



The Vehicle Suppliers Association

November 21, 2025

California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: MEMA Comments on *Drive Forward Light-Duty Vehicle Program - October 2025 Workshop*

To Whom It May Concern:

MEMA, The Vehicle Suppliers Association (MEMA) submits these comments to the California Air Resources Board (CARB) in response to its *Drive Forward Light-Duty Vehicle Program- October 2025 Workshop* as it pertains to non-exhaust emissions (NEE). MEMA members have been proud to partner with CARB on its research into brake particulate matter emissions. MEMA advises CARB to complete further research, validated testing, and data analysis prior to the consideration of regulatory measures. It is critical that industry understands the test procedures and emissions limits of any resulting regulation, and that those factors remain aligned. At this stage, regulation of brake wear would be premature.

MEMA is the leading trade association in the U.S. for vehicle suppliers, parts manufacturers, and remanufacturers. The mobility sector depends on the resiliency and strength of suppliers and MEMA has been the voice of the supplier industry since 1904. MEMA's members design and manufacture the technology, components and services that enable the production of new vehicles, as well as the essential maintenance and repair of the more than 295 million highway vehicles that are currently on the road in the U.S.

I. MEMA Brake Manufacturers Council® and Prior Collaboration with CARB

Since 1973, MEMA and its Brake Manufacturer's Council® (BMC) have represented the interests of the brake industry. MEMA is also the owner of the LeafMark™ trademark, a recognized symbol of compliance with copper-free brake legislation and environmental responsibility.

MEMA and its BMC have consistently collaborated with CARB and other regulatory authorities on research-backed standards; most notably leading efforts to address the use of copper in brake pads. In 2015, MEMA and the BMC signed the "Copper Free Brake Initiative" Memorandum of Understanding to facilitate nationwide industry phase out of copper and other constituents in motor vehicle brake pads, modeled on previous requirements enacted in

California.¹ As a result, MEMA developed the LeafMark™ certification program, which is designed to certify that brake friction materials manufactured by third parties have passed certain environmental composition standards.

Further, since 2023, the BMC has worked with CARB on its Project Advisory Committee (PAC) for the project *Characterization of Tire-Wear and Brake-Wear PM Emissions Under On-Road Driving Conditions*, where MEMA was invited to join the PAC as an industry representative. The BMC has been proud to provide industry expertise and constructive recommendations for this important initiative, with on-road brake PM testing concluding earlier this year. Also, MEMA has been supportive of the Coordinating Research Council (CRC) study, which has coordinated with CARB on its brake and tire wear emissions research and plans to fund testing on an additional vehicle.

II. CARB Should Continue and Complete Testing Prior to Establishing Researched-Backed Regulations

MEMA is supportive of CARB's efforts to research brake particulate matter emissions. However, before taking regulatory measures, CARB must further study and consider the complexity of the U.S. aftermarket, which includes thousands of combinations of rotors, pads, and calipers. The unique and often customized combinations of these components are further multiplied by the different vehicle classes implicated. This product diversity makes it scientifically infeasible to adopt uniform regulatory testing requirements that may only apply to single OE configurations. As a result, MEMA is concerned that CARB may pursue regulatory measures based on limited sample sizes that do not properly reflect the complexity of the industry. MEMA encourages CARB to continue to diversify and expand its testing prior to any regulatory measures.

Given the early stages of this research study, as well as initiatives to expand the testing, MEMA is concerned by the inclusion of NEE in CARB's October 21 *Drive Forward Light-Duty Vehicle Program* public workshop as a potential regulatory pathway. In the workshop, CARB highlighted NEE as a substantial source of PM emissions by 2050 and requested public comment on "reduction options that can be considered for regulatory or alternative measures." Considering the limited data available and the test's repeatability challenges, MEMA urges CARB to defer any regulatory action or rulemaking until the ongoing studies yield verifiable results. MEMA supports research-backed regulations and encourages CARB to expand collaboration with the industry through the PAC before finalizing regulatory steps.

¹ See Copper-Free Brake Initiative, US EPA, <https://www.epa.gov/npdes/copper-free-brake-initiative> (last visited Nov. 21, 2025).



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III. Background on the Vehicle Supplier Aftermarket

The vehicle supplier aftermarket is a \$575.7 billion industry, representing 2% of U.S. GDP.² The aftermarket works to support over 291 million vehicles that travel 3.5 trillion miles on American roads annually.³ MEMA Aftermarket Suppliers exclusively serves manufacturers of aftermarket components, tools and equipment, and related products, an important part of the automotive parts manufacturing industry that supports 932,000 American jobs in all 50 states. MEMA Aftermarket is a recognized industry change agent – promoting a collaborative industry environment, providing a forum to address issues, and serving as a valued resource for members across all areas of the aftermarket including light vehicle, commercial vehicle, and remanufacturing. Members supply the aftermarket with the parts that keep millions of vehicles on the road, fueling international commerce and meeting society's transportation needs. MEMA members are committed to safety.

IV. Conclusion

As California receives public comments related to its *Drive Forward* initiative, MEMA urges CARB to delay further consideration of regulatory measures to address PM emissions from brake wear. MEMA appreciates CARB's consideration of these comments, encourages the agency to continue collaborating with industry stakeholders to strengthen the technical foundation and research pertaining to NEE, and encourages CARB to continue to build upon this research.

MEMA appreciates CARB's consideration of its feedback on its October 2025 workshop. For more information or questions please contact Jennifer A. Lewis, Vice President of Regulatory Affairs at jlewis@mema.org or Emily Sobel, Senior Manager of Regulatory Policy at esobel@mema.org.

Sincerely,

A handwritten signature in cursive script that reads "Jennifer A. Lewis".

Jennifer A. Lewis
Vice President of Regulatory Affairs
MEMA, The Vehicle Suppliers Association

² See MEMA Aftermarket Suppliers, *The Automotive Aftermarket: A Critical Economic Engine*, 2026 Auto Care Factbook; 2025 Joint Channel Forecast (2025).

³ See *id.*