STATE OF CALIFORNIA AIR RESOURCES BOARD

Proposed Revisions to the On-Board Diagnostic System Requirements and Associated Enforcement Provisions for Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles and Engines, and Heavy-Duty Engines; Modifications	))))))	**Comment Deadline: March 2, 2022**

COMMENTS OF THE TRUCK AND ENGINE MANUFACTURERS ASSOCIATION

March 2, 2022

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The Truck and Engine Manufacturers Association ("EMA") hereby submits its comments in response to the Notice of Public Availability of Modified Text and Proposed 15-Day Modified Regulation Order that the State of California Air Resources Board ("CARB") published on February 15, 2022, to the "Proposed Revisions to the On-Board Diagnostic System Requirements and Associated Enforcement Provisions for Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles and Engines, and Heavy-Duty Engines." EMA is the trade association that represents the world's leading manufacturers of internal combustion engines, including heavy-duty on-highway ("HDOH") diesel engines, and the heavy- and medium-duty vehicles in which those diesel engines are installed. EMA and its members are strongly committed to improving the air quality both in California and nationwide. We have worked collaboratively to help develop and implement effective standards to meet those goals, and we stand ready to continue that work.

As detailed below, EMA requests additional revisions to the proposed regulatory language of sections 1971.1 and 1971.5 of Title 13 California Code of Regulations, consistent with EMA's prior comments and concerns submitted to CARB on its original regulatory proposal:

1. **§1971.1(c):** The 15-Day notice failed to include an alternate phase-in allowance for the new CSERS tracker requirements of (h)(5.9.2). We recommend the following edits to the §1971.1(c) definition of "Alternate phase-in":

   > "Alternate phase-in", as allowed in section (g)(5.8), is a phase-in schedule that achieves equivalent compliance volume by the end of the last year of a scheduled phase-in provided in this regulation. The compliance volume is the number calculated by multiplying the percent of engines (based on the manufacturer's projected sales volume of all engines unless specifically stated otherwise in section (e), (f), ~~or~~ (g), or (h))..."

2. **§1971.1(d)(3.2.2)(B)(ii):** As previously noted, EMA requests that CARB include an explanation in the Statement of Reasons explaining why the 0.500 value was chosen for

heavy-duty vehicles, to clarify that this higher value only applies in this specific circumstance.

3. **§1971.1(f)(4.2.3):** An alternate schedule for the cold start catalyst heating monitor should also be provided in section (f)(4.2.3).

4. **§1971.1(f)(4.2.3):** EMA questions the rationale behind the addition of the language "in park or neutral" in §1971.1. For heavy-duty SI products, catalyst warm-up strategy is not necessarily dependent on the gear selector input from the Transmission Control Unit as this would bring the transmission into the OBD boundary. The proposed language creates an improper and unnecessary connection between the vehicle and engine, as it would require OBD monitoring for the gear selector inputs that are not controlled by the engine manufacturer. We recommend deletion of this language.

5. **§1971.1(g)(5.8)):** As noted above with respect to the §1971.1(c) definitions, section (g)(5.8) failed to include an allowance for the alternate phase-in allowance to the new CSERS phase in requirements of section (h)(5.9.2). The following edits are recommended for sections (g)(5.8) and (5.8.1):

   "(5.8) Whenever the requirements in section (e), (f), ~~or~~ (g), or (h) of this regulation require a manufacturer to meet a specific phase-in schedule:

   (5.8.1) Except as provided for in section (g)(5.8.3) below for the diesel NOx converting catalyst and NOx and PM sensor phase-ins, ~~and~~ in section (e)(8.2.1) for the PM filter monitor phase-in, and in section (h)(5.9.2) for the CSERS tracker phase-in, manufacturers may use an alternate phase-in schedule in lieu of the phase-in schedule set forth in sections (e), (f), ~~or~~ (g), or (h) if the alternate phase-in schedule provides for equivalent compliance volume as defined in section (c)."

6. **§1971.1(h)(3.1.3):** We note that there are monitors missing from this section (e.g., EI-AECD, CSERS). It is recommended that the following language be added to address the missing monitors, and any new monitors: "The OBD system may respond with NRC $78 for any data that is not ready or available."

   However, we question the necessity of the added language in the regulation, as this was already adjudicated and defined in SAE J1979-2 – and in some cases, the proposed additions are in direct conflict with J1979-2. Further, during development of the J1979-2 protocol, it was noted that it is not technically feasible to have an immediate response for these monitors.

7. **§1971.1(j)(2.16)**: The following additional edits for clarity are recommended regarding the proposed amendments to the concerns and deficiencies cover letter:

"(2.16) A cover letter identifying all concerns and deficiencies applicable to the equivalent previous model year engine, the changes and/or resolution of each concern or deficiency for the current model year engine, a list of modifications to the OBD system that were made as part of a running change or field fix applied to the previous model year (for this engine or another engine), and all other known issues that apply to the current model year engine (e.g., concerns or deficiencies of another engine that also apply to this engine, unresolved issues identified ~~found~~ during production engine/vehicle evaluation testing under section (l) from the ~~a~~ previous model year that are known at the time of the current OBD certification application submission)."

8. **§§1971.1(l)(1.5.1) and (l)(2.4):** The proposed requirement to provide a report as "one single file" will make the report unwieldy for some manufacturers or given file submissions, due to the amount of data required. Further, the section (l)(2.4.2) summary report should be an independent submission from the section (l)(2.4.1) report(s). See recommended edits:

"(2.4.1) Manufacturers shall submit a report, or reports, of the results of all testing conducted pursuant to section (l)(2) to the Executive Officer for review. The ~~is~~ report(s) shall identify the method used to induce a malfunction in each diagnostic, the MIL illumination status, and the fault code(s) stored. The report(s) shall also include all the information described in section (l)(2.4.2)~~a summary of any problems identified during testing (e.g., a monitor that is unable to detect a fault, a monitor that is unable to store a fault code or illuminate the MIL when a fault is detected)~~.

(2.4.2) Manufacturers shall include the following information in ~~the~~ a summary report for each test described in section (l)(2.4.1):"

9. **§1971.1(l)(3.4.3)(C):** Proposed paragraph (C) should be deleted, or revised. As noted in our comments on the 45-Day Notice, the allowance to use an alternative vehicle identifier in place of the VIN allows manufacturers to completely anonymize data to maintain privacy, since a customer's VIN is not known by the manufacturer. The intent of this provision was to provide a richer data set. However, paragraph (C) requires manufacturers to retain VINs – which are considered personally identifiable information (PII). The proposed paragraph was added to be consistent with §1968.2(i)(3.2.3)(C); thus, further amendments to this paragraph should be identical in both sections of the regulation.

10. **§1971.1(l)(2):** Clarity is needed in this section with regard to the start of the six month "clock." The completion of PVE (l)(2) testing is dependent on the production of the rating selected for DDE; however, that could occur much later than the start of production as defined in §1971.1(c) ("…the time when the manufacturer has produced two percent of the projected volume for the engine or vehicle"). We recommend the following edits to provide additional clarity:

"(2.1) No later than either six months after the start of engine production or six months

after the start of vehicle production, whichever is later, for the engine family and rating selected in section (l)(2.2.1), manufacturers shall conduct a complete evaluation of the OBD system of one or more production vehicles (test vehicles) and submit the results of the evaluation to the Executive Officer."

EMA appreciates the opportunity to provide our comments on the proposed modifications, and we look forward to continuing to work with CARB to ensure clear, consistent regulations. Please do not hesitate to contact us if you should have any questions or if additional information is needed.

Respectfully submitted,

TRUCK & ENGINE
MANUFACTURERS ASSOCIATION