

**Motor & Equipment Manufacturers Association**

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June 19, 2019

Thomas Montes  
California Air Resources Board  
Manager, Diesel On-Board Diagnostics Program  
Development Section  
9480 Telstar Avenue  
El Monte, CA 91731

**RE: Proposed Revisions to On-Board Diagnostic System Requirements, Including the Introduction of Real Emissions Assessment Logging (REAL), for Heavy-Duty Engines, Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines**

Dear Mr. Montes:

The Motor & Equipment Manufacturers Association (MEMA)<sup>1</sup> submits the following comments regarding the California Air Resources Board's (CARB) 15-day notice for the proposed revisions On-Board Diagnostic System Requirements, Including the Introduction of Real Emissions Assessment Logging (REAL), for Heavy-Duty Engines, Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines. MEMA outlines below our support of the proposed revisions. MEMA also outlines a few areas where the proposal has a few technical inconsistencies in the language.

MEMA represents over 1,000 vehicle suppliers that manufacture and remanufacture original equipment (OE) and aftermarket components and systems for use in passenger cars and HDVs. The motor vehicle components manufacturers are the largest sector of manufacturing jobs in the U.S. directly employing over 871,000 workers in all 50 states – 31,190 of those jobs are in the State of California.<sup>2</sup> Our members develop and produce a multitude of technologies and a wide-range of products, components and systems that make vehicles more efficient and reduce emissions.

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<sup>1</sup> MEMA represents vehicle suppliers through its four divisions: Automotive Aftermarket Suppliers Association (AASA), Heavy Duty Manufacturers Association (HDMA), Motor & Equipment Remanufacturers Association (MERA) and, Original Equipment Suppliers Association (OESA).

<sup>2</sup> MEMA, "Driving the Future: The Employment and Economic Impact of the Vehicle Supplier Industry in the U.S." (Jan. 26, 2017), available at [https://www.mema.org/sites/default/files/MEMA\\_ImpactBook.pdf](https://www.mema.org/sites/default/files/MEMA_ImpactBook.pdf)



Motor vehicle suppliers have a vested interest in developing and implementing the best technology into the market and to effectively monitor and diagnose vehicle's emissions control systems. As a result, MEMA supports state and federal policies that enable the introduction and the improvement of innovative emissions reducing technologies. Pragmatic strengthening of OBD requirements is an important tool in improving vehicle emissions compliance by identifying potential emissions technology problems and malfunctions sooner.

MEMA appreciates CARB's revisions to provide industry with longer leadtime to meet the requirements associated with REAL including the new tracking and reporting requirements and a few relaxations associated with the REAL proposal.

MEMA appreciates that CARB clarified that intrusive diagnostic systems can be used "if the manufacturer has employed the best available monitoring technology that, to the extent feasible, results in the smallest emissions impact."<sup>3</sup>

In several sections of the proposal, NOx and PM sensor feedback faults (e)(9.2.2)(C) are excluded from the readiness and test result reporting requirements. With a similar fault pattern to sensor feedback, we would appreciate if CARB could clarify that NOx sensor activity also be excluded from readiness and test results reporting. Based on this understanding we would recommend that the following modification marked in red be allowed in the proposal (the rationale is included below each recommendation).

From 13 CCR 1971.1:

1. (h)(4.1.7)(B) Gasoline and diesel exhaust gas sensor feedback and activity monitors specified in sections (e)(9.2.1)(A)(iii), (e)(9.2.1)(B)(iii), (e)(9.2.2)(C), (e)(9.2.2)(E), (f)(8.2.1)(C), and (f)(8.2.2)(E).

Rationale: Consistency with (h)(4.1.3)(I).

2. (h)(4.5.7) The requirements of section (h)(4.5) do not apply to gasoline fuel system monitors specified under sections (f)(1.2.1)(A), (f)(1.2.1)(B), (f)(1.2.2), and (f)(1.2.4); and (f)(1.2.5), exhaust gas sensor monitors specified under sections (e)(9.2.1)(A)(iii), (e)(9.2.1)(B)(iii), (e)(9.2.2)(C), (e)(9.2.2)(E), (f)(8.2.1)(C), and (f)(8.2.2)(E), cold start emission reduction strategy monitors, circuit and out-of-range monitors that are required to be continuous, and diesel feedback control monitors specified under sections (e)(1.2.4), (e)(3.2.4), (e)(4.2.5), (e)(6.2.2)(D), (e)(7.2.3), and (e)(8.2.7), and CV system monitors that meet the requirements specified under section (g)(2.2.2).

Rationale:

- (e)(9.2.2)(E) is of a similar nature as (e)(9.2.2)(C) (Feedback faults), and subject to the same monitoring conditions.

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<sup>3</sup> Proposed Revisions to on-Board Diagnostic System Requirements, Including the Introduction of Real Emissions Assessment Logging (REAL), for Heavy-Duty Engines, Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines, p.14.

- A meaningful test result that could be reported for (e)(9.2.2)(E) is not clear.

From 13 CCR 1968.2:

3. (g)(4.1.8)(B) Gasoline and diesel exhaust gas sensor feedback and activity monitors specified in sections (e)(7.2.1)(C), (e)(7.2.2)(E), (f)(5.2.1)(A)(iii), (f)(5.2.1)(B)(iii), and (f)(5.2.2)(C), and (f)(5.2.2)(E).

Rationale: Consistency with (g)(4.1.3)(I).

4. (g)(4.5.5)(C)(ii) Gasoline and diesel exhaust gas sensor feedback and activity monitors specified in sections (e)(7.2.1)(C), (e)(7.2.2)(E), (f)(5.2.1)(A)(iii), (f)(5.2.1)(B)(iii), and (f)(5.2.2)(C), and (f)(5.2.2)(E).

Rationale:

- (f)(5.2.2)(E) is of a similar nature as (f)(5.2.2)(C) (Feedback faults), and subject to the same monitoring conditions.
- A meaningful test result that could be reported for (f)(5.2.2)(E) is not clear.

MEMA appreciates CARB's consideration of industry's input reflected in the modified text and appreciates consideration of the technical inconsistencies in the language. Please contact Laurie Holmes at lholmes@mema.org if you have any questions or would like additional information.

Sincerely,



Ann Wilson

Senior Vice President, Government Affairs