaches consistent with the review completed in the 2012 EIS. Since that time, significant research has demonstrated the need to recognize and protect against the harms to public health from these emissions and from climate change. Reducing the health and environmental protections of existing vehicle standards cannot be an outcome of new federal actions.

Sincerely,



Harold P. Wimmer  
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<sup>1</sup> U.S. Environmental Protection Agency. 2016. Light-Duty Automotive Technology, Carbon Dioxide Emissions and Fuel Economy Trends: 1975 Through 2016. EPA-420-S-16-001; Union of Concerned Scientists. 2015. Tomorrow's Clean Vehicles Today. Available at <http://ucsusa.org/cleanvehiclestoday>.

<sup>2</sup> U.S. Environmental Protection Agency. Nonattainment Areas for Criteria Pollutants (Green Book). Updated June 20, 2017. Available at <https://www.epa.gov/green-book>.

<sup>3</sup> U.S. EPA. 2017. Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2015. EPA 430-P-17-001. Accessed at <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2015>

<sup>4</sup> HEI Panel on the Health Effects of Traffic Related Air Pollution. 2010. Traffic Related Air Pollution: A Critical Review of the Literature on Emissions, Exposure, and Health Effects. HEI Special Report 17. Health Effects Institute, Boston, MA.

<sup>5</sup> Institute of Medicine. Toward Environmental Justice: Research, Education, and Health Policy Needs. Washington, DC: National Academy Press, 1999; O'Neill MS, Jerrett M, Kawachi I, Levy JI, Cohen AJ, Gouveia N, Wilkinson P, Fletcher T, Cifuentes L, Schwartz J et al. Health, Wealth, and Air Pollution: Advancing Theory and Methods. Environ Health Perspect. 2003; 111: 1861-1870; Finkelstein MM; Jerrett M; DeLuca P; Finkelstein N; Verma DK, Chapman K, Sears MR. Relation Between Income, Air Pollution And Mortality: A Cohort Study. CMAJ. 2003; 169: 397-402; Ostro B, Broadwin R, Green S, Feng W, Lipsett M. Fine Particulate Air Pollution and Mortality in Nine California Counties: Results from CALFINE. Environ Health Perspect. 2005; 114: 29-33; Zeka A, Zanobetti A, Schwartz J. Short term effects of particulate matter on cause specific mortality: effects of lags and modification by city characteristics. Occup Environ Med. 2006; 62: 718-725.

<sup>6</sup> Health Effects Institute. 2010.

<sup>7</sup> U.S. Energy Information Administration. Monthly energy Review. July 2017. Available at <https://www.eia.gov/totalenergy/data/monthly/index.php#renewable>.

<sup>8</sup> Bloomberg New Energy Finance. Electric Vehicle Outlook 2017. Available at <https://about.bnef.com/electric-vehicle-outlook/>

<sup>9</sup> Buonocore JJ, Lambert KF, Burtaw D, Sekar S, and Dirscoll CT. 2016. An Analysis of Costs and Health Co-Benefits for a U.S. Power Plant Carbon Standard. PLoS One 11(6): e0156308. <https://doi.org/10.1371/journal.pone.0156308>

<sup>10</sup> US GCRP, 2016. The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. Crimmins A, Balbus J, Gamble JL, Beard CB, et al. Eds. U.S. Global Change Research Program, Washington DC. <http://dx.doi.org/10.7930/J0R49NQX>

<sup>11</sup> National Wildlife Federation and Asthma and Allergy Foundation of America. *Extreme Allergies and Global Warming*. National Wildlife Foundation, 2010. Accessed at [http://www.nwf.org/pdf/Reports/NWF\\_AllergiesFinal.pdf](http://www.nwf.org/pdf/Reports/NWF_AllergiesFinal.pdf).

<sup>12</sup> American Public Health Association. *Climate Change: Mastering the Public Health Role. A Practical Guidebook*. April 2011. Accessed at <http://www.apha-environment.org/ClimateandHealth.aspx>.

<sup>13</sup> Pinkerton KE et al., An Official American Thoracic Society Workshop Report: Climate change and Human Health. *Proceedings American Thoracic Society* 2012; 9: 1: 3-8.

<sup>14</sup> U.S. EPA. 2017. Final Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards under the Midterm Evaluation. EPA-420-R-17-001. Page 13. Available at <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100QQ91.pdf>.

<sup>15</sup> California Air Resources Board. 2017. California's Advanced Clean Cars Midterm Review: Summary Report for the Technical Analysis of the Light Duty Vehicle Standards. Page ES-61. Available at [https://www.arb.ca.gov/msprog/acc/mtr/acc\\_mtr\\_finalreport\\_full.pdf](https://www.arb.ca.gov/msprog/acc/mtr/acc_mtr_finalreport_full.pdf)