AMERICAN LUNG ASSOCIATION.

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January 5, 2018

The Honorable Scott Pruitt, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Attention Docket ID No. EPA–HQ– OAR–2014–0827: Proposed Repeal of Emission Requirements for Glider Vehicles, Glider Engines, and Glider Kits

Dear Administrator Pruitt:

The American Lung Association is the oldest voluntary public health association in the United States. We work on behalf of the 33 million Americans living with lung diseases including asthma, lung cancer and COPD and fight to protect all Americans from breathing unhealthy air.

We write in strong opposition to the Proposed Repeal of Emission Requirements for Glider Vehicles, Glider Engines, and Glider Kits. We urge you to withdraw this ill-advised proposal and maintain the Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles - Phase 2 rule.

GLIDER TRUCKS ARE NEW TRUCKS

In 2016, the Environmental Protection Agency (EPA) closed the glider truck loophole as part of the Phase 2 GHG Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Vehicles by limiting glider volumes to their historic levels of 300 units per year. In that rulemaking, EPA correctly concluded that glider trucks are new motor vehicles, and should be regulated as such. EPA documented that these vehicles are marketed and sold as new trucks.[1]

The Environmental Protection Agency's 2016 interpretation of the Clean Air Act that glider trucks are new motor vehicles is consistent with the law. Congress clearly intended for EPA to regulate them as such under Section 202(a)(1) of the Clean Air Act. EPA's new proposal is based on a flawed

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> reading of the law that failed to consider the statutory text and the clearly stated purpose of the law. An examination of the statutory text and legislative history make this clear.

Congress certainly did not intend to allow a manufacturer to avoid compliance with vehicle pollution standards by adding a used component to a vehicle. The 1965 Motor Vehicle Pollution Control Act (Clean Air Act Amendments of 1965) clearly stated the Secretary shall:

> "prescribe as soon as practicable standards, applicable to the emissions of any kind of substance, from any class or classes of **new motor vehicles** or new motor vehicle engines which in his judgement cause or contribute to, or are likely to cause or contribute to, air pollution which endangers the health or welfare of any persons, and **such standards shall apply to such vehicles or engines whether they are designed as complete systems** or incorporate other devices to prevent or control such pollution." (*emphasis added*) [2]

The statutory language shows that Congress understood that new motor vehicles or new motor vehicle engines are distinct. A motor vehicle can be new without a new engine and an engine can be new without a new chassis, but in either case the resulting vehicle is subject to regulation as a new motor vehicle. It is the clear intent of Congress that the federal government (then the Secretary of Health Education and Welfare, now the EPA Administrator) shall regulate either new motor vehicles or new motor vehicle engines as new. The statute continues to state that "such standards shall apply to such vehicles or engines whether they are designed as complete systems," which shows that Congress clearly recognized that the new vehicle standards apply even to incomplete vehicles and lack of completeness cannot be used to circumvent or escape standards. Adding or changing a part or component to a vehicle does not remove the obligation of that vehicle to conform to new vehicle emissions standards. Nor does the absence of a component or part eliminate the obligation to comply with new vehicle emissions standards. Further, the presence of old vehicle components or parts does not nullify the obligation to conform to new vehicle emissions standards.

This interpretation is reinforced by the Legislative History of the 1970 Clean Air Act Amendments:

> "The 1965 Clean Air Act Amendments provided the Secretary with the maximum flexibility to meet potentially different needs, but the 1965 statute clearly indicated that the Secretary's standards should be based on the needs of the worst areas in the nation – not the average – and that **technology should be pressed as rapidly as possible to overcome the extended time lapse between application of emissions controls and replacement of the entire vehicle population**." *(emphasis added)* [3]

The 1970 Clean Air Act Amendments affirmed the 1965 text, as shown by the legislative history and the statutory text that Congress passed as written below:

> SEC. 202. (a) Except as otherwise provided in subsection (b)— "(1) The Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of **new motor vehicles** or new motor vehicle engines, which in his judgment causes or contributes to, or is likely to cause or to contribute to, air pollution which endangers the public health or welfare. Such standards shall be applicable to such vehicles and engines for their useful life (as determined under subsection (d)), **whether such vehicles and engines are designed as complete systems or incorporated devices to prevent or control such pollution**.[4]

Again, it is clear that Congress intended for the deployment of emissions controls to occur "as rapidly as possible" and that EPA action to reopen the glider loophole to prolong the use of dirty, non-compliant engines would violate that intent. It is inconceivable and implausible that Congress intended to permit new glider trucks to avoid regulation. EPA's proposal ignores the air pollution cleanup and public health protection goals of the statute as well as the plain reading of the text.

Although the Clean Air Act has been amended several times, this relevant language remains:

> **Emission standards for new motor vehicles or new motor vehicle engines**
>
> *(a) Authority of Administrator to prescribe by regulation*
>
> Except as otherwise provided in subsection (b) of this section—
>
> (1) The Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant **from any class or classes of new motor vehicles or new motor vehicle engines,** which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. Such standards shall be applicable to such vehicles and engines for their useful life (as determined under subsection (d) of this section, relating to useful life of vehicles for purposes of certification), **whether such vehicles and engines are designed as complete systems or incorporate devices to prevent or control such pollution**. *(emphasis added)*[5]

EPA's reinterpretation of what constitutes a new motor vehicle falls flat and ignores the statutory context, legislative history and, most importantly, the plain text of the law. The Clean Air Act provides EPA with the authority and the obligation to regulate glider trucks as new motor vehicles.

GLIDER TRUCKS CREATE MUCH MORE POLLUTION THAN OTHER TRUCKS

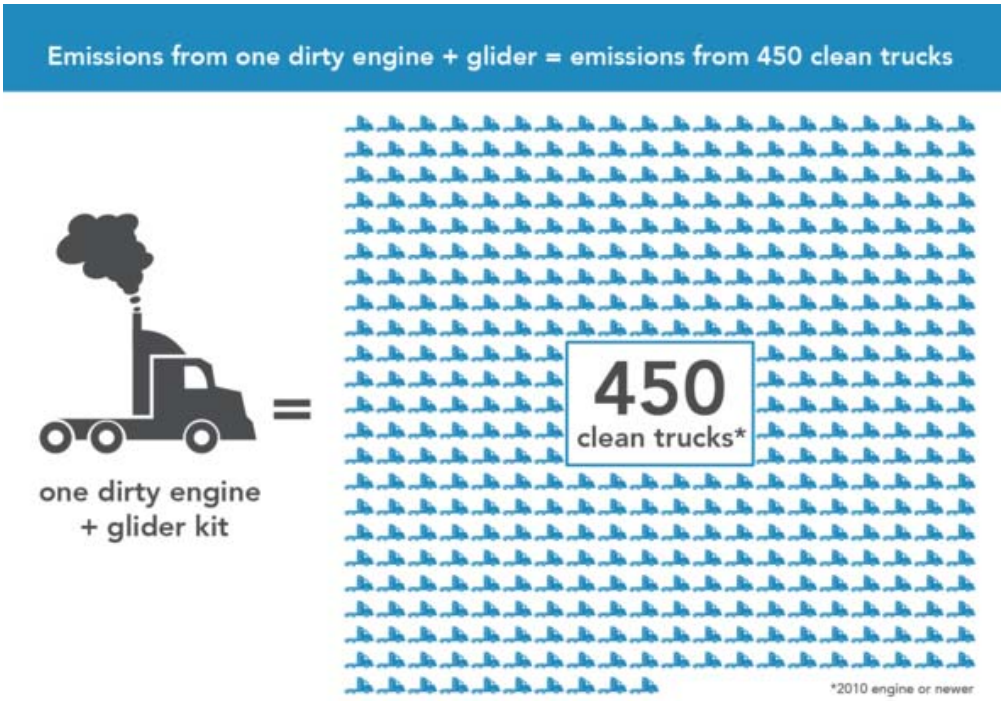
In a November 20, 2017 report, EPA showed that under highway cruise conditions **particulate matter (PM) emissions were 55 times higher** than comparable model year 2014 and 2015 vehicles.[6] The report also showed under transient testing conditions, PM emissions from a dirty diesel truck **were 450 times higher** than a comparable truck.[7] The high PM emission are starkly visible in the photographs of filters A1 and A2 shown below from that report.

Figure 9: PM Filters from Glider #1 testing over the Super Cycle Test

A1: Phase 1, hot start ARB Transient cycle; A2: Phase 2, four hot running ARB Transient cycles; A3: 10 minutes of measured idle; A4: 55/65 mph cruise. The PM sampling equipment shut down at phase 2 so filters A3 and A4 were not collecting PM. [8]

The sale of tens of thousands of new glider trucks with emissions at these levels pose an immediate threat to public health and the environment. The 2017 EPA testing showed that NOx emissions from the glider test vehicles were 43 times higher than the comparable truck under highway cruise conditions and 4-5 times higher under transient operations.[9]

The California Air Resources Board created this graphic to illustrate the emissions impact of one dirty glider truck.[10]



In its 2016 rulemaking, EPA estimated that closing the diesel trucks loophole would avoid up to 1,600 premature deaths over the lifetime of the trucks sold in 2017 alone.[11] Those deaths would be prevented by the reduced emissions of nitrogen oxides (NOx) and particulate matter ($PM_{2.5}$). This analysis found that, by 2025, with the loophole in place, the dirty diesel trucks would create an additional 190,231 tons per year of NOx and an additional 5,064 tons per year of $PM_{2.5}$.[12] By 2040, the dirty trucks would create an additional 318,515 tons per year of NOx and an additional 8,546 tons per year of $PM_{2.5}$.[13]

Considering the 2017 EPA testing and the likelihood that glider volume could significantly exceed the estimated 10,000 vehicles per year, the emissions from the glider fleet would be significantly higher in 2025 and 2040 according to EPA's analysis of glider kit production volume and the testing data.[14]

CONSENT DECREE ENGINES

According to an EPA memo with redacted Confidential Business Information, "nearly all engines from recent glider production are 1998-2002 pre-EGR engines." This means the vehicles do not

have exhaust gas recirculation pollution control technology. The memo concludes that "a small, but significant number of 2004-2006 engines [were] used, but very few 2007 and later engines."[15]

The 1998-2002 engines do not even meet the statutory emission requirements set by the 1990 Clean Air Act Amendments. The 1998 heavy duty truck emissions for NOx "may not exceed 4.0 grams per brake horsepower hour."[16] Under the 1998 diesel consent decree, the sale of non-compliant engines with emissions that were 50 percent higher than the standards was permitted until October 2002.[17] No one expected that nearly two decades ago that these non-compliant engines would be sold in new trucks, extending their excess emissions for another generation.

PM AND NOX POLLUTION THREATEN HEALTH

People who live within 500 meters of a highway are the most heavily exposed to air pollution from traffic, including from dirty diesel trucks, and are therefore the most harmed by diesel truck air pollution. The Health Effects Institute estimated in 2010 that roughly 45 percent of people in North America lived close enough to face serious health risk from traffic pollution, especially from diesel emissions. Studies show that traffic pollution causes asthma attacks in children, and may cause a wide range of other effects. Evidence warns that traffic pollution may cause premature death; may impair lung function; may cause the onset of childhood asthma; and may increase the risk of cardiovascular harm.[18] Ongoing research continues to underscore the dangers from traffic diesel exhaust. For example, the *Lancet* medical journal recently published a new paper that convincingly documented, at the biological level, the lung and heart damage caused by taking a walk along a busy urban street in London, where traffic is dominated by diesel vehicles.[19] An December 2017 study in the Journal of the American Medical Association found that for 10 $\mu g/m^3$ daily increase in $PM_{2.5}$and 10 ppb daily increase in warm-season ozone, the daily mortality rate increased by 1.05% and 0.51%, respectively.[20] According to one of the coauthors of the study, "[t]his translates to $PM_{2.5}$ causing an extra 20,000 deaths a year" in the United States.[21] EPA should focus its efforts on reducing emissions from motor vehicles and tightening NOx standards for trucks, not reopening this loophole that will increase emissions from the truck fleet, resulting in avoidable premature death, asthma attacks and other adverse health consequences.

CARCINOGENS

In 2012, the International Agency for Research on Cancer (IARC), which is part of the World Health Organization (WHO), classified diesel engine exhaust as a Group 1 carcinogen. They concluded that there is sufficient evidence that diesel exhaust exposure is associated with an increased risk for lung cancer.[22] One year later, the IARC also determined that particulate matter is a Group 1 carcinogen. Their unanimous conclusion found sufficient evidence, primarily also through an increased risk for lung cancer, for the carcinogenicity of particulate matter. [23]

EPA has long acknowledged that particulate matter triggers asthma attacks, heart attacks and strokes, causes premature death and is linked to low birth weight. [24] EPA recently concluded that NOx causes asthma attacks and long-term exposure has been linked to causing new cases of asthma to develop.[25] Growing evidence links NOx to an increased risk of heart attacks and premature death.[26]

MODERN POLLUTION CONTROLS ARE EFFECTIVE

Since 2007, diesel trucks have been required to have diesel particulate filters. The Health Effects Institute's Advanced Collaborative Emissions Study looked at the impact of pollution controls on diesel engine emissions. The study's results "demonstrate the effectiveness of modern after treatment technologies used in the modern diesel engines: they greatly reduce the emissions of PM, NOx, and NO2, and the levels of other toxic components."[27]

The investigation examined the risk of cancer in a chronic, controlled exposure study of rodents, since such a study could not be performed on humans. The study showed that "after a lifetime of exposure, [new-technology diesel exhaust] does not produce tumors in rats, unlike [traditional technology exhaust]."[28]

In sum, the Health Effects Institute showed that properly installed and functioning pollution controls on diesel engines work. Their conclusions are supported by real-world studies that found that these devices work to reduce diesel PM emissions even as the number of new diesel engines increases.[29] These controls have helped reduce $PM_{2.5}$ levels, particularly as demonstrated in places like California that have carefully enforced the requirements.[30]

CONCLUSION

Glider trucks are new trucks and Congress clearly intended for these vehicles to be regulated as new motor vehicles under the Clean Air Act. Reinstating the glider loophole would result in serious harm to the health of millions of Americans whom the Clean Air Act requires EPA to protect. On behalf of the 33 million Americans with lung disease and millions of Americans who are exposed to unhealthy air, the American Lung Association strongly opposes the proposed rule and urges EPA to withdraw the proposal.

Sincerely,

Harold P. Wimmer
National President and CEO

[1] U.S. Environmental Protection Agency and National Highway Traffic Safety Administration Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Vehicles—Phase 2. 81 Fed. Reg 73514 (October 25, 2016)
[2] Motor Vehicle Air Pollution Control Act of 1965 Sec. 202 (a) Public Law 89-271
[3] A Legislative History of the Clean Air Act Amendments of 1970: National Air Quality Standards Act of 1970 Report of the Committee on Public Works, United States Senate together with Individual View to Accompany S. 4359 January 1974 p. 425
[4] Clean Air Act Amendments of 1970 Sec. 202 (a) Public Law 91-604
[5] 42 U.S.C. United States Code, 2010 Edition Title 42 - THE PUBLIC HEALTH AND WELFARE CHAPTER 85 - AIR POLLUTION PREVENTION AND CONTROL From the U.S. Government Printing Office, https://www.gpo.gov/fdsys/pkg/USCODE-2010-title42/html/USCODE-2010-title42-chap85.htm
[6]U.S. EPA. 2017. Chassis Dynamometer Testing of Two Recent Model Year Heavy-Duty On-Highway Diesel Glider Vehicles. p. 3 (Hereafter referenced as HD Chassis Glider Final Report). Accessed at https://www.regulations.gov/document?D=EPA-HQ-OAR-2014-0827-2417 p. 3
[7] U.S. EPA, HD Chassis Glider Final Report p. 3
[8] U.S. EPA, HD Chassis Glider Final Report p. 15
[9] U.S. EPA, HD Chassis Glider Final Report p. 3
[10] California Air Resources Board. California's top air agency strongly condemns EPA's move to allow high-polluting, older trucks on roads, December 4, 2017. Accessed at: https://ww2.arb.ca.gov/news/californias-top-air-agency-strongly-condemns-epas-move-allow-high-polluting-older-trucks-roads
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[12]EPA and NHTSA, 2016. p. 1962
[13]EPA and NHTSA, 2016. p. 1962
[14] Charles Moulis memorandum to William Charmley, U.S. EPA. November 15, 2017. Summary Memo for Glider Production Data - Redacted Version. Accessed at https://www.regulations.gov/document?D=EPA-HQ-OAR-2014-0827-2379; HD Chassis Glider Final Report 11202017 https://www.regulations.gov/document?D=EPA-HQ-OAR-2014-0827-2417 p. 3
[15] Charles Moulis memorandum to William Charmley, U.S. EPA. November 15, 2017. Summary Memo for Glider Production Data - Redacted Version. Accessed at https://www.regulations.gov/document?D=EPA-HQ-OAR-2014-0827-2379
[16] 42 U.S.C. United States Code, 2010 Edition Title 42 - THE PUBLIC HEALTH AND WELFARE CHAPTER 85 - AIR POLLUTION PREVENTION AND CONTROL From the U.S. Government Printing Office, https://www.gpo.gov/fdsys/pkg/USCODE-2010-title42/html/USCODE-2010-title42-chap85.htm
[17] Consent Decree: Detroit Diesel Corporation Diesel Engines Settlement, October 22, 1998 accessed at https://www.epa.gov/sites/production/files/documents/detroit-cd.pdf
[18] Health Effects Institute Panel on the Health Effects of Traffic-Related Air Pollution, *Traffic-Related Air Pollution: A Critical Review of the Literature on Emissions, Exposure, and Health Effects*. Health Effects Institute: Boston, 2010. Available at www.healtheffects.org.
[19] Sinharay R, Gong J, Barratt B, et al. 2017. Respiratory and cardiovascular responses to walking down a traffic-polluted road compared with walking in a traffic-free area in participants aged 60 years and older with chronic lung or heart disease and age-matched healthy controls: a randomised, crossover study. *Lancet*. 2017 Dec 5. pii: S0140-6736(17)32643-0. doi: 10.1016/S0140-6736(17)32643-0. [Epub ahead of print]
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[23] Loomis D, et al. 2013. The Carcinogenicity of Outdoor Air Pollution. *Lancet* Oncology 14: 1262-1263; Hamra GB, Guha N, Cohen A, Laden F, Raaschou-Nielsen O, Samet JM, Vineis P, Forastiere F, Saldiva P, Yorifuji T, and Loomis D.

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[24] U.S. EPA. 2009.Integrated Science Assessment for Particulate Matter (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-08/139F. Available at http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=216546

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[26] U.S. EPA, 2016.

[27]Health Effects Institute. 2015. Executive Summary. The Advanced Collaborative Emissions Study (ACES). Boston, MA: Health Effects Institute. P. 21. Accessible at https://www.healtheffects.org/system/files/ACES-Executive-Summary2015_0.pdf

[28] Health Effects Institute. 2015. p. 22.

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