



Metropolitan Washington
Council of Governments



National Capital Region
Transportation Planning Board

February 12, 2020

Administrator Andrew Wheeler
U.S. Environmental Protection Agency
Docket ID No. EPA-HQ-OAR-2019-0055
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Subject: Comment on the ANPRM Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine Standards; Docket ID No. EPA-HQ-OAR-2019-0055

Dear Administrator Wheeler:

Thank you for providing an opportunity to comment on Advanced Notice of Proposed Rulemaking (ANPRM) regarding the Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine Standards.

The Metropolitan Washington Air Quality Committee (MWAQC) is certified by the governors of Maryland and Virginia and the mayor of the District of Columbia to develop plans demonstrating attainment of federal ozone and other criteria pollutant standards for the Washington, DC-MD-VA non-attainment area. We have done so successfully for more than twenty-five years through a partnership among the state and local governments in metropolitan Washington.

The National Capital Region Transportation Planning Board (TPB) is the metropolitan planning organization (MPO) for the National Capital Region, jointly established by the governors of Maryland and Virginia and the mayor of the District of Columbia and so designated by the federal government. As a MPO, the TPB is mandated to conform with and integrate regional air quality plans in its transportation plans.

MWAQC and TPB applaud EPA's move to enact new, more stringent, federal-level oxides of nitrogen (NO_x) emissions standards through this rulemaking. An appropriately stringent standard governing emissions from motor vehicle heavy-duty engines can achieve significant reductions of NO_x from heavy-duty vehicles and protect public health and the environment, not only in our region but throughout the country.

The Metropolitan Washington Region is in compliance with the National Ambient Air Quality Standards (NAAQS) for all but one pollutant, regulated by the Clean Air Act, ground level ozone. Despite local and regional actions that have helped the region meet the 1979, 1997, and 2008 ozone standards, the region is currently in nonattainment of the 2015 ozone NAAQS and has only until 2021 to demonstrate compliance. NO_x is a precursor pollutant of ground level ozone. Despite regional efforts to reduce NO_x emissions, air quality monitors show that ozone levels have flattened in recent years and people in the region continue to breathe unhealthy air on certain days. The region experiences an average of 12 such unhealthy air days each year.¹

¹ Metropolitan Washington Council of Governments. Regional Air Quality Update. Dec 18, 2019.
<https://www.mwacog.org/documents/2019/12/18/regional-air-quality-update/>

Current ozone level readings indicate that the region is not likely to reach attainment by 2021. A systemic and widespread national approach to reduce the precursor NO_x emissions is required to augment local and regional actions. Such an effort is particularly needed to help regions that do attain the 2015 ozone NAAQS to maintain compliance for 20 years as mandated by the Clean Air Act.

Meeting the 2015 ozone NAAQS with only regional efforts is increasingly challenging. Cross-state air pollution and vehicles traveling through the region from other jurisdictions contribute to this challenge. Heavy-duty diesel vehicles are responsible for a very significant share of NO_x emissions. These contributions are not only significant now but are projected to be a growing share of these emissions into the future.

- In 2018, the Ozone Transport Commission completed 2011-based source apportionment modeling.² The model, projected to 2023, found that diesel vehicle emissions contribute 9.1% of the formed ozone on days with the 4th highest projected ozone values. This makes on-road diesel emissions the 3rd highest contributor to ozone, ranking only behind nonroad mobile sources and Electrical Generating Units (EGUs).
- Preliminary design values (DV) from 2017 to 2019 show that the District's McMillan monitor and Maryland's Beltsville monitor (see attachment A) are violating the current 70 parts per billion (ppb) ozone NAAQS. On-road diesel emissions at both monitors are projected to be the second largest contributor to ozone levels on the 4th highest day, projected to contribute 10.5 % and 13.5 % of the ozone on these days, respectively. Given that on-road diesel sources are projected to make up approximately 60% of the emissions that contribute to the formation of ozone, control of emissions from the heavy-duty diesel sector is particularly important for reduction of ozone in the Washington region.
- Furthermore, past 2023, as the emissions benefits of the EPA's Tier 3 program continue to accrue and coal-fired EGUs continue to retire, heavy-duty diesel vehicles will make up an even larger share of emissions.

In addition to NO_x contributing to ground level ozone formation, it is also a precursor to secondary particulate matter (PM_{2.5}) formation. Exposure to PM_{2.5}, along with ground level ozone, is associated with premature death, increased hospitalizations, and emergency room visits due to exacerbation of chronic heart and lung diseases and other serious health impacts. Some communities in the Metropolitan Washington region face higher rates of some illnesses aggravated by these pollutants, like asthma, as compared to the national average. As such, reductions in NO_x emissions will not only assist in meeting federal clean air standards, they will provide health benefits from both reduced ozone and PM_{2.5} pollution.

For these reasons, MWAQC and TPB support EPA's efforts to:

- Establish a 50-state rule proposal in which both timelines and stringency are aligned with California's heavy-duty NO_x standards. This rule would ensure a reduction in NO_x of at least 90 percent from current in-use levels of heavy-duty vehicles, which has proven to be technically feasible based on demonstration work conducted by the Southwest Research Institute, an independent and nonprofit research organization as part of a contract with

² Ozone Transport Commission, Technical Support Document for the 2011 Ozone Transport Commission/Mid-Atlantic Northeastern Visibility Union Modeling Platform - 2nd Revision, Washington, DC (Washington, DC: OTC, October 2018).

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California Air Resources Board.³ If EPA's timeline cannot be aligned with a California standard, EPA should strive to match that standard as soon as feasible.

- Improve diagnostic capabilities such as updating the Defect Reporting Program and maintaining a robust On-Board Diagnostics (OBD) program.
- Make enforcement against tampering a top agency priority.
- Increase the regulatory useful life of vehicles to more accurately reflect how long vehicles actually remain in the fleet.

Additionally, MWAQC and TPB encourage EPA to incorporate strategies that support growth in heavy-duty Zero Emission Vehicles (ZEV) and use of advanced powertrains. MWAQC and TPB also encourage EPA to undertake comprehensive outreach to State and Local Air Agencies and Departments of Transportation, as well as other stakeholders, to seek additional comments in the upcoming proposed rulemaking.

Thank you for the opportunity to comment.

Sincerely,



The Honorable Brandon Todd
Chair, Metropolitan Washington Air Quality Committee (MWAQC)



The Honorable Kelly Russell
Chair, National Capital Region Transportation Planning Board (TPB)

³ Sharp, Christopher, et al. Evaluating Technologies and Methods to Lower Nitrogen Oxide Emissions from Heavy-duty Vehicles. April 2017. https://ww3.arb.ca.gov/research/veh-emissions/low-nox/carb_2017-04-30_03-19503_finaledit.pdf

Attachment A: Preliminary Ozone NAAQS Design Value Sector Contributions, 2017 – 2019

The Ozone Transport Commission (OTC) conducted source apportionment modeling using 2023 projections from 2011. In this modeling on-road diesel emissions were specifically tagged (separate from other on-road emissions and other sectors). The results of the daily tagged runs were obtained from OTC and processed using RStudio in order to summarize them for this purpose. Monitors outside of the Washington, DC-MD-VA nonattainment area were dropped from consideration. Daily results for each monitor were sorted by projected 8-hour max ozone and only the data on the 4th highest day was used given that that is the metric used in the Ozone NAAQS. Percentages were calculated based on the total contribution in ppb from a sector over the total ozone in ppb on the 4th highest day for each monitor in the region. More information on the photochemical modeling can be found in the document “Technical Support Document for the 2011 Ozone Transport Commission/Mid-Atlantic Northeastern Visibility Union Modeling Platform - 2nd Revision” (Washington, DC: OTC, October 2018).

2017-19 preliminary design values were obtained separately and downloaded from the Air Quality System (AQS). Bold data indicates that the monitor is currently violating the 2015 Ozone NAAQS based on the values from AQS.

		2017-19 Prelim. Design Value		Nonroad	EGU	On-road (Diesel)	Non- EGU	Other	On-road (Non- diesel)	Non- point	Bio- genics	Boundary Condition
DC												
110010041	River Terrace	56	15.26%	8.11%	10.47%	10.40%	7.81%	8.81%	6.00%	5.24%	27.90%	
110010043	McMillan	71	15.26%	8.11%	10.47%	10.40%	7.81%	8.81%	6.00%	5.24%	27.90%	
110010050	Takoma Rec.	69	12.93%	12.38%	9.85%	6.96%	6.51%	7.50%	3.09%	6.40%	34.38%	
MD												
240090011	Calvert-B	63	5.02%	10.73%	4.35%	6.85%	5.81%	6.45%	6.48%	4.53%	49.79%	
240170010	Southern MD	65	11.24%	13.53%	10.05%	6.57%	7.68%	6.56%	2.50%	6.99%	34.88%	
240210037	Frederick	66	10.95%	6.56%	9.11%	9.21%	8.58%	6.49%	4.09%	7.52%	37.48%	
240313001	Rockville	65	12.91%	8.83%	8.98%	8.41%	9.14%	7.34%	4.09%	5.95%	34.34%	
240330030	HU-Beltsville	70	10.88%	14.12%	8.63%	6.52%	7.06%	6.22%	2.69%	6.94%	36.93%	
240338003	Equestrian Ctr.	69	12.10%	9.82%	10.12%	8.14%	4.96%	7.63%	3.30%	6.83%	37.10%	
240339991	Beltsville	72	15.27%	5.19%	13.51%	9.57%	9.80%	11.23%	6.48%	4.06%	24.89%	
VA												
510130020	Aurora Hills	69	13.77%	11.58%	8.62%	8.58%	6.43%	6.94%	3.41%	6.42%	34.24%	
510590030	Franconia	68	13.44%	10.69%	9.62%	8.45%	6.91%	7.69%	3.28%	6.32%	33.60%	
511071005	Ashburn	63	5.02%	11.87%	5.05%	10.70%	7.98%	4.37%	4.28%	6.00%	44.74%	
511530009	James S. Long Park	63	7.05%	5.09%	7.07%	6.87%	11.08%	5.54%	3.00%	5.58%	48.73%	
Grand Total			11.70%	9.80%	9.09%	8.43%	7.63%	7.34%	4.23%	5.98%	35.81%	