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Acting Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
EPA Docket Center
Air and Radiation Docket
Docket ID No. EPA-HQ-OAR-2015-0827
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Mark R. Rosekind
Administrator
National Highway Traffic Safety Administration
U.S. Department of Transportation
Docket Management Facility, M-30
Docket ID No. NHTSA-2016-0068
West Building, Ground Floor
1200 New Jersey Avenue, SE
Washington, DC 20590

Mary D. Nichols
Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Assistant Administrator McCabe, Administrator Rosekind and Chairman Nichols:

The National Association of Clean Air Agencies (NACAA) appreciates this opportunity to provide comments to the U.S. Environmental Protection Agency (EPA), the National Highway Traffic Safety Administration (NHTSA) and the California Air Resources Board (CARB) on the *Draft Technical Assessment Report: Midterm Evaluation of Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards for Model Years 2022-2025* as announced in the *Federal Register* on July 27, 2016 (81 Fed. Reg. 49,217). NACAA is a national, non-partisan, non-profit association of air pollution control agencies in 41 states, the District of Columbia, four territories and 116 metropolitan areas. The air quality professionals in our member agencies have vast experience dedicated to improving air quality in the U.S. These comments are based upon that experience. The views expressed in these comments do not represent the positions of every state and local air pollution control agency in the country.

Introduction and Background

To start, we thank your three agencies for the work you have done over the past eight years, and more, to reduce vehicle greenhouse gas (GHG) emissions and increase fuel efficiency. These efforts are of great importance to state and local air pollution control agencies. The U.S. transportation sector is a significant contributor of GHG emissions – in most areas comprising at least one third, and in many cases over 40 percent, of the GHG inventory – and light-duty vehicles are a key component of that. For this reason, NACAA advocated for and welcomed the tighter light-duty GHG emission standards and Corporate Average Fuel Economy standards established in the 2012 joint EPA-NHTSA rulemaking for Model Years (MY) 2017 through 2025. We were gratified not only by the substantial estimated GHG emission reductions and increased fuel economy, but also by the impressive overall cost-benefit ratio and cost savings that were forecast to accrue to consumers. In addition, the positive collateral, non-GHG environmental impacts of the rule will lead to critical contributions to attainment and maintenance of the health-based ozone and particulate matter standards, as well as equally important reductions in toxic air pollution, achievement of regional haze goals and reduction in the eutrophication of water bodies.

The 2012 rule includes a commitment to conduct a Midterm Evaluation (MTE) of the GHG emission standards established for MYs 2022-2025. Based on the evaluation, the EPA Administrator is to determine, by April 2018, whether the standards remain appropriate or should be more, or less, stringent. The first step in this comprehensive evaluation, which is being conducted in collaboration with CARB, is the preparation of a Technical Assessment Report, or TAR, in which EPA, NHTSA and CARB examine a wide range of technical issues related to the adopted standards. Once final, the TAR will serve as the technical underpinning for the overall MTE. Accordingly, we offer the following comments and perspectives on the draft TAR.

EPA's and NHTSA's Overarching Conclusions

NACAA is very pleased that although EPA and NHTSA, in conjunction with CARB, conducted independent technical analyses based on different models and some different assumptions, the two agencies reached similar conclusions, namely, that

1. An even wider range of technologies is available for manufacturers to meet the MY 2022-2025 standards than envisioned in the 2012 rule and the costs are similar or lower than projected,
2. The MY 2022-2025 standards can be met using primarily advanced gasoline vehicle technologies with only "modest" levels of hybrid technology and "very low levels" of full electrification and
3. The design of the 2012 rule – with "footprint-based" standards – fully accommodates changes in the car-truck sales mix that can occur due to such factors as economic growth, gasoline prices and other macro-economic trends, meaning that irrespective of consumers' choice of vehicles the rule will result in improvements across the light-duty fleet.

NACAA's observations are consistent with EPA's and NHTSA's and we concur strongly with all of these conclusions.

Clearly, auto makers are firmly on track to meet the MY 2022-2025 standards without issue. Through the innovation of the auto industry, technology has, and continues to, advance very quickly – at a far greater pace than anticipated when the standards were adopted in 2012 – and automakers are adopting these technologies into their fleets faster than expected. The technologies needed for the "out-year" (MY 2022-2025) standards are already available and in use today. Further, technologies not even contemplated four years ago now provide tremendous opportunities for the current rule and, importantly, for post 2025. These include technologies such as "Skyactiv" – high-compression, direct-injection engines; Atkinson cycle engines;

new ways to get more power from smaller engines, including downsped and downsized engines with new turbocharger designs; cylinder deactivation; continuously variable transmissions; lightweighting; predictive cruise control; and 48-volt mild hybrid systems. In addition, we anticipate even more technologies to emerge before 2022 just as those identified above did to meet the current standards.

The 2012 rule was predicated on little reliance on hybrid and electric vehicles, and the analyses conducted for the draft TAR show that the out-year standards on the books can be achieved largely through the deployment of more efficient gasoline-powered cars. However, a number of states have adopted mandates for Zero Emission Vehicles (ZEV). These include California as well as the nine states that have availed themselves of their authority under Clean Air Act Section 177 to opt into California's ZEV standards – Connecticut, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Rhode Island and Vermont – the so-called “ZEV states.” California and the ZEV states are experiencing greatly increased sales of hybrid and electric vehicles. Although the numbers are still small relative to the overall fleet, the rate of growth and the goals these states have established for increasing sales are impressive and are leading to lower ZEV costs and a wider range of product lines from which consumers can select. We believe these factors will influence vehicle purchasing trends in other states, and provide additional compliance flexibility to automakers in meeting the rule's standards. In fact, in 2015, after California, the two states with the highest ZEV sales per capita were Hawaii and Washington, which have not adopted a ZEV mandate. It is also noteworthy that 12 states – Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont and Washington – and the District of Columbia used their Section 177 authority to opt into California's Low Emission Vehicle (LEV) program. Given the very significant portion of the national car sales market these jurisdictions and California represent, their adoption of the LEV program has helped to drive technological innovation and lower consumer costs.

The chart below, prepared by the Northeast States for Coordinated Air Use Management (NESCAUM), identifies incentives and goals set by the ZEV states. NACAA believes these efforts reinforce our assertion that although compliance with the standards in the 2012 rule does not rely on the use of hybrid and electric vehicles, much greater progress in reducing GHG emissions from the fleet, as well as other benefits for consumers, has already been realized and further future reductions post 2025 are possible.

Complementary Policies to Support ZEV Markets in ZEV States (Prepared by NESCAUM)

Initiative	CA	CT	MD	MA	NJ	NY	OR	RI	VT
Consumer Vehicle Incentive	✓	✓	✓	✓	✓	✓		✓	✓
Charging Station Incentive	✓	✓	✓	✓	✓	✓	✓	✓	✓
State Fleet Purchase Incentive	✓	✓		✓			✓	✓	
Dealership Outreach	✓	✓	✓	✓		✓		✓	✓
Dealer Incentives		✓							✓
State ZEV Commission	✓		✓	✓				✓	✓
PUC EVSE Exemption	✓	✓	✓	✓		✓	✓		
TOU Rates (incl Pilots)	✓	✓	✓	✓		✓	✓		✓
Workplace Charging Grants		✓		✓	✓	✓			
Building Codes	✓			✓					
HOV Lane Access	✓	NA	✓	✓	✓	✓		NA	NA
Toll Waivers	✓	NA				✓			NA

PUC – public utility commission, EVSE – electric vehicle supply equipment, TOU – time of use, HOV – high-occupancy vehicle

We are also pleased that EPA's and NHTSA's assessments confirm that the design of the national program, as established in the 2012 rule, preserves consumer choice while, at the same time, reducing GHG emissions and fuel consumption. The flexibility of the rule allows consumers to purchase the vehicles of their choice while ensuring substantial environmental benefits from all vehicle classes and weights. This important aspect of the rule leaves us well positioned to garner significant, technologically feasible and cost-effective environmental benefits, as well as cost savings to consumers, even if the mix of vehicle sales changes, as it has since 2012, with larger vehicles, like SUVs and light-trucks, now being purchased compared to the smaller cars that were dominating vehicle sales several years ago when fuel prices were higher.

Some Differences Between EPA's and NHTSA's Analyses

Notwithstanding the similarity of the overall conclusions of EPA and NHTSA, there are differences in the assumptions made in the two analyses that result in differences between the two agencies' cost estimates with NHTSA's estimates being higher – unnecessarily, we believe. We would like to highlight several of these differences.

First, in its analysis, EPA rightly assumes the electric vehicles sales projected to be necessary to meet state ZEV mandates (i.e., those adopted by California and the nine ZEV states). NHTSA, however, does not account for ZEV mandates, and, instead assumes a higher rate of penetration of full hybrid technology, which is a much more costly technology, thus increasing its cost estimates.

Second, based on its current availability, EPA reasonably projects higher compression ratio, naturally aspirated gasoline engine technology (Skyactiv and Atkinson Cycle) to penetrate 44 percent of the fleet for the MY 2025 standards. NHTSA, however, constrains such technology – seemingly arbitrarily – to less than 1 percent of the fleet. Again, NHTSA makes up the difference with costlier technology and, as a result, its cost estimates increase.

Third, EPA did not account for the use of any early credits or fines, instead assuming full compliance in MY 2025, which is entirely feasible. NHTSA, however, modeled over compliance in the early years as well as fines to be paid in lieu of compliance in MY 2025, with full compliance not achieved until MY 2028. NHTSA's assumptions in this regard further increase its cost estimates.

Next Steps Post 2025

In addition to providing overwhelming evidence that the MY 2022-2025 GHG emission standards remain appropriate – eminently so – NACAA believes the draft TAR and the analyses behind it illustrate clearly another critical point: the magnitude and pace of technological innovation and advancement since 2012, as well as the cost effectiveness of these technologies, set the stage for next steps to further reduce GHG emissions and improve fuel efficiency from the light-duty fleet post 2025.

NACAA commends the automotive industry for the impressive work it has done to date innovating, meeting challenges and bringing great light-duty technologies to the marketplace. We are confident in the auto industry's ability to build on this momentum with similar success with respect to the considerable additional opportunities that remain for conventional vehicles (some of which are identified in the draft TAR) and with respect to ZEVs and beyond.

We are similarly confident that EPA and CARB, working with state and local air agencies and other stakeholders, can map out and implement a plan that will lead to transformation of the light-duty fleet. As we

have seen from the progress so far, consumers benefit from greater fuel efficiency, reduced maintenance costs and a better driving and ownership experience, and the environment benefits from reduced emissions.

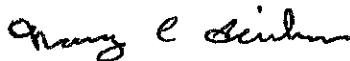
Conclusion

In summary, NACAA supports EPA's and NHTSA's overarching conclusions as presented in the draft TAR. The evidence is clear that GHG standards that were thought to be technologically feasible when they were adopted in 2012 are, indeed, achievable. In fact, the technology to meet standards that do not take effect until MYs 2022-2025 is already available and in use, and is cost effective as well.

We urge EPA, NHTSA and CARB to issue the final TAR by the end of December 2016 so that work on the MTE can continue on pace. We continue to support, and are counting on implementation of, the MY 2022-2025 GHG standards as finalized in 2012 to substantially reduce GHG emissions and contribute to the initiatives of many states and localities seeking to meet GHG reduction goals, and to provide non-GHG emission benefits that will help with other state and local clean air efforts. Finally, we look forward to working with your respective agencies in this regard, envisioning the future of the light-duty fleet beyond 2025 and putting in place the steps that will take us there.

If you have any questions please feel free to contact either of us, or Nancy Kruger, Deputy Director of NACAA, at (202) 624-7864.

Sincerely,



Nancy L. Seidman
(Massachusetts)
Co-Chair
NACAA Mobile Sources and Fuels Committee



Erik C. White
(Auburn, CA)
Co-Chair
NACAA Mobile Sources and Fuels Committee

December 23, 2016

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Executive Director

S. William Becker

Gina McCarthy
Administrator
U.S. Environmental Protection Agency
EPA Docket Center
Air and Radiation Docket
Docket ID No. EPA-HQ-OAR-2015-0827
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator McCarthy:

The National Association of Clean Air Agencies (NACAA) appreciates this opportunity to provide comments on your *Proposed Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards under the Midterm Evaluation*, released for public comment on November 30, 2016. NACAA is a national, non-partisan, non-profit association of air pollution control agencies in 40 states, the District of Columbia, four territories and 116 metropolitan areas. The air quality professionals in our member agencies have vast experience dedicated to improving air quality in the U.S. These comments are based upon that experience. The views expressed in these comments do not represent the positions of every state and local air pollution control agency in the country.

In particular, you are seeking comment on your Proposed Determination that the greenhouse gas (GHG) emissions standards currently in place for Model Years (MYs) 2022 through 2025 remain appropriate under section 202(a)(1) of the Clean Air Act and a rulemaking to change them is not warranted. NACAA is pleased to support this Proposed Determination.

Over the past decade or more, EPA, in collaboration with the National Highway Traffic Safety Administration (NHTSA) and the California Air Resources Board (CARB), has taken decisive and effective steps to reduce vehicle GHG emissions and increase fuel efficiency. As NACAA has noted before in various comments and testimony, these efforts are of great importance to state and local air pollution control agencies. The U.S. transportation sector is a significant contributor of GHG emissions – in most areas comprising at least one third, and in many cases over 40 percent, of the GHG inventory – and light-duty vehicles are a key component of that. For this reason, NACAA advocated for and welcomed the tighter light-duty GHG emission standards and Corporate Average Fuel Economy standards established in the 2012 joint EPA-NHTSA rulemaking for MYs 2017 through 2025. We were gratified not only by the substantial estimated GHG emission reductions and increased fuel economy, but also by the impressive overall cost-benefit

ratio and cost savings that were forecast to accrue to consumers. In addition, the positive collateral, non-GHG environmental impacts of the rule will lead to critical contributions to attainment and maintenance of the health-based ozone and particulate matter standards, as well as equally important reductions in toxic air pollution, achievement of regional haze goals and reduction in the eutrophication of water bodies.

The 2012 rule included a commitment to conduct a Midterm Evaluation (MTE) of the GHG emission standards established for MYs 2022-2025. Based on the evaluation, the EPA Administrator is to determine whether the standards remain appropriate or should be more, or less, stringent. NACAA applauds the robust technical analyses behind the Proposed Determination (conducted by EPA and NHTSA, in collaboration with CARB), attesting to the appropriateness of the MYs 2022-2025 GHG emission standards, as well as your thoughtful and deliberative consideration of, and response to, the public comments on the draft Technical Assessment Report, released earlier this year, presenting the results of those analyses.

We further commend the comprehensive explanation of the basis of your Proposed Determination, including thorough presentation of the updates made to your previous analyses, which we believe makes an exceptionally clear and strong case that the MYs 2022-2025 standards remain appropriate.

Among the factors you cite to support your Proposed Determination are that the MYs 2022-2025 standards are feasible and cost effective. You correctly note that the auto industry is thriving and meeting the standards more quickly than required. NACAA agrees.

Clearly, auto makers are firmly on track to meet the MYs 2022-2025 standards without issue. Through the innovation of the auto industry, technology has, and continues to, advance very quickly – at a far greater pace than anticipated when the standards were adopted in 2012 – and automakers are adopting these technologies into their fleets faster than expected. The technologies needed to comply with the “out-year” (MYs 2022-2025) standards are already available and in use today. Further, technologies not even contemplated four years ago now provide tremendous opportunities for the current rule and, importantly, for post 2025. These include technologies such as “Skyactiv” – high-compression, direct-injection engines; Atkinson cycle engines; new ways to get more power from smaller engines, including downsped and downsized engines with new turbocharger designs; cylinder deactivation; continuously variable transmissions; lightweighting; predictive cruise control; and 48-volt mild hybrid systems. In addition, like EPA, we anticipate even more technologies to emerge before 2022 just as those identified above did to meet the current standards. Further, the 2012 rule was predicated on little reliance on hybrid and electric vehicles, and the analyses supporting your Proposed Determination show that the out-year standards on the books can be achieved largely through the deployment of more efficient gasoline-powered cars. Increased sales of hybrid and electric vehicles, which many state and local agencies are supporting, will only make the standards easier to achieve.

We also concur with the conclusion confirming that the design of the national program, as established in the 2012 rule, preserves consumer choice while, at the same time, reducing GHG emissions and fuel consumption. The flexibility of the rule allows consumers to purchase the vehicles of their choice while ensuring substantial environmental benefits from all vehicle classes and weights. This important aspect of the rule leaves us well positioned to garner significant, technologically feasible and cost-effective environmental benefits, as well as cost savings to consumers. This will occur even if the mix of vehicle sales changes, as it has since 2012, with more larger vehicles, like SUVs and light-trucks, now being

purchased compared to smaller car purchases that were dominating vehicle sales several years ago when fuel prices were higher.

With respect to costs, we note that EPA's recently updated analysis shows that the average per-vehicle cost to meet the MY 2025 standards is \$875, which is less than the costs estimated in the 2012 final rulemaking (approximately \$1,100) and the draft Technical Assessment Report (\$920). We note as well EPA's conclusion that the net benefits of the program far exceed the costs, thus confirming that the standards will provide substantial benefits to consumers and the public, with consumers saving \$1,650 over the lifetime of a new vehicle

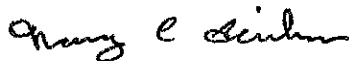
In addition, we appreciate that, given the results of your analyses and the data comprising the record on this issue, you have considered whether it would be appropriate to strengthen the standards for MYs 2022-2025. Though we too acknowledge that the current record would support a decision to initiate a rulemaking proposing to amend the standards to make them more stringent, NACAA supports your Proposed Determination to retain and implement the standards as they were adopted in 2012.

Finally, NACAA believes strongly that in addition to providing overwhelming evidence that the MYs 2022-2025 GHG emission standards remain appropriate, the robust analyses behind the Proposed Determination illustrate clearly another critical point: the magnitude and pace of technological innovation and advancement since 2012, as well as the cost effectiveness of these technologies, set the stage for next steps to further reduce GHG emissions and improve fuel efficiency from the light-duty fleet post 2025. NACAA commends the automotive industry for the work it has done to date innovating, meeting challenges and bringing forward-looking light-duty technologies to the marketplace. We are confident in the auto industry's ability to build on this momentum with similar success relative to the additional opportunities that remain for conventional vehicles, Zero Emission Vehicles and beyond. We are similarly confident that EPA and CARB, working with state and local air agencies and other stakeholders, can map out and implement a plan that will lead to further transformation of the light-duty fleet. As we have seen from the progress so far, consumers benefit from greater fuel efficiency, reduced maintenance costs and a better driving and ownership experience, and public health and the environment benefit from reduced emissions.

Once again, NACAA offers its full support for your Proposed Determination "that in light of all the prescribed factors, and considering the entire record, the current 2022-2025 standards are appropriate and should be retained." Once you consider the comments received on your Proposed Determination, we urge you to move forward to make a Final Determination in a timely manner.

If you have any questions please feel free to contact us, or Nancy Kruger, Deputy Director of NACAA, at (202) 624-7864.

Sincerely,



Nancy L. Seidman
(Massachusetts)
Co-Chair
NACAA Mobile Sources and Fuels Committee



Erik C. White
(Auburn, CA)
Co-Chair
NACAA Mobile Sources and Fuels Committee

