

# **Second Notice of Public Availability of Modified Text**

## **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**

Public Hearing Date: July 22, 2021  
First Public Availability Date: February 15, 2022 – March 2, 2022  
Second Public Availability Date: April 22, 2022  
Deadline for Public Comment: May 9, 2022

At its July 22, 2021, public hearing, the California Air Resources Board (CARB or Board) approved for adoption the Proposed Amendments to sections 1968.2,<sup>1</sup> 1968.5,<sup>2</sup> Title 13, California Code of Regulations (CCR) (OBD II) and sections 1971.1,<sup>3</sup> and 1971.5,<sup>4</sup> Title 13, CCR (HD OBD) (collectively, "Proposed Amendments"). The Proposed Amendments would require manufacturers to implement Unified Diagnostic Services features for on-board diagnostics (OBD) communications on vehicles and engines, revise the monitoring requirements for cold start emission reduction strategies (CSERS), update the supporting data requirements for diesel catalyst and oxides of nitrogen (NOx) sensor monitors, and revise the malfunction criteria and in-use monitor performance ratio requirements for the particulate matter (PM) filter monitor.

The Board directed the Executive Officer to determine if additional conforming modifications to the regulation were appropriate and to make any proposed modified regulatory language available for public comment, with any additional supporting documents and information, for a period of at least 15 days as required by Government Code section 11346.8. The Board further directed the Executive Officer to consider written comments submitted during the public review period and make any further modifications that are appropriate available for

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<sup>1</sup> Section 1968.2 is the "Malfunction and Diagnostic System Requirements – 2004 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium Duty Vehicle and Engines" requirements.

<sup>2</sup> Section 1968.5 is the "Enforcement of Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" requirements.

<sup>3</sup> Section 1971.1 is the "On-Board Diagnostic System Requirements – 2010 and Subsequent Model-Year Heavy-Duty Engines" requirements.

<sup>4</sup> Section 1971.5 is the "Enforcement of Malfunction and Diagnostic System Requirements for 2010 and Subsequent Model-Year Heavy-Duty Engines" requirements.

public comment for at least 15 days, and present the regulation to the Board for further consideration if warranted, or take final action to adopt the regulation after addressing all appropriate modifications.

The resolution and all other regulatory documents for this rulemaking are available online at the following [CARB website](https://ww2.arb.ca.gov/rulemaking/2021/obd2021): <https://ww2.arb.ca.gov/rulemaking/2021/obd2021>

CARB staff proposed modifications that were made available in the first Notice of Public Availability of Modified Text and Availability of Additional Documents and/or Information (first 15-day notice) for a 15-day public comment period from February 15, 2022, through March 2, 2022.

This second 15-day notice makes available additional proposed modifications to sections 1968.2 and 1971.1, for a 15-day public comment period. These additional modifications amend the monitoring conditions for the gasoline cold start catalyst heating monitor, allow manufacturers to use alternate phase-in schedules for the diesel CSERS trackers, correct errors in the regulation language for production vehicle/engine evaluation testing, modify an example in the certification documentation requirements, and clarify the deficiency fines requirements and the definition of "start of production."

The text of the modified regulatory language for sections 1968.2 and 1971.1 is shown in Attachment A. The originally proposed regulatory language is shown in ~~striketrough~~ to indicate deletions and underline to indicate additions. New deletions and additions to the proposed language that were made public with the first 15-day notice are shown in ~~double striketrough~~ and double underline format, respectively. New deletions and additions to the proposed language that are made public with this notice are shown in ~~bold italic double striketrough~~ and **bold italic double underline format**, respectively.

In the Final Statement of Reasons, staff will respond to all comments received on the record during the comment periods. The Administrative Procedure Act requires that staff respond to comments received regarding all noticed changes. Therefore, staff will only address comments received during this 15-day comment period that are responsive to this notice, documents added to the record, or the changes detailed in Attachment A.

## Summary of Proposed Modifications

The following summary does not include all modifications to correct typographical or grammatical errors, changes in numbering or formatting, nor does it include all of the non-substantive revisions made to improve readability.

Modifications are noted together (e.g., section 1968.2 and 1971.1 for the OBD II and HD OBD regulations, respectively) where applicable; all other modifications are noted separately for their specific sections.

### Modifications to the OBD II Regulation Section 1968.2 and HD OBD Regulation Section 1971.1

1. In sections 1968.2(c) and 1971.1(c), the definition of "alternate phase-in" was modified to include reference to sections 1968.2(d) and (g) in section 1968.2(c) and reference to section 1971.1(h) in section 1971.1(c). Even though sections 1968.2(d) and (g) and 1971.1(h) require phase-in schedules for the implementation of some requirements,

including phase-in schedules proposed as part of the 45-day and first 15-day notices, staff did not update the definition of “alternate phase-in” to account for them. Additionally, in section 1971.1(c), the phrase “as allowed in section (g)(5.8)” was deleted from the definition since alternate phase-ins are also now allowed in section 1971.1(h) with the proposed addition of section 1971.1(h)(7.3), for which the rationale is described below. Further, with the deletion of the reference to section (g)(5.8), the definition of “alternate phase-in” would not need to be amended every time a new subsection uses the term.

2. In subsections 1968.2(i)(2.14) and 1971.1(j)(2.16), one of the examples of information required to be included in the cover letter for the OBD system application was modified. An example of the requirement to include “known issues that apply to the current model year” was modified to state “unresolved” issues identified during production vehicle/engine evaluation testing. Manufacturers submitted comments indicating that the language provided as part of the first 15-day notice, which included the example “issues found during production engine/vehicle evaluation testing,” was overly broad and would include issues that were already resolved and therefore do not exist on the engines/vehicles covered by the application. The manufacturers stated it is not necessary to report such issues. The language at issue here is only an example of the kinds of issues required to be included in the cover letter. The examples are not inclusive of all the types of issues required to be included. Nonetheless, CARB staff is proposing to modify the language as suggested by the commenter for clarity. As a note, if issues are found after the official submission of the OBD system application, CARB staff expects manufacturers to update the cover letter to include such issues up until CARB’s certification of the OBD system. It is important that the OBD system application and its description of the OBD system are as accurate and complete as possible prior to CARB’s certification of the OBD system.
3. In subsections 1968.2(j)(1.4.2)(E) and 1971.1(l)(1.4.3)(E), the parameter ID (PID) mentioned for the number of stored fault codes and MIL command status for SAE International (SAE) J1979-2 was corrected from PID \$01 to PID \$F501. PID \$01 is incorrect, since it is the PID for SAE J1979 (not SAE J1979-2) vehicles/engines.
4. In subsections 1968.2(j)(1.5) and 1971.1(l)(1.5), which require certain information to be included in one report for all production vehicle/engine evaluation standardization tests done for each model year, the language was modified to exclude the test log files from the information required to be included in this single report. The proposed language would require these test log files to be submitted to the Executive Officer separately from the report. CARB intends for the test log files to be submitted separately, not included in the report, since these log files are generated automatically during testing and are large in size.

#### Additional Modifications to the OBD II Regulation Section 1968.2

5. In subsection 1968.2(k)(3), the language was modified to apply deficiency fines to vehicles “produced and delivered for sale in California.” CARB staff originally proposed that the fines apply to vehicles “produced for sale in California” as part of the first 15-day notice. Manufacturers submitted comments suggesting the language be changed to “produced and delivered” to match the language used in other CARB regulations. CARB staff agrees.

## Additional Modifications to the HD OBD Regulation Section 1971.1

6. In section 1971.1(c), the definition name for “start of production” was modified to “start of engine production” and “start of vehicle production” to match the terminology used in sections 1971.1(j), (l), and (k). The definitions were also modified to indicate that the “start of engine production” is based on the engine rating subject to the specific regulatory provision, while the “start of vehicle production” is based on the engine rating and chassis application combination for the engine rating subject to the specific regulatory provision. Manufacturers submitted comments indicating that the language in section 1971.1(l)(2.1), which sets the deadline for submission of the testing results based on the start of engine production or vehicle production, is not clear. Specifically, it is not clear whether the deadlines depend on the start of production date of the engine family that the test engine is in or the engine rating of the test engine within that engine family. Considering an engine family may include several engine ratings with different start of production dates for each rating, there was concern that if the date was based on the start of production date for the engine family (i.e., for the rating with the earliest start of production date), subsequent deadlines would be earlier than intended compared to a potentially later production start date of the engine rating of the test engine. The proposed language makes clear the deadlines are based on the production start date of the engine rating or the engine rating and chassis application combination, not the engine family.
7. In subsection 1971.1(d)(4.3.2)(N), the denominator incrementing criteria for the gasoline cold start catalyst heating monitor were modified for heavy-duty engines with catalyst heating strategies that do not depend on the transmission gear input. Specifically, for monitors for which the manufacturer has received Executive Officer approval to enable without regard to the transmission gear position under section 1971.1(f)(4.2.3), the denominator would be required to increment when, in addition to the requirements of section 1971.1(d)(4.3.2)(B), the CSERS monitoring conditions (as defined in section 1971.1(c)) are met and idle operation during the first 30 seconds after engine start is greater than or equal to 10 seconds. Staff proposed these changes to account for the proposed amendments to section 1971.1(f)(4.3.2) described below, which would allow monitors on these engines to run when the transmission is in any gear position, not only in park or neutral as originally proposed.
8. In subsection 1971.1(f)(4.2.3), the monitoring requirements for the gasoline cold start catalyst heating monitor were modified to allow manufacturers to run the monitor at idle without regard to the transmission gear position instead of only in park or neutral gear, provided the manufacturer submitted and the Executive Officer approved a request to do so. The manufacturer must submit data or engineering evaluation showing that the transmission gear position has no effect on the catalyst heating strategy. These changes were made in response to manufacturers’ concerns with heavy-duty manufacturers indicating that the catalyst warm-up strategy may not be dependent on the gear selector input from the transmission control unit, and requiring the monitor to run only when the transmission is in park or neutral gear would require engine manufacturers to monitor the gear selector inputs, which are not controlled by the engine manufacturers. Since CARB staff’s intent with the requirement was to limit monitoring to the conditions when the catalyst heating strategy is active, which in some cases do depend on the transmission gear position, CARB is proposing the revisions and will approve monitoring without regard to the transmission gear position

if the manufacturer-submitted data or evaluation show that catalyst heating is not dependent on the transmission gear position (e.g., there is no decrease in airflow and no advancement of spark timing when the transmission is in gear compared to the airflow and spark timing in park or neutral).

9. In subsection 1971.1(g)(5.8.1), which allows manufacturers to use an alternate phase-in schedule as defined in section 1971.1(c) for the monitoring requirements in sections 1971.1(e) through (g), the reference to “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” was changed to “elsewhere in sections (e) through (g)” with regards to the exceptions to the allowance. Staff proposed phase-in schedules in sections 1971.1(e) through (g) as part of the 45-day notice that require different conditions for the alternate phase-in schedules than those described in the “alternate phase-in” definition in section 1971.1(c). However, staff did not update subsection 1971.1(g)(5.8.1) to include reference to these new sections.
10. Subsection 1971.1(h)(7.3) was added to indicate that for phase-in schedules required in section 1971.1(h), the phase-in percentage shall be based on the manufacturer’s projected sales volume of all engines (unless otherwise noted elsewhere), manufacturers would be allowed to use an alternate phase-in schedule in lieu of the required phase-in schedule if certain criteria are met, and small volume manufacturers may use an alternate phase-in schedule or meet the requirements on all engines in the final year of the required phase-in schedule. The language is similar to section 1971.1(g)(5.8), which specifies the phase-in schedule requirements for the monitoring requirements in sections 1971.1(e) through (g). Section 1971.1(h) previously did not have similar language since there were no required phase-in schedules in this section. However, staff proposed a phase-in schedule for implementing the diesel CSERS tracking requirements in subsection 1971.1(h)(5.9) as part of the 45-day notice, but did not include language that would allow for an alternate phase-in schedule for this requirement. An alternate phase-in schedule is appropriate to provide flexibility to manufacturers while maintaining the integrity of the added diesel CSERS tracking requirements.

In addition to the modifications described above, additional modifications correcting grammar, punctuation and spelling have been made throughout the proposed changes. These changes are nonsubstantive.

## **Agency Contacts**

Inquiries concerning the substance of the proposed regulation may be directed to Jason Wong, Manager, On-Board Diagnostics Program Development Section, at (951) 542-3419 or (designated back-up contact) Adriane Chiu, Air Resources Engineer, On-Board Diagnostics Program Development Section, at (951) 542-3123.

## **Public Comments**

Written comments will only be accepted on the modifications identified in this Notice. Comments may be submitted by postal mail or by electronic submittal no later than the due date to the following:

Postal mail: Clerks' Office, California Air Resources Board  
1001 I Street, Sacramento, California 95814

*Electronic submittal:* <https://www.arb.ca.gov/lispub/comm/bclist.php>

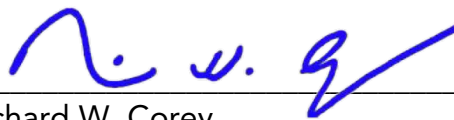
Please note that under the California Public Records Act (Gov. Code § 6250 et seq.), your written and verbal comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

In order to be considered by the Executive Officer, comments must be directed to CARB in one of the two forms described above and received by CARB no later than the deadline date for public comment listed at the beginning of this notice. Only comments relating to the above-described modifications to the text of the regulations shall be considered by the Executive Officer.

If you need this document in an alternate format or another language, please contact the Clerks' Office at (916) 322-5594 or by facsimile at (916) 322-3928 no later than five (5) business days from the release date of this notice. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Si necesita este documento en un formato alternativo u otro idioma, por favor llame a la oficina del Secretario del Consejo de Recursos Atmosféricos al (916) 322-5594 o envíe un fax al (916) 322-3928 no menos de cinco (5) días laborales a partir de la fecha del lanzamiento de este aviso. Para el Servicio Telefónico de California para Personas con Problemas Auditivos, ó de teléfonos TDD pueden marcar al 711.

California Air Resources Board



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Richard W. Corey  
Executive Officer

Date: April 22, 2022

Attachment

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see [CARB's website](http://www.arb.ca.gov) (www.arb.ca.gov).*