

Notice of Public Availability of Modified Text and Availability of Additional Documents and Information

Proposed Heavy-Duty Inspection and Maintenance Regulation

Public Hearing Date: December 9, 2021
Public Availability Date: May 11, 2022
Deadline for Public Comment: May 26, 2022

At its December 9, 2021, public hearing, the California Air Resources Board (CARB or Board) approved for adoption the proposed amendments to section 2193, title 13, California Code of Regulations, and the proposed new sections 2195, 2195.1, 2196, 2196.1, 2196.2, 2196.3, 2196.4, 2196.5, 2196.6, 2196.7, 2196.8, 2197, 2197.1, 2197.2, 2197.3, 2198, 2198.1, 2198.2, 2199, and 2199.1, title 13, California Code of Regulations (collectively, the Heavy-Duty Inspection and Maintenance Regulation). The proposed Heavy-Duty Inspection and Maintenance (HD I/M) Regulation would require owners of non-gasoline heavy-duty vehicles with a gross vehicle weight rating greater than 14,000 pounds (including vehicles registered outside of the State) to demonstrate compliance with HD I/M requirements to operate legally in California. Vehicle owners would be required to perform periodic emissions testing on their vehicles to verify emissions-related components function properly and submit the test results to a CARB electronic reporting system. Furthermore, compliance with the HD I/M Regulation would be tied to California Department of Motor Vehicles (DMV) vehicle registration for California registered vehicles.

At the hearing, staff presented a potential modification to the regulatory language, developed in response to comments received after the initial Statement of Reasons was released to the public on October 8, 2021. The modification would expand the parts unavailability compliance time extension from fleets of ten or fewer vehicles to fleets of all sizes. In addition, in response to oral and written comments presented at the hearing, the Board directed staff to increase the frequency of periodic inspections for on-board diagnostics (OBD)-equipped vehicles from two times per year to four times per year three years after periodic inspections begin for all vehicles.

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 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 [HD I/M Rulemaking](#) and at the following webpage: <https://ww2.arb.ca.gov/rulemaking/2021/hdim2021>.

The text of the modified regulatory language is shown in Appendices A-1.1 and B-1. The originally proposed regulatory language is shown in "normal type" because it is all new language. Deletions and additions to the originally proposed language that are made public with this notice are shown in ~~strikethrough~~ to indicate deletions and underline to indicate additions. For ease of readability, Microsoft Word versions titled Appendix A-1.2 and Appendix B-2 are also being provided as alternate versions for Appendices A-1.1 and B-1, respectively. The alternate versions of the proposed amendments will allow the reader to toggle between amendments in strikeout/underline and a "clean" version with amendments incorporated into the regulatory text. Appendices A-1.1 and B-1 are the authoritative versions to comply with the Administrative Procedure Act while Appendices A-1.2 and B-2 are being provided as alternate versions for increased accessibility.

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 Appendices A-1.1 and B-1.

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 clarity.

1. Modifications to Title Page Chapter 3.7 Heavy-Duty Inspection and Maintenance Program
 - a. Staff proposes to change the title of section 2196.1 from "HD I/M Compliance Certificate and Registration" to "HD I/M Compliance and Registration." This change is necessary for consistency with other changes made as part of this 15-day notice package, specifically, those proposed changes made as part of section 2196.1. Staff proposes to change the emphasis of section 2196.1 from how to receive a compliance certificate to how to be deemed in compliance.
2. Modifications to Section 2195 Applicability
 - a. In section 2195(c), staff proposes to replace "obtain a" with "ensure" and delete "certificate" to make clear that an owner of an out-of-state heavy-duty vehicle operating under an emergency order must demonstrate compliance with the HD I/M Regulation after 30 calendar days from the first day of

operation under the emergency orders, and to remove any unintended confusion that may have been caused by referring solely to obtaining a HD I/M compliance certificate versus demonstrating compliance with the regulation as a whole.

- b. In section 2195(d), staff proposes to add “(f)” to section 2196.1 and add in section 2197.2(b), and to restructure this section to improve readability. The additions explain that the requirements to pay the HD I/M compliance fee and to report vehicle information into CARB’s electronic reporting system do not become effective upon initial implementation of the HD I/M Regulation. Staff also proposes to provide additional detail regarding when the requirements of sections 2196.1(f), 2196.2, 2196.8, 2197, and 2197.2(b) shall become effective, by including conditions that the Executive Officer must determine have been satisfied before implementing each requirement. These changes are necessary to ensure that the components needed to implement each requirement such as the electronic reporting system are built, tested, and ready for use prior to implementation.

3. Modifications to Section 2195.1 Definitions

- a. “Alternative compliance verification terminal” – staff proposes to add this definition to characterize applicable freight facilities that do not have an automated system for conducting HD I/M compliance checks as of January 1, 2022. This date is intended to act as a cut-off date for facilities that do not already have this type of infrastructure in place and may fall under this definition. These facilities would be allowed to use an alternative method for HD I/M compliance checks on applicable vehicles that enter their properties, as required by the newly added section 2197(d), described later in this notice of proposed changes.
- b. “Compliance certificate” – staff proposes to delete this definition and re-insert it as “HD I/M compliance certificate” in alphabetized order. This change is necessary to distinguish this compliance certificate from other types of compliance certificates issued under other CARB regulations.
- c. “Compliance deadline” – staff proposes to add “quarterly compliance deadline” as sub-definition (3) within this definition to align with the Board’s direction at its December 9, 2021, hearing to increase the periodic emissions testing frequency from two times per year to four times per year for OBD-equipped vehicles, as described in newly added subsections 2196.1(d)(2) and 2196.1(d)(3).
- d. “Compliance year” – staff proposes to add language to this definition to illustrate how the month within a compliance year is defined (i.e., if the compliance year start date is in June, month three of the compliance year is September). The month within a compliance year is important in determining a vehicle’s compliance deadline.
- e. “Five-Day pass” – staff proposes to add to this definition that the five-day pass is a special pass to operate without the Executive Officer deeming the vehicle

compliant with the HD I/M Regulation. Consistent with other changes in the regulation related to demonstrating compliance with the regulation, the five-day pass is now defined in terms of compliance rather than in terms of issuance of a compliance certificate. Staff also proposes to make it clear that this pass would be obtained through the electronic reporting system associated with this HD I/M Regulation.

- f. "HD I/M compliance certificate" – staff proposes to add this revised definition of "compliance certificate" to distinguish this compliance certificate from other types of compliance certificates issued under other CARB regulations. Staff also replaced "in state" with "California" to make it clear which state this compliance certificate is applicable for.
- g. "Independent marine terminal" – staff proposes to add "marine" and delete "An independent marine terminal has all the responsibilities of a terminal and a seaport" to remain consistent with other definitions referenced in this regulation and to improve clarity. Furthermore, as stated in the non-substantive comments, this definition was also moved as a sub-definition under "Seaport Facility" as these definitions are related to each other.
- h. "Issuance" – staff proposes to delete this definition because the term "issuance" as referred to in the regulation is used only to convey its common usage, and thus, is not necessary.
- i. "On-Board Diagnostics (OBD)" – staff proposes to add the word "system" because the definition provided is for the OBD system, not OBD in general. Staff also proposes to restructure the formatting of this definition with the following edits: Staff added "any of the following" to the definition because an OBD system must be certified to any but not all of the referenced regulatory sections. Staff also added "of this definition" to subbullet four to clarify that this provision is referencing numbers one through three within this definition and not something elsewhere.
- j. "Payment" – staff proposes to delete this definition because the term "payment" as referred to in the regulation is used only to convey its common usage, and thus, is not necessary.
- k. "Provisional compliance certificate" – staff proposes to add "HD I/M" before "compliance certificate" for consistency with revised definition of "compliance certificate" as described in 3.f. above, and to add "HD I/M compliance" before "certificate" for terminology consistency. Staff also made other minor text revisions to better describe the purpose of the HD I/M provisional compliance certificate. Staff removed "one-time" from the compliance extension allowance in this definition to be consistent with proposed modifications to section 2196.8 to allow vehicles to receive more than one compliance extension, if approved by the Executive Officer. This latter change is needed in case an unexpected parts unavailability delay lasts longer than a vehicle's compliance window, thus necessitating a need to have provisions that allow for additional extensions. Furthermore, staff also proposes to add the word "full" between the words

- “demonstrating” and “compliance” to denote that although vehicles may not have to meet all the compliance requirements specified in section 2196.1 due to an unavailability of parts to adequately repair the vehicle, applicable vehicles and vehicle owners still must meet the compliance requirements specified in section 2196.8(c).
- l. “Roadside emissions monitoring device” – staff proposes to edit this definition because roadside emissions monitoring devices include more than just emissions sampling systems. Such devices may measure tailpipe exhaust emissions, but they may also collect other emissions related and/or other vehicle identification information from vehicles that pass through these systems.
 - m. “Seaport Facility” – staff proposes to remove the word “operational” to remain consist with the previously defined term, “seaport.” Additionally, staff proposes to delete the phrase “marine terminal operator” and replace it with the term “Marine or seaport terminal,” to remain consistent with the defined term in the proposed regulation text, and remove any confusion caused by using undefined terms. These modifications do not alter any requirements previously established in section 2197 where the definitions are used.
 - n. “Tier 1, 2, and/or Tier 3 engine” – staff proposes to add this definition because these terms are used in section 2196.6(b) associated with the opacity standards for off-road engines that may be used in on-road vehicles under special circumstances.
 - o. “Tier 4 engine” – staff proposes to add this definition because the term is used in section 2196.6(b) associated with the opacity standards for off-road engines that may be used in on-road vehicles under special circumstances.
4. Modifications to Section 2196 Owner and Operator Requirements
- a. In section 2196(a)(1), staff proposes to delete “Obtain a valid compliance certificate, as required under” and “and be able to present the certificate during inspections” and replace with “Maintain compliance with the HD I/M Regulation as specified in.” These changes are necessary to make clear that vehicle owners are responsible for demonstrating compliance with the HD I/M Regulation as specified in section 2196.1 to legally operate in California. Furthermore, these modifications are intended to emphasize a vehicle owner’s requirement to demonstrate compliance rather than only their requirement to obtain a HD I/M compliance certificate.
 - b. In section 2196(e), staff proposes to delete “compliance certificate, provisional compliance certificate” and add “, if applicable,”. These changes are necessary because the types of documents the HD I/M Regulation would require to be presented as part of an enforcement inspection may vary based on circumstances of the inspection. Further, as not all vehicles operating on the road would be associated with a separate hiring entity, the “if applicable” language was added because only trucks operating under a hiring entity would need to provide such documentation.

5. Modifications to Section 2196.1 Compliance Certificate and Registration

- a. In section 2196.1, staff proposes to change the title to “HD I/M Compliance and Registration” to be consistent and align with other changes made as part of this 15-day notice package specifically, those proposed changes made as part of section 2196.1 that change the emphasis of section 2196.1 from how to receive a compliance certificate to how to be deemed in compliance.
- b. In section 2196.1(a), staff proposes to replace “to” with “through” because owners must demonstrate compliance by meeting the requirements inclusive of section 2196.1(b)(1) through (b)(5); and to delete the phrase “to receive a compliance certificate.” These changes are necessary because vehicle owners are responsible for demonstrating compliance with the requirements in this HD I/M Regulation to legally operate in California. Furthermore, these modifications are intended to emphasize a vehicle owner’s requirement to demonstrate compliance rather than only their requirement to obtain a HD I/M compliance certificate.
- c. In section 2196.1(a)(1), staff proposes edits to clearly state that the vehicle owner has a responsibility to demonstrate compliance with the requirements established within 2196.1(b). Furthermore, these modifications are intended to emphasize a vehicle owner’s requirement to demonstrate compliance rather than only their requirement to obtain a HD I/M compliance certificate.
- d. In section 2196.1(a)(2), staff proposes edits to clearly state the compliance demonstration requirements of the vehicle owner when they purchase a new motor vehicle and to emphasize a vehicle owner’s requirement to demonstrate compliance rather than only their requirement to obtain a HD I/M compliance certificate.
- e. In section 2196.1(b), staff proposes edits to emphasize the Executive Officer’s determining the compliance status of a vehicle with respect to the HD I/M Regulation rather than the Executive Officer’s issuing a HD I/M compliance certificate. Further, staff proposes to provide a timeframe for which action from the Executive Officer will occur to provide clarity to this decision-making process.
- f. In section 2196.1(c), staff proposes edits to specify the action the Executive Officer may take with respect to determining the compliance status of a vehicle upon the referee identifying inspection incompatibilities. Furthermore, these edits intend to remove any confusion between the Executive Officer’s action of determining a vehicle’s compliance status with respect to the HD I/M Regulation and the action of a vehicle owner obtaining their compliance certificate for the purposes of proving their compliant status for other entities subject to this regulation such as freight contractors and freight brokers.
- g. In section 2196.1(d), staff proposes to restructure the section to incorporate Board-directed changes to the periodic vehicle emission testing frequencies in staff’s original proposal presented at the December 9, 2021, hearing, and as described in Resolution 21-29. Staff proposes to add a new subsection (2) to

specify that vehicles will be subject to semi-annual (twice per year) testing upon the implementation of the periodic emission testing requirements. Motorhomes and agricultural vehicles would still only be subject to annual inspections as staff originally proposed, as now covered in subsection (1). Furthermore, staff proposes to add a new subsection (3) to increase the periodic testing frequency from two times year to four times per year for OBD-equipped vehicles three years after the effective date of the periodic vehicle emission testing requirements in section 2196.2. This change is necessary to implement the Board's direction at its December 9, 2021, hearing to increase the frequency of data collection from OBD-equipped vehicles after significant test data has been collected following the initial implementation of periodic inspections. The Board directed the increased testing frequency for OBD-equipped vehicles because it will provide additional emission reductions and public health benefits. The increased testing frequency applies to OBD-equipped vehicles. Staff anticipates the availability of HD I/M testing devices that can transmit test data from OBD-equipped vehicles to CARB via telematics, thus providing a streamlined test method for owners of OBD-equipped vehicles.

- h. In section 2196.1(e), staff proposes edits to emphasize the Executive Officer's determining the compliance status of a vehicle with respect to the HD I/M Regulation rather than the Executive Officer's issuing a HD I/M compliance certificate, and to clarify the length of time a vehicle is deemed compliant. In addition, edits are proposed in the example provided to make it clear the example is for a vehicle subject to semiannual testing (as opposed to annual or quarterly).
 - i. In section 2196.1(e)(1), staff proposes edits to emphasize the Executive Officer's determining the compliance status of a vehicle with respect to the HD I/M Regulation rather than the Executive Officer's issuing a HD I/M compliance certificate, and to clarify the length of time a vehicle is deemed compliant.
 - j. In section 2196.1(f), staff proposes edits to make clear that the vehicle owner would be required to pay the compliance fee the first time the owner demonstrates compliance for the vehicle in a given compliance year.
6. Modifications to Section 2196.6 Smoke Opacity Standards
- a. In section 2196.6(b), staff proposes the following changes to the opacity standards for on-road vehicle with off-road engines used as motive power.
 - i. Change the order of the standards from descending order to ascending order to be consistent with the opacity standards for on-road engines in 2196.6(a).
 - ii. Revise sentence structure to be consistent with sentence structure in 2196.6(a).
 - iii. Require off-road engines certified with a diesel particulate filter (DPF) or retrofitted with a Level 3 verified diesel emission control strategy (a VDECS) to meet a five percent opacity standard. This change is necessary

to recognize that off-road engines equipped with the highest-efficiency exhaust aftertreatment technology (i.e., a DPF) have lower smoke opacity than engines without the highest-efficiency exhaust aftertreatment systems. Recent CARB testing off-road engines demonstrated that when properly maintained, DPF-equipped off-road engines consistently measure at smoke opacity levels less than five percent. A five percent opacity limit is necessary to identify DPF-equipped engines that have a mal-maintained or mal-functioning DPF and that require repairs to be deemed compliant with the HD I/M Regulation. Based on the demonstrated technical feasibility of DPF-equipped off-road engines to meet the 5 percent opacity standard, staff modified the opacity standards for off-road engines used in on-road vehicles to align with the same standard as their on-road engine counterparts. CARB's "Off-Road Engine Opacity Testing Effort and Summary of Results" summarizes this recent testing effort and its results and is hereby added to the rulemaking record via this notice of proposed changes in the "Additional Documents Added to the Record" section.

7. Modifications to Section 2196.7 Referee Services

- a. In section 2196.7(d), staff proposes to add "for HD I/M compliance and" after "vehicle" because the referee is performing an inspection to determine compliance with the HD I/M Regulation, and is not limited to only looking for tampering or whether emission control components are defective. For example, if a vehicle still has an outstanding enforcement action as specified in section 2196.1(b)(4), the referee will identify the vehicle as not being compliant with the requirements of this regulation. Such a determination goes beyond simply looking for vehicle tampering or defective parts.
- b. In section 2196.7(d), staff proposes to add 2196.7(d)(4) to the enumerated list of tasks that the referee may include as part of the referee inspection. This change is necessary because the referee may also verify that the vehicle owner has met the compliance conditions specified in section 2196.1(b) when making a determination regarding vehicle compliance. The compliance conditions in section 2196.1(b) include payment of the compliance fee, reporting owner and vehicle information to CARB, demonstrating compliance via submission of a passing compliance test, not having any outstanding enforcement actions on the applicable vehicle, and not having any emissions or OBD-related recalls on the applicable vehicle.
- c. In section 2196.7(e), staff proposes to add language to specify to whom the referee is making a recommendation (the Executive Officer) for deeming a vehicle in or out of compliance with the HD I/M Regulation. Furthermore, staff added the compliance determination criteria of section 2196.1(b) as part of the criteria used by the referee when making their compliance recommendation for the reasons detailed above in the modifications made within section 2196.7(d). Staff have also conformed the criteria specified in (e) to the changes made in the grammatical structure of sections 2196.3 and 2196.4.

8. Modifications to Section 2196.8 Parts Unavailability Compliance Time Extension

- a. In section 2196.8(a), staff proposes to delete “of a fleet of ten or fewer vehicles” to remove the condition that the compliance extension is only available to fleets of ten or fewer vehicles, and to add the word “time” between “compliance” and “extension.” The first change is necessary to allow fleets of all sizes to request a compliance time extension due to a lack of parts available to make required emissions-related repairs. Stakeholder comments during the 45-day comment period reflected that parts unavailability due to significant supply chain disruptions would impact all fleets, not just smaller fleets. For example, during the recent pandemic, all fleets, regardless of size, are experiencing difficulties in obtaining certain replacement parts that have resulted due to manufacturing and supply chain issues. The second change is necessary the compliance extension offers additional time to bring a vehicle into full HD I/M compliance.
- b. In section 2196.8(b), staff proposes to add the word “time” between “compliance” and “extension” to be consistent with the change cited in a. above. Staff also proposes to correct the mis-referenced section “2197.2(h)” to “2197.2(i).” Further, staff removed the language “by the compliance deadline” as the intent of the compliance time extension provision is to allow an extension request to be made when a vehicle owner is trying to demonstrate compliance but is prevented from doing so by parts unavailability. In this situation, efforts to come into compliance may extend to after a vehicle’s compliance deadline has come and gone.
- c. In section 2196.8(c), staff proposes to make the following changes:
 - i. Delete the word “one-time” to remove the restriction that a compliance extension shall be granted one-time only per vehicle, and move surrounding language regarding the actions of the Executive Officer to subsection (d) to delineate the responsibilities of the referee versus those of the Executive Officer. Removing “one-time” is necessary to allow vehicle owners to apply for multiple compliance time extensions, as needed, if parts shortages due to disruptions in the supply chain continue for extended periods. For example, if a parts shortage were to last for a year due to unforeseen circumstances, without this proposed change, a vehicle owner would be unable to operate their vehicle once their first compliance deadline passes. By allowing a compliance extension to be reapplied for and granted if determined there is merit, it allows a reassessment to be made as to whether or not the parts have become available since the last compliance extension was granted. Staff also proposes other minor text changes for consistency and clarity.
 - ii. Delete requirements limiting the compliance time extension to small fleets and limiting the extension to only once per vehicle due to the reasons described above in section 2196.8, and renumber the remaining requirements accordingly.

- iii. Edit language in newly renumbered requirement (4) to be consistent with other changes in section 2197.2(i), as described later in this notice of proposed changes.
 - d. In section 2196.8(d), staff proposes to revise language to delineate the Executive Officer's responsibilities from those of the referee and to make clear that the Executive Officer may grant a compliance time extension following the recommendation of the referee, and to include the criteria upon which they will base the decision. Furthermore, the section was restructured to mention the issuance of a provisional compliance certificate at the end of the sentence to describe what the vehicle owner shall expect to receive following an approved compliance time extension request.
9. Modifications to Section 2197 Freight Contractor, Broker, and Applicable Freight Facility Requirements
- a. In section 2197(c), staff proposes to delete "either" and add "adhere to one of the following requirements each calendar year, and maintain records as outlined 2197.3(d)(1)" because they must select only one of the options that apply to them and maintain an attestation record of their selection to ensure proper compliance verification is being followed. This attestation recordkeeping requirement is needed to provide CARB a mechanism to know what compliance option the freight facility chose to comply with and to inform CARB whether records of non-compliant vehicles should be expected for a given calendar year.
 - b. In section 2197(c)(1), staff proposes to include "for each incoming vehicle at the time of entry" because vehicles must be compliant upon entry to these facilities. Staff also proposes to delete "for each vehicle" to avoid redundancy.
 - c. In section 2197(c)(2), staff proposes to clarify that the recordkeeping requirements for freight facilities choosing to comply with the option of tracking non-compliant vehicles coming onto their facility can be found in section 2197.3(d)(2). This change was needed to differentiate the recordkeeping requirements in section 2197.3(d)(1) that apply to all freight facilities with the recordkeeping requirements in section 2197.3(d)(2) that only apply to facilities choosing to comply by recording non-compliant vehicles.
 - d. In section 2197(d), staff proposes to add language allowing alternative compliance verification terminals to verify compliance on at least an annual basis as an alternative to the requirements outlined in 2197(c). These entities utilize various non-automated methods to allow for the verification of vehicle compliance on an annual basis. With the inclusion of this provision, these terminals would continue to have the option to utilize their current processes to verify compliance as required under HD I/M, as they do under other existing CARB regulations. Thus, the proposed language would make the compliance verification method these facilities use consistent with their processes in other CARB regulations. As with facilities that comply with the compliance verification requirements through an option in section 2197(c), alternative compliance verification terminals meeting the compliance verification requirements through

section 2197(d) would still have a recordkeeping requirement to attest to which compliance option they are adhering to. This record keeping requirement is necessary to provide CARB a mechanism to know what compliance option the freight facility has chosen to meet for the given calendar year.

- e. In section 2197(e), staff proposes to add language to ensure that applicable freight facilities, including alternative compliance verification terminals, would not be required to verify compliance for vehicles delivering final goods or services onto their property, e.g., computer paper to port offices. The proposed change reflects CARB's response to 45-day comments received from stakeholders asked whether every vehicle that enters the facility would be subject to the recordkeeping requirements.

10. Modifications to Section 2197.1 HD I/M Tester Requirements

- a. In section 2197.1(a), staff proposes to add "has satisfied (1) through (3) below" to specify that all three items need to be completed to receive a HD I/M tester credential.
- b. In section 2197.1(b)(2)(A), staff proposes modifications to the training options that can be taken to meet the requirements of the HD I/M tester training requirements, and to change the word "may" to "shall" to note that this is required. To be consistent with the current tester requirements within the Periodic Smoke Inspection (PSIP) Regulation, staff added a provision that allows any CARB-approved course beyond the California Council on Diesel Education and Technology (CCDET) I course option to count as an acceptable replacement for the opacity module. Further, staff is proposing to only allow these alternative test options only up until the requirement for periodic testing takes effect. The PSIP Regulation sunsets upon the implementation of the periodic inspection requirements; thus, any training requirements associated with the PSIP Regulation would sunset as well. Thus, for consistency, staff is proposing to no longer allow use of the current PSIP Regulation training upon the start of periodic testing.
- c. In section 2197.1(b)(4)(A), staff proposes to remove language pertaining to the challenge exam offered for the Visual Inspections Methods Module. Considering this is a first of its kind regulation for HD vehicles, staff believes it is critical to ensure all potential testers take the required training. In addition, removing this section will allow for more flexibility in how the training course can be conducted and how potential testers can demonstrate their knowledge and experience.

11. Modifications to Section 2197.2 Reporting Requirements

- a. In section 2197.2(a)(2), which states that a violating the reporting requirements may cause a vehicle to be out of compliance, staff proposes to change the emphasis from receiving a compliance certificate to being deemed in compliance. Staff also proposes to add "one or more" to provide specificity on which enforcement violations may result in the Executive Officer revoking a vehicle's HD I/M compliant status or refusing to deem a vehicle in compliance.

- b. In section 2197.2(b)(3)(B), staff proposes to delete “and each vehicle within the fleet has a current, valid compliance certificate.” Staff is proposing this change to remove redundancy from this section as the requirements for each vehicle to be compliant with the regulation and for each vehicle to have a compliance certificate were redundant. Further, staff proposes to provide a timeframe for which action from the Executive Officer will occur to provide clarity to this decision-making process.
- c. In section 2197.2(i), staff proposes to make the following changes:
 - i. Change “three repair shops” to “one repair facility” to reduce the number of required repair facilities a vehicle owner must contact when applying for a parts unavailability time extension as allowed in section 2196.8. This change is necessary to acknowledge that if parts are unavailable due to supply chain disruptions, it is unlikely that contacting additional repair facilities would enable vehicle owners to locate necessary parts. The original requirement to contact three facilities could have become overly burdensome to both vehicle owners and repair shops in times of widespread parts unavailability.
 - ii. Change the term “shop” to “facility” in this section to be consistent with terminology used throughout the regulation.
 - iii. Removed the “initial” and “no later than seven business days” from section 2197.2(i)(7) to allow vehicle owners sufficient time to finish in-progress deliveries and reach a repair facility for diagnosis of the vehicle malfunction, which may take longer than the originally proposed seven days.

12. Modifications to Section 2197.3 Recordkeeping Requirements

- a. In section 2197.3(b)(1)(A), staff proposes changes to explain freight contractors will need to retain copies of HD I/M compliance certificates that are current at the time the vehicle is dispatched. The previous wording indicated that certificates would have to remain current and valid through the retention period, which would not always be feasible.
- b. In section 2197.3(c)(1)(A), staff proposes changes to explain that freight brokers will need to retain copies of HD I/M compliance certificates that are current at the time the vehicle is dispatched. The previous wording indicated that certificates would have to remain current and valid through the retention period, which would not always be feasible.
- c. In section 2197.3(d), staff proposes to restructure this section and delete “for each vehicle for which compliance has not been verified, as specified in section 2197(c)” to reflect that there are records other than non-complaint vehicle information they will be required to maintain, such as the compliance verification option the freight facility selects for the given calendar year, as noted in section 2197(c) and section 2197(d). This change is needed for the overall readability due to the restructuring of section 2197.3(d).

- d. In section 2197.3(d)(1), staff proposes to update this section to include details of the records that must be kept by applicable freight facilities when selecting a compliance option for the calendar year. This addition is needed to provide specificity as to the type of information applicable freight facilities will be required to retain.
- e. In section 2197.3(d)(1)(A), staff proposes to update this section to include the requirement that applicable freight facilities must retain in writing, the option they will be complying with for that calendar year. This would be a choice between the compliance verification methods in 2197(c)(1), 2197(c)(2), or 2197(d). This change is necessary because it will provide a mechanism for CARB to know what verification option the facility is following and whether records will be available for review, if requested by CARB staff.
- f. In section 2197.3(d)(1)(B), staff proposes to update this section to include the requirement that applicable freight facilities must retain in writing, the date on which they select a compliance verification method. Because this requirement states they must only select one option for the duration of a calendar year, having a record of the date is important for CARB to note what requirement the applicable freight facility is adhering to at any given time and whether records will be available for review.
- g. In section 2197.3(d)(2), staff proposes to update this section to outline the records that applicable freight facilities will need to retain if they allow non-compliant vehicles onto their property. This section is necessary and is being added due to the restructuring of 2197.3(d).

13. Modifications to Section 2198 Vehicle Emissions Control Equipment Inspections

- a. In section 2198(b)(4), staff proposes to delete “and record the value” because it was duplicative with the requirement of the Vehicle Emissions Control Equipment Inspection as a whole in 2198(b) which already requires a tester to perform “verification” of the odometer.

14. Modifications to Section 2198.1 In-person Field Inspection Requirements for Drivers and Inspectors

- a. In section 2198.1(a)(6), staff proposes to update the language to read “sign any relevant citation and inspection report(s)”. This change is necessary because the inspector may request the driver to sign reports based on the circumstances of the inspection. These reports may include, but are not limited to, smoke tests performed during inspections for qualifying vehicles.
- b. In section 2198.1(b)(2), staff proposes to remove “and compliance certificate” to align these requirements with the documentation the regulation requires a vehicle driver to provide to an inspector at the time of an enforcement inspection.
- c. In section 2198.1(b)(5), staff proposes to add a new provision that states, “Verify that the vehicle is compliant with the requirements specified in this HD I/M Regulation.” This change is necessary to align the inspector requirements with

other changes in the regulation that emphasize a vehicle owner's requirement to demonstrate compliance rather than only their requirement to obtain a HD I/M compliance certificate.

15. Modifications to Section 2198.2 Enforcement

- a. In section 2198.2(c)(1), staff proposes to update the language to read "Upon request from CARB," to be consistent with the structure of section 2198.2(c)(2). Further, staff proposed to replace "parties" with "entities" to be more consistent with the regulation's overall structure.
- b. In section 2198.2(d), staff proposes to delete the specific Health and Safety Codes of 43016(a)(1) and 43016(a)(2) and replace with Health and Safety Code, Division 26, Parts 2 and 5 to be consistent with other CARB regulations. Furthermore, staff removed the term "statement" to clarify the intent of the provision that requires regulated entities to submit accurate information and reports.
- c. In section 2198.2(f)(6), staff proposes to add that the Executive Officer may request demonstration of compliance with the HD I/M Regulation upon issuing a Notice to Submit to Testing or a citation. Staff proposes to change the emphasis from showing a compliance certificate to showing one is in compliance.
- d. In section 2198.2(g)(3), staff proposes to add "calendar" because the release of a vehicle shall be within 15 consecutive days, not 15 business days. The use of calendar days is consistent with other requirements in the HD I/M Regulation.
- e. In section 2198.2(i)(4), staff proposes to add the word "broker" because brokers, in addition to freight contractors, are also subject to providing records.
- f. In section 2198.2 authorities cited, CARB staff proposes a change to correct a referencing error. Statutory authority codes pertaining to penalties were previously not included. In addition, two referenced codes had typographical errors. The proposed amendments are necessary to fix the errors by including additional statutes and correcting the incorrectly cited codes.

16. Modifications to Part I Definitions in California Standards for Heavy-Duty Remote On-board Diagnostic Devices

- a. Staff proposes to add a definition for "standardized data link connector." This change is necessary to identify the specific OBD communication port in the vehicle that remote on-board diagnostic (ROBD) devices need to be capable of connecting to. Furthermore, this added definition is needed for consistency with the proposed change in subsection E.1.3 of Part II.

17. Modifications to Part II Device Requirements in California Standards for Heavy-Duty Remote On-board Diagnostic Devices

- a. In subsection E.1.3, staff proposes to replace the term "main standardized OBD port" with "standardized data link connector." This change is necessary for

- consistency with the terminology used in the CARB heavy-duty OBD Regulation (Section 1971.1, title 13, CCR).
- b. In subsection E.2.1.4, staff proposes to add the sentence “Failure to complete any of the steps in 2.1.4.1-3 shall be defined as an initialization failure”. This change is necessary to provide clear criteria as to whether an ROBD device was successful in meeting the communication initialization requirements with the vehicle.
 - c. In subsection E.2.1.4.1, staff proposes adding the sentence “The ROBD device shall only claim address 249 or address 250”. This change is proposed as these address claims are the preferred addresses available for use for the function “Off Board Diagnostic-Service Tool” on the SAE J1939 source address list. This change is necessary to better describe device initialization by providing more detailed specifications for the address claim process.
 - d. In section E.4, Table 1, staff proposes to make the following changes:
 - i. Add the phrase “required if supported” to the “Description of Data” column for Odometer. This is needed due to the fact that the odometer reading did not become a standardized OBD parameter required of vehicle manufacturers at the time of certification until the 2024 model year engine. Thus, this change accounts for the possible lack of support for this parameter in pre 2024 model year engines’ OBD systems.
 - ii. Add a new row for Engine Total Runtime, which is a CARB HD OBD-regulated parameter indicative of vehicles’ runtime. The proposed inclusion of this additional parameter will allow for improved monitoring of the HD I/M program as a whole. The engine total runtime parameter will help provide a better sense of how frequently vehicles subject to the HD I/M program are operated and provide another important data parameter to assess the program’s success upon implementation. Furthermore, as this parameter is reported in seconds, the reported value would likely be unique for each OBD test and would follow an increasing sequence in the submissions received from a unique vehicle over time. Thus, collecting a data parameter with such characteristics would further enhance CARB’s capability to detect fraud in the OBD submissions.
 - iii. Add a new row for Device Manufacturer. This change is necessary to obtain all the necessary information about the devices used for OBD testing. Including the device manufacturer as part of the header is critical to easily identify the device manufacturer in each received OBD submission and provide a means for monitoring device manufacturers’ performance in meeting the HD I/M OBD data submission requirements.
 - iv. Modify the footnote to ensure consistency with the proposed modifications to Odometer and Engine Total Runtime, as described above. The proposed change also provides detailed information regarding how to request Engine Total Runtime from vehicle’s OBD system in all OBD communication protocols.
 - e. In section E.4, Tables 1, 2, and 3, with the exception of the modifications to Table 1 described above, staff proposes to insert additional text in the “Description of Data” column of each table, and the word “Message” after the

- word “Data” in the last row of the “Data Field Name” column in Table 2. Due to formatting errors, this text describing the required data fields specified in each table is not viewable in the current online version of the California Standards for Heavy-Duty Remote On-board Diagnostic Devices, but was intended for inclusion when it was released on October 8, 2021, for a 45-day public comment period. These tables indicate the standard formatting specifications for the OBD data to be submitted to CARB as described on page C-137 of Appendix C: Heavy-Duty Inspection and Maintenance Program – Purpose and Rationale for each Regulatory Provision. Staff previously provided stakeholders draft versions of the California Standards for Heavy-Duty Remote On-board Diagnostic Devices for informal review that included the additional text to be added in Tables 1, 2, and 3.
- f. In subsection E.5.4.2, staff proposes to remove the word “encrypted” from the sentence and add the word “securely” to it. This change is necessary to provide clearer guidance in terms of data storage responsibilities for the device vendor.
 - g. In section E.6, Table 4, staff proposes to make the following changes:
 - i. Item #1, in the “Diagnostic Message(s) in SAE J1939 OBD Protocol” section, remove DM21 and DM26. The change is necessary as this item specifically cites section (h)(4.1) of the CARB heavy-duty OBD Regulation (Section 1971.1, title 13, CCR), which specifies requirements for readiness status, whereas the content of both DM21 and DM26 are included in the data stream requirements of the HD OBD Regulation.
 - ii. Item #2, add the descriptive statement “(include DM21, DM26, and DM34)” in the “Diagnostic Message(s) in SAE J1939 OBD Protocol” section. This change is necessary to further assist ROBD device vendors in identifying these key data stream parameters and to ensure that they would be included in the OBD submission files.
 - iii. Item #3, add the statement “DM24 is necessary to interpret DM25 data.” In the “Comments” section. This change is necessary to further highlight the importance of DM24 in interpreting DM25 data, and to stress to the ROBD device vendors that DM24 data must be collected and provided in submitted files.
 - iv. Item #4, add the statement “The union of fault codes returned by DM12 and DM23 meet the J1979 definition for confirmed fault codes” In the “Comments” section. Given that DM12 and DM23 together provide what are confirmed codes in J1979, this change is necessary to communicate a more accurate and informative requirement for this item.
 - v. Item #5, change the Data Type from “Monitoring support status and test results” to “Test results”, remove DM24 from the “Diagnostic Message(s) in SAE J1939 OBD Protocol” section, and add the following statement in the “Comments” section: “Use DM24 to create ECU-specific list of supported SPNs for test results. Use DM7 with a Test ID value of 247 and Failure Mode Indicator of 31 to obtain test results (DM30 responses) for SPNs listed in DM24.” These changes are necessary for consistency with the proposed change to Item #3, and to specify the application of DM7 in obtaining DM30 test results.

- vi. Item #10, add "Engine Family." This change is necessary as this parameter, which is required to be supported by all heavy-duty OBD systems starting from 2024 model year engines, provides important information about tested vehicle's engine.
- vii. Items #14 and #15, add the sentence "Applies to all OBD systems in 2022 and subsequent model year diesel engines" to the Comments section. This change is necessary to better identify the specific engine model years supporting NOx and GHG tracking data, and to further assist ROBD device vendors in meeting CARB's OBD data submission requirements. The proposed added comment replaces the descriptive statements in the table footer.
- viii. Item #16, add the sentence "Applies to 2024 and subsequent model year engines". This change is necessary to better identify the specific engine model years supporting PM filter regeneration event data.
- ix. In the table header, remove the term "relevant" from the corresponding sections. This change is necessary for consistency with the rest of the proposed changes to this table, as described above, and to better identify the data fields required for each item of Table 4.
- x. Remove the table footer. This change is necessary for consistency with other proposed changes, as specified above in 19.i.vii.

In addition to the modifications described above, additional modifications correcting grammar, formatting, section numbering, punctuation, spelling, and minor clarity issues have been made throughout the proposed changes. The following changes are nonsubstantive and will not impact the intent of the regulations:

1. Section 2195.1: Staff renumbered sub-definitions to restart at "(1)" for each definition that includes sub-definitions and to account for added language as described in this notice of proposed changes.
2. Section 2195.1 – definition of "Affirmation of Fleet Wide Compliance": Staff added "HD I/M" before "compliance certificate" to be consistent with the terminology proposed for use throughout the regulation and as described in this notice of proposed changes. Staff also deleted "and have a valid HD I/M compliance certificate" because it is redundant with the document already issued by the Executive Officer affirming a fleet is in compliance with the requirements of the HD I/M Regulation.
3. Section 2195.1 – definition of "Citation": Staff restructured this sentence to be grammatically correct.
4. Section 2195.1 – definition of "Heavy-duty zero-emission vehicle": Staff replaced "lbs." with "pounds" to be consistent with term as used in the "heavy-duty vehicle" definition.
5. Section 2195.1 – definitions of "Inspector," "Owner" sub-definition (24), and "Peace officer": Staff uncapitalized the word "Section" for formatting consistency.
6. Section 2195.1 – definition of "New motor vehicle": Staff added the letter "h," which was inadvertently omitted from the word "has."

7. Section 2195.1 – definition of “OBD-equipped vehicle”: Staff moved “Model year 2018 and newer alternative fuel hybrid engines.” into its own sub-definition. Due to an editing error, it was inadvertently included within the sub-definition of “Model year 2018 and newer alternative fuel engines.”
8. Section 2195.1 – definition of “Seaport” and “Seaport facility”: Staff moved the definition of “Seaport facility” from within the “Seaport” definition to designate it as a separate definition. Due to an editing error, it was inadvertently included within the original definition for “Seaport.” Staff also edited the definition of “Seaport facility” for clarity.
9. Section 2195.1 – definition “Seaport facility” – staff proposes to add “Independent marine terminal”, “Seaport”, “Marine or seaport terminals” and “Seaport property” as sub-definitions to the “Seaport facility” definition. Each of these definitions supports the overarching definition of “seaport facility” and compiling them under this definition will help with clarifying and provide an understanding of how this term is used in relation to the other terms within the regulatory text.
10. Section 2195.1 – definition of “Test procedures”: Staff edited the definition for clarity.
11. Sections 2195.1, 2196.1, and 2198.2: Staff capitalized the word “Regulation” when used in the term “HD I/M regulation” throughout these sections for formatting consistency.
12. Section 2196.1(g): Staff made minor wording edits for clarity and to be consistent with other changes as described in this notice of proposed changes.
13. Section 2196.2(b)(1): Staff added a hyphen to “OBD-equipped” to correct grammar and for formatting consistency.
14. Section 2196.3(a)(3): Staff added “title 13,” before “section 2193(f)” to provide clarity, and inserted a comma after “Periodic Smoke Inspection Program” to correct punctuation.
15. Section 2196.3(c): Staff made minor wording changes to clarify the criteria that can cause an OBD-equipped vehicle to fail a HD I/M compliance test.
16. Section 2196.4(b): Staff made minor wording changes to clarify the criteria that can cause a non-OBD-equipped vehicle to fail a HD I/M compliance test.
17. Section 2196.4(b)(2): Staff replaced “limits” with “standards” to be consistent with the terminology used in section 2196.6.
18. Section 2196.5(a)(1)(A) and 2196.5(a)(1)(B): Staff added “title” before “13” and a comma after “13” and after “CCR” to correct regulatory references and punctuation.
19. Section 2196.6(a)(2) and 2196.6(a)(3): Staff corrected “VDECs” to “VDECS”, which is used in CARB regulations as the acronym for a verified diesel emission control strategy.
20. Section 2196.7(b): Staff inserted a hyphen between the words “referee” and “performed.”

21. Section 2197: Staff added "section" to be consistent with how sections are referenced throughout the regulatory text.
22. Section 2197(c)(1): Staff added "HD I/M" before compliance certificate to be consistent with the terminology proposed for use throughout the regulation, and as described in this notice of proposed changes. Staff also made punctuation edits at the end of the sentence.
23. Section 2197.1(a): Staff added "that" after "demonstration" to correct grammar and improve readability.
24. Section 2197.3(d)(2)(A) and (d)(2)(B): Staff renumbered these sections accordingly due to the section being restructured to include a new requirement, as described in the substantive comment section of this notice of proposed changes.
25. Section 2198.1(a): Staff moved "All vehicles operating within California will remain subject to inspection requirements regardless of the vehicle's compliance status." from section 2198.1(a)(2) to 2198.1(a)(3) to improve clarity.
26. Section 2198.1(b)(5) and (b)(6): Staff renumbered these sections accordingly due to added language and as described in this notice of proposed changes.
27. Section 2198.2(b)(1): Staff edited the language to read "HD I/M Regulation" as opposed to "chapter" for consistency with wording throughout the regulation.
28. Section 2198.2(f)(3): Staff added an "s" to "emission" to be consistent with terminology used when referring to a vehicle emissions control equipment inspection.
29. Throughout the regulation, replace "and/or" with the more grammatically correct "or."
30. Throughout the regulation, the use of the term Appendix B was replaced by the full title of the incorporated document, "California Standards for Heavy-Duty Remote On-board Diagnostic Devices," to clarify what document is being incorporated into the regulation.
31. California Standards for Heavy-Duty Remote On-board Diagnostic Devices, Part II, section A.1: Staff changed "program" to "Regulation" to be consistent with the terminology proposed for use throughout Appendix A-1 of the regulation package, as described in this notice of proposed changes.
32. California Standards for Heavy-Duty Remote On-board Diagnostic Devices, Part II, section E: Staff added "Regulation" to the introductory paragraph to be consistent with the terminology proposed for use throughout Appendix A-1 of the regulation package, and as described in this notice of proposed changes.
33. California Standards for Heavy-Duty Remote On-board Diagnostic Devices, Part II subsection E.5.1: Staff capitalized the word "Regulation" when used in the term "HD I/M regulation" for formatting consistency.
34. California Standards for Heavy-Duty Remote On-board Diagnostic Devices, Part III, section D: Staff capitalized the word "Regulation" in paragraph 1. when used in the

term "HD I/M regulation" for formatting consistency, and deleted an extra space after the word "issued."

Additional Documents Added to the Record

In the interest of completeness and in accordance with Government Code section 11347.1, subdivision (a), staff has also added to the rulemaking record and invites comments on the following additional documents:

- "California Air Resources Board's Off-Road Engine Opacity Testing Effort and Results" 2021
- Hoeksema, Adam, "How Much Does An Owner Operator Truck Driver Make | Learn If A Trucking Business Is Profitable With A Trucking Accounting Spreadsheet" ProjectionHub, November 14, 2016
- The California Department of Tax and Fee Administration's "Guide to the International Fuel Tax Agreement" September 2021, available on its website at: <https://www.cdtfa.ca.gov/formspubs/pub50.pdf>
- The Department of Motor Vehicle's "California IRP Carrier Data – Schedule A/B" 2015, at: <https://www.dmv.ca.gov/portal/file/california-irp-carrier-data-schedule-a-b-form-mc-2117-i-pdf/>
- The National Highway Traffic Safety Administration's "Odometer Fraud" accessed April 4, 2022, at: <https://www.nhtsa.gov/equipment/odometer-fraud-the-topic-laws-and-regulations>
- The Tennessee Department of Safety and Homeland Security's "Odometer Fraud" accessed April 5, 2022, at: <https://www.tn.gov/safety/tnhp/sib/odometerfraud.html>
- Yezig "How to Roll Back Odometer: Quick and Easy Ways" accessed April 5, 2022, at: <https://yezig.com/roll-back-odometer/>

These documents are available for inspection at the California Air Resources Board, 1001 I Street, Sacramento, California, 95814, between the hours of 9:00 am to 4:00 pm, Monday through Friday (excluding holidays). To inspect these documents please contact Chris Hopkins, Regulations Coordinator, at (279) 208-7347.

Agency Contacts

Inquiries concerning the substance of the proposed modifications may be directed to Krista Fregoso, Air Pollution Specialist, Strategic Planning and Development Section, at Krista.Fregoso@arb.ca.gov, or (designated back-up contact) James Goldstene, Vehicle Program Specialist, Enforcement Division, at James.Goldstene@arb.ca.gov.

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 alterno 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



Craig Segall
Deputy Executive Officer

Date: May 11, 2022

Attachments

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).