

U.S. EPA Science Advisory Board
Public Testimony of Dr. Cesunica Ivey
May 31, 2018

Good afternoon, I am Cesunica Ivey, an Assistant Professor of Environmental Engineering at the University of California Riverside. My technical expertise is air quality modeling and PM_{2.5} source apportionment, which is the quantifying of the contribution of pollution sources to ambient PM_{2.5} concentrations. Source apportionment data allows scientists to understand associations between human exposure to specific pollution sources and health endpoints, such as emergency department visits and mortality.

I am speaking today because I am concerned about the recently proposed repeal of the emissions standards for glider vehicles, which would allow old diesel engines to operate with old control technology in new trucks and emit more than 40 times more NO_x and up to 450 times more soot than new trucks.¹ The proposed rule also cited a faulty Tennessee Technical University study that did not use standard methods for measuring emissions from diesel engines and has subsequently been withdrawn.

The health effects of PM exposure are well-known and documented, but unfortunately 6 SAB members have questioned this link. In animal model studies, it was found that particulates from diesel exhaust were carcinogenic under long-term exposure.² In an epidemiological study for Atlanta, elemental carbon, a soot component, was found to be associated with an increased risk of preterm birth, and this risk was higher for African American women.³ Further, since low

¹ National Vehicle and Fuel Emissions Laboratory. *Chassis Dynamometer Testing of Two Recent Model Year Heavy-Duty On-Highway Diesel Glider Vehicles*; 2017.

² Kagawa, J. Health Effects of Diesel Exhaust Emissions--a Mixture of Air Pollutants of Worldwide Concern. *Toxicology* **2002**, 181–182, 349–353 DOI: 10.1016/S0300-483X(02)00461-4.

³ Hao, H.; Chang, H. H.; Holmes, H. A.; Mulholland, J. A.; Klein, M.; Darrow, L. A.; Strickland, M. J. Air Pollution and Preterm Birth in the U.S. State of Georgia (2002–2006): Associations with Concentrations of 11 Ambient Air Pollutants Estimated by Combining Community Multiscale Air

socioeconomic status neighborhoods are oftentimes adjacent to truck routes and major highways, poor people would ultimately suffer a larger health burden under the proposed glider vehicle rule.⁴

EPA's mission is to protect human health and welfare and this proposal does the exact opposite. I cannot speak to EPA's legal theory, but it seems obvious to me that rules that re-open loopholes that would allow a handful of small companies to get around building new trucks with mandated pollution control devices is not an appropriate action for EPA to take. Especially in light of the fact that the only technical analysis they cite has since been withdrawn due to the concern of an entire University Faculty Senate. EPA has actually done strong research on the emissions impacts of glider vehicles and that is the data that should be considered by this committee.¹

I respectfully ask this body to officially review the proposed glider vehicle rule.

Quality Model (CMAQ) Simulations with Stationary Monitor Measurements. *Environ. Health Perspect.* **2015**, *124* (6), 875–880 DOI: 10.1289/ehp.1409651.

⁴ Gunier, R. B.; Hertz, A.; Von Behren, J.; Reynolds, P. Traffic Density in California: Socioeconomic and Ethnic Differences among Potentially Exposed Children. *J. Expo. Anal. Environ. Epidemiol.* **2003**, *13* (3), 240–246 DOI: 10.1038/sj.jea.7500276.