

January 5, 2018

Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Attention: Docket I.D. # EPA-HQ-OAR-2014-0827

Re: Proposed Repeal of Emission Requirements for Glider Vehicles, Glider Engines, and Glider Kits

Dear Administrator Pruitt:

The Northeast States for Coordinated Air Use Management (NESCAUM¹) offer the following comments on the U.S. Environmental Protection Agency's (EPA's) proposed *Repeal of Emission Requirements for Glider Vehicles, Glider Engines, and Glider Kits* published on November 16, 2017 (82 Fed. Reg. 53442-53449). NESCAUM and our member states strongly oppose the proposed rulemaking because of the very serious harm to air quality and public health that will occur in our region if the glider kit loophole is re-opened. At its core, the proposed repeal is inconsistent with the Clean Air Act's primary purpose "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare."² We are further troubled by EPA's apparently uncritical acceptance of a deeply flawed technical study provided by glider vehicle manufacturers, and by its revised legal justification. There is no need to re-open this loophole, and the technical and legal arguments to support the proposed repeal fail to withstand scrutiny.

In its 2016 Phase 2 rulemaking, EPA correctly recognized that while gliders have a legitimate use in those rare cases where a powertrain can be salvaged from a wrecked vehicle, they have increasingly been marketed and sold to new truck buyers as a way to avoid nitrogen oxides (NOx) and particulate matter (PM) control requirements. We agree with EPA's original analysis, which found that these trucks constitute an unacceptably large source of excess NOx and PM emissions that have significant adverse impacts on air quality and public health.

The proposed repeal of emission requirements for gliders would substantially worsen air quality in the Northeast. Using EPA's own earlier projections,³ we estimate the excess NOx emissions in

¹ NESCAUM is the regional association of state air pollution control agencies in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

² 42 C.F.R. §7401(b)(1) (1990).

³ US EPA. *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles - Phase 2: Response to Comments for Joint Rulemaking*, EPA-420-R-16-901 (Aug. 2016) (see Appendix A to Section 14, p. 1962).

2040 from these uncontrolled gliders would be almost 30 times higher than the 2015 emissions from all noncompliant Volkswagen cars,⁴ and would be comparable to the entire 2018 NOx budget for fossil fuel power plants in the 22 states covered by the Cross-State Air Pollution Rule Update⁵ (Table 1).

Table 1. Glider Vehicle NOx in Context

VW NOx Excess ⁴ (tons per year in 2015)	CSAPR Update Power Plant NOx Cap ⁵ (tons per ozone season starting 2018)	Fleetwide Glider Vehicle NOx above Control Levels ³ (tons per year in 2040)
11,200	313,626	318,615

It is not difficult to see why these impacts are so large. The effectiveness of advanced emission controls for NOx and PM has been exhaustively demonstrated.⁶ Recent additional testing by both EPA⁷ and the California Air Resources Board (CARB)⁸ continues to demonstrate that trucks equipped with diesel particulate filters (DPFs) and selective catalytic reduction (SCR) systems emit far less pollution than glider trucks without this equipment.

Notably, there is no evidence that actually contradicts this basic fact in the technical study attached to the July 10, 2017 reconsideration petition from glider vehicle manufacturers and performed by researchers at Tennessee Tech. The information contained in the Tennessee Tech study provides no support for the notion that vehicles fitted with pre-2002 engines emit less NOx and PM pollution than vehicles with engines complying with the 2007/2010 standards. For PM emissions, the table of results from the Tennessee Tech study shown in Appendix A of the glider manufacturers’ reconsideration petition indicates that PM emissions were “Below Threshold Detection Point” for all of the engines, without specifying what the detection limit is. Based on EPA’s summary of its follow-up teleconference meeting with the Tennessee Tech researchers,⁹

⁴ Based on NOx estimate in: S.R.H. Barrett *et al.*, Impact of the Volkswagen emissions control defeat device on US public health, *Envtl. Res. Lett.* **10** (2015) doi:10.1088/1748-9326/10/11/114005.

⁵ 81 Fed. Reg. 74504-74650 (Oct. 26, 2016), Table 1.B-1.

⁶ See, e.g., US EPA 2001. *United States Environmental Protection Agency Air and Radiation EPA420-R-00-026 December 2000 Regulatory Impact Analysis: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*; California Air Resources Board 2001. *Staff Report: Initial Statement of Reasons Public Hearing to Consider Amendments Adopting More Stringent Emission Standards for 2007 and Subsequent Model Year New Heavy-Duty Diesel Engines*.

⁷ US EPA National Vehicle & Fuel Emissions Laboratory, *Chassis Dynamometer Testing of Two Recent Model Year Heavy-Duty On-Highway Diesel Glider Vehicles*, November 20, 2017. (<https://www.regulations.gov/document?D=EPA-HQ-OAR-2014-0827-2417>).

⁸ California Air Resources Board, *Real-World Heavy-Duty Diesel Truck Emissions from Gliders in California*, December 27, 2017.

⁹ US EPA Memorandum: *Teleconference with Tennessee Tech University Regarding Glider Test Report Summarized in June 2017 Letter; Tennessee Tech University – Summary of Heavy Duty Truck Study and Evaluation*

the researchers acknowledged that they did not actually measure PM emissions beyond visual inspection of the sample probe. This is clearly an inadequate basis to draw any quantitative conclusion about relative PM emission impacts. Yet in their "Summary Chart of Phase 1 Test Results," the researchers state that for PM, "All vehicles met the standard." We urge EPA to explicitly clarify for the record the basis of the study's assertions, and to clearly indicate that it provides no evidence to support the suggestion that diesel engines with uncontrolled exhaust are as low-emitting in PM emissions as engines with modern emission controls.

Regarding NOx emissions, very little information is provided in the study as to the specific emissions output from each engine, their age, or condition of repair. We note, however, that the engine cited as having the lowest NOx output is a Detroit Diesel DD15, a modern engine first introduced in 2008 and designed to incorporate advanced emission controls for both PM and NOx. This engine is not at all typical for glider kit vehicles, which primarily use older, pre-2002 engines that lack DPF and SCR controls. As with our comment on the study's PM assertions, we urge EPA to clearly document for the record the lack of support the study provides for making any inference on the relative NOx emissions performance of glider kit engines relative to new engines equipped with modern NOx controls.

Continuing Air Quality Problems in the Northeast

The NESCAUM region, home to over 42 million people, is subject to episodes of poor air quality resulting from ground-level ozone and fine particle pollution. During severe events, the scale of the problem can extend beyond NESCAUM's borders and include over 200,000 square miles across the eastern United States. Local and regional sources as well as air pollution transported hundreds of miles from distant sources outside the region contribute to elevated ozone and fine particle concentrations in the region.

NOx emissions contribute to a number of adverse public health and environmental outcomes. NOx is the most egregious contributor to regional ozone concentrations and an important precursor to fine particulate matter formation. These two pollutants are responsible for tens of thousands of premature deaths, hospital admissions, and lost work and school days in the U.S. annually. NOx is also a key factor in a number of environmental problems that affect the Northeast. Table 2 summarizes the major adverse impacts of NOx emissions in the NESCAUM region.

of the Phase II Heavy Duty Truck Rule, November 13, 2017 (<https://www.regulations.gov/document?D=EPA-HQ-OAR-2014-0827-2416>).

Table 2. Adverse Public Health and Environmental Impacts of NOx in the Northeast

Ozone and PM2.5	<ul style="list-style-type: none"> • Reduces lung function, aggravates asthma and other chronic lung diseases • Can cause permanent lung damage from repeated exposures • Contributes to premature death
Acid Deposition	<ul style="list-style-type: none"> • Damages forests • Damages aquatic ecosystems, e.g., Adirondacks and Great Northern Woods • Erodes manmade structures
Coastal Marine Eutrophication	<ul style="list-style-type: none"> • Depletes oxygen in the water, which suffocates fish and other aquatic life in bays and estuaries, e.g., Chesapeake Bay, Narragansett Bay, and Long Island Sound
Visibility Impairment	<ul style="list-style-type: none"> • Contributes to regional haze that mars vistas and views in urban and wilderness areas

Based on recent historical monitoring data, large parts of the Northeast region violate the recently strengthened 0.070 ppm 8-hour average ozone national ambient air quality standard (NAAQS). In addition, the CT-NJ-NY region continues to violate the older 0.075 ppm ozone NAAQS. The EPA’s failure to meet statutory deadlines in designating nonattainment areas under the Clean Air Act and its persistent failure to fully address interstate ozone transport have been detrimental to the states’ interests in protecting public health. The EPA now proposes to re-open a large loophole that will greatly increase NOx emissions from highway trucks, the largest source sector of NOx emissions in the northeast region.¹⁰ Should this repeal be finalized, the states will be burdened in offsetting these excess emissions, and at potentially much higher costs, for decades to come.

Our states have long supported and relied upon strong – and smart – federal regulation to ensure that harmful air emissions are gradually reduced over time. Within this cooperative framework, the federal highway diesel engine rule is vital to our states’ efforts to attain and maintain air quality standards. It was developed with comprehensive stakeholder input, and informed by rigorous technical analysis. It has put the states on a path to much cleaner air.

Another result is that U.S. companies are thriving as they have become leaders in many of the advanced emission reducing technologies that will continue to be in demand around the world for years to come. The proposed preferential exemption for glider engines and vehicles from these long-established modern emission standards puts these companies at a competitive disadvantage, thus undercutting businesses employing hundreds of thousands of workers across the U.S. Furthermore, the proposed rulemaking portends a ‘race to the bottom’ if more truck manufacturers are drawn into glider production, leading to even greater harmful impacts to air quality and public health.

¹⁰ Based on 2011 and projected 2018 NOx emission inventories developed by the Ozone Transport Commission/MANE-VU.

There is no way to understand the dramatic increase in sales of glider kits with old, dirty engines except as a concerted effort to circumvent critical public health protections. Exempting glider vehicles from modern emissions standards exposes the nation's citizens to elevated emissions of harmful pollutants, and it unfairly penalizes the many businesses in our states and across the country that operate in compliance with modern emission standards. We urge EPA to withdraw this proposed rule.

Sincerely,



Arthur N. Marin
Executive Director

cc: NESCAUM Directors
Bill Wehrum, EPA OAR
Chris Grundler, EPA OTAQ
David Conroy, EPA R1
Richard Ruvo, EPA R2