

Appendix C

Purpose and Rationale for each Regulatory Provision

Proposed Heavy-Duty Inspection and Maintenance Regulation

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Purpose and Rationale for each Regulatory Provision

This appendix summarizes the requirements and provides the rationale for each proposed new provision in Appendix A: Proposed Regulation Order for the Heavy-Duty Vehicle Inspection and Maintenance Program, Appendix A-1: Proposed Regulation Order to Amend Periodic Smoke Inspections of Heavy-Duty Diesel Powered Vehicles, and Appendix B: Proposed California Standards for Heavy-Duty Remote On-Board Diagnostic Devices.

Proposed Regulation Order

Title 13

Section 2195. Applicability.

Purpose

The new section identifies the regulated entities and excluded vehicles for this proposed regulation. This new section also specifies conditions under which vehicles are considered exempt under an emergency declaration.

Rationale

This section is necessary to specify the regulated entities subject to this proposed regulation as well as the excluded vehicles and exempt vehicles due to emergency declaration. The proposed regulation is intended to ensure that applicable heavy-duty vehicles operating in California have properly functioning emissions control systems and that emissions-related malfunctions are repaired in a timely manner.

Subsection 2195(a).

Purpose

The subsection identifies the regulated entities for this proposed regulation.

Rationale

This subsection is necessary to identify the applicable heavy-duty vehicles and regulated individuals subject to this proposed regulation. This is to provide vehicle owners and affected entities a clear understanding of whether they are subject to the regulation or not to allow them to determine if they need to comply with this proposed regulation.

Subsection 2195(b).

Purpose

The subsection specifies the vehicles that are exempted from this proposed regulation.

Rationale

This subsection is necessary to specify the type of vehicles that are exempted from this proposed regulation. The proposed exemptions align with exemptions specified in Senate Bill (SB) 210 such as for zero emission vehicles, emergency vehicles, and military tactical vehicles. Other exemptions include ones such as for out-of-state motor homes that were developed through the workshop process through stakeholder engagement. Out-of-state motor homes were exempted to ensure the proposed regulation does not have a negative impact on tourism. Experimental permit vehicles were exempted because such vehicles have been granted permission by CARB to operate in a non-certified configuration, and thus would not be able to meet the compliance requirements of the proposed regulation.

Subsection 2195(c).

Purpose

The subsection specifies the conditions under which vehicles are considered exempt under an emergency declaration. It also outlines the documentation that drivers and owners would need to retain in order to prove they are operating in support of an emergency and the timeline they are allowed to operate.

Rationale

This subsection is necessary to ensure that if an emergency like a major fire or earthquake occurs in California, there is a provision in place that allows non-compliant out-of-state vehicles to assist for a period of time. The 30-calendar day timeline provided to these vehicles ensures that the requirements of this regulation would not limit the resources available to assist during an emergency event, but also does not provide an undue amount of time for non-compliant operation. The documentation drivers and owners are required to keep is necessary for inspectors and/or law enforcement to verify that the vehicles are operating to assist in an emergency and therefore, are temporarily allowed to operate out of compliance. To limit inappropriate use of the emergency exemption provisions, the emergency provisions would only apply for emergencies declared by the Governor of California.

Subsection 2195(d).

Purpose

The purpose of this subsection is to specify that the requirements established in sections 2196.1, 2196.8, and 2197 would not take effect prior to July 1, 2023. The

requirements of sections 2196.2 would not take effect prior to January 1, 2024. Upon implementation, notification would be provided 90 days by the Executive Officer via the California Regulatory Notice Register and CARB's website.

Rationale

This subsection specifies that certain sections of the regulation would not take place prior to July 1, 2023, or January 1, 2024. The primary reason for including these provisions is to phase-in the program in steps to allow for a smoother rollout of the program for regulated entities instead of a one-time big bang of all of the regulatory requirements. This proposed roll-out of the program allows stakeholders time to get used to new regulatory requirements in stages to help minimize any potential impacts of changing business practices on the regulated community and allow them sufficient lead time to meet the regulatory requirements. Furthermore, the implementation of these sections are contingent on the development of the HD I/M database and are not able to be implemented until certain parts of the database are completed and operational. For example, compliance certificates specified in 2196.1 would be issued digitally through the database and would need to be verified by freight contractors, brokers, and applicable freight facilities pursuant to section 2197. However, such a requirement cannot be practically enforced until the database is up and running providing the needed functionality of distributing compliance certificates. These provisions ensure that stakeholders would not be held to regulatory requirements that cannot be practically implemented by the effective date of the regulation.

Section 2195.1. Definitions.

Purpose

The new section sets forth definitions for terms used in the proposed regulation order (Appendix A), including Appendix B, and identifies the sections for which the definitions apply for certain terminologies.

Rationale

This section is necessary to define key terms used within the proposed regulation and to provide clarity, specificity, and consistency to regulated entities. Definitions enable California Air Resources Board (CARB) staff and regulated entities to have a common understanding of a term or subject.

Subsection 2195.1(a). Affirmation of fleet wide compliance.

Purpose

The purpose of the subsection is to define "Affirmation of fleet wide compliance."

Rationale

The definition for “Affirmation of fleet wide compliance” is necessary to define the document that is generated by the electronic reporting system affirming on the date of generation that the vehicles within the given fleet are compliant with the requirements of this chapter and have a valid compliance certificate. This document would also be important for brokers when doing business with a fleet in that it will provide an efficient way to verify compliance upon doing business with a fleet and/or prior to dispatching a fleet to California.

Subsection 2195.1(a). Aftermarket part.**Purpose**

The purpose of the subsection is to define “Aftermarket part.”

Rationale

The definition for “Aftermarket part” describes parts that qualify as aftermarket—those parts exempted from specific statutory prohibition. Aftermarket parts are issued a CARB Executive Order (EO) that allows them to be offered for sale and used as add-on vehicle and engine components exempt from California’s anti-tampering prohibitions as defined in Vehicle Code section 27156.

Subsection 2195.1(a). Aftermarket parts label.**Purpose**

The purpose of the subsection is to define “Aftermarket parts label.”

Rationale

The definition for “Aftermarket parts label” is necessary to define a product information label that is affixed to an aftermarket part that contains, at minimum, the product name as exempted, CARB EO number, instruction for proper installation, the manufacturer’s name, and manufacturer’s address. Defining this term is necessary because aftermarket parts and their applicable labels are a component that testers, CARB staff, referees, and/or peace officers may inspect to determine proper configuration and compliance with the requirements of this chapter. The information contained on these labels informs testers, CARB staff, referees, and/or peace officers of the proper installation and compatibility to the vehicle being inspected.

Subsection 2195.1(a). Agricultural vehicle.**Purpose**

The purpose of the subsection is to define “Agricultural vehicle.”

Rationale

The definition for "Agricultural vehicle" is necessary to differentiate agricultural vehicles used exclusively in agricultural operations from other on-road heavy-duty vehicles subject to this chapter in order. Agricultural vehicles are subject to some special provisions, for example, receiving no less than 75 days to repair malfunctions of emissions control components as authorized in Health and Safety Code section 44152 and Vehicle Code sections 24019 and 27153, and being subject to annual rather than semiannual periodic testing.

Subsection 2195.1(a). Alternative fuel.**Purpose**

The purpose of the subsection is to define "Alternative fuel."

Rationale

The definition for "Alternative fuel" is necessary to establish that alternative fuel vehicles with a gross vehicle weight rating (GVWR) greater than 14,000 pounds are non-gasoline vehicles subject to provisions of this chapter as directed by Health and Safety Code section 44152 and to allow for the establishment of requirements within this regulation that may be different than their diesel vehicle counterparts. One example of an alternative fuel vehicle would be a natural-gas-powered vehicle.

Subsection 2195.1(a). Alternative fuel retrofit system or retrofit system.**Purpose**

The purpose of the subsection is to define "Alternative fuel retrofit system or retrofit system."

Rationale

The definition for "Alternative fuel retrofit system or retrofit system" is needed to identify if a vehicle has an engine or emission control configuration that does not meet the original certified configuration, for example, a conventional diesel vehicle that has been converted to an alternative fuel vehicle and equipped with a retrofit system. Such a definition is needed to establish a subset of vehicles that would initially need to be referred to a referee inspection for compliance purposes.

Subsection 2195.1(a). Applicable freight facility.**Purpose**

The purpose of the subsection is to define "Applicable freight facility."

Rationale

The definition for "Applicable freight facility" is needed to establish the facilities associated with the operation of heavy-duty vehicles that will be subject to this

chapter, such as seaport facilities and intermodal railyards. A seaport facility is typically associated with loading and unloading of water-borne commerce onto land for distribution primarily by heavy-duty vehicles which creates a large concentration of emissions from these vehicles. Intermodal yards are similar to seaport facilities in that they are also involved in the movement of freight and serve as a location that heavy-duty vehicles frequently visit which can also causes a large concentration of emissions. It is important to identify and define these two locations because several requirements are mandated for these types of facilities in this chapter such as compliance verification and recordkeeping. This definition is specific to these types of facilities is because they already have existing infrastructure to fulfill the requirements and have similar requirements in other existing CARB regulations.

Subsection 2195.1(a). Authorized emergency vehicle.

Purpose

The purpose of the subsection is to define "Authorized emergency vehicle."

Rationale

The definition for "Authorized emergency vehicle" is necessary to establish the specific types of public and privately-owned emergency vehicles that would be exempt from the requirements of this chapter.

Subsection 2195.1(a). Broker.

Purpose

The purpose of the subsection is to define "Broker."

Rationale

The definition for "Broker" is necessary to define what qualifies a person as a broker for purposes of this proposed regulation. A motor carrier, or person who is an employee or bona fide agent of a carrier, is not a broker when it arranges or offers to arrange the transportation of shipments which it is authorized to transport and which it has accepted and legally bound itself to transport. This term is used within the chapter to identify various requirements that these persons are subject to, which include compliance verification requirements and recordkeeping requirements. Differentiating brokers from other freight contractors is important because they have different business process that determine what records they are able to obtain. The reason for excluding a motor carrier from this definition when they organize transportation for themselves is because they are not acting as a broker in those instances. However, in instances where a motor carrier is arranging transportation by other parties, such as in the case of subhaulers, they would be considered a broker and subject to these requirements. Only in the cases where brokers are arranging for transportation within California do they have requirements under this regulation.

Subsection 2195.1(a). Calendar year.

Purpose

The purpose of the subsection is to define "Calendar year."

Rationale

The definition for "Calendar year" distinguishes a full year for purposes of this proposed regulation versus other understandings of a full year—such as a fiscal year. This calendar year would be used to determine the expiration date of the device EOs and the eligibility to apply for five-day pass. Such a term is needed to be able to differentiate start and end dates for device certification from start and end dates for vehicle compliance years which follow different timing requirements.

Subsection 2195.1(a). California registered vehicle.

Purpose

The purpose of the subsection is to define California registered vehicle.

Rationale

The definition for "California registered vehicle" is necessary to indicate which requirements in the proposed regulation are specifically applicable to on-road heavy-duty vehicles registered with the California Department of Motor Vehicles. The proposed regulation applies to both California-registered vehicles and out-of-state-registered vehicles, and it is sometimes necessary to distinguish the two types.

Subsection 2195.1(a). CARB.

Purpose

The purpose of the subsection is to define "CARB."

Rationale

The definition for "CARB" is necessary to specify the acronym formed from the initial letters of the California Air Resources Board. CARB has been granted the authority to develop and adopt this proposed regulation.

Subsection 2195.1(a). Citation.

Purpose

The purpose of the subsection is to define "Citation."

Rationale

The definition for "Citation" is necessary to define a notice issued by the CARB alleging a violation of the requirements outline in subsection 2198.2(b) which requires submission of documentation and payment of a penalty. Such notices are critical for

the enforcement of the regulation to hold owners of vehicles in violation of the requirements accountable and ensure they are brought back into compliance.

Subsection 2195.1(a). Class I railroad.

Purpose

The purpose of the subsection is to define "Class I railroad."

Rationale

"Class I railroad" is a category of railroad defined by the federal Surface Transportation Board, and as such is defined under federal law. This definition references the federal one. In effect, the Surface Transportation Board categorizes a Class I railroad as a carrier earning revenue more than \$250 million, adjusted for inflation. The term "Class I railroad" is in turn necessary to define intermodal railyard.

Subsection 2195.1(a). Commercial purposes.

Purpose

The purpose of the subsection is to define "Commercial purposes."

Rationale

The definition of "commercial purposes" is necessary because vehicles used for commercial purposes are subject to certain requirements that non-commercial vehicles are not. For instance, the recordkeeping requirements of this chapter apply only to vehicles operating for commercial purposes, and the record keeping requirements for documentation to be kept inside vehicle cabs do not apply to non-commercial vehicles otherwise subject to this chapter.

Subsection 2195.1(a). Compliance certificate.

Purpose

The purpose of the subsection is to define "Compliance certificate."

Rationale

The definition for "Compliance certificate" is necessary to define the instrument that shall be issued to a vehicle owner to demonstrate the vehicle meets the requirements of this chapter and is authorized to legally operate in California.

Subsection 2195.1(a). Compliance deadline.

Purpose

The purpose of the subsection is to define "Compliance deadline."

Rationale

The definition for "Compliance deadline" is necessary to identify the deadlines within each compliance year by which a vehicle must demonstrate compliance with the periodic vehicle testing requirements of this chapter.

Subsection 2195.1(a). Compliance test.**Purpose**

The purpose of the subsection is to define "Compliance test."

Rationale

The definition for "Compliance test" is necessary to reference to the OBD inspection and SAE J1667 opacity test as they are the tests that are required to be completed and passed to be issued a compliance certificate.

Furthermore, this subsection establishes that the date a compliance test is performed is considered the date on record for the test. This helps establish that if the performance and submission of the compliance test are completed on different days, the compliance test shall be determined to have occurred on the test performance date. For example, if a compliance test is performed on January 28th, but submitted on March 2nd, it would count as a test record for January 28th. This helps ensure that compliance tests are performed within reasonable timelines of when compliance demonstration is required and avoid a submission of an out-of-date test being used to verify vehicle compliance.

Subsection 2195.1(a). Compliance year.**Purpose**

The purpose of the subsection is to define "Compliance year."

Rationale

The definition for "Compliance year" is necessary to describe how each applicable vehicle's annual compliance verification period is determined based either on its California Department of Motor Vehicles (DMV) registration cycle or its status as a vehicle not registered in California. Such a term also differentiates the start and end dates for vehicle compliance testing requirements versus the start and end dates of device certification, which follow a different timing structure.

Subsection 2195.1(a). Consumable chemical fuel.**Purpose**

The purpose of the subsection is to define "Consumable chemical fuel."

Rationale

The definition for "Consumable chemical fuel" is necessary because it is integral to defining a hybrid vehicle as distinctly different than a heavy-duty zero emission vehicle, and therefore subject to the requirements of the HD I/M regulation. Heavy-duty zero emission vehicles are exempt from the HD I/M Regulation.

Subsection 2195.1(a). Continuously connected remote on-board diagnostic device or CC-ROBD device.**Purpose**

The purpose of this subsection is to define the term "Continuously connected remote on-board diagnostic device" or "CC-ROBD device", whose technical specifications are included in Appendix B.

Rationale

This subsection is necessary to introduce the high-level characteristics of this type of ROBD device as one of the two main ROBD data submission methods in the Heavy-duty Inspection and Maintenance (HD I/M) program, and to differentiate it from the other remote submission option, as also described in Appendix B.

Subsection 2195.1(a). Data link connector.**Purpose**

The purpose of the subsection is to define "Data link connector."

Rationale

The definition for "Data link connector" is necessary to define the multi-pin diagnostic connection port for vehicles, used to interface a testing device with the control modules of a given vehicle and access on-board diagnostics (OBD) and live data streams. The term is also needed because it plays an integral part during a heavy-duty vehicle inspection, and it must be accessible so the inspector can download the OBD data for the vehicle, if necessary.

Subsection 2195.1(a). Defective.**Purpose**

The purpose of the subsection is to define "Defective."

Rationale

The definition of "Defective" is necessary to provide clarification and description on the condition in which an emissions control system or an emissions control system component is malfunctioning due to age, wear, design defects or causes other than tampering.

Subsection 2195.1(a). Demonstration of compliance.

Purpose

The purpose of the subsection is to define "Demonstration of compliance."

Rationale

The definition for "Demonstration of compliance" is necessary to outline the required types of documentation an owner may submit to CARB to demonstrate compliance in the event a Notice to Submit to Testing (NST) or Citation is received. It is necessary to outline the specific types of documentation that would be approved for submission so that stakeholders can understand what they must submit to attempt to prove that they are correcting their non-compliance.

Subsection 2195.1(a). Designee.

Purpose

The purpose of the subsection is to define "Designee."

Rationale

The definition for "Designee" is necessary to allow vehicle owners to designate a duty or role. Without the possibility to designate, if the vehicle owner is unavailable, no one could register for an account and update or maintain the account information in CARB's electronic reporting system.

Subsection 2195.1(a). Driver.

Purpose

The purpose of the subsection is to define "Driver."

Rationale

The definition of "Driver" is necessary to identify the person who drives or is in actual physical control of a vehicle, for whom this proposed regulation imposes specific requirements. The definition from the California Vehicle Code was also chosen for consistency with other definitions used for driver. There are several requirements outlined in this chapter for a driver of a heavy-duty vehicle including responsibilities they must fulfill during a roadside inspection.

Subsection 2195.1(a). Electronic reporting system.

Purpose

The purpose of the subsection is to define "Electronic reporting system."

Rationale

The definition of “Electronic reporting system” is necessary to identify the system in which all compliance test data will be collected and stored, as well as other information and data that the HD I/M regulation would require to be reported to CARB as specified in this proposed regulation.

Subsection 2195.1(a). Emission control label.**Purpose**

The purpose of the subsection is to define “Emission control label.”

Rationale

The definition for “Emission control label” is necessary to provide a description of the label required by the emission control label specifications for 1978 through 2003 model year heavy-duty engines and vehicles as incorporated by reference in title 13, CCR section 1965, as last amended on September 2005, and for 2004 and later model year heavy-duty engines and vehicles as incorporated by reference in title 13, CCR section 1956.8, as last amended on April 18, 2019. The emission control labels play an important part during the inspection process and provide the inspector with important engine information that helps identify the engine model year, engine family number and if the engine conforms to United States Environmental Protection Agency (U.S. EPA) standards. Without the presence of this label, the inspector could not verify if the engine were certified to U.S. standards, the applicable test methods, and inspection procedures that the vehicle is subject to, based on the engine model year.

Subsection 2195.1(a). Emissions control system.**Purpose**

The purpose of the subsection is to define “Emissions control system.”

Rationale

The definition for “Emissions control system” is necessary to provide a description of the pollution control components, connections, and associated mechanisms on an engine at the time its engine family is certified, including the emission control label. This term is necessary to define because the emission control system is evaluated during an inspection to ensure that all components specified for the engine family are present and in proper working order.

Subsection 2195.1(a). Engine change.**Purpose**

The purpose of the subsection is to define “Engine change.”

Rationale

The definition for "Engine change" refers to installation of an engine in a vehicle after the vehicle is in operation that is different from the vehicle manufacturer's original configuration. This definition is necessary to identify a specific situation and category of vehicles that would be referred to referee services for inspection to make sure the engine change does not degrade the effectiveness of the vehicle's original emission control system.

Subsection 2195.1(a). Executive Order (EO).**Purpose**

The purpose of the subsection is to define "Executive Order (EO)."

Rationale

The definition for "EO" is necessary to define the document which CARB issues upon verifying that vehicles, engines, add-on components, and devices have demonstrated they meet requirements set forth in CARB regulations and/or in California statute.

Subsection 2195.1(a). Five-day pass.**Purpose**

The purpose of the subsection is to define "Five-day pass."

Rationale

The definition for "Five-day pass" is necessary to define a once-a-year temporary pass to operate one vehicle in California for five consecutive days without obtaining a compliance certificate. Only one pass could be issued for each vehicle per year. This definition establishes a pass that could be used for vehicles that infrequently travel into California.

Subsection 2195.1(a). Fleet.**Purpose**

The purpose of the subsection is to define "Fleet."

Rationale

The definition for "Fleet" is necessary to set forth what is considered a fleet for this proposed regulation, i.e., the heavy-duty vehicles owned by the same person or entity.

Subsection 2195.1(a). Fleet facility.**Purpose**

The purpose of the subsection is to define "Fleet facility."

Rationale

The definition for "Fleet facility" is needed to specify an area where a vehicle primarily performs shipping and/or receiving operations, vehicle troubleshooting, repair, testing, and/or vehicle storage. Defining these facilities is important as they are one of the location types designated by this chapter where inspections may occur. It is also imperative for the regulated community to know where CARB inspectors have the authority to enforce.

Subsection 2195.1(a). Fraudulent.**Purpose**

The purpose of the subsection is to define "Fraudulent."

Rationale

The definition for "Fraudulent" is needed to specify a false statement or representation in any application, report, statement, or other document filed, maintained, or utilized for the purpose of compliance. This term is used in relation to the submittal of data to CARB and in relation to the documentation required to prove compliance in section 2198.2. Defining the types of information that may be considered fraudulent is critical for stakeholders, as submittal of this type of information would be considered a violation of this section and would result in assessed penalties.

Subsection 2195.1(a). Freight contractor.**Purpose**

The purpose of the subsection is to define "Freight contractor."

Rationale

The definition for "Freight contractor" is necessary to define any person, excluding a broker, who enters into a contract with any party requiring the operation of a heavy-duty vehicle in the State of California. This includes but is not limited to a shipper, receiver, carrier, or governmental agency as defined in this chapter, or any other intermediary party. It is important to identify and define these types of entities because several requirements are mandated for them in this chapter such as compliance verification and recordkeeping. This definition is specific to these types of entities because they already have similar requirements in other existing CARB regulations.

Subsection 2195.1(a). Governmental agency.**Purpose**

The purpose of the subsection is to define "Governmental agency."

Rationale

The definition for "Governmental agency" is necessary to define the entities that would be required to comply with certain requirements of the regulation. This definition provides context to other definitions with the regulation including "person," which sometimes refers to a governmental agency.

Subsection 2195.1(a). Gross vehicle weight rating (GVWR).**Purpose**

The purpose of the subsection is to define "Gross Vehicle Weight Rating (GVWR)."

Rationale

The definition for "GVWR" is necessary to define vehicle weight classes and identify the specific vehicle classes that are subject to the proposed regulation order. The GVWR definition in the California Vehicle Code was chosen to be consistent with commonly used definitions of GVWR.

Subsection 2195.1(a). HD I/M Regulation.**Purpose**

The purpose of the subsection is to define "HD I/M Regulation."

Rationale

The definition of "HD I/M Regulation" is necessary to define proposed new sections 2195 through 2199 as forming the complete HD I/M Regulation.

Subsection 2195.1(a). HD I/M tester.**Purpose**

The purpose of the subsection is to define "HD I/M tester."

Rationale

The definition for "HD I/M tester" is necessary to define those persons who have a current and valid CARB issued HD I/M tester credential, and thus, would be allowed to perform vehicle compliance tests for the proposed regulation. This term is used within the chapter to identify various requirements that HD I/M testers must meet, which include providing identifying information, satisfying training requirements, and passing an exam.

Subsection 2195.1(a). HD I/M tester credential.**Purpose**

The purpose of the subsection is to define "HD I/M tester credential".

Rationale

The definition for “HD I/M tester credential” is necessary to define the accreditation provided by CARB to an individual trained in accordance with the requirements of section 2197.1 to conduct vehicle compliance testing such as ROBD inspections, smoke opacity inspections, and vehicle emissions control equipment inspections required by this chapter and submit vehicle inspection data to the electronic reporting system based on the results of the inspection. The reason for providing credentials to individuals who receive this training is to create an easy way for vehicle owners to identify individuals who are knowledgeable and capable of performing the tests and inspections required by this chapter. CARB’s goal is to require tests and inspections to be performed by these qualified individuals to ensure the accuracy and validity of the data submitted.

Subsection 2195.1(a). Heavy-duty vehicle.**Purpose**

The purpose of the subsection is to define “Heavy-duty vehicle.”

Rationale

The definition for “Heavy-duty Vehicle” is necessary to specify the GVWR of a heavy-duty vehicle and to identify the applicable vehicles for this proposed regulation.

Subsection 2195.1(a). Heavy-duty zero-emission vehicle.**Purpose**

The purpose of the subsection is to define “Heavy-duty zero emission vehicle.”

Rationale

The definition for “Heavy-duty zero emission vehicle” is necessary to specify that it is a vehicle technology that produces zero exhaust emissions of any criteria pollutant, precursor pollutant, or greenhouse gas under any possible operational modes or conditions. Zero-emission vehicles are exempt from the requirements of this chapter as authorized by Health and Safety Code section 44152.

Subsection 2195.1(a). Hybrid vehicle.**Purpose**

The purpose of the subsection is to define “Hybrid vehicle.”

Rationale

The definition for “Hybrid vehicle” is necessary to differentiate a vehicle that utilizes non-traditional energy storage features in conjunction with a consumable chemical fuel as distinctly different than a heavy-duty zero emission vehicle and therefore subject to the requirements of this chapter.

Subsection 2195.1(a). Independent marine terminal.

Purpose

The purpose of the subsection is to define "Independent marine terminal."

Rationale

The definition for "Independent marine terminal" is necessary to define a terminal that operates independently from a seaport or seaport authority. Making this distinction is important as these entities would have all the responsibilities of a terminal and a seaport as specified in the definition of applicable freight facility.

Subsection 2195.1(a). In-person field inspection.

Purpose

The purpose of the subsection is to define "In-person field inspection."

Rationale

The definition for "In-person field inspection" is necessary to define an inspection conducted in accordance with the procedures outlined in this chapter at an inspection site by a CARB inspector and/or peace officer. This chapter specifies the requirements for both inspectors and vehicle operators during an in-person field inspection, so it is important to define when and how they occur.

Subsection 2195.1(a). Inspection site.

Purpose

The purpose of the subsection is to define "Inspection site."

Rationale

The definition for "Inspection site" is necessary to provide clarification and a description regarding the areas where vehicle tests and inspections are conducted. This chapter specifies the requirements for both inspectors and vehicle operators during an in-person field inspection, so it is important to define where they occur.

Subsection 2195.1(a). Inspector.

Purpose

The purpose of the subsection is to define "Inspector."

Rationale

The definition for "Inspector" is necessary to define those persons who are a CARB employee or authorized agent with the duty of enforcing Health and Safety Code section 44152. Inspectors need to be defined because several portions of this chapter are devoted to laying out inspector responsibilities and authority. For instance,

inspectors have responsibilities during the conduction of in-person field inspections and are granted authority through right of entry to request and inspect records, vehicles, and devices at various location types within California.

Subsection 2195.1(a). Intermodal railyard.

Purpose

The purpose of the subsection is to define "Intermodal railyard."

Rationale

The definition for "Intermodal railyard" is necessary to define a transportation facility owned or operated by a Class I Railroad that are primarily dedicated to the business of intermodal rail operations. This term is necessary to identify the type of railyards that are defined as applicable freight facilities and subject to the applicable freight facility requirements in this chapter. Intermodal railyards and seaport facilities are the two types of facilities within the applicable freight facility definition.

Subsection 2195.1(a). Issuance.

Purpose

The purpose of the subsection is to define "Issuance."

Rationale

The definition for "Issuance" is necessary to outline the act of mailing, providing digitally, or personally delivering an EO, Compliance Certificate, Citation, NST, or HD I/M Tester credential to the intended recipient. This term is used within the chapter to identify various forms of documentation that would be sent to the recipient, and which would provide information regarding their compliance or HD I/M credential status with respect to this chapter.

Subsection 2195.1(a). Malfunction indicator light (MIL).

Purpose

The purpose of this subsection is to define the term "Malfunction indicator light (MIL)."

Rationale

This subsection is necessary to define MIL by referencing the corresponding International Organization of Standards (ISO) standard and CARB's required specifications of MIL for all 2013 and subsequent model year heavy-duty vehicles. The importance of this definition is highlighted by the key role of MIL status data in determining vehicles' compliance with the requirements of the HD I/M program and how an illuminated MIL represents a failing vehicle condition with respect to the requirements of this regulation.

Subsection 2195.1(a). Manufacturer.

Purpose

The purpose of the subsection is to define "Manufacturer."

Rationale

The definition for "Manufacturer" is necessary to define those persons or entities engaged in manufacturing or assembling new engines, motor vehicles, or equipment for sale in California. This definition also means the person or entity who is granted certification for a certified engine, vehicle, or equipment.

Subsection 2195.1(a). Manufacturer original configuration.

Purpose

The purpose of the subsection is to define "Manufacturer original configuration."

Rationale

The definition for "Manufacturer original configuration" is necessary to define an engine that was assembled by a manufacturer in a specific certified configuration and to differentiate from an engine change.

Subsection 2195.1(a). Marine or seaport terminals.

Purpose

The purpose of the subsection is to define "Marine or seaport terminals."

Rationale

The definition for "Marine or seaport terminals" is needed to identify the wharves, bulkheads, quays, piers, docks and other berthing locations and adjacent storage or adjacent areas and structures associated with the primary movement of cargo or materials from vessel to shore or shore to vessel including structures which are devoted to receiving, handling, holding, consolidating and loading or delivery of waterborne shipments or passengers, including areas devoted to the maintenance of the terminal or equipment. For the purposes of this regulation, the term includes but is not limited to production or manufacturing areas, warehouses, storage facilities, and private or public businesses or entities located on or surrounded by seaport property. This type of facility has requirements under existing CARB regulations that are similar to the requirements of this chapter. Upon arrival to these facilities, vehicles subject to this chapter would have their vehicle information recorded or cross referenced with the electronic report system to ensure compliance with the requirements prior to entering to the facility to load or unload freight.

Subsection 2195.1(a). Motor carrier.

Purpose

The purpose of the subsection is to define "Motor carrier."

Rationale

The definition for "Motor carrier" is needed to identify a registered owner, lessee, licensee, or bailee of any vehicle, who operates or directs the operation of any such vehicle on either a for-hire or not-for-hire basis. This term identifies those entities that are considered motor carries because recordkeeping requirements for these entities are outlined in this chapter.

Subsection 2195.1(a). Motor home.

Purpose

The purpose of the subsection is to define "Motor home."

Rationale

The definition for "Motor home" is necessary to determine if a vehicle meets the description of a motor home, and thus, is eligible to meet modified compliance requirements with respect to this regulation. A motor home registered in California would need to submit annual vehicle emission test results to CARB, rather than semiannual emission test results, while non-California registered motor homes would be exempt from the regulation.

Subsection 2195.1(a). New motor vehicle.

Purpose

The purpose of the subsection is to define "New motor vehicle."

Rationale

This definition of "New motor vehicle" is necessary to identify those brand-new heavy-duty vehicles for which a valid compliance certificate would not be required to register with DMV. DMV may accept a statement of compliance demonstrating the vehicle meets the requirements of the proposed regulation in lieu of a HD I/M compliance certificate.

Subsection 2195.1(a). Non-continuously connected remote on-board diagnostic device or NCC-ROBD device.

Purpose

The purpose of the subsection is to define the term “Non-continuously connected remote on-board diagnostic device” or “NCC-ROBD device”, whose technical specifications are described in Appendix B.

Rationale

This subsection is necessary to introduce the high-level characteristics of this type of ROBD device, which would be one of the two main ROBD data submission methods in the HD I/M program, and to differentiate it from the other remote submission option, CC-ROBD, as also described in Appendix B.

Subsection 2195.1(a). Non-OBD-equipped vehicle.

Purpose

The purpose of the subsection is to define “Non-OBD-equipped vehicle.”

Rationale

This definition is necessary because the proposed regulation delineates differing periodic vehicle emissions testing, vehicle compliance testing methods, and testing data submission requirements for non-OBD-equipped vehicles versus those for OBD-equipped vehicles.

Subsection 2195.1(a). Notice to Submit to Testing (NST).

Purpose

The purpose of the subsection is to define “Notice to Submit to Testing (NST).”

Rationale

The definition for “NST” is necessary to define the notice, requiring demonstration of compliance as outlined in 2198.2(f). Notices to Submit to Testing would be a valuable enforcement tool because they create a way for CARB to request verification of compliance when vehicles are detected as a high-emitter through a roadside emission monitoring device. Vehicle owners would be given a period of time to respond to the NST with documentation that the vehicle is operating in compliance, prior to any citations being issued or penalties being assessed.

Subsection 2195.1(a). On-Board Diagnostics (OBD).

Purpose

The purpose of this subsection is to define the term "On-board diagnostics (OBD)" with reference to vehicle compliance test requirements and the specifications of the HD I/M remote OBD (ROBD) device in Appendix B.

Rationale

This subsection is necessary to define OBD system by referencing the applicable requirements adopted by CARB. Because an OBD test would be the main vehicle compliance test for 2013 model year and newer engines, it is critical to be clear as to what CARB means by OBD and what the test would consist of. The importance of this clarification is highlighted by the key role of OBD data in determining vehicles compliance with the requirements of the HD I/M program.

Subsection 2195.1(a). OBD-equipped vehicle.

Purpose

The purpose of the subsection is to define "OBD-equipped vehicle."

Rationale

This definition is necessary because the proposed regulation delineates periodic vehicle emissions testing, vehicle compliance testing methods, and testing data submission requirements for OBD-equipped vehicles from those of non-OBD-equipped vehicles.

Subsection 2195.1(a). Officer.

Purpose

The purpose of the subsection is to define "Officer."

Rationale

The definition for "Officer" is necessary to define those persons that are a uniformed member of the Department of the California Highway Patrol (CHP). CHP officers would play an integral role in the enforcement of the requirements of this chapter, working both on their own and alongside CARB inspectors to perform inspections, direct vehicles to inspection locations, and if necessary, assist with removal of vehicles from service.

Subsection 2195.1(a). Opacity.

Purpose

The purpose of the subsection is to define "Opacity."

Rationale

The definition for "Opacity" is necessary to define the percentage of light obstructed from passage through an exhaust smoke plume. Opacity is evaluated during an inspection to ensure that a non-OBD equipped vehicle meets the necessary opacity limits and is compliant with the requirements outlined in this chapter. The term "opacity" is associated with the periodic testing requirements for non-OBD vehicles and is outlined in subsection 2196.4. A vehicle with high opacity, i.e., thick smoke, is likely to have a PM emissions control issue. These vehicles are required to submit their test smoke opacity results on a semiannual basis in order to remain in compliance and receive a compliance certificate.

Subsection 2195.1(a). Outstanding enforcement action.**Purpose**

The purpose of the subsection is to define "Outstanding enforcement action."

Rationale

The definition for "Outstanding enforcement action" is necessary to identify any unresolved civil, administrative, or criminal violation for which a notice was issued to a vehicle or a fleet owner for non-compliance with any in-use heavy duty vehicle requirement established by CARB. Having an outstanding enforcement action for a vehicle would preclude the vehicle owner from obtaining a compliance certificate for that vehicle due to non-compliance with other CARB regulations. In the event that the vehicle owner resolves these issues and adheres to the requirements outlined in this chapter, the enforcement action would no longer be considered outstanding and the vehicle would be eligible to receive a compliance certificate.

Subsection 2195.1(a). Owner.**Purpose**

The purpose of the subsection is to define "Owner."

Rationale

The definition for "Owner" is necessary to identify and describe the responsible person for compliance with this proposed regulation. This definition is needed to allow the vehicle owner to transfer the compliance responsibility to the renter of the vehicle. Additionally, it specifies the role and responsibilities of a vehicle owner as well as the owner of the rented vehicle and renter.

Subsection 2195.1(a). Payment.

Purpose

The purpose of the subsection is to define "Payment."

Rationale

The definition for "Payment" is necessary to outline that it is a financial transaction intended as a recompense or restitution by bank check, money order, electronic bank transfer or credit card. The meaning of payment is vital for a vehicle owner who would not be able to receive their compliance certificate if they fail to make a payment for a compliance fee correctly. This term is also used in relation to citations, because a vehicle owner must submit proper payment (in addition to proof of compliance) to resolve a citation and avoid further penalties.

Subsection 2195.1(a) Peace officer.

Purpose

The purpose of the subsection is to define "Peace officer."

Rationale

This definition is necessary to identify any law enforcement agencies' authorized representative throughout this chapter that would be assisting and enforcing the proposed regulation. This term is defined separately from officer because it includes other agencies other than CHP and because not all peace officers may be in uniform.

Subsection 2195.1(a) Person.

Purpose

The purpose of the subsection is to define "Person."

Rationale

This definition for "Person" is necessary to define the various parties that may be referred to when indicating that a person may be subject to certain requirements.

Subsection 2195.1(a). Provisional compliance certificate.

Purpose

The purpose of the subsection is to define "Provisional compliance certificate."

Rationale

The definition for "Provisional compliance certificate" is necessary for defining a scenario in which a one-time extension of a compliance certificate would be provided to a vehicle owner due to a situation when a vehicle cannot be brought back into

compliance due to a lack of parts needed to make the proper repairs to the vehicle. This provisional compliance certificate would allow the vehicle to be operated until the vehicle's next compliance deadline; however, as the vehicle owner did not actually demonstrate vehicle compliance in this scenario, the provisional compliance certificate would differentiate the documentation this vehicle would receive. This would help enforcement staff differentiate these vehicles when performing roadside inspections, so they do not write a non-compliance citation to a vehicle that has been given a compliance extension.

Subsection 2195.1(a). Receiver.

Purpose

The purpose of the subsection is to define "Receiver."

Rationale

The definition for "Receiver" is necessary to define a person or an entity that enters into a contractual agreement with a shipper, broker, or intermediary party to receive shipped goods, cargo, or commodities. It is necessary to define these types of entities because this chapter outlines recordkeeping requirements for them within the "Freight contractor" section.

Subsection 2195.1(a). Referee.

Purpose

The purpose of the subsection is to define "Referee."

Rationale

The definition for "Referee" is necessary to describe the people who would be allowed to perform independent inspections and services for vehicles with compliance issues and to test unusual vehicle configurations. Having referees would help ensure all vehicles have the ability to demonstrate compliance with the program requirements and that vehicles are submitting passing data and being repaired properly.

Subsection 2195.1(a). Remote on-board diagnostic device or ROBD device.

Purpose

The purpose of this subsection is to define the term "Remote OBD (ROBD) device," with reference to all technical specifications described in Appendix B.

Rationale

This subsection is necessary to introduce the high-level characteristics of HD I/M ROBD devices. ROBDs would be the main means of collecting CARB's required OBD data remotely from the OBD-equipped heavy-duty vehicles and submitting the data to

CARB's electronic reporting system in order to determine vehicles' compliance with the requirements of the HD I/M program.

Subsection 2195.1(a). Removal from service.

Purpose

The purpose of the subsection is to define "Removal from service."

Rationale

The definition for "Removal from service" is necessary to explain that the towing and storage of a vehicle shall be consistent with California Vehicle Code section 27159 and under the auspices of the CHP. It is important to define this term as a mechanism that may be used to enforce the requirements of this chapter if there are outstanding and unresolved violations.

Subsection 2195.1(a). Rental or leasing company.

Purpose

The purpose of the subsection is to define "Rental or leasing company."

Rationale

The definition for "Rental or leasing company" is necessary to indicate a business that rents or leases vehicles. For rented vehicles operating in California, the owner of the rented vehicle may be the responsible person for compliance with this proposed regulation under certain circumstances.

Subsection 2195.1(a). Renter.

Purpose

The purpose of the subsection is to define "Renter."

Rationale

The definition for "Renter" is necessary to identify and describe the person who rents and/or operates a vehicle owned by another person. For rented vehicles operating in California, the renter of the vehicle may be the responsible person for compliance with this proposed regulation under certain circumstances.

Subsection 2195.1(a). Repair facility.

Purpose

The purpose of the subsection is to define "Repair facility."

Rationale

The definition for "Repair facility" is necessary to define places where heavy-duty vehicles are repaired, rebuilt, reconditioned, or in any way maintained for the public at a fee, and includes fleet maintenance facilities. Repair facilities are referred to within this chapter when directing non-compliant vehicles to obtain demonstration of correction. There are also provisions requiring a vehicle owner who wants a compliance extension for lack of parts availability to submit evidence of an initial effort to contact repair facilities no later than seven days after a non-compliance issue was first identified.

Subsection 2195.1(a). Roadside emissions monitoring device.**Purpose**

The purpose of the subsection is to define "Roadside emissions monitoring device."

Rationale

The definition for "Roadside emissions monitoring device" is necessary to define a CARB-authorized emissions monitoring instrument that may include, but is not limited to, an emissions sampling system that remotely measures tailpipe emissions, downloads OBD data, and/or captures other information to identify a specific vehicle from pass-through vehicles. These devices would be an important element in the enforcement of this chapter, as they aid in the identification of potential high emitters operating on California roadways, who are subsequently required to obtain follow-up testing and any necessary repairs. The identification of non-compliant vehicles by these devices is expected to have a significant impact on overall compliance.

Subsection 2195.1(a). SAE J1667.**Purpose**

The purpose of the subsection is to define "SAE J1667" recommended practices to conduct snap acceleration smoke test procedures for heavy-duty vehicles.

Rationale

The definition for "SAE J1667" is necessary as it describes a standardized procedure for assessing smoke emissions from in-use heavy-duty vehicles. This standardized procedure is the proposed compliance testing option for non-OBD-equipped vehicles in the HD I/M program.

Subsection 2195.1(a). Seaport.**Purpose**

The purpose of the subsection is to define "Seaport."

Rationale

The definition for "Seaport" is necessary to define the property where marine or seaport terminals are typically located for the loading and unloading of water-borne commerce onto and from ocean-going vessels. For purposes of this regulation, seaport does not include seaport property that is not related to or primarily used to engage in water-borne commerce. Some examples of seaports that would be subject to this HD I/M Regulation include the Port of Long Beach, Port of Los Angeles, Port of Humboldt Bay, Port of San Diego, Port of Hueneme, Port of Oakland, Port of San Francisco, Port of Sacramento, Port of Stockton, Port of Redwood City, Port of Crockett, Port of Richmond, Port of Pittsburg, and the Port of Benicia.

Subsection 2195.1(a). Seaport facility.**Purpose**

The purpose of the subsection is to define "Seaport facility."

Rationale

The definition for "Seaport facility" is necessary to define any non-military independent marine terminal or operational seaport where the seaport functions as a marine terminal operator. This definition is necessary to identify the applicable locations to be included in the definition of applicable freight facilities.

Subsection 2195.1(a). Seaport property.**Purpose**

The purpose of the subsection is to define "Seaport property."

Rationale

The definition for "Seaport property" is necessary to define the publicly or privately owned property where a seaport is located. It is the property that includes the physical boundaries, either contiguous or non-contiguous, of the seaport and may include other properties owned by the seaport. For the purposes of this regulation, seaport property includes privately owned property located within a publicly or privately owned seaport property's boundaries. This definition is necessary to specify what a seaport property is so that the requirements of this chapter can be further outlined when defining the requirements for seaport facilities.

Subsection 2195.1(a). Shipper.**Purpose**

The purpose of the subsection is to define "Shipper."

Rationale

The definition for "Shipper" is needed to identify the person, party, or entity who usually owns or supplies the commodities transported by a carrier, or that has possession of freight prior to its transportation. This may include, but is not limited to, food manufacturers, processors, packing plants, temporary cold storage facilities, and distribution centers. It is necessary to define these types of entities because this chapter outlines recordkeeping requirements for them within the "Freight contractor" section.

Subsection 2195.1(a). Smoke meter.**Purpose**

The purpose of the subsection is to define "Smoke meter."

Rationale

The definition for "Smoke meter" is necessary to define the device that is used to measure the opacity of smoke from a vehicle's exhaust. Vehicle owners are required to submit smoke meter brand name, make, and model when reporting required opacity testing.

Subsection 2195.1(a). Smoke test or smoke opacity test.**Purpose**

The purpose of the subsection is to define "Smoke test" or "smoke opacity test."

Rationale

The definition for "Smoke test" or "smoke opacity test" is necessary to define these terms as synonymous for purposes of this chapter and to reference the testing procedures specified in SAE J1667 Recommended Practice used for periodic vehicle emission testing of non-OBD-equipped vehicles.

Subsection 2195.1(a). Tampered.**Purpose**

The purpose of the subsection is to define "Tampered."

Rationale

The definition for "Tampered" is necessary to define missing, modified, disconnected, or improperly installed, or, as it applies to emission control labels, permanently obscured in accordance with Vehicle Code section 27156 and Health and Safety Code section 33008. Tampering with engine or emission control components constitutes a violation of this chapter, so it is important to define the actions that would be

considered tampering in order for vehicle owners to understand what is required of them.

Subsection 2195.1(a). Temporary operating permit.

Purpose

The purpose of the subsection is to define "Temporary operating permit."

Rationale

The definition for "Temporary operating permit" is necessary to define the permit DMV is authorized to issue in accordance with Vehicle Code section 4156.5 to a vehicle owner (or other person in lawful possession of the vehicle). The proposed regulation provides additional methods for vehicle owners to continue operation of their vehicle when registration with the California DMV would otherwise be prohibited due to non-compliance, through temporary operating permits. Currently, the California DMV issues temporary operating permits to vehicle owners upon request. Beyond this initial temporary operating permit, CARB may issue a secondary temporary operating permit, if needed. This issuance of a secondary temporary operating permit would seek to provide vehicle owners with adequate time to rectify non-compliance prior to preventing registration.

Subsection 2195.1(a). Test procedures.

Purpose

The purpose of the subsection is to define "Test procedures."

Rationale

The definition for "Test procedures" is necessary to specify what test methods could be used for compliance verification.

Subsection 2195.1(a). Ultimate purchaser.

Purpose

The purpose of the subsection is to define "Ultimate purchaser."

Rationale

The definition for "Ultimate purchaser" is necessary to define a vehicle buyer (i.e., one buying a brand-new vehicle for their own use) from whom DMV may accept a statement of compliance from the vehicle seller, in lieu of a CARB-issued compliance certificate.

Subsection 2195.1(a). Unresolved citation.

Purpose

The purpose of the subsection is to define "Unresolved citation."

Rationale

The definition for "Unresolved citation" is necessary to define a citation issued for violation the requirements of this regulation for which acceptable demonstration of compliance has not been provided or, if required, payment of all required penalties has not been received. Further enforcement action may be taken with regard to an unresolved citation such as having a compliance certificate withheld, registration hold placed, and/or a vehicle removed from service.

Subsection 2195.1(a). Vehicle identification number (VIN).

Purpose

The purpose of the subsection is to define "Vehicle identification number (VIN)."

Rationale

The definition for "VIN" is necessary to identify this unique identification number which is used for the vehicle's entire life. In this proposed regulation, the VIN would be used as the main identifier to determine the vehicle for which a compliance test is being submitted for. Additionally, the VIN would be used to establish the compliance year for non-California registered vehicles and would be part of data submission for OBD-equipped vehicles.

Subsection 2195.1(a). Vendor.

Purpose

The purpose of the subsection is to define "Vendor."

Rationale

The definition of "Vendor" is necessary to specify the parties that are responsible for compliance with the device certification requirements. It specifies device manufacturers and sellers as the parties responsible for certification compliance. Additionally, these parties also mean the applicants for device certification and the holders of the device EO.

Subsection 2195.1(a). Verified diesel emissions control strategy (VDECS).

Purpose

The purpose of the subsection is to define "Verified diesel emissions control strategy (VDECS)."

Rationale

The definition for "VDECS" is necessary because various portions of this chapter detail requirements associated with the level and type of VDECS installed on a particular vehicle. For instance, in subsection 2196.6, the level of VDECS installed is directly correlated to the opacity percentage that the vehicle's exhaust must not exceed.

Section 2196. Owner and operator requirements.

Purpose

This new section specifies the requirements applicable to owners and operators (drivers) of heavy-duty vehicles that must comply with this chapter.

Rationale

This section is necessary to explain the responsibilities of vehicle owners and operators, including the documentation vehicle owners and operators must retain for each vehicle subject to this chapter and have readily available upon request from a CARB inspector or peace officer, as well as to note the owner or designee responsibility to specify their complete list of vehicles in the electronic reporting system.

Subsection 2196(a).

Purpose

This subsection notifies vehicle owners of their responsibilities under the proposed regulation to obtain a compliance certificate to legally operate in California, to retain documentation regarding the entity that hired the vehicle, and to only operate vehicles that are in compliance.

Rationale

This subsection is necessary because Vehicle Code section 27158.1 requires a vehicle owner to keep a compliance certificate with each vehicle to demonstrate it complies with the proposed regulation starting one year after the regulation's effective date. It is also necessary to inform vehicle owners of the requirement to keep documentation on the vehicle's hiring entity with the vehicle to establish a clear accountability chain for verifying that hiring/shipping entities have met their obligations under the proposed regulation. The requirement to have a properly installed and legible emission control label is necessary to confirm that engines meet emissions standards at least as stringent as applicable federal emissions standards for the model year of the vehicle's engine. This requirement ensures that vehicles with engines manufactured outside of the United States that travel into California meet minimum required emissions standards. These requirements also ensure that vehicle owners are informed that they cannot legally operate in California any vehicle with tampered or defective emissions control components, or with improperly installed and/or applied

aftermarket parts, as defined in the proposed regulation. By establishing these requirements for vehicle owners, the proposed regulation would help to ensure that engines used in vehicles operating in California are in their originally certified configurations, equipped only with CARB-approved aftermarket and add-on parts, and are properly maintained. These requirements would assist CARB in meeting its emission reduction targets for California.

Subsection 2196(b).

Purpose

The purpose of this subsection is to inform the vehicle owner or designee of their responsibility to attest to the complete list of vehicles for which they are responsible within the electronic reporting system, as required in 2197.2(b)(3).

Rationale

The subsection is important because it would ensure that vehicle owners are accurately reporting their complete list of vehicles in their fleet, which is a critical requirement in the context of freight contractors and/or brokers, who have a requirement to verify fleet level compliance. This verification utilizes a document called the Affirmation of Fleet Wide Compliance, which is issued through the electronic reporting system to the vehicle owner or designee under the condition that each of the vehicles within the fleet have demonstrated compliance. It is necessary that vehicle owners adhere to the reporting requirements for their fleet, so that when freight contractors and/or brokers verify fleet wide compliance, they can be assured that the fleet is reported accurately.

Subsection 2196(c).

Purpose

The subsection outlines the responsibilities of a vehicle owner or operator when a vehicle is operating under an Emergency Exemption and the supporting documentation that is needed to verify that the vehicle is being used for emergency operations.

Rationale

The subsection is important because in some cases, an otherwise non-compliant vehicle would be allowed to operate if they are able to prove they are operating in support of an emergency. The availability of supporting documentation proving that a vehicle is allowed to operate during an emergency may be requested by CARB staff or a California official to prove the vehicle is operating in support of an emergency.

Subsection 2196(d). Five-day pass.

Purpose

The subsection establishes a provision that would allow vehicle owners the ability to request and obtain a temporary pass for five consecutive days exempting them from the regulation. Only one pass could be issued for each vehicle per year.

Rationale

This subsection is necessary because there are some vehicles that travel very infrequently into California. It would be overly burdensome for them to comply with the regulation simply to travel to California for one time, and the emissions benefits would be infinitesimally small. CARB staff believes that exemption is warranted for such vehicles that infrequently travel in California provided that their owners request and obtain advanced Executive Officer approval. This temporary pass provision is also offered to other existing CARB regulations. The timelines being the seven business days before travel and the Executive Officer's determination within five business days.

Subsection 2196(e).

Purpose

This subsection is necessary to inform vehicle operators of their responsibility to present documentation for a vehicle undergoing an in-person field inspection by a CARB inspector or when requested to do so by a peace officer. They must present documentation specifying compliance with the proposed regulation, and—if applicable—documentation of the hiring entity and documentation related to an emergency exemption

Rationale

This subsection is necessary because CARB inspectors and peace officers would need these types of documentation to determine a vehicle's compliance with the regulation. In some cases, an inspection may at first seem indicate that a vehicle is non-compliant but documentation may provide them with an exemption or justification for the vehicle to operate in the State, such as in emergency situations.

Section 2196.1. Compliance certificate and registration.

Purpose

This new section specifies the requirements to receive a compliance certificate, the compliance fee related to the certificate, the length of time that it is valid, and requirements for being deemed compliant to register a vehicle with DMV.

Rationale

This section is necessary to inform vehicle owners on how a compliance certificate would be obtained.

Subsection 2196.1(a).**Purpose**

This subsection specifies that a vehicle owner would need to meet all the prerequisites in the next subsection (b) to demonstrate compliance with the proposed regulation and to obtain a compliance certificate.

Rationale

This subsection is necessary to inform vehicle owners that there are specific requirements that must be met in order to demonstrate compliance with the proposed regulation and to obtain a compliance certificate.

Subparagraph 2196.1(a)(1).**Purpose**

This subparagraph specifies the requirements a new vehicle owner must meet in order to receive a compliance certificate upon acquiring a vehicle or registering it in California.

Rationale

This subparagraph is necessary to establish the process by which a new vehicle owner obtains a compliance certificate for their newly acquired vehicle so it can legally operate in California. As required by statute, compliance certificates are issued to the registered vehicle owner upon the vehicle meeting the requirements of the proposed regulation. Thus, when a vehicle changes ownership, a process is necessary to establish a way for the new owner to demonstrate vehicle compliance and obtain a compliance certificate of their own. Staff is proposing to require a vehicle compliance demonstration to be done on a vehicle within 90 calendar days in advance of a vehicle's transfer/registration date in order for the new owner to receive a compliance certificate upon the transfer of vehicle title. This would align with the process established by California Bureau of Automotive Repair (BAR) in the light-duty smog check program and also is consistent with the 90-day window that is established for all vehicle owners to demonstrate compliance prior to being issued a compliance certificate for a vehicle's next operating cycle as part of this proposed regulation. This is discussed in more detail in section 2196.1(e).

Assessing vehicle compliance when a vehicle changes ownership or registers in California is a critical requirement within the proposed regulation to ensure

vehicles operating in California are equipped with compliant emissions control systems. This requirement would ensure that owners seeking to purchase a vehicle for use within California obtain a vehicle that meets the requirements of the proposed regulation before they officially complete the purchase process. If the periodic testing requirements have taken effect when a transfer in ownership occurs, then the new owner would need to ensure a test had been done within the 90-day period preceding the transfer of ownership in order to receive a compliance certificate upon the transfer of the vehicle. This would raise awareness of the HD I/M program and help ensure the new owner would not face unexpected compliance costs after they finalize the vehicle purchase.

Additionally, this requirement also helps in the situation where a vehicle is being transferred from out-of-state to in-state and vice-versa. When this occurs, the compliance deadlines for the vehicle in question could change as the deadlines would be switching between a VIN-based and a registration date-based deadline schedule. The compliance test demonstration required as part of this vehicle transfer would ensure that vehicle compliance is demonstrated and that the transition in compliance deadlines would not create a loophole to enable skipping required compliance testing events. For example, a vehicle registered outside of California with a VIN ending in 9 would have semi-annual compliance deadlines on July 31 and January 31. If the vehicle demonstrates compliance 90 days before July 31, a test would be performed on May 2. If the vehicle is sold into California, the semi-annual compliance deadlines could change based on its registration date in California, for example, to December and June based on California registration compliance dates. Without a requirement for a compliance test within 90 calendar days in advance of the ownership transfer date, this vehicle could potentially be sold into California in January and not face another periodically scheduled compliance test until June. This could result in the vehicle not demonstrating compliance for over a year (i.e., May of one year until June of following year), which would reduce the effectiveness of the program. Requiring a test upon change of ownership, eliminates this potential loophole and would help ensure vehicles are regularly tested for compliance.

There is a potential that requiring a test upon transfer of ownership would require an additional compliance test that otherwise would not be required of a vehicle. However, considering the allowance of a test performed in the previous 90 calendar days to count towards a new owner's compliance determination, and the fact that a telematics-based test submission would result in no additional cost, staff believes the benefits of this requirement in ensuring a vehicle is compliant upon changing owners greatly outweighs any potential inconvenience and cost such additional tests may impose. When compared to the total amount of testing to be performed to meet the proposed regulation, the

additional testing to meet the requirement to ensure a test occurred within 90 days of transfer of ownership would essentially be negligible.

Subparagraph 2196.1(a)(2).

Purpose

This subparagraph specifies the requirements that an owner of a new motor vehicle, as defined in Health and Safety Code 39042, must meet in order to receive a compliance certificate and the length of time allotted for completion of the requirements.

Rationale

This subparagraph is necessary to establish the process by which the ultimate purchaser of a new motor vehicle must follow to obtain a compliance certificate to legally operate in California. New vehicles would have to demonstrate compliance with the proposed regulation to receive a compliance certificate, however, would not be required to submit a compliance test as part of this demonstration. The emissions test would not be required for the initial registration of new vehicles because they are sold with new components from the manufacturer with all emissions control equipment certified to operate properly. Staff is proposing to allow the owner of this new vehicle straight of the assembly line 30 days to register the vehicle, pay the compliance fee, and obtain their compliance certificate. This timing would align with the amount of time fleets have to add or remove vehicles from their fleet accounts in the electronic reporting system. This timing also would allow the vehicle information time to transfer between DMV and CARB to avoid having to require the owner to reenter the vehicle information that DMV likely already has on file into CARB's electronic reporting system.

Subparagraph 2196.1(a)(3).

Purpose

This subparagraph describes transfer of ownership events that would not require a demonstration of compliance.

Rationale

The ownership transfer scenarios specified in this subparagraph would exempt certain vehicle transfers from having to demonstrate compliance. These include scenarios related to vehicles that are moved within a family or within the same business entity, and vehicles that are transferred from a lesser to lessee if the lessee has been operating the vehicle for an extending period of time. These transfer scenarios do not involve the vehicle changing hands to a business entity that has not already been involved in the operation of the vehicle under the

current owner. Exempting these transfer of ownership scenarios would be consistent with BAR's smog check program and consistent with the SB 210 statute.

Subsection 2196.1(b).

Purpose

This subsection establishes the requirements with which vehicle owners must demonstrate compliance in order to receive a compliance certificate and conditions that would need to be verified by the Executive Officer before a compliance certificate is issued to the registered owner of a vehicle.

Rationale

This subsection is necessary to inform vehicle owners that the compliance certificate would only be issued to vehicles that meet all the prerequisites in this subsection, including having no outstanding enforcement actions or outstanding emissions-related or OBD-related recall issues. The compliance certificate requirements are necessary to verify that vehicles are operating in California with properly functioning emissions control systems and any required fees necessary to support the implementation of the proposed regulation are paid.

It is necessary to pay the compliance fee prior to receiving a compliance certificate to cover all administrative costs of the program. The compliance certificate is valid only for a single vehicle and will be associated to a vehicle and an owner in the database, so it is necessary for vehicle owners to report the owner and vehicle information to the electronic reporting system to ensure that their vehicle is accounted for, and incoming compliance testing data can be matched to the vehicle on record. The owner must demonstrate compliance with the periodic vehicle emission testing requirements by submitting a passing test in order to demonstrate that the emission control components are properly functioning. This periodic testing is required on regular intervals to ensure vehicles make any needed repairs within reasonable time frames. Enforcement actions would be taken against vehicles that have not met compliance requirements with the proposed regulation. These compliance issues be cleared by the appropriate methods to ensure that the vehicle is operating properly prior to receiving a compliance certificate. Mandatory recalls issued by the original equipment manufacturer (OEM) and through CARB related actions that are related to either emissions component recalls or the OBD system that have not been addressed by the vehicle owner by the due dates would also result in withholding a vehicle's compliance certificate. As both uncleared enforcement actions and unaddressed recall issues can lead to excess emissions from the vehicle beyond those emitted from a properly functioning vehicle, these issues would need to be remedied in order to be deemed compliant with the proposed regulation and allowed to receive a compliance certificate.

Subsection 2196.1(c).

Purpose

This subsection is necessary to inform vehicle owners that a compliance certificate may be issued by the Executive Officer to the vehicle if the referee has identified issues that cannot be resolved.

Rationale

This subsection is necessary because referees are intended to provide services in unusual situations where regular inspections and determinations of a vehicle's compliance status are not feasible. In those cases, the referee is provided the opportunity to recommend a compliance certificate if they encounter certain situations that have been approved by the Executive Officer.

Subsection 2196.1(d).

Purpose

This subsection establishes how frequent vehicle owners must demonstrate compliance to remain compliant with the requirements of this proposed regulation

Rationale

This subsection is necessary to ensure that vehicles are operating in California have their compliance verified periodically to ensure each vehicle is operating with a properly functioning emissions control system. This subsection makes it clear to the owner as to the type of vehicle that would be subject to semi-annual (twice per year) compliance demonstrations and those that would be subject to annual compliance demonstrations.

All vehicles affected by this proposed regulation, other than motorhomes and agricultural vehicles, would be subject to a semi-annual compliance deadline. Semi-annual compliance demonstrations are required to ensure vehicles that operate in California consistently have properly functioning emissions control systems. Since motorhomes typically travel for recreational purposes and agricultural vehicles are often operated only seasonally, staff determined that such vehicle types could test less frequently than other heavy-duty vehicle types operating in California.

Subsection 2196.1(e).

Purpose

This subsection establishes the allowable timeframe in which vehicles would have to demonstrate compliance and the length of time that a compliance certificate would be valid following a demonstration of compliance and when a compliance certificate

could be provided to the vehicle owner following demonstration of compliance with the proposed regulation.

Rationale

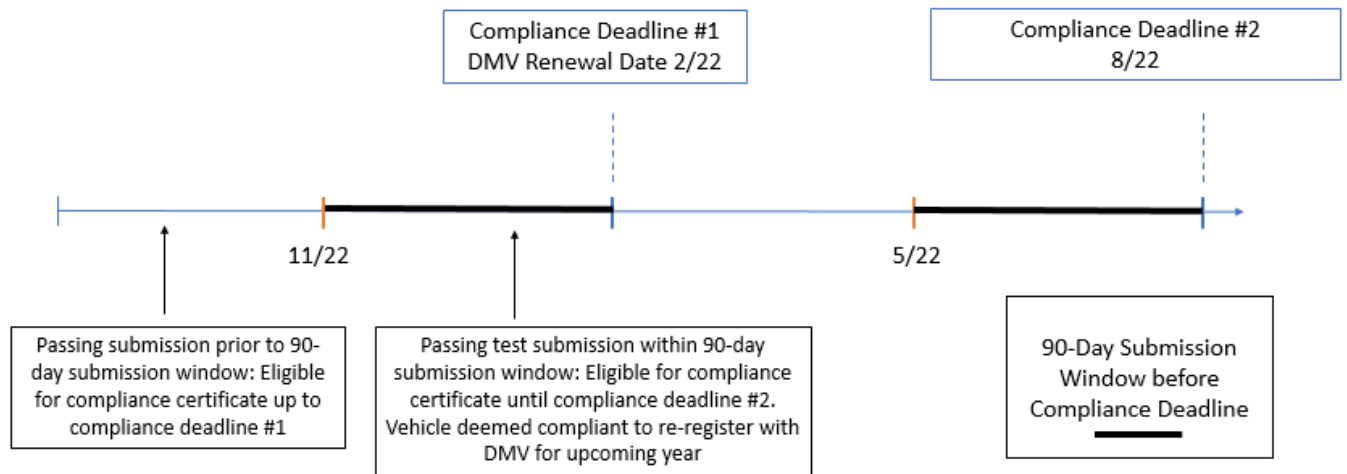
This subsection establishes the length of time that the compliance certificate is valid based on when a compliance demonstration occurs. This subsection would ensure that a vehicle owner demonstrates compliance near a vehicle's compliance deadline before being issued a compliance certificate for the following six month or year operating window. This section would make it clear to the owner of the vehicle as to when the vehicle next needs to demonstrate compliance with the requirements of this regulation.

This subsection is necessary to provide vehicle owners more explicit details on submission timeframes for passing compliance tests so they can ensure their vehicles do not experience compliance gaps when operating in California. A passing compliance demonstration, meeting the requirements of 2196.1(b), is required within 90 calendar days of a vehicle's upcoming immediate compliance deadline. If compliance is demonstrated, the vehicle owner would be issued a compliance certificate through a vehicle's next compliance deadline. This would help ensure that vehicles receiving compliance certificates through the next six month period (or one year period for vehicles subject to annual compliance demonstrations) demonstrate compliance within a reasonable timeframe of their compliance deadline. If compliance is demonstrated at a time that is greater than 90 days before the expiration of the immediate compliance deadline, the compliance certificate would be issued up through the immediate compliance deadline. This latter compliance demonstration allowance would allow vehicles that may have missed demonstrating compliance at their previous compliance deadline to still receive a compliance certificate to operate in California once they are deemed compliant with the regulation.

For example, if a vehicle's semi-annual compliance deadline is February 22 of a given year, demonstrating compliance between the dates of November 24 and February 22 would fulfill a vehicle's compliance requirement until the vehicle's next compliance deadline, which is August 22. However, if the test is completed any time before February 22, the vehicles testing requirement would be fulfilled until the immediate compliance deadline, which is February 22. Figure C-1* provides a graphical representation of these submission requirements.

This subsection ensures that vehicle compliance is demonstrated within a reasonable timeframe prior to a vehicle's compliance deadline and that vehicles are properly maintained prior to being allowed to operate in California through the next compliance deadline.

Figure C-1*: Graphical representation of the periodic submission timing requirements
 * Figure C-1 is the same as Figure III-2 in ISOR



Subsection 2196.1(f). Compliance fee.

Purpose

This subsection establishes the fee that is required to be paid for each registered vehicle for the first compliance certificate of each year.

Rationale

This subsection is necessary to specify the cost of a compliance certificate, how often the fee must be paid, who is required to pay the fee, and when it must be paid.

Subsection 2196.1(g).

Purpose

This subsection specifies that the Executive Officer would notify DMV of vehicles that have demonstrated compliance with the requirements of the proposed regulation within the 90 calendar days before a vehicle’s registration date. Under specific transfer of ownership and registration conditions listed in section 2196.1(a), vehicle owners would not be required to demonstrate compliance with the proposed regulation and the Executive Officer would not request that DMV verify compliance with the proposed regulation.

Rationale

SB 210 requires DMV to confirm a vehicle is compliant with the requirements of the proposed regulation before registration in California. To provide DMV the ability to carry out this function, CARB would notify DMV of applicable heavy-duty vehicles that

have met the compliance demonstration requirements of the proposed regulation and have been issued a compliance certificate. This subsection would ensure that vehicles have demonstrated compliance within a reasonable timeframe before being allowed to register. This would help to ensure vehicles that are allowed to register with DMV are operating with properly functioning emissions control components. SB 210 also prescribes specific transfer of ownership and registration events for which DMV would not be required to confirm compliance with the proposed regulation, nor would CARB request DMV to do so. These events thus are listed to ensure the vehicle owner understands which DMV registration events require a demonstration of compliance and which do not. This also includes the sale of a new motor vehicle to the ultimate purchaser as a registration event for which DMV would not be requested to confirm compliance with the proposed regulation. New motor vehicles are equipped with engines newly certified to meet emissions certification standards and therefore it would be duplicative to require these vehicles to demonstrate that their emissions controls systems are properly functioning by meeting the requirements of this proposed regulation prior to DMV registration. Overall, this subsection has been established to align the proposed regulation with the directives of SB 210 and to reduce duplicative testing requirements.

Subsection 2196.1(h).

Purpose

This subsection establishes that CARB may disclose the compliance status of vehicles operating in California.

Rationale

This subsection is necessary so that CARB can provide certain entities, such as freight contractors, with compliance information pertaining to the vehicles with which they do business. These entities may utilize this information to ensure the operation of compliant vehicles in California.

Section 2196.2. Periodic vehicle emission testing requirements.

Purpose

The new section establishes the periodic vehicle emission testing requirements for heavy-duty vehicles. Owners of these vehicles would be required to periodically submit vehicle inspection data to CARB to show compliance with the proposed regulation.

Rationale

This section is necessary to inform vehicle owners of the periodic emissions testing requirements that must be met in order for a vehicle to be deemed to have fulfilled the requirements as part of a demonstration of compliance. The periodic testing requirements are necessary to systematically identify vehicles with malfunctioning emissions-related

components to require owners to repair the vehicles in a timely manner to reduce excess emissions of NOx and/or particulate matter (PM) resulting from the malfunctions.

Subsection 2196.2(a). Applicability.

Purpose

This subsection is necessary to specify that the periodic inspection requirements are applicable to all non-gasoline vehicles over 14,000 pounds GVWR operating in California, unless otherwise exempted in the proposed regulation.

Rationale

This subsection is necessary to specify that all applicable vehicles operating in California must meet the periodic vehicle emission testing requirements in section 2196.2. The periodic testing requirements are applicable to nearly every non-gasoline heavy-duty vehicle over 14,000 pounds GVWR operating in California. They are necessary because these vehicles are major contributors to statewide mobile air pollution, even though this sector makes up only a small portion of California's total on-road vehicle fleet (about three percent of total on-road vehicles). In 2020, the heavy-duty vehicles to which this proposed regulation applies emitted about 52 percent of the statewide on-road mobile source NOx emissions and about 54 percent of the statewide on-road mobile source PM 2.5 emissions (CARB, 2021a). Heavy-duty vehicles' PM and NOx emissions impose a damaging effect on human health and the environment, as described in Chapters I and II of the Staff Report.

Using periodic vehicle inspections to assess vehicles' emissions status would significantly enhance the ability of vehicle owners and CARB to ensure that vehicles with broken emissions control systems are identified and repaired quickly. For example, CARB's current roadside inspection program, the Heavy-Duty Vehicle Inspection Program (HDVIP), only inspects about two percent of vehicles per year. Linking compliance with periodic inspections significantly increases this test percentage. The resulting emission reductions are critical for California to meet its State Implementation Plan's (SIP) commitment to attain federal ambient 2024 and 2031 air quality standards in the most polluted regions in California, the San Joaquin Valley and South Coast air basins (CARB, 2021c).

The periodic inspection requirements, which would not be implemented before January 1, 2024, are the last phase of program implementation, at which time the proposed regulation would be fully operational. This phase-in of various program components after this chapter becomes effective is necessary to provide vehicle owners a step wise process to become knowledgeable about the new requirements, provide them sufficient time to register their vehicles in the CARB's electronic reporting system, and obtain any vehicle testing equipment that may be needed before the periodic inspection requirements become effective. The overall phase-in of

the program also allows parts of the program to start sooner, allowing the State of California to obtain critical emissions benefits earlier than what would be achievable if CARB rolled out all program components simultaneously, but with a later start date.

Subsection 2196.2(b).

Purpose

The subsection specifies the periodic testing requirement for OBD-equipped and non-OBD-equipped vehicles.

Rationale

This subsection is necessary to establish the timeframe for when vehicles must submit a passing compliance test and which tests are required to be completed on the vehicle to demonstrate compliance.

Subparagraph 2196.2(b)(1).

Purpose

The purpose of this subparagraph is to specify the periodic testing requirement for OBD-equipped vehicles.

Rationale

This subparagraph is necessary to ensure that OBD-equipped vehicles are regularly inspected for potential vehicle emission control system malfunctions and are repaired in a timely manner to prevent prolonged on-road operation with broken emissions control systems.

Subparagraph 2196.2(b)(2).

Purpose

The purpose of this subparagraph is to specify the periodic testing requirement for non-OBD-equipped vehicles.

Rationale

Similar to inspection requirements for OBD-equipped vehicles, the proposal to require periodic inspections for non-OBD-equipped vehicles is necessary to ensure that these vehicles would be regularly inspected for potential vehicle emission control system malfunctions. This would ensure non-OBD equipped vehicles are repaired in a timely manner to prevent prolonged on-road operation with broken emissions control systems.

Subsection 2196.2(c).

Purpose

The subsection establishes that a vehicle owner can resubmit a compliance test to meet the periodic testing requirements by the established deadline if a previous test submission for the vehicle has previously failed to meet the compliance requirements.

Rationale

This subsection is necessary to ensure a vehicle owner can demonstrate compliance with the HD I/M program requirements. This subsection allows a vehicle owner multiple opportunities to demonstrate compliance if needed so a vehicle owner that needs to make vehicle repairs to bring a vehicle back into a compliant state still has an opportunity to demonstrate compliance and legally operate in California.

Section 2196.3. Vehicle compliance test methods for OBD-equipped vehicles.

Purpose

This new section establishes the test methods for use to demonstrate compliance with the HD I/M program, requirements for devices used to perform the compliance tests, and the criteria used to determine if a vehicle passes or fails a compliance test.

Rationale

This section is necessary to standardize the compliance test procedures for both OBD-equipped and non-OBD-equipped vehicles for use in the HD I/M program to ensure heavy-duty vehicles are held to feasible and enforceable compliance requirements. Further, this section ensures equitable implementation and enforcement across the heavy-duty vehicle sector. This section also is necessary to inform vehicle owners and HD I/M testers of the authorized compliance test methods to perform vehicle emissions testing under this chapter.

Subsection 2196.3(a).

Purpose

This subsection and its three subparagraphs establish the compliance test methods a vehicle owner is authorized to use for OBD-equipped vehicles. The subsection also specifies Appendix B as the document that contains all requirements and technical specifications which remote on-board diagnostic devices used for compliance testing must meet.

Rationale

This subsection and its accompanying subparagraphs are necessary to specify the compliance test methods for identifying OBD-equipped vehicles with broken emissions-related components in need of repair. They were developed to provide

vehicle owners multiple test options to accommodate different business and travel needs.

The use of CC-ROBD devices for compliance testing (subparagraph 1) originates from the increasing use and continuing development of telematics ROBD devices and systems by heavy-duty engine and vehicle manufacturers, as well as by independent third-party telematics service providers. Each CC-ROBD device would be assigned and registered for use on only one vehicle and would require little to no human intervention once the device is installed in the vehicle. Use of CC-ROBDs would eliminate downtime for vehicle compliance testing.

The use of NCC-ROBD devices (subparagraph 2) for compliance testing would allow a plug-in or hand-held device to be used on multiple vehicles and could be an attractive testing option for vehicle owners who choose not to subscribe to a telematics service. In this testing option, the plug-in or hand-held device need only remain connected to a vehicle's OBD port located under the dashboard for a few minutes to complete the required testing.

NCC-ROBD devices could be made available for rent or check out at designated locations throughout California (e.g., at truck stops), or used by HD I/M testers employed or hired by vehicle owners to conduct on-site compliance testing. All testing options either eliminate vehicle downtime associated with compliance testing or minimize it to a duration of a few minutes. The testing options would be capable of collecting and submitting all the necessary OBD parameters required to identify any emissions-related component malfunctions, if a device certified to meet the requirements and technical specifications in Appendix B is used. Allowing different options for fleets to meet the testing requirements would allow fleets flexibility to choose a testing path that is in the best interest of their business. At the same time, establishing specific requirements for the various testing devices would ensure the allowed equipment meets CARB's needs to effectively test and confirm vehicle emissions control systems are working properly.

Subparagraph 3 is necessary to allow vehicle compliance testing to be performed prior to certified testing devices becoming available on the market. Such an allowance helps the proposed regulation obtain emissions benefits as early as possible through the implementation of Phase 1. Phase 1 is critical to reducing health impacts on affected communities throughout the state and to meet upcoming federal attainment goals. Phase 1 of the proposed regulation could result in vehicles being issued a NST after driving by a roadside emissions monitoring device. Such an allowance helps balance the need for obtaining emissions benefits as early as possible, with the need to streamline all testing performed within the regulation.

Subsection 2196.3(b).

Purpose

This subsection establishes the requirement for reporting OBD compliance test data.

Rationale

This subsection is necessary to indicate the standardized OBD data reporting requirements, specified in Part II, Appendix B, that must be met by CARB-certified ROBD testing devices when submitting compliance test data. See the provided Rationale language for subsections E.3 and E.4 of Part II for more detailed description of data collection and formatting requirements for the OBD compliance test. Furthermore, this requirement is necessary to establish the procedure for submitting OBD compliance tests prior to the requirement of certified devices. Such a procedure is important to ensure a standardized methodology that testers can follow while completing an OBD compliance test. The standard methodology would ensure all regulated entities have clear guidance as to what is required to be submitted following a compliance test.

Subsection 2196.3(c). Criteria for failing a compliance test.

Purpose

This subsection establishes the criteria for determining if an OBD-equipped vehicle fails a vehicle compliance test.

Rationale

The foundation of the HD I/M compliance test for OBD-equipped vehicles is the collection of OBD data parameters specified in CARB's heavy-duty OBD regulation in Title 13, CCR, Section 1971.1, the submittal of those data parameters to an electronic reporting system, and the rapid analysis of the data parameters by the electronic reporting system. The OBD data parameters are necessary to assess the status of an engine's emissions performance. A specific subset of the data parameters indicates the following:

- If a vehicle has malfunctioning emissions-related components,
- If the vehicle does not meet conditions necessary to perform an accurate compliance test (these conditions are referred to as "readiness"), and
- Whether there has been potential fraudulent activity to alter the data parameters.

This subset of data parameters forms the criteria for determining if a vehicle passes or fails an OBD compliance test.

Subparagraph 2196.3(c)(1).

Purpose

This subparagraph establishes the MIL as commanded on, meaning the vehicle's OBD system has reported a malfunction in an emissions-related component, as a condition for failing the compliance test.

Rationale

Illumination of the MIL is the most direct method to inform of an emissions related issue on the vehicle. The MIL is also directly tied to an active emissions fault code stored in the OBD system (malfunction criteria used by the OBD system to illuminate the MIL are specified in CARB's heavy-duty OBD regulation in Title 13, CCR, Section 1971.1). Therefore, it is necessary to include illuminated MIL as one of the failing criteria for the HD I/M OBD compliance test.

Subparagraph 2196.3(c)(2).

Purpose

This subparagraph establishes the presence of an active and/or permanent diagnostic trouble code (DTC) as a condition for failing the compliance test.

Rationale

This subparagraph is necessary as it specifies the presence of permanent DTCs in the submitted OBD compliance test results as another failing condition, in addition to confirmed DTCs (informed through the illuminated MIL), specified in subparagraph 2196.3(c)(1). Unlike confirmed DTCs, permanent DTCs cannot be erased from vehicle's on-board computer through a system reset, for example, by disconnecting the battery or clearing codes prior to performing an OBD test. Permanent fault codes can only be erased by the OBD system after confirming the malfunction that caused the permanent fault code to be stored is no longer present and is not commanding the MIL on. Therefore, the use of permanent fault codes provides the ability to detect owners' attempts to clear the MIL fraudulently prior to performing the OBD compliance test.

Subparagraph 2196.3(c)(3).

Purpose

This subparagraph establishes that an OBD system that has not yet operated sufficiently to determine the presence or absence of a DTC (i.e., completed diagnostic checks of specific emission control components) would fail the compliance test.

Rationale

This subparagraph is necessary because it includes the status of the OBD readiness indicators as another pass/fail condition for the OBD compliance test. The OBD system provides readiness indicators to communicate when monitoring has completed, and the system is ready to detect emissions-related malfunctions. This information would serve as another effective means to prevent fraud in the HD I/M program by showing whether certain OBD monitors have completed the necessary time to run and check for emissions-related faults since the OBD system's memory was cleared. This useful characteristic of the OBD system can be used to help detect attempted fraud in the OBD compliance test and therefore is proposed to be used as one of the pass/fail criteria for the HD I/M program.

Subparagraph 2196.3(c)(4).**Purpose**

This subparagraph establishes inconsistency between the submitted OBD compliance test data from a vehicle and the OBD data profile from vehicles with the same make, and/or model year as a condition for failing the compliance test.

Rationale

This subparagraph is necessary to prevent fraudulent activity from resulting in a passing compliance test. Fraud is known to not be limited to efforts such as clearing fault codes prior to performing the test, as addressed within subparagraphs 2196.3(c)(2) and 2196.3(c)(3). For instance, there are OBD simulators that mimic passing OBD data by changing OBD data from the vehicle being tested. One method to prevent this type of fraud, which has been shown to be effective in the California light-duty Smog Check program, is comparing certain OBD parameters in the submitted compliance test results against data results from other similar vehicles or prior results from the same vehicle. This is mainly because certain OBD information such as supported OBD parameters are specific to certain vehicle makes and models and therefore can be used to check for inconsistencies in data submission and assess potentially fraudulent activity.

Subparagraph 2196.3(c)(5).**Purpose**

This subparagraph establishes inconsistency between the identifiers of the vehicle's OBD system in the submitted compliance test data and the OBD data profile of the same vehicle as a condition for failing the compliance test.

Rationale

These data parameters are sources of information within the OBD system that are considered as the key characteristics of the system. These sources of information are either assigned by the OEM (e.g., Cal ID; identifier of the software calibration of the vehicle) or computed by the OBD system (e.g., CVN; unique to a specific CAL ID). These sources are typically unique to a vehicle model or sub-model. Fraudulent attempts such as conducting the OBD compliance test on a different vehicle or performing an unauthorized reprogramming of the vehicle's OBD system result in reporting values for these parameters that do not match the OBD data profile of a certain vehicle. Therefore, this subparagraph is necessary as it establishes another failure condition for the OBD compliance testing, which would further enhance CARB's ability to detect fraud.

Subparagraph 2196.3(c)(6).**Purpose**

This subparagraph establishes a failure condition of not meeting the requirements specified in two of the previous subsections (submitting compliance test data using one of the specified certified methods and meeting the specified OBD data reporting requirements).

Rationale

This requirement is necessary to ensure that only those OBD compliance test submissions that were collected and submitted by one of the CARB-specified methods (specified in subparagraph 2196.3(a)) that meet the OBD data reporting requirements are accepted in the CARB HD I/M electronic reporting system as passing tests. This requirement ensures that the data received in CARB HD I/M electronic reporting system is generated by and submitted from an authorized testing device and meets the standardized requirements specified by CARB.

Section 2196.4. Vehicle compliance test method for non-OBD-equipped vehicles.**Purpose**

This new section establishes test methods for use demonstrating compliance for non-OBD-equipped vehicles, and the criteria used to determine whether a vehicle has failed a compliance test.

Rationale

This section is necessary to standardize the compliance test procedures for non-OBD-equipped vehicles for use in the HD I/M program to ensure heavy-duty vehicles are held to feasible and enforceable compliance requirements. Further, this section is necessary to

inform vehicle owners and HD I/M testers of the authorized compliance test methods to perform vehicle emissions testing under this chapter.

Subsection 2196.4(a).

Purpose

The purpose of this subsection is to establish the compliance test procedures for non-OBD equipped vehicles and that HD I/M testers must perform the inspections.

Rationale

Heavy-duty vehicles with engines older than 2013 are not equipped with OBD systems, and thus require different compliance tests. Opacity tests help ensure vehicles are operating with proper diesel particulate filter aftertreatment systems. An additional visual inspection of the vehicle's emission control system helps determine whether other emissions control components have any mal-maintenance issues. As smoke opacity tests are specific to diesel vehicles, non-diesel fuel operated vehicles would not be subject to the smoke opacity test. Further, HD I/M testers are required to perform the inspections and submit the results to CARB to ensure individuals with a strong knowledge of how to properly perform the compliance inspections are doing the testing. This helps ensure vehicles with mal-maintenance issues are more readily identified as tests would be performed correctly.

Subsection 2196.4(b). Criteria for failing a compliance test.

Purpose

This subsection establishes the criteria for determining if a non-OBD-equipped vehicle passes or fails a vehicle compliance test.

Rationale

This subsection is necessary to establish the criteria for failing a compliance test for non-OBD equipped vehicles. Opacity is evaluated during an inspection to ensure that each non-OBD equipped vehicle meets the necessary opacity limits. Furthermore, failure requirements are established for the Vehicle Emissions Control Equipment Inspection to ensure emissions control issues beyond malfunctioning DPFs are identified.

Subparagraph 2196.4(b)(1).

Purpose

The purpose of the subparagraph is to specify the information collected and checks performed during a physical inspection of a heavy-duty vehicle's emissions control equipment.

Rationale

A non-OBD vehicle compliance test must include a visual/physical inspection of the heavy-duty vehicle's emissions control equipment. This inspection would ensure that no obvious tampering has occurred and emissions control components are properly installed. Without such an inspection, compliance testing would be more vulnerable to potentially fraudulent activity.

Subparagraph 2196.4(b)(2).**Purpose**

The purpose of the subparagraph is to specify the smoke opacity limits for the test.

Rationale

The smoke opacity test reports opacity as a percentage between 0% and 100%. A cutoff for pass/fail is needed to establish test criteria that the regulated community must meet to be determined to have a vehicle with a properly functioning emissions control system. This cutoff depends on the model year and emissions control systems of the heavy-duty vehicle. Details on these various cutoffs are discussed later in this appendix in the description of section 2196.6.

Subparagraph 2196.4(b)(3).**Purpose**

The purpose of the subparagraph is to establish a failure criterion if the compliance test is not performed by a HD I/M tester or if the test submission fails to meet the data reporting requirements specified for the non-OBD vehicle compliance test.

Rationale

Requiring a HD I/M tester to perform the inspection ensures the tester had adequate knowledge to perform the test correctly. Furthermore, the requirement of needed to submit all required data is necessary to ensure that CARB can make a proper pass/fail determination. Without the required data, a vehicle cannot be confirmed to have passed the inspection, thus would be determined to have failed.

Section 2196.5. Roadside emissions monitoring devices.**Purpose**

The purpose of this new section is to enable a vehicle emissions monitoring network to complement the periodic testing requirements. The network could screen vehicles operating

in California for excess emissions and possible emissions system malfunctions. Further, the following subsections inform vehicle owners of the methods by which vehicles may be screened through emission monitoring devices on the roadside.

Rationale

The reason for this section is to facilitate compliance and implementation of the regulation. The requirements related to roadside emission monitoring devices are necessary to provide an additional enforcement tool beyond in-person roadside checks by enforcement personnel. With over a million different heavy-duty vehicles operating in California each year, enforcement resources are not available to have a human inspect every vehicle at the roadside. Current roadside efforts can target about two percent of the vehicle population per year. Adding a roadside enforcement network would provide CARB with the ability to quickly screen many vehicles that pass through the systems and allow enforcement staff to better target their roadside efforts to vehicles that have a higher likelihood of non-compliance.

Furthermore, establishing a roadside monitoring network develops a screening tool that can be used in enforcement efforts without the need for enforcement staff to be present at the roadside when vehicles pass through the screening systems, thus allowing for more vehicles to be screened for potential compliance issues relative to the current human roadside-only efforts. Such additional enforcement tools would lead to a greater enforcement presence leading to higher compliance rates and reduced emissions levels.

Roadside emission monitoring devices complement the periodic testing requirements outlined in section 2196.2 by allowing CARB to further verify the in situ operating emissions as compared the submitted test results by the vehicle owners.

Subsection 2196.5(a).

Purpose

The purpose of issuing a NST is to provide a follow up process for CARB to ensure compliance with vehicles that were screened as high emitting vehicles by a roadside monitoring system. Further, this subsection establishes the criteria as to what occurrences start this process of issuing a NST and confirming the compliance status of a vehicle.

Rationale

A NST is an important tool in the enforcement of this chapter. It provides a preliminary process to contact the owners of potentially non-compliant vehicles, and request verification of the compliance status of their vehicle. Roadside devices do not have the direct capability to identify non-compliance. Hence, requiring vehicles that have been flagged as high emitters by these devices to submit to additional testing provides

owners the opportunity to correct any issues and submit passing test and inspection results to CARB prior to the issuance of a citation.

Subparagraph 2196.5(a)(1). OBD-equipped vehicles.

Purpose

The subparagraph specifies that OBD-equipped vehicles operating in California are subject to roadside emissions monitoring.

Rationale

The subparagraph is necessary as it informs owners of OBD equipped vehicles that there would be roadside emission monitoring devices that would be used to screen vehicles based on the emission measurements detected by the devices.

Subparagraph 2196.5(a)(1)(A).

Purpose

The purpose of this subparagraph is to indicate the lowest roadside emissions monitoring device PM emissions measurement that may be screened as a potential high emitter for an OBD equipped vehicle, i.e., that corresponding to exceeding the equivalent OBD trigger threshold for illuminating the MIL.

Rationale

It is not feasible to obtain OBD data for all vehicles passing through a screening system in California. However, these screening systems can collect tailpipe emission measurements. The goal of the program is to ensure that vehicles are maintained and continue to operate in their certified configuration. An OBD system warns the operator by illuminating the MIL when a vehicle is operating outside of its certified configuration and infers an emission level for the vehicle.

This threshold is similar to the standard identified in Title 13, CCR, Section 1971.1 and is meant to provide consistency for heavy-duty vehicle owners. This is an existing standard that is codified and tying our threshold to it maintains a consistent level of stringency for vehicle owners. This provides consistency among various testing and screening methods. Ultimately, screening for PM is necessary, as the ability to identify the highest emitting vehicles and bring them into compliance would have a significant impact in meeting CARB's goal of reducing harmful air contaminants, consistent with the Diesel Risk Reduction Plan.

Subparagraph 2196.5(a)(1)(B).

Purpose

The purpose of this subparagraph is to indicate the lowest roadside emissions monitoring device NO_x emissions measurement that may be screened as a potential high emitter for an OBD equipped vehicle, i.e., that corresponding to exceeding the equivalent OBD trigger threshold for illuminating the MIL.

Rationale

It is not feasible to obtain OBD data for all vehicles passing through a screening system in California. However, these screening systems can collect tailpipe emission measurements. The goal of the program is to ensure that vehicles are maintained and continue to operate in their certified configuration. An OBD system warns the operator by illuminating the MIL when a vehicle is operating outside of its certified configuration and infers an emission level for the vehicle.

This threshold is similar to the standard identified in Title 13, CCR, Section 1971.1 and is meant to provide consistency for heavy-duty vehicle owners. This is an existing standard that is codified and tying our threshold to it maintains a consistent level of stringency for vehicle owners. This provides consistency among various testing and screening methods. Ultimately, screening for NO_x is necessary, as the ability to identify the highest emitting vehicles and bring them into compliance would have a significant impact in meeting CARB's goal of reducing harmful air contaminants and meeting upcoming federal attainment standards throughout the state.

Subparagraph 2196.5(a)(2). Non-OBD-equipped vehicles.

Purpose

The subparagraph specifies that non-OBD-equipped vehicles operating in California are subject to roadside emissions monitoring.

Rationale

The subparagraph is necessary to inform owners of non-OBD equipped vehicles that there would be roadside emission monitoring devices that would be used to screen vehicles based on the PM emission measurement detected by these devices.

Subparagraph 2196.5(a)(2)(A).

Purpose

The purpose of this subparagraph is to indicate the lowest roadside emissions monitoring device PM emissions measurement that may be screened as a potential high emitter for a non-OBD equipped vehicle i.e., that corresponding to a failing opacity test.

Rationale

The reason for this subsection is because a number of vehicles operating in California do not have OBD systems. The previous two sections outline emission thresholds that are tied to the OBD trigger threshold for illuminating the MIL because that emission threshold indicates malfunction. Non-OBD vehicles do not have these systems in place to indicate malfunction and rely on opacity tests to ensure the vehicle is not exceeding the emission limits. Therefore, by tying the reported tailpipe emission during a remote sensing inspection to current smoke opacity limits we can identify non-OBD vehicles that are operating with malfunctioning emission control components.

Section 2196.6. Smoke opacity standards.

Purpose

The purpose of this new section is to set forth the failing criteria for the SAE J1667 opacity test on various on- and off-road engines based on model year.

Rationale

This section is necessary to lay out the pass/fail criteria for an opacity test to be able to determine whether a vehicle has a malfunctioning emissions control system. The failure standards established here for on-road engines align with previously established opacity standards in CARB's HDVIP and PSIP regulations. Updated off-road engine opacity standards are being established to ensure all vehicles operating on California roadways have adequate opacity standards that they must meet. The off-road opacity standards were established based on standards already in use in the Cargo Handling Regulation, which establishes opacity limits for off-road engines.

Subsection 2196.6(a).

Purpose

The purpose of this subsection is to establish standards for on-road engines when a SAE J1667 smoke opacity test is performed.

Rationale

This subsection is necessary to establish a failing criteria for on-road engines that are based on the model year and the emission control components installed.

These requirements are representative of current PM emissions control technology and ensure that vehicles operating with malfunctioning PM emissions control components are more readily identified and repaired.

As established previously in the 2018 regulatory amendments to the HDVIP and PSIP regulations, results from a contracted project with National Renewable Energy Laboratory showed that PM emissions control components on diesel particulate filter (DPF) equipped vehicles were sufficiently damaged if associated opacity levels were above 5 percent opacity and thus need repairs. Therefore, for 2007 or newer model-year diesel engines and all vehicles equipped with a Level 3 verified diesel emissions control systems (VDEC), regardless of the engine model year, a 5 percent opacity limit was established as Level 3 VDECs consist of DPFs that reduce PM by a minimum of 85 percent. Engines equipped or retrofitted with Level 2 VDECs are subject to a 20 percent opacity limit as the Level 2 VDECs reduce PM emissions by 50 to 84 percent.

Non-DPF equipped vehicles are held to opacity limits that vary based on the engine model year as these engines are expected to emit higher amounts of PM. 1997 to 2006 model year engines are subject to a 25 percent opacity limit, 1991 to 1996 model year engines are subject to a 30 percent opacity limit, and all pre-1991 model year engines are subject to a 40 percent opacity limit. These higher opacity limits for non-DPF equipped vehicles are necessary because these older vehicles use engines certified to higher PM standards and are not equipped with advanced aftertreatment and emissions control technology such as DPFs. Thus, these vehicles would not pass the more stringent opacity standards set for vehicles operating with newer engines equipped with more advanced aftertreatment. The proposed regulation is designed to ensure vehicles are operating with emissions levels they were designed to emit at, not to require the retrofit or turnover of older technology to newer, more advanced systems. Thus, varying opacity standards are needed for the different types of emissions control technology that would be operating in California moving forward.

Subsection 2196.6(b).

Purpose

The purpose of this subsection is to establish standards for vehicles equipped with off-road engines when a SAE J1667 smoke opacity test is performed for compliance with the HD I/M program.

Rationale

This subsection is necessary to establish a failing criteria of opacity tests for heavy-duty vehicles with off-road engines that is separate from on-road engines. Off-road engines are held to different certification standards compared to on-road engines that are typically less stringent than their on-road counterparts, thus alternative opacity standards are needed for vehicles operating with these off-road engines.

Tier 1 (40 percent opacity limit), Tier 2 and 3 (30 percent opacity limit), and Tier 4 engines (20 percent opacity limit) are subject to varying opacity limits based on their certification standards as they have varying requirements of emission control technologies and it is necessary to align the program requirements with reasonable standards. The proposed opacity standards were determined by applying previously developed criteria used in the Cargo Handling Regulation, which regulates in-use emissions of off-road engines through the SAE J1667 opacity test. Using criteria already in use through the Cargo Handling Regulation ensures consistency for all off-road engine opacity standards, regardless of the application that the engines are used in.

Section 2196.7. Referee services.

Purpose

A referee testing network would be established to perform vehicle inspection tests for this proposed regulation. The new section sets forth the requirements for heavy-duty vehicles referred to referee testing.

Rationale

The referee testing network would be similar in function to BAR's light-duty smog check referee stations. Referee testers provide a critical backstop to ensure vehicle compliance testing can effectively be completed when abnormalities or rare situations occur within the implementation of the proposed regulation. This section is necessary to allow referees to perform inspections and ensure that vehicles are properly repaired following a non-compliance related issue. Additionally, the proposed referee testing is needed for enforcement monitoring.

Subsection 2196.7(a).

Purpose

The subsection specifies that vehicles can be referred to a referee when the Executive Officer directs for a referee testing and establishes the specific criteria for which the Executive Officer can direct these vehicles.

Rationale

This subsection would ensure that vehicles suspected of potentially fraudulent activity or fail to meet the requirements of the proposed regulation can be directed to a referee to ensure the vehicle is properly tested for compliance determination. Referees play a key role in ensuring that the compliance issues are addressed so vehicles would operate with properly functioning emissions control systems.

Subparagraph 2196.7(a)(1).**Purpose**

The subparagraph specifies that a law enforcement agency can request the Executive Officer to direct a vehicle to referee services.

Rationale

This subparagraph would allow referee inspection for these vehicles to ensure vehicles are operating with properly functioning emissions control systems and/or get repaired if needed. Further, such a provision allows a mechanism for law enforcement agencies like CHP to ensure vehicles meet the compliance standards of the proposed regulation if they encounter anything out of the ordinary during in-field inspections.

Subparagraph 2196.7(a)(2).**Purpose**

The subparagraph specifies that the Executive Officer can refer a vehicle owner for a referee inspection if the submitted OBD data collected during a compliance test is inconsistent with the OBD data profile from vehicles.

Rationale

This subparagraph would ensure referees to inspect vehicles that are submitting inconsistent compliance testing data. These occurrences suggest that either fraudulent activity may have occurred during the test submission or the test was performed improperly. Either way, it is critical for a trusted referee tester to perform a vehicle compliance test to verify whether the vehicle in question is actually in compliance with the requirements of the proposed regulation or not. Referees play a key role in ensuring that the compliance issues are addressed in a timely manner. Further, such provisions ensure vehicles are compliant with the HD I/M Regulation.

Subparagraph 2196.7(a)(3).

Purpose

The subparagraph specifies that the Executive Officer can refer a vehicle owner for a referee inspection if the vehicle owner has an unresolved Notice to Submit to Testing.

Rationale

This subparagraph would allow referees to assist in the verification of compliance when vehicles are detected as a high-emitter through a roadside emission monitoring device. Referees play a key role in ensuring that the compliance issues are addressed so vehicles would operate with properly functioning emissions control systems.

Subparagraph 2196.7(a)(4).

Purpose

The subparagraph specifies that the Executive Officer can refer a vehicle owner for a referee inspection if suspected of operating with tampered emission control components.

Rationale

This subparagraph would ensure a referee inspection when any tampering is suspected. Tampered vehicles can emit substantially more emissions than a properly functioning vehicle and are critical to ensure are repaired properly to avoid additional excess emissions. Furthermore, vehicle owners that tamper with their vehicles are at higher risk for trying to fraudulently cheat a compliance test and it is critical for the referee to check the vehicle to ensure no fraudulent activity is occurring. Referees play a key role in ensuring that the compliance issues are addressed so vehicles would operate with properly functioning emissions control systems.

Subparagraph 2196.7(a)(5).

Purpose

The subparagraph specifies that the Executive Officer can refer a vehicle owner for a referee inspection if the vehicle owner failed to submit required testing data for compliance with the HD I/M Regulation.

Rationale

This subparagraph would allow referees to assist vehicle owners if they failed to meet the compliance requirements. Direction to the referee for a vehicle failing to submit to required testing helps ensure a vehicle compliance demonstration

is performed properly prior to the vehicle being deemed compliant. Vehicles that fail to meet required testing deadlines or fail to submit testing to clear compliance issues are likely at higher risk of fraudulent activity. Thus, in situations where it has become difficult to receive test data for a specific vehicle, the requirement of getting tested through a referee reduces the risk of a vehicle owner trying to fraudulently get a vehicle through a compliance demonstration improperly. Referees play a key role in ensuring that the compliance issues are addressed in a timely manner.

Subparagraph 2196.7(a)(6).

Purpose

The subparagraph specifies that the Executive Officer can refer a vehicle owner for a referee inspection if the vehicle owner has unresolved citations related to HD I/M Regulation.

Rationale

This subparagraph would allow referees to settle unresolved citations for compliance with the HD I/M Regulation. Similar to above, vehicles with unresolved compliance issues are likely higher risk of trying to commit fraudulent actions, thus a backstop of a referee test may be necessary to ensure the vehicle has properly demonstrated compliance with the requirements of the proposed regulation. Referees play a key role in ensuring that the compliance issues are addressed so vehicles would operate with properly functioning emissions control systems.

Subparagraph 2196.7(a)(7).

Purpose

The subparagraph specifies that the Executive Officer can refer a vehicle owner for a referee inspection if a vehicle is included in an audit, program validation, and/or demonstration of compliance purposes.

Rationale

This subparagraph would allow referees to assist in the verification of compliance when vehicles are included in an audit, program validation, and/or demonstration of compliance purposes. Such actions are critical for CARB to assess the effectiveness of the program and determine if any changes are needed to increase the effectiveness of the proposed regulation moving forward. Referees play a key role in ensuring that the compliance issues are addressed in a timely manner.

Subparagraph 2196.7(a)(8).

Purpose

The subparagraph specifies that the Executive Officer can refer a vehicle owner for a referee inspection if a vehicle condition makes a typical inspection difficult due to design, malfunctioning condition, or inspection incompatibility.

Rationale

This subparagraph would allow referees to ensure vehicle compliance testing can effectively be completed when abnormalities or rare situations occur within the implementation of the proposed regulation. These rare vehicle situations could potentially require modified testing procedures that are outside the scope of a HD I/M tester or certified testing device. Thus, referees are a necessary backstop in these situations to ensure vehicles with rare issues have a mechanism to still be determined to meet compliance requirements with the proposed regulation.

Subparagraph 2196.7(a)(9).

Purpose

The subparagraph specifies that the Executive Officer can refer a vehicle owner for a referee inspection if CARB requires the verification of a submitted repair invoice, work order, or other proof of compliance documentation.

Rationale

This subparagraph would allow referees to settle and perform inspections and to verify compliance for vehicles with submitted repair invoice, work order, or other proof of compliance documentation. This subparagraph would ensure that vehicles are properly repaired following a non-compliance related issue, in the event that a previously submitted repair invoice or work order was deemed insufficient. This could be for several reasons, including lack of necessary description within the invoice regarding work that was done to the vehicle or other inconsistencies that require follow up verification.

Subsection 2196.7(b).

Purpose

The subsection sets forth that a vehicle directed to a referee has to get cleared by the referee as being compliant prior to being determined compliant with the requirements of the proposed regulation.

Rationale

Vehicles directed to referee testing are typically being sent there due to a higher risk of being non-compliance and/or a potential issue with tampering or fraudulent activity. Thus, it is critical to ensure such vehicles are verified to be compliant prior to receiving their next compliance certificate to operate in California. Because these are typically higher risk vehicles for non-compliance, it is critical that a CARB contracted tester perform the inspection instead of a private entity such as a HD I/M tester. Testing performed by these contracted referee testers can substantially reduce the potential for fraud and a false compliance determination for the vehicle in question.

Subsection 2196.7(c).**Purpose**

The subsection establishes additional vehicle circumstances that would require referee services in order to ensure vehicle compliance with the proposed regulation.

Rationale

This subsection identifies the instances when vehicle owners could go to referees for assistance in resolving compliance circumstances described in the following subparagraphs occur. The vehicle conditions specified in this subsection are rare and thus require testers with expertise on how to handle these rare situations. These situations go beyond what a HD I/M tester is trained to handle.

Subparagraph 2196.7(c)(1).**Purpose**

The subparagraph specifies that vehicles can be tested at a referee when the vehicle owner disputes a compliance test determination and is seeking independent evaluation of the vehicle's compliance status.

Rationale

This subparagraph is necessary to allow referees to settle any discrepancies or disagreements related to compliance testing that may occur during program implementation. Such a provision helps with increased transparency in the compliance determination process and ensures trust in the program by allowing owners a mechanism to dispute compliance determinations they disagree with, while at the same time, setting up a mechanism to ensure vehicles are operating with properly functioning emissions control systems.

Subparagraph 2196.7(c)(2).

Purpose

The subparagraph specifies that vehicles with an engine or emission control configuration that does not meet the original certified configuration need to have an initial inspection performed by the referee.

Rationale

This subparagraph is necessary to establish a subset of vehicles that would initially need to be referred to a referee inspection for compliance purposes. A referee test is necessary because this type of vehicle does not fit the vehicle conditions normally seen within the structure of the HD I/M program, thus, the compliance inspections established as part of the proposed regulation are not sufficient for these vehicle types. For example, a referee test in the situation of an engine change helps determine that the engine was installed correctly and did not degrade the effectiveness of the vehicle's original emission control system. In the situation of an OBD-equipped vehicle, the referee can perform a new OBD test to establish the initial data parameters this engine change is expected to generate. If a vehicle simply submitted an OBD test without the referee confirming an engine change was made, there is a strong probability that such a test submission would result in a failure due to the suspicious of fraud as the submitted OBD test would not fit the previous patterns submitted by the same vehicle with a different engine. Thus, this requirement helps reduce false failures and ensures emissions control changes were performed correctly.

Subparagraph 2196.7(c)(3).

Purpose

The subparagraph specifies that vehicles converted to a motor home need to be confirmed by a referee.

Rationale

This subparagraph is necessary to establish a subset of vehicles that would initially need to be referred to a referee inspection for compliance purposes. Vehicles claiming to be motor homes must meet specific requirements to be considered an actual motor home. Considering these vehicles would be subject to a reduced periodic testing frequency, it is critical to ensure that any vehicle meeting these reduced testing requirements do indeed meet the required criteria. Such a requirement ensures vehicle owners are not inappropriately claiming to be a motor home to get less testing as such behavior could lead to an increase in vehicles operating in California with malfunctioning emissions control issues.

Subparagraph 2196.7(c)(4).

Purpose

The subparagraph specifies that vehicles seeking a compliance time extension can perform such requests through a referee.

Rationale

This subparagraph is necessary to establish a subset of vehicle circumstances that would result in a referee check. Vehicle owners requesting a possible compliance time extension would need to meet specific requirements to be granted approval. This subparagraph establishes that referees could be used to check whether vehicles meet these specific requirements. This help ensures proper determination as to which vehicles are allowed to receive a compliance extension and which are not, making sure vehicles are not inappropriately allowed to operate with malfunctioning emissions issues.

Subsection 2196.7(d).

Purpose

The subsection sets forth inspections that the referee would perform on a vehicle subject to the proposed regulation.

Rationale

This subsection is necessary to establish inspection requirements and to provide guidance for inspecting a vehicle to assess if it has a tampered or defective emissions control system. It is also necessary to identify the testing procedures the referee can perform to establish clear guidelines to both the vehicle owner and the referee inspector as to what needs to be done during inspections and how it should be performed. The compliance tests performed by the referee would be the same as those performed by HD I/M testers and through certified OBD testing devices.

Subsection 2196.7(e).

Purpose

The subsection sets forth the criteria for referee test failure thus withholding a compliance certificate.

Rationale

This subsection is necessary to establish the criteria for determining vehicle failures and non-compliance for the test inspections performed unless the referee identifies inspection incompatibilities or other technical issues that cannot be resolved. This subsection is necessary to ensure the referee informs the Executive Officer of their findings during a vehicle compliance test to allow the Executive Officer to obtain the

necessary to make a final compliance determination for the vehicle. Vehicle owners could not obtain a compliance certificate unless the vehicle is determined to be compliant with the HD I/M regulation.

Section 2196.8. Parts unavailability compliance time extension.

Purpose

The new section creates a procedure for small fleets subject to the HD I/M program to request for time extension if parts are unavailable to make the needed repairs to assist them in meeting the requirements of the proposed regulation.

Rationale

This section is necessary for a small fleet of ten or fewer vehicles to have a procedure to use for requesting a compliance time extension when events outside their control limit their ability to comply with the proposed regulation. These small fleets often do not have the same operations capacity compared to larger fleets, meaning the unexpected loss of a vehicle hits their fleet operations more than a larger fleet. Large fleets have more flexibility to absorb the loss of a vehicle as they can reshuffle business operations easier. Thus, when an unexpected unavailability of parts results in a small fleet vehicle not being able to meet the compliance requirements, staff believes it makes sense to extend their compliance demonstration requirement to ensure their business is not overly impacted.

Subsection 2196.8(a).

Purpose

This subsection specifies the applicability of the time extension provisions for heavy-duty fleets.

Rationale

This subsection is necessary to allow heavy-duty vehicle owners to know whether they are eligible to request for a time extension based on the size of their fleet, by specifying that heavy-duty fleets of ten or fewer vehicles subject to the requirements of this chapter would be eligible.

Subsection 2196.8(b).

Purpose

This subsection specifies the acceptable format for submitting documentation that the vehicle owner would need to follow when making a time extension request to demonstrate good-faith effort to bring the vehicle into compliance by the compliance deadline.

Rationale

This subsection is necessary as an introductory paragraph to let the vehicle owner know that when they make a compliance time extension request, they would need to submit the documentation that are specified in section 2197.2(i) and that the documentation would need to be in proper file format. This is also necessary to have standardized requirements for all vehicle owners wanting to request a compliance time extension so the Executive Officer can efficiently verify the information submitted and accurately ascertain whether the vehicle owner has made a good-faith effort to have the vehicle repaired.

Subsection 2196.8(c).**Purpose**

This subsection specifies the Executive Officer may grant a one-time compliance extension to eligible vehicles due to parts unavailability and specifies that the owner and the vehicle must meet the requirements as specified in the subsequent subparagraphs.

Rationale

This subsection is necessary as it serves as an introductory paragraph to let vehicle owners know the terms of the compliance time extension and the requirements that are listed in the subsequent subparagraphs that they must comply with to be eligible to make the request for the compliance extension. Specifically, this subsection is necessary to help vehicle owners know the condition and limitation of a compliance extension in that it is a one-time extension. Additionally, the owner and vehicle requirements are necessary to let vehicle owners determine whether they are eligible to make the request for time extension. This avoids needless waste of both time and effort that would occur if an owner submitted a compliance time extension request if the vehicle or the owner were not eligible to receive an extension.

Subparagraph 2196.8(c)(1).**Purpose**

This subparagraph states fleet eligibility for the time extension request by referring to as specified in subsection (a) of this section.

Rationale

This subparagraph is necessary so vehicle owners know whether they are eligible to request the compliance time extension due to parts unavailability.

Subparagraph 2196.8(c)(2).

Purpose

This subparagraph specifies that the vehicle's emission control systems must not have been tampered.

Rationale

This subparagraph is necessary to let vehicles owners know that vehicles whose emissions control systems have been tampered would not be eligible to receive a compliance time extension. This is necessary to prevent vehicle owners from taking advantage of the time extension through their operation of an illegal vehicle, i.e., a vehicle whose emissions control systems has been tampered. In addition, this subparagraph would avoid rewarding a vehicle owner with additional compliance time extension if the reason the vehicle failed the HD I/M periodic inspections in the first place was due to the vehicle owner's tampering with the vehicle emissions control systems.

Subparagraph 2196.8(c)(3).

Purpose

This subparagraph specifies that to be eligible to request for a compliance extension, the vehicle must not have any outstanding emissions or OBD-related recalls.

Rationale

This subparagraph is necessary to ensure that the vehicle owner has acted on any existing emissions or OBD-related recalls that were issued. These emissions or OBD-related recalls are issued for emissions-related issues that were identified as needing to be corrected to prevent excess emissions from continually being emitted. Failure to act on these recalls constitutes potential negligence on the part of the vehicle's owner and that may be the reason, or one of the reasons, why the vehicle has failed a HD I/M inspection. Thus, the vehicle owner should not be rewarded with an opportunity to request for compliance extension.

Subparagraph 2196.8(c)(4).

Purpose

This subparagraph specifies that to be eligible to request for a compliance extension, the vehicle owner must not have any unresolved citations.

Rationale

This subparagraph is necessary so that vehicle owners would know that if they had any unresolved citations, they would need to clear those citations if they want to request for the compliance extension. This is because having uncleared citations means that the vehicle owners are not in compliance with applicable laws and regulations and, thus, should not be rewarded for that behavior by allowing them to request for a compliance extension.

Subparagraph 2196.8(c)(5).**Purpose**

This subparagraph specifies that to be eligible, the vehicle must not be a vehicle that has been granted a compliance extension previously.

Rationale

This subparagraph is necessary to inform vehicle owners that the compliance time extension granted as per this section is a one-time extension only. This is intended to encourage vehicle owners to properly maintain their vehicles such that the vehicle would be able to pass subsequent periodic inspections. Furthermore, this helps prevent situations where the vehicle owner would continue to rely on future compliance extension requests, if made available, to continue to operate their defective vehicles indefinitely. Such a requirement helps balance the need to provide small fleets flexibility with the need to ensure emissions reductions within the proposed regulation.

Subparagraph 2196.8(c)(6).**Purpose**

This subparagraph defines a good-faith effort on the part of the vehicle owner in seeking timely repair for the vehicle, which is evidenced through proof of an initial effort to contact repair facilities no later than seven days after the non-compliance issue was first identified.

Rationale

This subparagraph is necessary to let vehicle owners know that unless they try to have the vehicle repaired as soon as the non-compliance issue was first identified, i.e., within seven days for the first attempt at corrective action, they would not be eligible to request for a compliance extension. This is to prevent a vehicle owner's inaction resulting in additional emissions being emitted that otherwise could be reduced had the vehicle owner took expeditious actions to fix the vehicle's non-compliance issue. This is also necessary to minimize additional emissions for the situation where the vehicle owner has made no attempt at having the vehicle repaired in a timely manner.

Subparagraph 2196.8(c)(7).

Purpose

This subparagraph specifies the requirement that to be eligible to make a request for time extension, the vehicle parts that are needed to bring the vehicle back to a compliant state are not available.

Rationale

This subparagraph is necessary to let vehicle owners know that they must demonstrate that the vehicle parts that are necessary to bring the vehicle back to a compliant state are not available. Because the basis of the compliance time extension is the unavailability of parts, a request for compliance time extension can only be made for that reason only.

Subsection 2196.8(d).

Purpose

This subsection specifies that the Executive Officer shall issue a provisional compliance certificate if the request for time extension is approved, and the approved length of the time extension.

Rationale

This subsection is necessary to let vehicle owners know who will issue the provisional compliance certificate if the request for time extension is approved. This is also necessary to let vehicles owners know that the provisional compliance certificate will allow them to operate their vehicle up to the vehicle's next compliance deadline.

Section 2197. Freight contractor, broker, and applicable freight facility requirements.

Purpose

The purpose of the new section is to establish the requirements that freight contractors, brokers, and applicable freight facilities need to meet if they wish to do business in California.

Rationale

This section is important because it enables all parties in the supply chain to be involved in verification of vehicle compliance with the requirements of this chapter. Extending the responsibilities to verify compliance to parties in the supply chain would expand CARB's ability to achieve compliance and emission reduction goals. It would create an additional enforcement mechanism beyond inspections and audits performed by CARB staff.

Subsection 2197(a).

Purpose

The purpose of this subsection is to establish the requirements to which freight contractors must adhere when contracting with compliant vehicles. The subsection describes how freight contractors must verify compliance and retain proper records when doing business with entities in California.

Rationale

This subsection is important to ensure that all parties in the supply chain are involved in verifying that vehicles are compliant with the requirements of this chapter. Freight contractors play a significant part in the operation of heavy-duty vehicles. By involving them in the effort to verify compliance with the regulation and only contract with compliant vehicles, these requirements would have a significant impact on the effectiveness of the regulation. The records generated by this record keeping requirement would also assist in enforcement efforts by providing valuable information regarding vehicle compliance and operation status that could be crosschecked against inspection data during fleet audits.

Subsection 2197(b).

Purpose

The purpose of this subsection is to establish the requirements to which brokers must adhere when verifying compliance and arranging transportation within California with compliant vehicles or fleets.

Rationale

The reason for this subsection is that it is important to have parties in the supply chain involved in verifying vehicles are compliant with the requirements of this chapter. Brokers play a significant part in the operation of heavy-duty vehicles within California. Involving such entities in the effort to verify the use of compliant vehicles would have a significant impact on the effectiveness of the regulation and the ability to meet CARB's goals.

Subsection 2197(c).

Purpose

The purpose of this subsection is to establish compliance verification requirements for applicable freight facilities.

Rationale

This requirement is important to incorporate entities throughout the supply chain in verifying the compliance of the vehicles with which they work and interact. Applicable

freight facilities play a significant part in the operation of heavy-duty vehicles. Involving such facilities in the effort to verify the use of compliant vehicles would increase the effectiveness of the regulation and make it easier to meet CARB's goals.

Subparagraph 2197(c)(1).

Purpose

The purpose of this subparagraph is to provide instructions for applicable freight facilities on how to comply with compliance verification and/or recordkeeping requirements. This subparagraph requires that only compliant vehicles may operate on their property and explains that verification must take place at applicable freight facilities on a vehicle-by-vehicle basis, either by checking vehicle compliance certificates, or through the electronic reporting system.

Rationale

The reason for this requirement is because it is important to incorporate entities throughout the supply chain in verifying the compliance of the vehicles they work with. Applicable freight facilities were chosen because they have the existing infrastructure and business processes to verify the compliance of each vehicle operating on their property. These facilities include commercial seaport terminals and intermodal railyards, which already collect and verify compliance of each vehicle entering their property under similar requirements required through existing CARB regulations. Many of these facilities are also located in disadvantaged communities, so additional requirements to reduce the emissions generated from heavy-duty vehicles would further assist CARB in achieving its emission reduction goals in those areas.

Subparagraph 2197(c)(2).

Purpose

The purpose of this subparagraph is to provide instructions for applicable freight facilities on how to comply with recordkeeping requirements for applicable freight facilities that choose not to check vehicles on an individual basis.

Rationale

This subparagraph provides a second option for Applicable Freight Facilities to comply with the requirements without restricting nor prohibiting any vehicles from entry. The requirement for facilities to retain records would provide CARB with the ability to review records and follow up for further enforcement on non-complaint vehicles operating in California.

Section 2197.1. HD I/M tester requirements.

Purpose

The purpose of the new section is to specify the requirements for individuals who want to obtain training to perform the tests and inspections required by this chapter. The section details the required training that would be needed to obtain a tester credential and the duration of time that the HD I/M credential would be considered valid.

Rationale

This section is necessary because requiring proper training regarding regulatory requirements and compliance testing procedures would encourage consistent testing procedures, and therefore mitigate the number of false pass/fail determinations when vehicle compliance tests are performed. Furthermore, these requirements help ensure test result repeatability amongst testers. Vehicle owners are ultimately responsible for the compliance of their vehicles, so it is important that the testers they hire and rely upon are knowledgeable and properly trained.

Subsection 2197.1(a).

Purpose

The purpose of this subsection is to establish that to conduct tests, perform inspections and submit data, individuals would need to obtain a HD I/M credential by taking a training course and receive a passing score on the CARB administered training exam of eighty percent or higher. In addition, credentials will not be issued to testers who have had their credential revoked.

Rationale

This subsection is necessary because it is based on the premise that fleets are responsible for compliance, including selecting who conducts tests to make accurate pass/fail determinations. CARB would establish training for candidates, that when successfully completed with a passing exam score, establishes minimum competencies. Proper training regarding regulatory and compliance test requirements would encourage consistent testing procedures, and therefore mitigate the number of false pass/fail determinations when vehicle compliance tests are performed. Furthermore, these requirements would help ensure test result repeatability amongst testers.

Subsection 2197.1(b).

Purpose

The purpose of this subsection is necessary to outline the modules that would be part of the HD I/M training course.

Rationale

This subsection is necessary to provide HD I/M Testers with information on what the training course would consist of. Providing standardized training would ensure that HD I/M Testers are able to conduct complete, accurate, consistent, and compliant tests and inspections. It would also prevent false pass/fail determinations and potentially fraudulent HD I/M compliance tests.

Subparagraph 2197.1(b)(1). Regulatory module.**Purpose**

The purpose of this module is to outline regulatory requirements and standards of entities being regulated by this HD I/M regulation and ensure testers have a strong foundation as to what the regulation requires.

Rationale

The reason for incorporating this module into the training program is to provide critical regulatory information and outline the requirements that must be adhered to. Such knowledge would help prevent regulated entities, including testers themselves, from becoming non-compliant with the requirements of this regulation due to a lack of understanding of the overall program requirements.

Subparagraph 2197.1(b)(2). Opacity module.**Purpose**

The purpose of this subparagraph is to convey specific procedures and evaluate competencies for conducting heavy-duty vehicle exhaust opacity measurements, as per the standards outlined in SAE J1667.

Rationale

The inclusion of this information in the training course would help ensure proper testing procedures are followed to prevent false pass/fail determinations. It is also necessary to ensure test results repeatability amongst testers and that the procedures established by SAE, outlined in the J1667 document, are followed precisely and consistently.

Subparagraph 2197.1(b)(2)(A).**Purpose**

The purpose of this subparagraph is to prevent requiring duplicative training and certification of technicians who have already completed identical training.

Rationale

The reason for accepting existing certifications in lieu of this training module is because identical training and certification already exist within the PSIP and HDVIP.

Subparagraph 2197.1(b)(3). OBD module.**Purpose**

The purpose of this subparagraph is to convey how to perform an OBD test, and to describe required OBD data, DTCs, and acceptable submission formats.

Rationale

The reason for incorporating this module into the training program is to safeguard data transmissions, as well as prevent false pass/fail determinations. Furthermore, the requirement helps to ensure test results repeatability amongst testers, and ensure testers know which specific OBD data points need to be provided upon submission of a compliance test and what inspection procedures must be adhered to during the test.

Subparagraph 2197.1(b)(4). Visual inspection methods module.**Purpose**

The purpose of this module is to convey specific procedures and evaluate competencies for conducting applicable visual inspections of the required emission control system and components' conditions.

Rationale

The reason for incorporating this module into the training program is to prevent false pass/fail determinations and to ensure test results repeatability amongst testers, visual inspections of applicable, required emission control systems and components for tampered and/or defective condition(s) must be complete and accurate.

Subparagraph 2197.1(b)(4)(A). Challenge exam.**Purpose**

The purpose for this subparagraph is to allow for an alternative way for testers to complete the training course by taking and passing a challenge exam that tests a technician's knowledge and experience in the maintenance and repair of heavy-duty engine emission controls systems and components.

Rationale

The reason for allowing a challenge exam for testers employed and actively involved in the heavy-duty engine industry, is that in many instances, it would be redundant training that is typically already required of them as a condition of employment. In addition, continuing education is an industry norm. Requiring redundant training could potentially dissuade experienced and/or competent individuals from becoming testers. Allowing this alternative test would help avoid an unnecessary, repeat training for those already with a strong background in the subjects at hand.

Subsection 2197.1(c).**Purpose**

The purpose of this subsection is to establish criteria on the length of time a tester's credentials would be valid and outlines that to maintain a current credential, training and passing the associated exam must occur every two years.

Rationale

The reason for having testing credentials expire is to purge inactive testers from databases and to ensure training on potential regulatory and technology updates, as well as to address pattern non-compliance issues. A renewal requirement of every two years would allow individuals no longer desiring a tester credential to be removed or placed in an inactive status, as well as allow for updated training for credential renewals that may incorporate new techniques, procedures, and technology.

Subsection 2197.1(d). Data reporting and penalties.**Purpose**

The purpose of this subsection is to provide accountability for testers, owners, and other entities who submit, omit, or fraudulently report data that inaccurately describes the compliance status of a specific vehicle being tested. If such actions are identified, CARB may take enforcement action and prohibit the tester or other entities from conducting compliance verification tests in the future.

Rationale

This subsection is needed because testers may report inaccurate test data for a variety of reasons including at the request of the vehicle owner, to protect business relationships, to express disagreement with the regulations, constructive fraud, or for compensation. Therefore, this subsection serves as a deterrence for those who may report inaccurate information to the electronic reporting system by associating a monetary penalty to such actions.

Subsection 2197.1(e). Credential Revocation.

Purpose

The purpose of this subsection is to provide clarity of when the Executive Officer may need to revoke a testers credential, or prohibit the tester, or any other entity in coordination with the tester, from conducting future tests for violating any provision of the proposed regulation.

Rationale

This subsection is needed because testers may violate requirements of this HD I/M regulation, including submission of fraudulent data, or not properly adhering to the test, inspection and/or data submission procedures. Therefore, this subsection serves as a deterrence for those who may violate requirements of this regulation by associating credential revocation to such actions.

Section 2197.2. Reporting requirements.

Purpose

The purpose of this new section is to collect data required to identify individuals and fleets. The data would be used to gauge program effectiveness, determine compliance, and address issues of alleged non-compliance, including fraud. It also describes the requirements in submitting reports to CARB.

Rationale

The section is necessary to meet the reporting requirements of affected entities as specified in the proposed regulation. Additionally, the information required by section 2197.2 is needed because it is necessary for pass/fail determinations, fraud detection, identifying responsible entities/individuals, conducting program evaluations, responding to inquiries by government, industry, and non-governmental agencies/offices, as well as other purposes.

Subsection 2197.2(a).

Purpose

The subsection specifies that various sections of the proposed regulation require affected entities to report information to CARB. Subparagraphs 2197.2(a)(1) and (2) put reporters on notice that false statements may result in penalties, including revocation of their compliance certificate.

Rationale

Reporting the required information by affected entities is necessary for compliance determinations, fraud detection, identifying responsible entities/individuals, identifying certified devices, conducting program evaluations, responding to inquiries by

government, industry, and non-governmental agencies/offices, as well as other purposes.

Subparagraphs 2197.2(a)(1) and (a)(2) are necessary to ensure that CARB can deter and penalize false reporting. Subparagraph 2197.2(a)(1) ensures that any false reporting will be considered a violation subject to penalties as described in 2198.2(d), by expressly stating that such false reporting is a violation of this regulation. Subparagraph 2197.2(a) also serves as a reminder to potential reporters that may be reviewing this reporting section in order to report, but are not necessarily aware of section 2198.2(d). Subparagraph 2197.2(a)(2) ensures that the Executive Officer can revoke a compliance certificate in such instances.

Subsection 2197.2(b).

Purpose

The purpose of this subsection is to establish the reporting requirements for vehicle owners, or a designee, into the electronic reporting system.

Rationale

The reason that vehicle owners or designees need to report information is so that CARB may acquire identifiable information about the vehicle owner to help assist in compliance determination with parts of the regulation and issue correspondence as needed. This information will also be used to link the vehicle owner's information to associated vehicle information collected from other sources.

Subparagraph 2197.2(b)(1). Owner information.

Purpose

The purpose of this subparagraph is to collect data that positively identify entities and individuals responsible for complying with this regulation.

Rationale

The reason for this subparagraph is to outline that fleet/vehicle owners are responsible for complying with this regulation. The data collected in this subsection would allow CARB staff to identify the fleet/vehicle owner in case of compliance issues, as well as assign vehicles to those responsible for their operation in California.

Subparagraph 2197.2(b)(2). Vehicle information.

Purpose

The purpose of this subparagraph is to collect data that accurately describes the vehicle for vehicle identification purposes.

Rationale

The reason for this subparagraph is to establish required information that would be needed to assist in vehicle compliance determination with the regulation. Vehicle identifying information is needed to assess whether the vehicle is indeed subject to the requirements of this chapter, what compliance tests are required of a specific vehicle, and other identifiable information that would allow a vehicle to be identified through the emissions monitoring network and through the submission of vehicle compliance tests.

Subparagraph 2197.2(b)(3).**Purpose**

The purpose of this subparagraph is to provide the responsible parties with information on what their requirements are within the electronic reporting system for the vehicles they are responsible for and that are also subject to the regulation.

Rationale

The reason for this subparagraph is to provide a uniform way for parties to claim responsibility for their vehicles so that CARB can easily and reliably identify vehicles within a fleet for the purpose of issuing an Affirmation of Fleet Wide Compliance.

Subparagraph 2197.2(b)(3)(A).**Purpose**

The purpose of this subparagraph is to provide the responsible parties with direction on how to properly report their vehicles within the electronic reporting system. This subparagraph also establishes a timeline for new owners to report a vehicle and for previous owners to remove a vehicle they have sold.

Rationale

The reason for this subparagraph is to ensure reporting is current and up to date for CARB, as well as freight contractors and brokers, when verifying a fleet's compliance status. This regulatory requirement to keep the fleet up to date provides CARB with a justification to act if a fleet is not adequately reporting their vehicles on time. The timeframe provided for new owners and sellers to update their account was selected to ensure consistency with other CARB reporting requirements for heavy-duty vehicles and allows enough time for vehicle owners to make the necessary updates to their account as well as any necessary repair or

maintenance to bring the vehicle into compliance. In addition, having updated information provides CARB the ability to properly enforce the requirements of this chapter and allows for vehicle owners to receive immediate notification if their vehicle is found to be emitting excess emissions.

Subparagraph 2197(b)(3)(B).

Purpose

The purpose of this subparagraph is to establish the Affirmation of Fleet Wide Compliance and the conditions that must be met for a fleet to receive the Affirmation of Fleet Wide Compliance.

Rationale

An Affirmation of Fleet Wide Compliance is necessary to provide freight contractors and brokers with a mechanism to verify fleet wide compliance prior to doing business with any eligible fleet. This mechanism would provide an alternative to checking each individual compliance certificate on a per-vehicle basis, which stakeholder feedback indicated would be too burdensome in many business processes. This subparagraph also provides an explanation for responsible parties, freight contractors, and brokers, regarding the conditions for which a fleet may receive an Affirmation of Fleet Wide Compliance.

Subsection 2197.2(c). Required OBD testing data.

Purpose

This subsection describes the OBD data parameters that must be collected and submitted for OBD equipped vehicles in the HD I/M program.

Rationale

This subsection specifies the OBD data parameters that need to be submitted during a compliance test for an OBD equipped vehicle. Such data must be submitted to verify a vehicle's compliance, assess any potentially fraudulent activity that may have occurred during the test, and gather information necessary to support CARB programming validation efforts. The specified OBD data is a subset of OBD parameters required by the heavy-duty OBD regulation, Title 13, CCR, Section 1971.1.

Section 2197.2(d). Required smoke opacity testing data.

Purpose

The purpose for this subsection is to specify the data that must be submitted during an SAE J1667 vehicle compliance test.

Rationale

The required data is necessary for CARB to establish a compliance determination for the vehicle that has been tested, identify the vehicle that has been tested and the tester that performed the compliance test, along with additional information such as the smoke meter type needed to determine if the test was performed properly. Additional data such as odometer reading is needed for program evaluation.

Subsection 2197.2(e).**Purpose**

The purpose of this subsection is to specify that vehicle emissions control equipment inspection information must be submitted to the HD I/M database system using a specified template.

Rationale

The required test submission is necessary to verify a vehicle's compliance status and to ensure that all the applicable vehicle and engine components are maintained and are in the proper working condition at the time of the inspection. Standardization of the format would help ensure consistency in how test results are submitted to CARB.

Subsection 2197.2(e). HD I/M testers.**Purpose**

The purpose of this subsection is to collect data on credentialed HD I/M testers , including their qualifications.

Rationale

This subsection is necessary to establish contact information for credentialed HD I/M testers and to identify who is providing testing data to CARB. By having current information on the person submitting data, CARB staff could contact the HD I/M tester if questions arise or for audit purposes. Such information could be critical if questions arise related to compliance determinations and to help CARB address any potential alleged non-compliance issues, including suspicions of fraudulent activity.

Subsection 2197.2(f). Five-day pass.**Purpose**

The subsection specifies the information that must be submitted when vehicle owners turn in a request for five-day pass.

Rationale

This subsection is necessary to inform vehicle owners what information must be submitted to CARB when requesting a five-day pass. The five-day pass is a once-a-year temporary pass to operate one vehicle in California for five consecutive days without obtaining a compliance certificate, and it may be appropriate for vehicles that come only rarely and briefly to California. Such information is needed because the information would be included in the temporary pass issued by CARB. Additionally, the information would be used to identify vehicles that were issued a temporary pass. Complete information is needed for faster, easy review and issuance of temporary pass.

Subsection 2197.2(g). ROBD device vendors.**Purpose**

For ROBD device vendors granted certification for use in the HD I/M program, the subsection sets forth the device reporting requirements.

Rationale

This subsection is necessary to ensure the vendor reports certified devices to CARB prior to device activation. Each device would have a permanently assigned device unique serial number and would be reported to identify certified device. The device serial number would be included when submitting OBD compliance data to the HD I/M program. Such information is critical to identify testing devices that are allowed to be used for OBD vehicle compliance testing within the program. Additionally, these reporting requirements would keep CARB informed on the status and information of each device. The device reporting also provides CARB with some information for future use e.g., evaluation, investigation, and audit purposes.

Subsection 2197.2(h). Parts unavailability compliance time extensions.**Purpose**

This subsection describes the required documentation a vehicle owner must submit when requesting a compliance time extension due to an unavailability of parts issue. Required documentation includes information on the needed repairs and parts, what parts are unavailable, reasons why the parts needed for the repair are unavailable, estimate of when the parts are expected to be available, repair shops contacted, and evidence of good-faith effort in contacting repair facilities.

Rationale

This subsection is necessary to let the vehicle owner know that when they make a compliance time extension request, they would need to submit the required information related to their initial effort to try to get the vehicle repaired. This is necessary to have a standardized requirement regarding what verification data needs

to be submitted for all vehicle owners wanting to request for compliance time extensions. This information required to be included within the submitted documentation, as summarized in the above paragraph "Purpose", would allow the Executive Officer the ability to accurately ascertain whether the vehicle owner has made a good-faith effort to have the vehicle repaired and is eligible for the extension.

Section 2197.3. Recordkeeping requirements.

Purpose

The new section describes the requirements to organize and maintain necessary documents and present them to CARB staff if requested.

Rationale

The section is necessary to clearly communicate the recordkeeping requirements on affected entities as specified in the proposed regulation. Reasons for needing the records are described in the subsection descriptions below.

Subsection 2197.3(a).

Purpose

The purpose of this subsection is to outline the records that need to be retained by the various parties subject to this regulation and present them to CARB staff if requested.

Rationale

Requiring recordkeeping by various parties would enable CARB staff to use the records to identify individuals and fleets. The records would also assist in gauging overall program effectiveness, determining compliance, and addressing issues of alleged non-compliance, including fraud. Records must be provided within 72 hours and kept for 5 years, to ensure the records are available in case CARB enforcement staff needs them to verify compliance, as well as to provide consistency with other regulations that mandate similar recordkeeping requirements

Subsection 2197.3(b). Freight contractors.

Purpose

The purpose of this subsection is to outline the record retention timeframe for freight contractors so that they may comply with the recordkeeping requirements by producing documents within the timeframe stipulated.

Rationale

The reason for requiring records to be retained by freight contractors is to ensure the records are available in case CARB enforcement staff needs them to verify compliance,

as well as to provide consistency with other regulations that mandate similar recordkeeping requirements.

Subparagraph 2197.3(b)(1).

Purpose

The purpose of this subparagraph is to describe the documents that freight contractors are required to retain. This section details the documents they must keep for compliance verification of the vehicles and fleets they do business with.

Rationale

This subparagraph is necessary because it is important to have all parties in the supply chain actively involved in verifying that the entities with whom they are conducting business are compliant with the requirements of this chapter. Freight contractors play a significant role in the operation of heavy-duty vehicles, and involving them in the efforts to verify the use of compliant vehicles would significantly increase the effectiveness of the regulation.

Subparagraph 2197.3(b)(2).

Purpose

The purpose of this subparagraph is to describe the records of transactions and agreements between shippers, brokers, and motor carriers requiring the operation of heavy-duty vehicles in California that freight contractors are required to retain when conducting business in California.

Rationale

The reason for requiring freight contractors to maintain the specified records (shipper or receiver initiating the transaction requiring transport, motor carrier or broker who hired or dispatched the vehicle, and the vehicle dispatched) is to enable CARB staff to use the records to identify individuals and fleets, determine compliance among the regulated entities, and address issues of alleged non-compliance including fraud.

Subsection 2197.3(c). Brokers.

Purpose

The purpose of this subsection is to state the record retention timeframe for brokers and the time period within which they must present records to CARB staff if requested.

Rationale

The reason for requiring records to be retained by brokers for the timeframe of a minimum of five years is to ensure the records are available in case CARB enforcement staff needs them to verify compliance, as well as to provide consistency with other regulations that mandate similar recordkeeping requirements.

Subparagraph 2197.3(c)(1). Verification of compliance.**Purpose**

The purpose of this subparagraph is to establish the documentation that brokers must retain to verify compliance, prior to doing business in California.

Rationale

This subparagraph is important because it necessary to have parties in the supply chain involved in verifying vehicles are compliant with the requirements of this chapter. Brokers play a significant part in the operation of heavy-duty vehicles, and involving them in the effort to verify the use of compliant vehicles would have a significant impact on the effectiveness of the regulation. Brokers also have unique business processes and therefore, CARB is only requiring that they verify compliance every 12 months to reduce the administrative burden rather than having to verify compliance for every vehicle prior to dispatch.

Subparagraph 2197.3(c)(2). Dispatching motor carrier.**Purpose**

The purpose of this subparagraph is to outline the documentation that a broker is required to retain concerning the motor carriers with which they do business.

Rationale

The reason for retaining records from associated motor carriers is so that CARB may use the records to cross check with other available data to determine compliance among regulated entities and address issues of alleged non-compliance at the motor carrier level.

Subsection 2197.3(d). Applicable freight facilities.**Purpose**

The purpose of this subsection is to identify records that applicable freight facilities must keep.

Rationale

The reason for retaining and making available these records is to assist CARB with cross-checking other available data to determine compliance among recorded vehicles and motor carriers.

Subparagraph 2197.3(d)(1). Dispatching motor carrier.**Purpose**

The purpose of this subparagraph is to outline the information that an applicable freight facility is required to retain concerning the motor carriers who dispatch vehicles to their facility.

Rationale

This recordkeeping requirement only applies to vehicles for which compliance cannot be verified. CARB staff may use the records to cross check with other available data to determine compliance among the recorded vehicles and motor carriers.

Subparagraph 2197.3(d)(2). Heavy-duty vehicle information.**Purpose**

The purpose of this subparagraph is to outline the information that an applicable freight facility is required to retain concerning heavy-duty vehicles that arrive at their facility.

Rationale

This recordkeeping requirement only applies to vehicles for which compliance cannot be verified. CARB staff may use the records to cross check with other available data to determine compliance among the recorded vehicles and motor carriers.

Subsection 2197.3(e). Drivers and vehicle owners of heavy-duty vehicles operating for commercial purposes within California.**Purpose**

The purpose of this subsection is to outline the information that drivers and heavy-duty vehicle owners must retaining within their vehicles. This subsection also specifies the requirement to provide the records to CARB staff during an inspection.

Rationale

The reason for this subsection is that it is important to have parties in the supply chain involved in verifying vehicles are compliant. These recordkeeping requirements for individual drivers and/or vehicle owners ensure that CARB inspectors that inspect

vehicles on an individual basis in the field can determine other entities in the supply chain involved in the transaction. With this information, CARB staff could then follow up with those entities to ensure they are adhering to the requirements.

Subparagraph 2197.3(e)(1). Documentation relating to the current hiring freight contractor or broker.

Purpose

The purpose for this subparagraph is to require specific information from the driver or vehicle owner on the current hiring freight contractor or broker that caused this vehicle to operate.

Rationale

The reason for only requiring information on the current hiring freight contractor or broker is that drivers should reasonably be able to provide this level of detail regarding the current job they are performing. This will ultimately allow CARB to follow up with the current hiring entity and obtain additional information regarding the transaction and other parties involved in the supply chain.

Subsection 2197.3(f). Drivers and vehicle owners of heavy-duty vehicles operating under an exemption pursuant to a declared emergency.

Purpose

The subsection is meant to outline the documentation that a vehicle owner must keep when a vehicle is operating under an Emergency Exemption.

Rationale

The subsection is important because in some cases, an otherwise non-compliant vehicle will be allowed to operate if they are able to prove they are operating in support of an emergency. The availability of supporting documentation proving that a vehicle is allowed to operate during an emergency is required by CARB staff to determine whether compliance is required. Therefore, it is necessary that vehicle owners retain this documentation and provide it upon request. Also, the timeframe given to provide records over to CARB staff, inspectors, or peace officers was selected to remain consistent with other regulations with similar mandates.

Subsection 2197.3(g). ROBD device vendors.

Purpose

The subsection sets forth the device recordkeeping requirements for certification. It establishes a timeline of five years after CARB issues the EO during which vendors

must organize and keep certification-related records for all devices manufactured, sold, and used in California because of this proposed regulation.

Rationale

This subsection is necessary to ensure records are readily available for recall, audit, investigation, and enforcement of the proposed regulation. Such requirements enhance enforcement capabilities to help ensure vendors develop devices that are performing as expected. The timeframe, which is consistent with the proposed HD I/M recordkeeping requirements, required would provide enough of a document history to ensure CARB staff could conduct adequate enforcement investigations related to the proposed regulation if need be.

Section 2198. Vehicle emissions control equipment inspections.

Purpose

The purpose of the new section is to detail the various vehicle and engine components that inspectors, referees, or HD I/M testers would need to inspect. These components include labels, emission control components, aftermarket parts, the MIL, and the odometer.

Rationale

This section describing the components of vehicle emissions control equipment inspections is necessary so that such inspections can verify a vehicle's compliance status and ensure that all applicable vehicle and engine components are maintained and in proper working condition at the time of the inspection. While regularly submitted test data, such as smoke opacity tests results, provides important engine status information, a comprehensive emission control inspection can further validate the information reported about the vehicle in question. In many cases, tampering or non-compliance may not be reflected in the smoke opacity readings, but can be identified through these types of inspections.

Subsection 2198(a).

Purpose

The purpose of this subsection is to describe who performs vehicle emissions control equipment inspections, namely inspectors, referees, and HD I/M testers.

Rationale

The reason for this subsection is that the vehicle emissions control equipment inspection provides inspectors, referees, and HD I/M testers with a way to identify vehicles in need of repair and/or maintenance.

Subsection 2198(b).

Purpose

The purpose of this subsection is to outline the components of a vehicle that will be inspected during a vehicle emissions control equipment inspection.

Rationale

This subsection tells vehicle owners and inspectors what will be inspected to ensure that the vehicle is compliant.

Subparagraph 2198(b)(1).

Purpose

The purpose of this subparagraph is to establish that inspections must include the verification of the emission control label, which is necessary to determine important engine identification information.

Rationale

This requirement is necessary since owners are required to ensure that an emission control label is present and legible on their vehicle. Emission control labels provide inspectors with the ability to identify important engine information to determine the engine model year of the vehicle to assist in understanding what emission control components need to be in place. The engine model year will also provide information on which test to perform; an OBD test can be used for 2013 and newer model years, while an opacity test must be used for older engines. The emission control label will also provide information on if the engine conforms to U.S. EPA standards. Without the presence of the label, CARB staff will assume that the engine does not meet these certification standards. The engine family name on the label also informs inspectors about applicable EOs.

Subparagraph 2198(b)(2).

Purpose

The purpose of this subparagraph is to establish that inspections must include ensuring that all visually accessible emission control components are configured properly and are not defective missing, modified, or disconnected.

Rationale

The reason for this subparagraph is to allow for inspectors to ensure that vehicles remain in their certified configuration so that they stay within the certified emission standards. Regular inspections help maintain the integrity of CARB-certified engines. Maintaining vehicles in their certified configuration

helps minimize excess emissions. Vehicle owners are required to make sure that their vehicles meet these requirements as specified in section 2196(a)(4) of the proposed regulation.

Subparagraph 2198(b)(3).

Purpose

The purpose of this subparagraph is to establish that inspections must include ensuring that all the visually accessible aftermarket parts are installed appropriately and in accordance with their EOs and are not defective, missing, modified, or disconnected.

Rationale

The reason for this subparagraph is to ensure that any aftermarket parts installed on vehicles are certified by CARB and properly installed and applied. This is to ensure that vehicles stay within their certified emission standards and therefore, vehicle owners are required to ensure that their vehicles meet these requirements as specified in section 2196(a)(5). Regular inspections help maintain the integrity of CARB's aftermarket certification process and minimize excess emissions from non-compliant vehicles.

Subparagraph 2198(b)(4).

Purpose

The purpose of this subparagraph is to ensure vehicle mileage is recorded at the time of the inspection.

Rationale

The reason for this subparagraph is to allow inspectors to assess the mileage. Understanding a vehicle's mileage can be important in assessing the condition (deterioration, wear and tear, etc.) of its engine and aftertreatment systems. Odometer readings are also important for program validation purposes and modeling efforts.

Subparagraph 2198(b)(5).

Purpose

The purpose of this subparagraph to set forth procedures for the inspector to evaluate the operational status of the MIL bulb.

Rationale

The reason for evaluating the MIL bulb during an inspection is that MIL bulbs are critical for ensuring consistent maintenance, as they are the primary

indicator of emission-related malfunction. The presence of the illuminated MIL bulb prompts the vehicle operator to check the engine components for malfunction and act accordingly. The first failure condition is outlined as such because a properly operational MIL should illuminate when the ignition is on and the engine is off. The second failure condition is outlined as such because a continuously illuminated or flashing MIL while the engine running is indicative of an engine malfunction. The proper operation of a MIL in the event of an engine malfunction and subsequent action to correct on behalf of the vehicle operator is expected to help reduce emissions.

Section 2198.1. In-person field inspection requirements for drivers and inspectors.

Purpose

The purpose of the new section is to outline the role and responsibilities of a driver and an inspector during an in-person field inspection for a heavy-duty vehicle.

Rationale

This section is necessary to ensure consistency among every inspection and specify the responsibility of each party involved. Without clear specification of the requirements for an inspector, drivers could be hesitant to allow the necessary access to the vehicle. Additionally, inspections play a critical role in enforcement, and may result in further actions such as the issuance of a citation, so detailing the proper documentation and evidence that an inspector must collect during an inspection is necessary.

Subsection 2198.1(a).

Purpose

The purpose of this subsection is to outline the procedures for a driver during in-person field inspections if their vehicle is selected to undergo an inspection.

Rationale

This subsection is needed because CARB staff and CHP officers conduct inspections throughout the State in various locations and, at any given time, they may select vehicles to undergo inspections. When this occurs, the driver will be directed to an inspection site vehicle and given instructions on the inspection and test procedures that will be conducted on the vehicle. These tests and inspections will determine compliance with this chapter and may result in further enforcement action such as a citation, the prevention of a future compliance certificate and/or a possible vehicle registration hold. Therefore, it is necessary to inform the vehicle operator of the process and procedures associated with an in-person field inspection so that the procedures may be conducted correctly, and accurate results obtained.

Subparagraphs 2198.1(a)(1) and (2).

Purpose

The purpose of these subparagraphs is to set forth procedures for the driver during an in-person field inspection and identify responsibilities of the driver and the documentation required from them upon being selected for an inspection.

Rationale

The reason for the requirement to drive a vehicle to an inspection site at the direction of an officer or inspector is because vehicles may be directed to inspection sites where there is the necessary equipment to perform a complete inspection. At the time of an inspection, drivers will be required to provide a driver's license and vehicle information so that the inspector can record pertinent information and verify that the vehicle meets the requirements based on information like model year.

Subparagraphs 2198.1(a)(3) and (4).

Purpose

The purpose of these subparagraphs is to inform the driver of their responsibility to allow the inspector to perform the necessary test procedures which include allowing access into the vehicle for the reasons outlined in the following sections.

Rationale

It is necessary to inform drivers of their responsibilities during an inspection to prevent confusion regarding the process and so that drivers are aware of the areas of their vehicle that an inspector needs to access.

Subparagraph 2198.1(a)(4)(A).

Purpose

The purpose of this subparagraph is to ensure that the inspector can witness the driver depress the accelerator pedal.

Rationale

This subparagraph is necessary because there are tests that require the accelerator pedal to be depressed such as the SAE J1667 Smoke Opacity Test. The inspector must be able to witness the driver depress to pedal to ensure that the test was accurately performed, and the results are valid.

Subparagraph 2198.1(a)(4)(B).

Purpose

The purpose of this subparagraph is to ensure that the inspector can gain access to the OBD Data link connector to download information about the vehicle during an inspection.

Rationale

The ability to gain access and download OBD data provides a method for assessing if the vehicle being inspected has any active fault codes. If codes are identified, this may indicate a need to have the vehicle repaired.

Subparagraph 2198.1(a)(4)(C).

Purpose

The purpose of this subparagraph is to ensure that the inspector can observe the MIL inside the vehicle.

Rationale

The reason for viewing the MIL light is because it may indicate an emissions-related problem. The presence or absence of an illuminated MIL can also be compared to the OBD data that is downloaded and is also part of the inspection. This will allow the inspector to verify if the MIL light is not properly working.

Subparagraph 2198.1(a)(4)(D).

Purpose

The purpose of this subparagraph is to ensure that the inspector can view the vehicle's odometer to obtain the current mileage of the vehicle.

Rationale

The reason for viewing the vehicle's odometer during an inspection is so that the inspector can verify if a vehicle odometer mileage. Such information is important for program validation purposes and can also help enforcement staff make determinations as to whether the vehicle complies with certain requirements within the proposed regulation. For example, odometer mileage may be helpful in assessing whether a vehicle identifying as an agricultural vehicle is used strictly for such purposes.

Subparagraph 2198.1(a)(5).

Purpose

The purpose of this subparagraph is to inform the driver of their responsibility to allow the inspector to perform the necessary vehicle emission control equipment inspection which includes allowing access into the engine compartment of the vehicle.

Rationale

The engine compartment of the vehicle contains the emission control components, engine components, and applicable labels that all need to be present, unmodified and in the working order for a vehicle to be considered compliant with this chapter. Also, by specifying that it is the responsibility of the driver to open the engine compartment, it tells inspectors and drivers of the actions they are expected to take. Without clear specification of the requirements for an inspector to adhere to, drivers could be hesitant to allow the necessary access, which would constitute a refusal and result in a violation of this chapter.

Subparagraph 2198.1(a)(6).

Purpose

The purpose of this subparagraph is to inform the driver of their role pertaining to the documentation they are expected to sign during a vehicle emissions control equipment inspection.

Rationale

The reason for obtaining signatures on documentation is that it provides CARB with the necessary proof that the documentation was reviewed and received by the vehicle operator at the time of the inspection. Signatures from the driver also serve as evidence that they were present at the time of the inspection and were made aware of the violations and/or test results.

Subsection 2198.1(b).

Purpose

The purpose of this subsection is to set forth procedures for the inspector during an in-person field inspection.

Rationale

This subsection clarifies the procedures for an inspector to ensure a proper inspection is conducted and it tells the driver what the inspector is authorized to do during an inspection.

Subparagraph 2198.1(b)(1).

Purpose

The purpose of this subparagraph is to inform the driver that refusing to take part of the inspection or test procedure will result in a refusal violation.

Rationale

The reason for this subparagraph is to inform drivers of CARB's authority to do an inspection of any vehicle subject to the requirements of this chapter. If the driver refuses to allow an inspection to take place, CARB has the authority to assume that the vehicle in question would fail any of the tests and/or inspection and therefore, issue a citation.

Subparagraphs 2198.1(b)(2) and (3).

Purpose

The purpose of these subparagraphs is to outline what the inspector will need to request from the driver and the type of documentation that will be required from them upon being selected for an inspection. These subparagraphs also outline that vehicle and engine information will be retained as part of the inspection process.

Rationale

At the time of an inspection, drivers will be required to provide a driver's license, vehicle registration, temporary operating permit if applicable, and compliance certificate. This is so that the inspector can record pertinent information and verify that the vehicle meets the requirements of this chapter such as verifying information like model year. Information obtained from the license and vehicle registration would be used to determine vehicle ownership and establish contact information for any follow up documentation that may be needed in the event of non-compliance. The temporary operating permits would also allow the inspector to determine if the vehicle is currently subject to the requirements of the chapter or if it has been given an extension to operate by the DMV. The vehicle and engine identification information would inform the inspector of the engine and emission control components that will need to be checked and verified during an inspection. This information could also be used to determine the appropriate smoke opacity limit the vehicle is subject to if it is non-OBD equipped.

Subparagraph 2198.1(b)(4).

Purpose

The purpose of this subparagraph is to provide direction to the inspector regarding their responsibility to conduct tests and inspections such that they are consistent with this chapter.

Rationale

To ensure compliance with this chapter, tests and inspections conducted in the field by inspectors serve as an important mechanism to verify vehicles are meeting the requirements. The reason why the tests and inspections are not specified and the terminology “necessary and applicable” is used is because this chapter covers a variety of vehicle types and the inspector will need to use their discretion at the time of the inspection to determine which tests and inspection procedures apply to the specific vehicle.

Subparagraph 2198.1(b)(5).

Purpose

The purpose of this subparagraph is to provide the inspector authority to issue a citation to the driver if the vehicle is found in violation with the requirements of this chapter.

Rationale

Issuing a citation upon witnessing a violation provides a way to document that the driver was notified of the violation at the time of the inspection. Depending on the violation type, the citation may be the responsibility of the driver or the vehicle owner. In either case, an official notification will be sent via U.S. Postal Service mail to appropriate recipient. However, if the vehicle operator is available, the inspector would obtain a signature noting that the inspection took place and would then provide a copy of the citation to the vehicle operator.

Section 2198.2. Enforcement.

Purpose

The purpose of the new section is to outline the enforcement actions that various parties are subject to. This section also outlines an owner’s right to an administrative hearing and the documentation needed to resolve a violation.

Rationale

This section is necessary because enforcement enables a level playing field for industry. This section details the mechanisms available to CARB to enforce and uphold the requirements.

Citations act as a deterrent for non-compliance, preventing the issuance of compliance certificates, provides a way to tie compliance to vehicle registration and administrative remedies provides stakeholders with an avenue to contest any enforcement actions.

Subsection 2198.2(a). Notice to submit to testing.

Purpose

The purpose of this subsection is to describe the enforcement action called a NST that will be issued to a vehicle owner when a vehicle is determined to exceed the thresholds, previously outlined in section 2196.4, by a roadside emissions monitoring device. This section outlines the timeframe and the requirements associated with the NST to avoid a citation and assessed penalties.

Rationale

The NST provides vehicle owners the ability to obtain verification of the compliance status of their vehicle and submit the results to CARB to show that they comply with this chapter prior to the issuance of a citation. Because the roadside emission monitoring systems are not a formal inspection, it does not require the vehicle to be pulled over and subject to the inspection procedures and tests outlined in this chapter. Therefore, CARB will notify the owner of a potential exceedance of emissions and provide the opportunity to submit the vehicle for testing and/or repairs. The vehicle owner will be granted 30 days upon receipt of the Notice, which is consistent with the time allowed for similar types of correspondence that CARB issues. This timeframe begins once CARB issues a formal notice notifying the owner of the necessary requirements. If the vehicle owner does not provide the demonstration of compliance, CARB will assume that the vehicle is out of compliance and issue a citation.

Subsection 2198.2(b). Violations.

Purpose

The purpose of this subsection is to outline the requirements associated with violations resulting from this chapter, including citations and submittal of fraudulent data.

Rationale

This subsection is intended to explain under what circumstances a citation would be issued and the repercussions associated with submitting fraudulent information to the electronic reporting system.

Subparagraph 2198.2(b)(1). Citations.

Purpose

The purpose of this subparagraph is to describe the enforcement action called a citation that will be issued to an entity that violates the requirements of this regulation. If issued a citation, an entity would be provided a specific timeframe of 45 calendar days, or 75 calendar days for agricultural vehicles, to pay the penalties and submit proof of compliance.

Rationale

The reason for issuing citations to the entities subject to this chapter is to provide a way to deter non-compliance by creating an associated cost. In many cases, complying with regulatory requirements creates an additional expense on regulated entities, so without proper enforcement, entities that choose to comply could be placed at a competitive disadvantage compared to those who choose not to. For this reason, citations with monetary penalties are necessary to mitigate the advantage that non-compliance creates and encourages a level playing field for all entities who operate in California. The reason for providing a varying timeframe of either 45 calendar days or 75 calendar days for agriculture is to remain consistent with statutory requirements, which mandate CARB to provide 45 calendar days for regular vehicles and 75 calendar days for agricultural vehicles to correct a violation.

Subparagraph 2198.2(b)(1)(A). Refusals.

Purpose

The purpose of this subparagraph is to explain the conditions for which CARB may issue a citation for a refusal to a vehicle owner or driver if they refuse to submit to certain enforcement related inspection procedures. The situations include refusing to submit to an inspection or test during an in-person field inspection or refusing to be submit to a referee inspection.

Rationale

The reason for considering a refusal of an inspection or test procedure as a violation, despite not conducting a proper inspection is because neither an inspector nor a referee can verify compliance and therefore, must assume non-compliance. Without the ability to issue a violation in these cases, vehicle owners would be incentivized to refuse an inspection any time they believe their vehicle is operating out of compliance. Additionally, the authority to issue a violation in the event of a refusal is provided by statute.

Subparagraph 2198.2(b)(2). Submittal of fraudulent data.

Purpose

The purpose of this subparagraph is to explain that any falsification of information that is submitted to the database will be considered a violation that will result in penalties.

Rationale

This subparagraph is intended to encourage account holders to provide true and accurate information and deter the submission of fraudulent data by imposing a penalty. This regulation relies on user submitted data regarding test results and vehicle compliance status. Fraudulent data could be used to avoid compliance requirements and provide certain vehicles with the advantage of not having to comply. Monetary penalties serve as a mechanism to deter fraud and help to create a level playing field for those who do comply.

Subsection 2198.2(c). Audits.

Purpose

The purpose of this subsection is to outline the responsibilities for parties subject to this regulation as they pertain to providing requested records and adhering to inspection requests from CARB.

Rationale

The reason for this subsection is that it informs parties that they may be required to perform certain actions when an audit occurs. Audits play an important role in the enforcement of CARB regulations, and access to records and the ability to inspect vehicles are both necessary components to perform a successful audit.

Subparagraph 2198.2(c)(1). Records.

Purpose

The purpose of this subparagraph is to explain the recordkeeping requirements that certain parties are subject to. Records will need to be retained and made available if CARB requests copies of these records. If records are not retained or provided in the timeframe requested, CARB may assess penalties for not adhering to the recordkeeping requirements of this chapter.

Rationale

The reason for this subparagraph is to identify, for regulated parties, what records CARB may request for auditing-related purposes. By requesting and reviewing the records, CARB can verify compliance with the requirements of this chapter. These records are critical for determining program effectiveness

and in many cases, holding parties in the supply chain accountable, such as records required by freight contractors. The ability to assess penalties when parties fail to keep or provide records is similar to other regulations where recordkeeping is required and allows CARB to incentivize proper recordkeeping.

Subparagraph 2198.2(c)(2). Inspections.

Purpose

The purpose of this subparagraph is to explain to vehicles owners the requirement that they must make their vehicle available for inspection, upon request from CARB.

Rationale

This subparagraph would enable inspectors to follow up with vehicle owners to ensure compliance after detecting a vehicle through other various enforcement processes. The ability to perform an in-person field inspection may be necessary at times to validate the compliance status of a vehicle.

Subsection 2198.2(d). Penalties.

Purpose

The purpose of this subsection is to explain the situations in which CARB retains the authority to assess penalties. These situations include submittal of inaccurate data, submittal of false statements and representations, and/or general failure to comply with the requirements of this chapter. In addition, CARB's determination of fault from an entity subject to this chapter would not be considered when assessing penalties for violations.

Rationale

The reason for assessing penalties is to provide a way to deter non-compliance by creating an associated cost. In many cases, complying with regulatory requirements creates an additional expense on regulated entities. As a result, without proper enforcement, entities that choose to comply would be placed at a competitive disadvantage compared to those who choose not to. For this reason, monetary penalties are necessary to mitigate the advantage that non-compliance creates and encourage a level playing field for all entities who operate in California. This section also provides a clarification that penalties for non-compliance can occur when any requirement of this regulation are not met. The reason for not considering evidence of fault when assessing penalties is because each entity is directly responsible for their own compliance regardless of the fault of others.

Subsection 2198.2(e). Transfer of Ownership.

Purpose

The purpose of this subsection limit the ability for any vehicle owner—namely that the owner will not be held responsible for penalties associated to any unresolved citations that were issued prior to the transfer of ownership to the new owner.

Rationale

The reason for this subsection is to ensure that new owners are not held responsible for previous penalties because penalties assessed for operating out of compliance prior to ownership are outside of the control of the new owner. Additionally, this provision is necessary so that the previous owner that was responsible for operating out of compliance would not be incentivized to sell their vehicle to avoid paying their penalties. Those penalties would remain their responsibility even after sale.

Subsection 2198.2(f). Demonstration of compliance.

Purpose

The purpose of this subsection is to establish the potential documentation that the Executive Officer may request upon issuance of a NST or Citation.

Rationale

The reason for this subsection is to inform owners of the potential documentation they may be requested to provide by the Executive officer to demonstrate they have resolved an outstanding NST or Citation. Compliance with the requirements of this proposed regulation necessitates that vehicles be properly maintained and operating within their respective emissions thresholds. When a NST or Citation is issued, correction may involve not only the submittal of a passing test, but also proof that the underlying issue has been repaired. This subparagraph provides general guidance on how the documentation should look.

Subparagraphs 2198.2(f)(1), (2), and (3).

Purpose

The purpose of these subparagraphs is to explain the documentation that will be accepted demonstrating compliance for the vehicle that received an NST or citation.

Rationale

These subparagraphs consider documentation of a successful OBD test, documentation of vehicle emission control inspection or documentation of a successful SAE J1667 smoke test as demonstration of compliance. This is because these tests are already utilized by vehicle owners as part of their

regularly scheduled reporting requirements to demonstrate compliance. A passing OBD test, smoke test, or visual inspection indicates that a vehicle is properly maintained and in compliance with the requirements of this chapter.

Subparagraph 2198.2(f)(4).

Purpose

The purpose of this subparagraph is to provide direction to vehicle owners regarding the necessary documentation to submit, if vehicle repairs are necessary to achieve compliance following issuance of a NST or a Citation. Documentation would include contact information for the facility making the repairs, a description of the repairs, and vehicle information.

Rationale

The reason for requiring contact information of the repair facility is so CARB staff may verify that a qualified party made the repairs. Additionally, CARB may use this contact information to follow up with the party regarding any questions about the repair. The date of repair is necessary to ensure that the issue was corrected within the specified timeframe. Details of the repair, such as an itemized list of replaced or repaired components, are necessary to ensure that the underlying issue causing the noncompliance was corrected. Vehicle information on the invoice provides evidence that the work was performed on the correct vehicle.

Subparagraph 2198.2(f)(5).

Purpose

The purpose of this subparagraph is to describe the documentation needed by the vehicle owner to prove that repairs were made correctly, when a fleet uses an in-house mechanic to do their own repairs. When this occurs, this subparagraph outlines that the vehicle owner will need to provide an invoice for the parts used, and documentation identifying the nature of the repairs and the vehicle information, such as serial number, VIN, and license plate.

Rationale

The reason for this subparagraph is to provide instructions to vehicle owners who may conduct their own repairs, or who utilize an in-house mechanic, on the necessary documentation that is required to prove that a vehicle was properly repaired. The itemized list of parts will provide CARB the ability to easily identify which component were replaced or repaired, indicating whether the issue that they were cited for was resolved. The statement identifying the date, the specific repairs, and the vehicle information will be used to identify which

vehicle was repaired and the type of repair(s) conducted, to further assist CARB staff in determining if the violation has been resolved.

Subparagraph 2198.2(f)(6).

Purpose

The purpose of this subparagraph details that proof of reporting and the resulting vehicle compliance certificate is a valid form of documentation proving compliance.

Rationale

Accepting proof of reporting and a compliance certificate as demonstration of compliance may be used to resolve violations that occur from a failure to report or incorrect reporting. The requirement of this chapter mandates that vehicles operating in California report into the electronic reporting system. Through various enforcement efforts such as remote sensing or in person inspections, vehicles found to be operating in California without reporting will be found in violation. These vehicles will be required to correct this violation by providing this documentation.

Subparagraph 2198.2(f)(7). Statement of correctness.

Purpose

The purpose of this subparagraph is to identify a statement of correctness as one of the potential required documents that a cited party would need to submit to resolve their violation.

Rationale

The reason for requiring a statement of correctness attesting true and correct data is to hold vehicle owners responsible for the validity and accuracy of their submissions. A signed statement provides CARB with evidence if the submitted data turns out to be false or inconsistent and can be used to hold the parties that submitted the data responsible.

Subsection 2198.2(g). Vehicles removed from service.

Purpose

The purpose of this subsection is to outline that if a vehicle is in violation of this proposed regulation, it may be removed from service by CHP. It also outlines the steps necessary to release the vehicle upon proper proof of compliance.

Rationale

Removal from service would serve as a deterrent from non-compliance and help ensure that vehicle owners resolve their citations in a timely manner because of the repercussions they could face if they continue to operate with unresolved citations.

Subparagraph 2198.2(g)(1).**Purpose**

The purpose of this subparagraph is to detail what may occur if one or more unresolved citations are in existence at the time of an inspection. If during inspection a vehicle is found to have unresolved citations, CARB may request to remove the vehicle from service by working with the CHP.

Rationale

This subparagraph would serve to provide an additional enforcement mechanism in to incentivize vehicle owners to resolve their citations. The possibility of removing vehicles from service serves as a form deterrence and carrying out removal from service provides an immediate way to halt non-compliant vehicles from operating on California roadways. This would also provide an effective mechanism to hold vehicles registered outside of California accountable, because CARB cannot hold registration for those vehicles.

Subparagraph 2198.2(g)(2).**Purpose**

The purpose of this subparagraph is to identify the necessary steps a vehicle owner must complete when their vehicle is removed from service by CHP at CARB's request. The vehicle owner would need to submit payment of all the unpaid penalties for the vehicle and, upon payment, the vehicle owner or designee would be provided with a release form to be given to CHP.

Rationale

This subparagraph would provide a way to allow vehicle owners to resume use of their vehicle upon payment of all unpaid penalties. If vehicles are removed from service, this would present a significant disruption of service that necessitates an expedient method of resolution.

Subparagraph 2198.2(g)(3).**Purpose**

The purpose of this subparagraph is to identify the responsibilities that a vehicle owner would have once their vehicle has been released. The vehicle owner

would have to have their vehicle repaired, tested, or inspected as applicable upon release.

Rationale

This subparagraph would provide the vehicle owner with an expedient process to get their vehicle back on the road following removal from service. Compliance verification is a necessary component of enforcement but could be a time-consuming process that requires a vehicle to remain out of service for a potentially burdensome length of time. Additionally, bringing the vehicle into compliance may require the vehicle to be taken to a repair shop, referee, or other location. As such, vehicles removed from service would be unlikely to complete this requirement until they are allowed to operate again. This subparagraph would allow for return to service, while still requiring proof of compliance within 15 days.

Subsection 2198.2(h). Administrative remedies.

Purpose

The purpose of this subsection is to outline the rights available to vehicle owners if they wish to contest a violation associated with this chapter.

Rationale

The requirement to provide an administrative hearing for these parties upon request is laid out in statute. Administrative hearings provide a mechanism for cited parties to contest a citation, if they think that a citation was issued in correctly.

Subparagraph 2198.2(h)(1).

Purpose

The purpose of this subparagraph is to outline that an owner or an operator has the right to request an administrative hearing if they are cited for a violation of the requirements of this HD I/M Regulation.

Rationale

The requirement to provide an administrative hearing for these parties upon request is laid out in statute. Administrative hearings provide a mechanism for cited parties to contest a violation, if they think that a citation was issued in correctly.

Subparagraph 2198.2(h)(2).

Purpose

The purpose of this subparagraph is to detail the applicable regulatory procedures under which CARB will hold an administrative hearing, if requested. This subparagraph also describes the owner or operator's responsibility to follow the designated process laid out in whichever regulation is deemed most applicable.

Rationale

This subparagraph explains that administrative hearing procedures may take place pursuant to one of the various T administrative hearing regulations (i.e., sections 60055.1 et seq, 60065.1 et seq., or 60075.1 et seq.). Each administrative hearing regulation specifies different timelines, documentation requirements, hearing venues, and penalty thresholds that must be met. This subparagraph describes CARB's authority to determine which of these administrative hearing regulations best applies on a case-by-case basis. This determination depends on the violation and penalty threshold that is being contested. In addition, the administrative procedures that the owner or operator must follow would depend on the unique requirements of each statute.

Subsection 2198.2(i). Right of entry.

Purpose

The purpose of this subsection is to outline the authority that CARB staff, persons acting at the direction of CARB, and peace officers have, to enter or request information from various locations in order to determine compliance with this chapter.

Rationale

The reason for requesting information from or entering the following facilities may vary depending on the compliance verification taking place. Certain locations may contain the necessary documentation outlined in the recordkeeping section, for which CARB staff would need access to evaluate whether proper record keeping is taking place. Additionally, other sites or facilities may have vehicles subject to this chapter within the property boundaries, and CARB staff would need to have the authority to inspect vehicles within these facilities.

Subparagraph 2198.2(i)(1).

Purpose

The purpose of this subparagraph is to establish any facility or site that contains ROBD devices or related records as a location where CARB may perform inspections.

Rationale

The reason for needing to enter facilities that contain ROBD devices or related records is to allow for the inspection of devices and evaluation of records pertaining to the certification process of these devices. Inspections may provide valuable insight regarding device manufacturer compliance with the requirements of this chapter.

Subparagraph 2198.2(i)(2).

Purpose

The purpose of this subparagraph is to establish any facility or site where vehicles are stored and tested as a location where CARB may perform inspections.

Rationale

Enforcement of these requirements of this chapter requires the ability to inspect all applicable vehicles within California. This subparagraph provides the authority to enter facilities where these vehicles are kept for the sole purpose of inspection.

Subparagraph 2198.2(i)(3).

Purpose

The purpose of this subparagraph is to establish any facility or site where maintenance or test records are kept for vehicles as a location where CARB may perform inspections.

Rationale

Enforcement of the requirements of this chapter requires the ability to inspect all applicable vehicles within California. A portion of the inspection process involves verifying a vehicle's maintenance records and test results. This section provides the authority to enter facilities where these records are kept for the purpose of inspection and verification. The ability to review these records would also provide a way to cross check inspection and maintenance data previously submitted through the electronic reporting system.

Subparagraph 2198.2(i)(4).

Purpose

The purpose of this subparagraph is to establish any facility or site where freight contractor records are kept as a location where CARB may perform verification of proper recordkeeping.

Rationale

Recordkeeping responsibilities are a vital part of the enforcement process for freight contractors, as CARB may use these records to verify which vehicles have been dispatched and operated in California, and the compliance status of those vehicles at the time of dispatch or operation.

Subparagraph 2198.2(i)(5).

Purpose

The purpose of this subparagraph is to establish any facility or site where applicable freight facility records are kept as a location where CARB may perform verification of proper recordkeeping.

Rationale

Recordkeeping responsibilities are a vital part of the enforcement process for applicable freight facilities, as CARB may use these records to verify which vehicles have been operating within the facilities boundaries, and the compliance status of those vehicles at the time of entry.

Section 2199. Severability of provisions.

Purpose

The new section specifies that each section, subsection, paragraph, subparagraph, sentence, clause, phrase, or portion of the HD I/M Regulation is severable.

Rationale

This section is necessary to ensure that a legal challenge to some of the provisions within the regulation would not hold the chapter invalid, unconstitutional, or unenforceable. The remainder of these provisions would continue to be applicable in full force and effect.

Section 2199.1. Sunset of the requirements of the heavy-duty vehicle inspection program and the periodic smoke inspection program.

Purpose

The new section sunsets CARB's existing HDVIP upon the effective date of this proposed regulation and sunsets the PSIP when implementation of the periodic inspection requirements in section 2196.2 of the proposed regulation begins.

Rationale

This section is necessary to identify when the proposed regulation would supersede the requirements of HDVIP and PSIP. The proposed regulation moves beyond the current HDVIP and PSIP requirements to impose more robust periodic vehicle inspection procedures using OBD for applicable vehicles to monitor all emissions-related components, including NOx emission control technologies. Additionally, the proposed regulation's inspection requirements apply to single vehicles (one vehicle fleets) and non-California registered vehicles (out-of-state, out-of-country, and federal vehicles) that are not subject to the current PSIP. The proposed regulation would retain some inspection elements of the current HDVIP and/or PSIP, such as inspector checks for tampered emission control systems, verification of emission control labels, and the same smoke opacity testing procedures and smoke limits for non OBD-equipped vehicles. However, the proposed regulation would enhance compliance significantly by requiring vehicles to pass a HD I/M inspection as a prerequisite to renew California DMV registration and to operate legally in California. This section to sunset CARB's current heavy-duty vehicle inspection programs is necessary to avoid duplicative inspection elements, while at the same time, imposing more comprehensive vehicle testing requirements relative to the current programs.

Proposed Regulation Order to Amend Periodic Smoke Inspections of Heavy-Duty Diesel Powered Vehicles

Title 13

Section 2193. Smoke Opacity Standards, Inspection Intervals, and Test Procedures.

Purpose

The proposed amendment to this section in the Regulation for Periodic Smoke Inspections of Heavy-Duty Diesel Powered Vehicles (herein referred to as the PSIP regulation) is necessary to align the opacity standards for vehicles equipped with off-road engines used for motive power in on-road vehicles with those included in proposed new section 2196.6(b), title 13, Chapter 3.7 (proposed HD I/M regulation).

Rationale

This section is necessary to align the opacity standards in the PSIP regulation with proposed opacity standards for off-road engines used for motive power in on-road vehicles in new section 2196.6 in the proposed HD I/M regulation. This would ensure that vehicles required to undergo annual smoke opacity inspections in the PSIP regulation are held to the same opacity standards as vehicles flagged as potential high emitters by REMD and referred to follow-up vehicle compliance testing during first phase implementation of the proposed HD I/M regulation. The PSIP regulation would sunset and be superseded by the proposed HD I/M regulation upon full implementation when the periodic vehicle testing requirements become effective, as required by Health and Safety Code section 44152(l). This would ensure that there are no overlapping and duplicative periodic vehicle emissions testing requirements for vehicles operating in California.

Subsection 2193(a). Standards.

Purpose

The proposed amendment references the opacity standards in new section 2196.6 in the proposed HD I/M regulation.

Rationale

The proposed amendment is necessary to incorporate the proposed opacity standards for off-road engines in section 2196.6(b) of the HD I/M regulation into the PSIP regulation to ensure alignment of the opacity standards for off-road engines during the period before PSIP is sunset.

Proposed California Standards for Heavy-Duty Remote On-board Diagnostic Devices

Part I: Definitions.

Purpose

The new part sets forth definitions for terms used in the proposed California Standards for Heavy-Duty Remote On-board Diagnostic Devices.

Rationale

This part is necessary to define key terms used within the proposed standards and to provide clarity, specificity, and consistency to regulated entities. Definitions enable CARB staff and regulated entities to have a common understanding of a term or subject.

Authorized representative.

Purpose

The purpose of the terminology is to define "Authorized representative."

Rationale

The definition for "Authorized representative" is necessary to serve as the legal person designated by the regulated entity to represent them and ensure compliance with the device certification requirements.

Baud rate.

Purpose

The purpose of this terminology is to define "baud rate" with reference to the requirements for ROBD device-vehicle communication in Appendix B.

Rationale

This definition is necessary to ensure that ROBD devices use the same data transmission rate as supported by the vehicle when communicating with it.

Certification.

Purpose

The purpose of the terminology is to define "Certification."

Rationale

The definition for "Certification" is necessary to ensure vendors certify their devices prior to being used for OBD data submission. Vendors, manufacturers, and/or service providers of these devices must submit certification applications following CARB's

required specifications to receive an EO. OBD-equipped heavy-duty vehicles would require OBD data submissions using a CARB certified device either through a CC-ROBD device or NCC-ROBD to obtain a HD I/M compliance certificate to legally operate in the state.

Controller Area Network (CAN bus).

Purpose

The purpose of this terminology is to define “Controller Area Network (CAN bus)” with reference to the requirements for ROBD device-vehicle communication in Appendix B.

Rationale

This definition is necessary because the CAN bus is referenced throughout Appendix B, particularly subsections D.2 and D.3 (requirements related to ROBD device-vehicle communication). The CAN bus plays a key role as the major standard used for internal and external (e.g., with HD I/M ROBD device) communications in modern heavy-duty vehicles.

Device model.

Purpose

The purpose of the terminology is to define “Device model.”

Rationale

The definition for “Device model” is necessary to set forth the criteria for grouping similar devices made by one vendor that are applicable to the same vehicle makes and models, and applicable to the same OBD protocol(s). Grouping devices together as proposed here allows for easier traceability when multiple devices are in the field being used for compliance determination efforts.

Device serial number.

Purpose

The purpose of the terminology is to define “Device serial number.”

Rationale

The definition for “Device serial number” is necessary to specify a unique identification number that distinguish a particular ROBD device from other ROBD devices. This device serial number is important in identifying certified device and accounting for any device transaction such as viewing certification information and submitting OBD compliance tests. Additionally, instead of entering an entire device model or

description, the user can use the serial number to speed up the process of data entry and to view the status or history of each device.

DM5.

Purpose

The purpose of this terminology is to define "DM5", which is one of the standardized diagnostic messages in the SAE J1939 OBD communication protocol, with reference to the requirements for ROBD device-vehicle communication in Appendix B.

Rationale

This definition is necessary to ensure that the ROBD device can verify that a vehicle supports heavy-duty OBD requirements and meets CARB's requirement for ROBD compliance testing as part of the HD I/M program.

DM24.

Purpose

The purpose of this terminology is to define "DM24", which is one of the standardized diagnostic messages in the SAE J1939 OBD communication protocol, with reference to the requirements for ROBD device-vehicle communication in Appendix B.

Rationale

This definition is necessary to ensure that the ROBD device is capable of identifying the data parameters of each heavy-duty compliant electronic control unit (ECU) (i.e., those already responded to the DM5 request sent by the device during the initialization process) that the vehicle supports.

Electronic Control Unit (ECU).

Purpose

The purpose of this terminology is to define "Electronic Control Unit (ECU)" with reference to the requirements for ROBD device-vehicle communication in Appendix B.

Rationale

This definition is necessary because ECU is referenced throughout Appendix B (requirements related to ROBD device-vehicle communication). ECUs play a key role in controlling the operations of different systems in the vehicle, including the powertrain and emissions control systems, and their communication with external devices such as the HD I/M ROBD device.

InfoType.

Purpose

The purpose of this terminology is to define “InfoType”, which is used to describe a specific type of information stored in the SAE J1979 OBD communication protocol.

Rationale

There are several individual InfoTypes that will need to be included with the SAE J1979 OBD data submission in order to comply with the HD I/M program. These include VIN, Calibration ID (CAL-ID), Calibration Verification Number (CVN), and Engine Serial Number (ESN). This information will be essential for fraud prevention within the HD I/M program.

Mode \$06.

Purpose

The purpose of this terminology is to define “Mode \$06”, which is an individual service in the SAE J1979 OBD communication protocol.

Rationale

In addition to diagnostic readiness, MIL status, and associated DTC, CARB needs access to the results of the diagnostic tests that state the results of these parameters. For the SAE J1979 protocol, these test results are stored in Mode \$06, thus Mode \$06 specifies the location these data fields can be obtained. They will be required to be included in OBD data submissions for the HD I/M program.

Mode \$09.

Purpose

The purpose of this terminology is to define “Mode \$09”, which is an individual service in the SAE J1979 OBD communication protocol.

Rationale

To comply with the HD I/M program, all vehicles must submit OBD data that includes VIN, CAL-ID, CVN, and ESN. This will not only identify individual vehicles; it will also allow CARB to detect whenever engine control unit had had its firmware re-flashed (or otherwise altered). For the SAE J1979 protocol, this information is obtained from Mode \$09.

Monitor ID.

Purpose

The purpose of this terminology is to define "Monitor ID", which is used to identify the component being monitored by a specific diagnostic test performed in the SAE J1979 OBD communication protocol. The results of each specific test are used to determine whether the MIL is illuminated, and if so, which DTCs are associated with the MIL.

Rationale

HD I/M compliance will be based not only on MIL status, but also results from the diagnostic tests that determine this status. These individual tests are identified by their Monitor IDs. These results, matched to Monitor ID, will be required in HD I/M data submissions.

OBD data test vehicle.

Purpose

The purpose of the terminology is to define "OBD data test vehicle."

Rationale

The definition for "OBD data test vehicle" is necessary to specify the vehicles that device vendors would use to test their device for field certification purposes to ensure the device is meeting the required specifications. Testing the device in a vehicle can detect issues before producing and introducing such device in the market as a tool for demonstrating compliance with this proposed regulation.

OBD protocol group.

Purpose

The purpose of the terminology is to define "OBD protocol group."

Rationale

The definition for "OBD protocol group" is necessary for vendor initial validation testing, which is part of the device certification process. OBD protocol groups include SAE J1939, SAE J1979, and SAE J1979-2. For purposes of certification, it is necessary to test a device on every OBD protocol group for which the device is certifying. This testing would ensure that the device is functioning properly for the applicable OBD protocol(s).

Original purchaser.

Purpose

The purpose of the terminology is to define "Original purchaser."

Rationale

The definition for “Original purchaser” is necessary to specify the person who purchases and uses the certified device for use in vehicle compliance testing. Most commonly, this person would be the vehicle owner who is responsible to comply with this proposed regulation or a HD I/M tester who owns a testing facility and/or conducts vehicle compliance testing and vehicle emissions control equipment inspections.

Owner’s manual.**Purpose**

The purpose of the terminology is to define “Owner’s manual.”

Rationale

The definition for “Owner’s manual” is necessary to establish the documentation a vendor needs to provide to the owner to ensure they have the information necessary to understand the requirements for proper use, maintenance, warranty requirements and service offerings for the device itself. This definition would help to ensure that vendors provide a paper or electronic format manual for device installation, operation, and maintenance, and a warranty statement for certified devices to purchasers and users.

Part II: Device requirements.**Purpose**

This new part establishes the specifications of ROBD devices that vendors would be required to meet if they wish to have their developed devices certified by CARB to be used as a means of demonstrating compliance with the HD I/M program.

Rationale

This part is necessary to standardize the specification of ROBD devices for use in the HD I/M program and to provide guidance to vendors to ensure that their developed devices would be capable of meeting the program requirements. There is a broad range of ROBD devices/systems currently developed and used by both heavy-duty engine/vehicle manufacturers and third-party telematics vendors. These devices/systems are used for a variety of applications from diagnostics and predictive maintenance to recording hours of service and fleet logistics management. Therefore, it is highly important for HD I/M ROBD device vendors to know the key required functionalities of ROBD devices. This part helps ensure HD I/M ROBD devices would be capable of collecting and transmitting the required OBD data to CARB’s electronic reporting system in a format that the database system can accept while being in harmony with vehicle’s OBD system and other connected ROBD devices.

Section A. Purpose.

Purpose

This new section specifies the main purpose of this part, which is establishing the key proposed functionalities of ROBD devices to be used for collecting vehicle OBD data and submitting to CARB's electronic reporting system to demonstrate compliance with the HD I/M program.

Rationale

This section is necessary to ensure ROBD device vendors (i.e., heavy-duty engine/vehicle manufacturers and third-party telematics ROBD device vendors) are informed about the main purpose of the proposed requirements for ROBD device in the HD I/M program.

Section B. Reference documents.

Purpose

The purpose of this new section is to list CCR sections that are incorporated in Part II of Appendix B.

Rationale

This section is necessary to provide ROBD device vendors with the list of relevant CCR sections that are incorporated in Part II of Appendix B. By referring to these CCR sections, this section helps ensure that ROBD device vendors can find additional important technical specifications and guidelines regarding emissions-related diagnostics, vehicle-OBD device communication, security, etc., and ultimately develop ROBD devices that meet CARB's requirements while being compatible with vehicles' OBD systems.

Subsection B.1.

Purpose

This subsection incorporates section 1968.2, title 13, CCR, which sets forth requirements for OBD II systems in 2004 and subsequent model year light- and medium-duty vehicles and engines.

Rationale

Because OBD II is used in some heavy-duty vehicle makes, this subsection is necessary to provide vendors information regarding the technical requirements specified for OBD II systems by CARB in the incorporated reference. This is to ensure that ROBD devices developed to be used by vehicles using OBD II can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection B.2.

Purpose

This subsection incorporates section 1971.1, title 13, CCR, which sets forth requirements for OBD systems in 2010 and subsequent model year heavy-duty engines.

Rationale

This subsection is necessary to provide vendors information regarding the technical requirements specified for heavy-duty OBD systems by CARB in the incorporated reference. This is to ensure that ROBD devices developed to be used by vehicles using CARB-certified heavy-duty OBD can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Section C. Documents incorporated by reference.

Purpose

The purpose of this new section is to list all regulations, standards, and technical publications that are incorporated by reference in Part II of Appendix B.

Rationale

This section is necessary to provide ROBD device vendors with the list of relevant OBD regulations, as well as technical standards and recommended practices developed and published by ISO and SAE international that are incorporated by reference in Part II of Appendix B. By referring to these cited publications, this section helps ensure that ROBD device vendors can find additional important technical specifications and guidelines regarding emissions-related diagnostics, vehicle-OBD device communication, security, etc., and ultimately develop ROBD devices that meet CARB's requirements while being compatible with vehicles' OBD systems.

Subsection C.1.

Purpose

This subsection incorporates by reference section 86.010-18, title 40, Code of Federal Regulations, which sets forth requirements for OBD systems in heavy-duty engines.

Rationale

This subsection is necessary to provide vendors information regarding the technical requirements specified for heavy-duty OBD systems by U.S. EPA in the incorporated reference. This is to ensure that ROBD devices developed to be used by vehicles using EPA-certified heavy-duty OBD can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.2.

Purpose

This subsection incorporates by reference ISO 11898-1 "Road vehicles – Controller area network (CAN) – Part 1: Data link layer and physical signaling".

Rationale

This subsection is necessary to provide vendors information regarding the general architecture of CAN and characteristics of interchange of digital information in CAN-based vehicle OBD systems. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.3.

Purpose

This subsection incorporates by reference ISO 11898-2 "Road vehicles – Controller area network (CAN) – Part 2: High-speed medium access unit".

Rationale

This subsection is necessary to provide vendors information regarding the high-speed physical media attachment of the CAN, as another important characteristic of interchange of digital information in CAN-based vehicle OBD systems. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.4.

Purpose

This subsection incorporates by reference ISO 15031-4 "Road vehicles — Communication between vehicle and external equipment for emissions-related diagnostics — Part 4: External test equipment".

Rationale

This subsection is necessary as it specifies a means of establishing communication between a vehicle's OBD system and an external OBD testing equipment to provide complete, efficient, and safe access to all the public OBD services. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.5.

Purpose

This subsection incorporates by reference SAE J1699-2 "Test Cases for OBD-II Scan Tools and I/M Test Equipment".

Rationale

This subsection is necessary as it provides vendors information regarding external OBD testing equipment for vehicles using OBD II systems. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.6.

Purpose

This subsection incorporates by reference SAE J1962 "Diagnostic Connector".

Rationale

This subsection is necessary as it provides vendors information regarding characteristics of diagnostics connection in vehicles including the functional requirements for vehicle connector and the functional requirements for external OBD testing equipment connector. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.7.

Purpose

This subsection incorporates by reference SAE J1978 "OBD II Scan Tool – Equivalent to ISO/DIS 15031-4".

Rationale

This subsection is necessary as it specifies a means of establishing communications between a vehicle's OBD system and an external OBD testing equipment, as well as the conformance criteria and diagnostic services required for the external OBD testing equipment to exercise the services defined in SAE J1979. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.8.

Purpose

This subsection incorporates by reference SAE J1979 "E/E Diagnostic Test Modes".

Rationale

This subsection is necessary as it provides vendors information regarding communication between the vehicle's OBD system and OBD testing equipment, as well as definitions of emissions-related diagnostic services (diagnostic test modes). The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.9.**Purpose**

This subsection incorporates by reference SAE J1979-DA "Digital Annex of E/E Diagnostic Test Modes".

Rationale

This subsection is necessary as it provides definitions for all standardized data items including Parameter Identifiers (PIDs), Test Identifiers (TIDs), OBD Monitor Identifiers (Monitor IDs), Unit and Scaling Identifiers (UASIDs), and InfoType IDs. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.10.**Purpose**

This subsection incorporates by reference ISO 15765-4 "Road Vehicles-Diagnostics Communication over Controller Area Network (DoCAN) - Part 4: Requirements for emission-related systems".

Rationale

This subsection is necessary as it provides vendors information regarding the use of external OBD testing equipment on vehicles using CAN-based OBD systems. The information includes specified requirements to successfully establish, maintain, and terminate communication with the vehicle's CAN. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.11.**Purpose**

This subsection incorporates by reference SAE J1939 Recommended Practice for a Serial Control and Communications Heavy Duty Vehicle Network – Top Level Document".

Rationale

This subsection is necessary as it provides vendors information regarding the SAE J1939 network including definitions of terms and abbreviations which are used among the various SAE J1939 subordinate documents. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.12.**Purpose**

This subsection incorporates by reference SAE J1939-DA "Digital Annex of Serial Control and Communication Heavy Duty Vehicle Network Data".

Rationale

This subsection is necessary as it provides vendors information regarding the SAE J1939 OBD communication protocol including the list of all SPN assignments, PGN assignments, Manufacturer Code assignments, etc. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.13.**Purpose**

This subsection incorporates by reference SAE J1939-3 "On Board Diagnostics Implementation Guide".

Rationale

This subsection is necessary as it provides vendors information regarding the requirements and guidelines associated with the SAE J1939 family of standards. The guidelines identify where the necessary information may be found among the SAE J1939 document set and provides key requirements to ensure the interoperability of OBD scan tools across individual OBD compliant vehicles. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.14.**Purpose**

This subsection incorporates by reference SAE J1939-13 "Off-Board Diagnostic Connector".

Rationale

This subsection is necessary as it provides vendors information regarding characteristics of diagnostic connectors used for off-board connection to a vehicle's SAE J1939 communication links. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.15.**Purpose**

This subsection incorporates by reference SAE J1939-21 "Data Link Layer".

Rationale

This subsection is necessary as it provides vendors information regarding characteristics of data link layer as the means for the reliable transfer of data across the physical link in a CAN-based SAE J1939 OBD system. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.16.**Purpose**

This subsection incorporates by reference SAE J1939-73 "Application Layer – Diagnostics".

Rationale

This subsection is necessary as it defines the SAE J1939 messages to accomplish OBD data collection and identifies the diagnostic connector to be used by the ROBD device in the HD I/M program. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.17.**Purpose**

This subsection incorporates by reference SAE J1939-81 "Network Management".

Rationale

This subsection is necessary as it provides vendors information regarding the processes and messages associated with managing the source addresses of applications communicating on an SAE J1939 network, including the onboard ECU's and external OBD testing devices. The information is necessary to ensure that ROBD

devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.18.

Purpose

This subsection incorporates by reference SAE J3005-1 "Permanently or Semi-Permanently Installed Diagnostic Communication Devices".

Rationale

This subsection is necessary as it provides vendors information regarding the communication best practices to minimize problems associated with connecting OBD equipment to the SAE J1962 connector or hardwire installation directly to the in-vehicle network. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.19.

Purpose

This subsection incorporates by reference SAE J3005-2 "Permanently or Semi-Permanently Installed Diagnostic Communication Devices, Security Guidelines".

Rationale

This subsection is necessary as it provides vendors information regarding the cybersecurity best practices to reduce interference with normal vehicle operation, and to minimize the risk of unauthorized access to the vehicle's control, diagnostic, or data storage system. The information is necessary to ensure that ROBD devices can meet the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Subsection C.20.

Purpose

This subsection incorporates by reference SAE J1979-2 "E/E Diagnostic Test Modes: OBD on UDS".

Rationale

This subsection is necessary as it provides vendors information regarding communication between the vehicle's OBD systems and test equipment required by OBD regulations and defines the latest diagnostic services for OBD on UDS used for emissions OBD. The information is necessary to ensure that ROBD devices can meet

the requirements of the HD I/M program while being compatible with vehicles' OBD systems.

Section D. General device requirements.

Purpose

The purpose of this new section is to specify data collection and device to vehicle communication requirements that all ROBD devices used as part of the HD I/M program must meet.

Rationale

This section is necessary to provide general specifications of ROBD devices for use in the HD I/M program. The specifications in this section establish the framework of a standardized process for ROBD device-vehicle communication and OBD data collection in the HD I/M program, which is further expanded in the following subsections of this part. The need for standardization stems from the use of different OBD system architectures and communication protocols in heavy-duty engines, as well as the broad use of manufacturer and third-party installed telematics devices (e.g., hours of service, fleet management, and/or other types of electronic logging devices (ELD)) in today's heavy-duty vehicles. This section is necessary to provide ROBD device vendors with general guidelines to ensure that all types of ROBD devices developed for use in the HD I/M program can perform the essential tasks needed to meet CARB's requirements. The section will also help ensure ROBD devices used in the HD I/M program are compatible with vehicles' OBD systems and capable of coexisting with other potentially connected telematics and/or OBD devices.

Subsection D.1.

Purpose

This subsection illustrates a requirement to ensure the ROBD device would not interfere with the normal operation of the vehicle and/or any other devices such as fleet management devices and ELDs that may also be in communication with the vehicle's OBD system.

Rationale

This subsection is necessary to ensure that at any time during its communication with the vehicle, the ROBD device would not interfere with or disturb the operation of the vehicle or that of other connected telematics and/or OBD devices. The interference could be in the form of conflicts with different components of vehicle's OBD system including ECUs, and/or external telematics/OBD devices that may be in communication on the same CAN Bus used by the HD I/M ROBD device. In a worst-case scenario, such interferences could disturb the critical communications on the CAN Bus and result in disruption of a vehicle's normal operation. Therefore, this subsection is necessary to ensure that ROBD device vendors take all necessary

measures (e.g., using existing industry guidelines and their best engineering judgment) to prevent their developed ROBD device from causing such communication interferences.

Subsection D.2.

Purpose

This subsection establishes three basic functions that the ROBD device must be capable of performing to be used in the HD I/M program.

Rationale

This subsection is necessary to provide ROBD device vendors with specifications of the key functionalities that any ROBD device in the HD I/M program must at minimum have.

The first major required functionality, as described in subparagraph D.2.1, is the ability of the ROBD device to establish and maintain communication with the vehicle's OBD system and verify that the vehicle conforms with one of the relevant OBD requirements (i.e., CARB or U.S. EPA Heavy-duty OBD, OBD II, or equivalent requirements). The importance of the first requirement in this subsection is that it is in fact the pre-requisite for the other two requirements. In other words, for a ROBD device to collect OBD data from the vehicle and submit it to CARB's electronic reporting system, first, it would need to establish communication with vehicle's OBD system through a process known as "initialization," and verify the OBD data required in the HD I/M program is available to collect from the vehicle. This requirement is further expanded by subsection E.2 in Part II of Appendix B.

Next, as described in subparagraph D.2.2, the ROBD device would need to be capable of collecting from the vehicle all CARB-required OBD data for the HD I/M program. This requirement is important because it establishes a critical functionality of the ROBD device, which is collecting the OBD data necessary to determine the vehicle's compliance with the HD I/M program. Detailed specification of this requirement and the list of required OBD data parameters are in subsections E.3 and E.6 in Part II of Appendix B, respectively.

Lastly, subparagraph D.2.3 is necessary to establish the third key functionality of the ROBD device, which is submitting the collected OBD data from the vehicle to CARB's electronic reporting system securely and in a standardized format. This requirement is important because it stresses the responsibility of the ROBD device vendors to ensure data security in transmitting vehicle's OBD data from the ROBD device. The requirement to submit a vehicle's OBD data in a standardized format is also important because it would result in consistency across data files from different vehicle engine makes/models received from different ROBD devices. This in turn would enable

automated and time-efficient analysis of the submitted data and ensure proper, data-informed verification of vehicle compliance with the HD I/M program. This requirement is further expanded by subsections E.4 and E.5 in Part II of Appendix B.

Subsection D.3.

Purpose

This subsection sets forth a requirement for the ROBD device to ensure that it would restrict communication for data collection only to the identified emissions-related ECUs that support OBD.

Rationale

This subsection is necessary to ensure that following a successful initialization, the ROBD device would restrict communication for data collection (i.e., sending requests for different OBD data parameters) to the already identified emissions-related ECUs that support CARB or U.S. EPA heavy-duty OBD, OBD II, or equivalent requirements. In modern heavy-duty OBD systems, there are typically multiple ECUs in communication with different parts and components of the vehicle, from engine and transmission to the infotainment system, controlling a broad range of functions. Some, if not many of these ECUs support communication related efforts outside the scope of CARB's emissions related data, for example, safety communications. Therefore, this subsection is important because it specifically requires that once the ROBD device has identified the correct ECUs to collect the required data from and confirmed their support of one of the aforementioned OBD requirements, it would then need to send requests for data to those ECUs only, thereby minimizing unnecessary communication on CAN Bus.

Subsection D.4.

Purpose

This subsection specifies that the ROBD device must add a timestamp to each message communicated with the vehicle's OBD system.

Rationale

This subsection is necessary to ensure that the ROBD device adds a timestamp to each sent request and received response from the vehicle's OBD system. The added timestamps would subsequently be used in the CARB's electronic reporting system to calculate the response time for each communicated message between the ROBD device and the vehicle. The calculated response times, along with other characteristic parameters in the vehicle's OBD data submission would be used to establish an expected data submission pattern for the device and vehicle, also commonly referred to as a vehicle's "fingerprint". This fingerprint would be routinely compared with future OBD data submissions from the vehicle to flag for potential anomalies that

might indicate fraudulent activity or tampering that could result from an entity trying to cheat the vehicle inspection requirement. Such detection efforts are critical to minimizing cheating in the program to ensure the emissions benefits expected of the program can be achieved.

Subsection D.5.

Purpose

This subsection sets forth a requirement for the ROBD device to ensure that it can receive and process multiple messages from the vehicle's OBD system at the same time.

Rationale

This subsection is necessary to ensure that the ROBD device can receive multiple response messages from the vehicle's OBD system. This situation could occur when multiple ECUs respond to a global destination request (i.e., a request that is not sent to a specific ECU). Such a global destination request is typically sent by the ROBD device during initialization. It could also occur when an ECU responds to a destination specific request multiple times. Failure of ROBD device to receive multiple response messages under such circumstances could result in inaccurate and/or incomplete collection of OBD data, which could ultimately cause erroneous determination of the vehicle's compliance status.

Subsection D.6.

Purpose

This subsection establishes the number of the OBD protocols that the ROBD device may support to be used in the HD I/M program.

Rationale

This subsection is necessary to ensure that the ROBD device at a minimum supports one of the common heavy-duty OBD communication protocols (i.e., the SAE J1939, SAE J1979, or SAE J1979-2, whichever applicable). This subsection is also important because it specifies that vendors may develop ROBD devices to be single-purpose or multi-purpose. Single-purpose ROBD devices support only one OBD communication protocol and therefore can be used on vehicles that use the same protocol. Multi-purpose ROBD devices on the other hand support more than one OBD communication protocol and therefore can be used on a wider range of vehicle makes/models. Additionally, this subsection provides a guideline to ROBD device vendors regarding support for SAE J1979-2 protocol, which would be required to replace SAE J1979 protocol for all 2027 and subsequent model year engines (implementation would be permitted by engine manufacturers as early as the 2023 model year).

Subsection D.7.

Purpose

This subsection establishes the possibility of developing ROBD devices to be used exclusively on specific engine models or multiple engine models to meet the requirements of the HD I/M program.

Rationale

This subsection is necessary to ensure that the ROBD device at a minimum supports one of the common heavy-duty engine models. This subsection is also important because it specifies that vendors may develop ROBD devices to be used on multiple heavy-duty engine/vehicle models. It is expected that the single engine/vehicle platform could be used more readily by the major heavy-duty engine manufacturers in developing their HD I/M ROBD devices, either independently or in partnership with third-party telematics vendors. On the other hand, devices with the ability to inspect multiple vehicle platforms would be expected of third-party vendors whose ROBD devices are typically designed to be compatible with a broad range of engine makes and models. Therefore, this subsection is important because it provides further clarification regarding the application of engine-specific or non-specific ROBD devices for the HD I/M program.

Subsection D.8.

Purpose

This subsection specifies the device requirement to be functional in standard working and vehicle environments and be resistant to shock, vibration, and environmental exposure.

Rationale

This subsection is necessary to evaluate and ensure the reliability and accuracy of the certified devices under environmental conditions normally encountered in a truck stop, testing facility, repair shop, lab, etc. or when the vehicle is operating in different commonly encountered working conditions.

Subsection D.9.

Purpose

This subsection specifies the device requirement to be tamper-resistant to make sure no alteration or erasure can be made on the data collected.

Rationale

This subsection is necessary to provide confidence, reliability, and accuracy in the submitted OBD data to CARB. If a device is found to have been tampered, an investigation would be performed. Hence, this subsection is needed for enforcement inspections.

Subsection D.10.**Purpose**

The subsection specifies that requirement to affix, engrave, or stamp the device unique serial number that match the device's electronic unique serial number for each certified device.

Rationale

This subsection sets forth the requirement of a device's unique serial number so the user can differentiate it from other devices. Through the device serial number, potential users would have the ability acquire additional certification information about the device and could be used to track devices that may potentially have to go through a decertification process, and/or help identify where a pass/fail OBD data submission came from. CARB staff would also know which device the vehicle owner used when submitting OBD data, which would ensure that all vehicle testing data are coming from a device that CARB certified.

Subsection D.11.**Purpose**

The subsection sets forth the warranty requirements for each device certified to the proposed certification requirements. It specifies the warranty requirements of a minimum of one year for each device that certifies to the proposed certification requirements.

Rationale

This subsection is necessary to ensure that devices are built free of defects and to hold vendors responsible for specific warranty responsibilities. Furthermore, providing a warranty to users provides confidence to the user that they are purchasing a quality product and that they can report any problems or defects to the vendor and have corrective action taken. Establishing a one-year warranty period is consistent with the current warranty periods in the existing CARB certification-related regulations. Further, as provided by stakeholders, at a minimum, one-year warranty period is provided to their customers, thus, CARB staff provided the same warranty period for consistency.

Subsection D.12.

Purpose

The subsection sets forth a requirement for the device to ensure proper and functioning communication with the CARB's electronic reporting system.

Rationale

This subsection is necessary to ensure that devices meet all the specified technical requirements that are essential for successful communication with CARB's electronic reporting system. These requirements apply to different functionalities of the device including data formatting and transmission, data security, etc. Therefore, this requirement is important because it ensures that by establishing proper communication with the CARB's electronic reporting system, devices would be able to provide vehicles' compliance testing data in an accurate and reliable fashion.

Subsection D.13.

Purpose

The subsection specifies that broken devices that no longer meet the requirements specified by CARB and the program contractor may not be used for OBD compliance testing in the HD I/M program.

Rationale

This subsection is necessary to ensure that submission of OBD compliance testing will only be allowed for devices that meet all the requirements specified by the CARB and the HD I/M program contractor. This requirement is important to ensure accuracy and reliability of submitted compliance testing data.

Section E. Specific device requirements.

Purpose

The purpose of this new section is to standardize and specify device requirements for both CC-ROBD and NCC-ROBD devices.

Rationale

This section is necessary to provide guidelines to ROBD device vendors to ensure the successful operation of CC-ROBD and NCC-ROBD devices to meet the requirements of the HD I/M program, and to minimize the risk of connection related problems.

Subsection E.1. Diagnostics connector.

Purpose

The purpose of this subsection is to standardize and specify device requirements for the diagnostics connector.

Rationale

This subsection is necessary to provide guidelines to ROBD device vendors to ensure the successful operation of CC-ROBD and NCC-ROBD devices according to the most current CARB heavy-duty OBD regulations and related industry standards and guidelines such as SAE and ISO. Effective standardization will ensure safe and secure data transfer and protection of data quality in HD I/M program.

Subparagraphs E.1.1, E.1.4, and E.1.6 are to ensure that ROBD devices comply with CAN-based OBD II and heavy-duty OBD system, as specified in ISO15765-4 and SAE J1939, respectively, which also define the use of external equipment for inspection and repair diagnostics. Additionally, subparagraph E.1.1 is also important to ensure that ROBD devices will use communication and cyber-security best practices defined by SAE J3005-1 and SAE J3005-2. This would minimize problems, such as disturbance of the functionalities of vehicle or other external connected devices, and reduce risk of unauthorized access of vehicle's communications networks and diagnostics system.

There are two standardized OBD connectors used in heavy-duty vehicles, as defined by SAE J1962/ISO 15031-3 for vehicles that support OBD II, and by SAE J1939-13 for vehicles supporting heavy-duty OBD requirements. Therefore, subparagraph E.1.2 is necessary to ensure that plug-in multi-purpose ROBD devices (i.e., ROBD devices developed to support more than one set of OBD requirements) will be able to connect to both types of standardized OBD connectors by providing exchangeable connector adapters for ROBD device or other engineering solutions.

Subparagraph E.1.3 is necessary to ensure that if an ROBD device is primarily developed to be installed on a non-standardized OBD connector (e.g., the RP-1226 connector that has been used in recent years mostly to install third-party ELD and fleet management devices), it would also be capable of connecting to and collecting data from the main standardized OBD ports. The importance of this subparagraph is highlighted by the different implementation of non-standardized OBD connectors by vehicle manufacturers, which in some cases limits the amount of data available through these connectors. On the contrary, all HD I/M required OBD parameters are available through the two abovementioned standardized heavy-duty OBD and OBD II connectors.

Subparagraph E.1.5 is necessary to ensure that ROBD devices follow the requirements specified in the CARB Heavy-duty OBD regulation for baud rate. This would mitigate

risk and reduce potential issues caused by any data transmission-related non-compliance. This is specifically because any mismatch between the transfer rates used by vehicle CAN bus and ROBD device can result in vehicle-device communication problems.

Subsection E.2. Communication with the vehicle.

Purpose

The purpose of this subsection is to specify ROBD device requirements for establishing communication with a vehicle's OBD system.

Rationale

This subsection is necessary to provide guidelines to ROBD device vendors to ensure a ROBD device is capable of establishing and maintaining communication with vehicle's OBD system. This subsection will also help ensure ROBD devices can identify the emissions-related ECUs and the supported OBD data parameters on the vehicle prior to collecting the OBD data required in the HD I/M program. There are two major OBD communication protocols used in heavy-duty vehicles: the SAE J1939, and the SAE J1979 (which is required by CARB Heavy-duty OBD regulation to be replaced by the SAE J1979-2 by 2027 model year). Because these protocols have different communication characteristics and different ways of organizing OBD data, separate requirement lists are needed for them to ensure that ROBD devices using these communication protocols will be able to communicate with and collect the required OBD data from vehicles. The requirements in this subsection are necessary to ensure the ROBD device can communicate with the vehicle's OBD system with no or only minimum interference with other vehicle components or external connected devices, to collect all data necessary for the HD I/M program.

Subparagraph E.2.1. SAE J1939 device.

Purpose

The purpose of this subparagraph is to specify the requirements for ROBD devices using the SAE J1939 OBD communication protocol to establish a connection to and communicate with vehicle's OBD system.

Rationale

Subparagraph E.2.1 is necessary to ensure ROBD devices using the SAE J1939 OBD communication protocol can communicate with vehicles that support the same communication protocol system. Additionally, the subparagraph helps to minimize interference with other vehicle components or external connected devices during the communication and collection of the OBD data necessary for the HD I/M program. More specifically, the requirements under this subparagraph specify a range of important characteristics of ROBD devices that

use the SAE J1939 protocol such as device initialization process, request/response, timing of response, verifying vehicle's support of OBD requirements, identifying the supported data, etc. These characteristics are essential for establishing and maintaining a successful communication with a vehicle prior to starting data collection.

Subparagraph E.2.2. SAE J1979 device.

Purpose

The purpose of this subparagraph is to specify the requirements for ROBD devices using the SAE J1979 OBD communication protocol to establish a connection to and communicate with vehicle OBD systems.

Rationale

Subparagraph E.2.2 is necessary to ensure ROBD devices using the SAE J1979 OBD communication protocol can communicate with vehicles that support the same communication protocol system. Additionally, the subparagraph helps to minimize interference with other vehicle components or external connected devices during the communication and collection of the OBD data necessary for the HD I/M program. More specifically, the requirements under this subparagraph specify a range of important characteristics of the ROBD device using the SAE J1979 protocol such as the signaling standards, timing of response, device initialization sequence, verifying vehicle's OBD requirements, identifying the supported data, etc. These characteristics are essential for establishing and maintaining a successful communication with a vehicle prior to starting data collection.

Subparagraph E.2.3. SAE J1979-2 device.

Purpose

The purpose of this subparagraph is to specify the requirements for ROBD devices that will use the SAE J1979-2 OBD communication protocol to establish a connection to and communicate with vehicle OBD systems.

Rationale

Subparagraph E.2.3 is necessary to ensure the ROBD device using the SAE J1979-2 OBD communication protocol can communicate with vehicles that support the same communication protocol system. Additionally, the subparagraph helps to minimize interference with other vehicle components or external connected devices during the communication and collection of the OBD data necessary for the HD I/M program. More specifically, the requirements under this subparagraph specify a range of important characteristics of the ROBD device using the SAE J1979-2 protocol such as the

signaling standards, timing of response, device initialization sequence, verifying vehicle's OBD requirements, identifying the supported data, etc. These characteristics are essential for establishing and maintaining a successful communication with a vehicle prior to starting data collection.

Subparagraph E.2.4.

Purpose

The purpose of this subparagraph is to specify the requirements for ROBD device-vehicle communication when the device is undergoing transient phases in their internal operation.

Rationale

Subparagraph E.2.4 is necessary to ensure that ROBD device-vehicle communication is temporarily paused when the device is undergoing transient phases of operation such as initial internal loading of operating system or firmware/software update. This would minimize the risk of interference with other vehicle components or external connected devices.

Subparagraphs E.2.5. and E.2.6.

Purpose

The purpose of these subparagraphs is to specify the requirements for ROBD devices in the case of failed communication with a vehicle and in the case of a vehicle not supporting the relevant OBD requirements necessary for HD I/M program.

Rationale

All successful OBD data scans require the ROBD device and the vehicle to establish two-way communications. There are a several things that could prevent this from happening, including a malfunction of the ROBD device, a malfunction of the OBD system, or a damaged connector. A universal definition of a resulting "failed communication" is necessary, and it is critical that the device make both the user and CARB aware of such an event. Therefore, subparagraph E.2.5 is necessary because it specifies the actions the ROBD device should take when the vehicle does not respond, or does not respond as expected, to the device. Heavy-duty OBD regulations are currently in effect for vehicles that use the SAE J1939 and SAE J1979 standards. Heavy-duty vehicles include both, and therefore OBD data submission for the HD I/M program must be compliant with either heavy-duty OBD or OBD II. If a vehicle is not, both the ROBD device operator and CARB should be informed. Therefore, subparagraph E.2.6 is necessary because it specifies the actions the ROBD device should take when the vehicle is not compliant with the relevant OBD requirements.

Subsection E.3. Collecting the required OBD data from the vehicle.

Purpose

This subsection provides the requirements for OBD data parameters that must be collected to be used in the HD I/M program, and the intervals at which the required data must be collected by CC-ROBD devices.

Rationale

This subsection is to ensure that all ROBD devices meet OBD data collection requirements in the HD I/M program. More specifically, this subsection explicitly specifies in subparagraph E.3.1, along with Table 4 in subsection E.6 in Part II of Appendix B, the OBD data parameters that ROBD devices must collect from vehicles and submit to CARB in the HD I/M program. Such data is needed to verify vehicle compliance, assess potentially fraudulent activity, and gather information necessary to support CARB programming validation efforts. The specified OBD data is a subset of OBD parameters required by the heavy-duty OBD regulation (Title 13, CCR, Section 1971.1).

This subsection is also important because it provides CC-ROBD device vendors guidance regarding the timing and frequency of OBD data collection. More specifically, the requirement in subparagraph E.3.2 is to ensure that a CC-ROBD device can collect and storing the required OBD data at certain intervals and transmitting them when submitting to the CARB HD I/M reporting system. The requirement for weekly data collection and submitting multiple data logs would lead to better-informed pass/fail decisions, which would benefit the program (particularly, with cases where fraudulent activity is suspected). Vehicle owners would also benefit from this requirement as it would minimize the risk of possible erroneous fail decisions made based on a single OBD submission received from the vehicle, or the risk of failing the test due to a possible technical failure of the ROBD device at the time of data collection and/or submission. Another benefit of submitting multiple data logs for vehicle owners would be providing them multiple chances of passing the OBD test within each data submission window. This requirement is also necessary for program validation purposes and possible future evaluations of modifying testing frequency for some fleets and/or some model year exemptions.

Lastly, the requirement in subparagraph E.3.3 is necessary because it specifies that CC-ROBD must collect data only when the vehicle is stationary with idling engine. This eliminates the risk of the data collection causing a safety hazard if something unexpected happens during the collection of the required data from the vehicle. If something unexpected occurs despite all the preventive measures taken by the vendors during the vehicle/device communication, the vehicle will not be in motion

when such an event occurs. This eliminates any potential safety risks that could have been present if the vehicle were in motion.

Subsection E.4. Formatting the collected OBD data.

Purpose

This subsection establishes the standard format and requirements of the collected OBD data file that must be followed before the file is sent to the HD I/M program.

Rationale

This subsection is to ensure that the collected OBD data files from all ROBD devices and vendor systems are in a standardized format when the files are submitted to CARB's electronic reporting system. The HD I/M program may have many different ROBD devices and vendors participating in the program. When CARB's electronic reporting system receives an OBD data file from any data source, the data will need to be sent in a specific format so the database can automatically read the data submission and process the data correctly. Such processing requires proper data definition analysis, data structure, data transfer protocols, and security control to ensure the data submission would follow data security related requirements.

Subparagraph E.4.1 is to ensure that the data will be in one format and one structure in the data file when CARB's electronic reporting system receives a OBD data file from any data source. Subparagraph E.4.1.1 is to ensure that the data in the data header contains key information about the testing vehicle and the ROBD device. The data header identifies which vehicle was tested and which ROBD device was used to collect the data, both of which are critical to ensure a vehicle has properly demonstrated compliance with the requirements of this regulation. The requirements in subparagraph E.4.1 are crucial for ensuring data storage and organization following the submission of data. Such standardization is necessary to maintain effective storage of incoming data, with over a million data submissions potentially being submitted to the database per year. Subparagraph E.4.1.2 is to ensure that CAN Bus data is required to be kept in its original hexadecimal format in the data file when sending to CARB's electronic reporting system. This is to help program staff understand the data better, ensure data quality and integrity, and reduce the size of the data file. Having data submitted in hexadecimal format would also lead to improved fraud detection relative data being transcribed prior to submission.

Subsection E.5. Transmitting the collected data to the CARB electronic reporting system.

Purpose

This subsection provides the guidance and requirements for the collected OBD data file transmission that must be followed in the HD I/M program.

Rationale

This subsection is to ensure that the required OBD data is collected by CARB-certified and registered ROBD devices. This would help ensure that all collected HD I/M program OBD data files are transmitted to CARB's electronic reporting system through the same secure methodology. It would also help ensure that the ROBD devices meet required standardization requirements for data storage and connectivity.

Subparagraph E.5.1 is to ensure that the OBD testing data will be submitted from authorized ROBD devices that have been approved by CARB to meet the needs and requirements of the regulation. This is critical to ensure that proper testing is performed on the vehicle in question and the test is performed in a secure and standardized fashion.

Subparagraph E.5.2 is to ensure all OBD submissions to CARB's electronic reporting system are made through a centralized databased developed and maintained by the ROBD device vendor. This requirement is critical as it ensures all OBD submissions in the HD I/M program are received from secure sources and in a consistent manner.

Subparagraph E.5.3 is to ensure the OBD data that CARB's electronic reporting system receives is the same as the data as was downloaded from the vehicle. To minimize risks of fraudulent activity, this subsection includes the requirement to encrypt the data prior to sending to CARB's electronic reporting system, which minimizes the risk of data altering and tampering during the transmission.

Subparagraph E.5.4 is to ensure that when the ROBD device is not able to submit OBD files to CARB's electronic reporting system, for example, because there is no internet connection, the ROBD device will have enough internal storage space to store the un-submitted data files. When the device's ability to submit the collected data is restored, unsubmitted data files can then be submitted to CARB's electronic reporting system automatically. This requirement establishes reasonable submission requirements to ensure no data is lost, even if the vehicle travels to an area with no internet.

Subsection E.6. Data fields.

Purpose

This subsection provides detailed information about the required OBD data parameters for different types of ROBD devices in the HD I/M program.

Rationale

This subsection is necessary to provide additional guidelines to ROBD device vendors to ensure ROBD devices collect all required OBD data from a vehicle according to the requirements of the HD I/M program.

Subparagraph E.6.1.

Purpose

This subparagraph provides guidance and detailed information about the required OBD data parameters in the HD I/M program.

Rationale

This subparagraph is to ensure that ROBD device vendors are provided with all the necessary information regarding the required OBD data parameters in the HD I/M program. This includes references to the corresponding sections in CARB Heavy-duty OBD regulation (Title 13, CCR, Section 1971.1) and relevant diagnostic messages in each OBD protocol. While the fault code information listed as item number 4 in Table 4 would be the primary indicator of compliance with the HD I/M program, other required data parameters listed in Table 4 are crucial for detecting fraud and/or tampering. This would be achieved by routinely comparing OBD data submissions from the vehicle with its OBD fingerprint (discussed in subsection D.4) to flag for potential anomalies that might indicate the occurrence of fraudulent activity or tampering.

Part III: Requirements for vendors.

Purpose

This new part establishes the proposed certification requirements that device vendors must meet if they wish to sell ROBD testing devices that qualify as being allowed to determine vehicle compliance within the HD I/M program.

Rationale

This part is necessary to standardize the certification requirements and provide guidance to vendors regarding meeting requirements for devices sold and used as part this proposed regulation. This part would help ensure devices used for vehicle compliance determination are reliable and collect and transmit the required OBD data to CARB's electronic reporting system in a format that the database system can accept. Without a certification process in place, users would not have certainty as to whether the testing devices they use for vehicle testing meet the requirements of the HD I/M program. Also, without such requirements, the program would run the risk of invalid test submissions, which could result in mistrust in the overall program and an inability to verify a vehicle is indeed compliance with the HD I/M program.

Section A. Overview and applicability.

Purpose

The new section specifies that an EO would be provided if a vendor meets the requirements specified in this appendix and that their certification package needs to be accurate. Devices would need to be certified by CARB prior to being used for OBD data submission. Vendors of these devices must submit their certification application following CARB's required specifications to receive an EO.

Rationale

This section is necessary to establish a certification process and ensure that devices are being validated by CARB to meet the program requirements prior to being used for OBD data submission within the program. Without such a requirement, users would not have certainty as to whether the testing devices they use for vehicle testing would meet the requirements of the HD I/M program. Also, without such requirements, the program would run the risk of invalid test submissions, which could result in mistrust in the overall program and an inability to verify whether a vehicle is indeed in compliance with the HD I/M program. This section would also ensure consistent applications are submitted by interested vendors so CARB can make accurate decisions on whether devices meet the requirements of the program and create a level playing field for vendors.

Section B. Submitting a certification application.

Purpose

The new section sets forth the required information, test plan, and documentation for the submission of a device certification for application.

Rationale

This section is necessary to establish the requirements for vendors to submit a device certification application in an effort obtain an EO, so the device can be used as part of the HD I/M program. This section provides guidance to vendors to meet and comply with the device requirements. Such information is necessary to ensure vendors know what they need to do to demonstrate to CARB that devices meet the requirements for this HD I/M program and ensures a level playing field for all potential participating vendors. These requirements also would ensure that CARB has the necessary information to decide as to whether a device meets the requirements of the program.

Subsection B.1.

Purpose

The subsection sets forth the vendor requirement to provide a test plan and obtain approval before conducting initial validation testing.

Rationale

This subsection is necessary to establish the requirements for submitting a test plan detailing the vendor initial validation testing methodology. CARB staff would be able to review the test plan, provide guidance in starting the vendor's certification process, and ensure the vendor plans to follow the certification process correctly. Approval would be needed to ensure that vendors are properly developing and testing a potential device that could eventually be certified and used in the proposed regulation. This would help ensure vendors provide complete information when submitting a certification application, likely resulting in a higher success rate for vendors when submitting certification applications and minimizing the risk of improper testing.

Subsection B.2.**Purpose**

The subsection sets forth the information that must be included in a device certification application and establishes the timeframes as to when potential vendors must submit them to CARB.

Rationale

This subsection is necessary to establish the required information for submitting a device certification application and ensure vendors are following a uniform certification and testing procedure. The information required as part of the certification application is critical to help determine if the devices meet the requirements of the regulation and can effectively be used to determine vehicle compliance. For example, the requirement to ensure all data submitted on the application is complete and accurate is critical for certification staff to be able to make a proper determination as to whether the ROBD device being tested meets the requirements needed for certification. A detailed description of the design of the device is necessary for certification staff to understand how the device works to help make a determination as to whether it meets the needed requirements.

Information such as engine/vehicle makes and models, and OBD protocols the device are applicable for help certification staff determine what verification testing needs to be performed to adequately test and review the device. The information provided on the methods used for testing during vendor initial testing is also needed for CARB staff to perform any necessary reviews of the testing performed by vendors before approving the device. Such efforts could include CARB staff performing additional lab testing and using this vendor submitted information to help match the results submitted by the vendor. These additional device evaluations can help ensure that the device performs as directed.

A detailed proposal and timeline for field testing is needed to ensure vendors know what they need to do in order to demonstrate to CARB that devices meet the field testing requirements. The detailed proposal would also ensure that CARB has the necessary information to make a determination as to whether the vendor meets the field testing requirements. Similarly, information such as the device model and/or device manufacturer is needed to ensure when data is submitted by the device during field testing, the electronic reporting system can properly verify the test device and vendor the information is coming from.

CARB staff established an application collection period that all potential vendors would submit in to ensure that all vendors are on an equal footing regarding the certification process and enable CARB to ensure adequate resources are available to process application packages, but staff decided to provide a reasonable longer collection period than BAR. CARB is requiring an authorized representative to attest and sign the application to ensure staff has a contact that can be reached during the certification review process and to help ensure all submitted information in the vendor certification package is accurate.

Subsection B.3.

Purpose

The subsection sets forth the vendor requirement to provide a warranty statement for each device that certifies to the proposed certification requirements.

Rationale

This subsection is necessary to ensure that purchasers are aware of what warranty comes with the device and so CARB can ensure that vendor devices will meet the required warranty requirements. As stated earlier in Part II, warranty requirements would help ensure original and subsequent purchasers would be covered for any potential defects associated with the manufacturing of the purchased device.

Subsection B.4.

Purpose

The subsection sets forth the requirement for vendors to unconditionally certify that all the devices comply with the requirements specified in the proposed certification regulation.

Rationale

This subsection is necessary to ensure that vendors certify devices that are designed with tamper-resistant components, and future devices built for sale to customers are as described and approved in the certification process and comply with the HD I/M

program requirements. This is important to help ensure that all devices during production continue to be produced in a reliable manner.

Subsection B.5.

Purpose

The subsection sets forth the vendor requirement to inform the users through a written document that the device has been certified for use in the HD I/M program for a period of up to one year until the end of the calendar year, that it must be recertified annually, and may be decertified by CARB at any time if deviations are identified.

Rationale

This subsection is necessary to let the users know that devices must be recertified annually to ensure that devices are continuously in compliance with the certified configuration, remain functional, and work properly as intended. This subsection is also necessary to let users know that devices can be decertified later if the vendor does not meet the obligations required as part of the HD I/M program. This requirement would help ensure users have realistic expectations regards to the devices they purchase and set up the expectation that vendors are required to maintain their products consistent with the HD I/M program requirements even after initial purchase.

Subsection B.6.

Purpose

The subsection establishes the requirement to update the hardware, firmware, and/or software at a set schedule approved by CARB.

Rationale

This subsection is necessary to set forth the need to update the device to continue to conform with the required specifications. Updates are important in continuing compliance with the proposed regulation, addressing issues, and protecting data. These requirements would help ensure devices remain consistent with the device requirements even when updates to the devices may be made in the future.

Subsection B.7.

Purpose

The subsection establishes the requirement to have an agent for service located in the United States for certifying vendors located outside the country.

Rationale

This subsection is necessary to set forth the need for a contact person located in the United States for imported devices or distributed by vendors located outside the country. This person in the U.S. would be the point of contact with CARB. This person would be responsible for device compliance on behalf of the vendor. This requirement is also necessary to ensure CARB staff have someone they can contact within the United States if issues arise during the certification process.

Section C. Testing requirements for certification.

Purpose

The purpose of this new section is to explain the process of testing devices to demonstrate that devices meet the required specifications.

Rationale

This section is necessary to make device vendors aware of the testing requirements that must be completed before devices are allowed to be used for compliance with the HD I/M program. Testing would be completed in phases beginning with initial testing by the vendor, which requires the vendor to ensure the device meets all specifications. Initial testing would be followed by CARB testing to verify the functionality of the device. Finally, field testing would be required to ensure that the device functions as intended in the real world. Each of the phases is designed to establish an effective method to detect failure of the device prior to issuing certification.

Subsection C.1. Vendor initial validation testing.

Purpose

The purpose of this subsection is to specify the testing requirements that device vendors must demonstrate and submit as part of the application for certification.

Rationale

This subsection is necessary to enable device vendors to meet the minimum requirements of the devices prior to submitting a certification application. For a streamlined process, vendors would need to submit results from specific test conditions to verify the functionality of the device. These requirements would ensure that vendors have performed sufficient internal research and development to come up with a solution to meet the program requirements prior to coming to CARB for approval. The testing also would enable the vendor to provide CARB staff with test data to perform initial validation checks on the device to see if it meets the requirements of the program.

Subparagraph C.1.1.

Purpose

This subparagraph specifies that there are multiple test conditions that must be used to prove that the device successfully meets the required specifications.

Rationale

This subparagraph is necessary to make vendors aware that the devices must be tested according to all the applicable test conditions relevant to their certification process. Furthermore, the data submission requirements are necessary to show that the device can communicate with all OBD protocols applicable and is able to retrieve the required data.

The requirement to verify that the device can detect that the engine revolutions per minute is greater than zero and vehicle speed is equal to zero is important because vehicles must be idling to complete a data submission. An idling vehicle allows for all lights on the dashboard to initialize and display only what is necessary. During idle, all sensors and computer systems on the vehicle would be working and would not be under excessive load that may potentially cause a fault.

The requirement to test one vehicle from every OBD protocol group that is applicable to the device and verify that the vehicle is not displaying pending, active, or permanent faults is necessary to verify the most common scenario that a device should be able to detect.

The requirement to test one vehicle from every OBD protocol group applicable to the device and provide submission files when a MIL is on and there are active and pending DTC active in the system is necessary to verify a likely scenario that devices should be able to detect.

The requirement to test one vehicle from every OBD protocol group applicable to the device and provide submission files when a MIL is on and there is a permanent DTC is necessary to verify a likely scenario that devices should be able to detect.

The requirement to test one vehicle from every OBD protocol group applicable to the device and provide submission files when there are no DTCs but at least one monitor is not ready is necessary to verify another scenario that vehicles will commonly have when codes are cleared and/or a battery is disconnected.

The requirement to test one vehicle from every OBD protocol group applicable to the device and provide submission files that display the electronic VIN from

the OBD data that was read from the vehicle is necessary to ensure that the VIN number transmitted comes directly from the vehicle and is not a user-inputted VIN. This would help reduce fraud and ensures the correct vehicle is being tested.

The requirement to test one hybrid vehicle from every OBD protocol group applicable to the device and provide submission files showing that the MIL is off, there are no DTCs, and all monitors are in a ready state is necessary to demonstrate that devices would work properly with hybrid vehicles.

The requirement to test one alternative fuel vehicle from every OBD protocol group applicable to the device and provide submission files showing that the MIL is off, there are no DTCs, and all monitors are in a ready state is necessary to demonstrate that the devices would work properly with alternative fuel vehicles.

The requirement to test one vehicle from every OBD protocol group applicable to the device with the different communication baud rates is important to ensure that the device can communicate with the different variants of communication protocols used by vehicle OBD systems.

The requirement for vendors of CC-ROBD devices to test one vehicle from every OBD protocol group applicable to the device and provide submission files that contain multiple data logs is necessary to verify that devices have enough storage capacity to collect and store test data. Such a requirement is necessary as CC-ROBD devices may not be submitting test results right away to CARBs database system and may need to store them for future submission.

Subparagraph C.1.2.

Purpose

This subparagraph establishes additional data requirements that would have to be included with the test conditions when applying for certification.

Rationale

This subparagraph is necessary so that the data that is submitted to fulfill the test condition requirements could be verified and easily identified. To verify the tests, it is important to know if the device has been tested on a vehicle or a simulator as they can produce varying results. The OBD protocol is required to be listed to be able to ensure that all relevant protocols are tested. The engine and engine family are necessary to be identified to understand how the OBD system functions on those vehicles and if there are unique results for each engine family. There may be additional test data that is relevant and important

to the tests that may also be included to validate the results and explain any potential issues.

Subsection C.2. CARB device verification testing.

Purpose

The purpose of this subsection is to explain that CARB shall test the device prior to issuing a certification to ensure that the device meets all the required specifications.

Rationale

This subsection is necessary to inform vendors that all the data and devices submitted to CARB will be verified and additional tests may be performed to ensure that the device is functioning according to all the requirements. CARB's results should match the data provided by the vendor from their internal testing of the test conditions. This step is necessary so that devices are verified before they can proceed to be used in fleets.

Subparagraph C.2.1.

Purpose

The purpose of this subparagraph is to establish a requirement that the vendor needs to provide production-ready devices so that CARB can perform internal testing.

Rationale

This subparagraph is necessary to ensure that CARB staff has a way of verifying the devices before issuing certification. Requiring production ready devices ensures that CARB staff would be able to test the devices that vendors intend to issue for sale for vehicle compliance tests for the HD I/M program. Two production ready devices are needed to ensure that certification can continue when unexpected issues arise pertaining to device malfunctions and so that another device is available for certification to be completed in a timely manner.

Subparagraph C.2.2.

Purpose

The purpose of this subparagraph is to establish the requirement that the devices provided to CARB must be in a configuration that may be used for testing, with all necessary equipment.

Rationale

This subparagraph is necessary to ensure that CARB staff can perform internal testing of vendor's devices without having to seek out additional equipment.

Furthermore, this requirement ensures that CARB can test the devices that vendors intend to issue for sale to be used during vehicle compliance tests for the HD I/M program.

Subparagraph C.2.3.

Purpose

The purpose of this subparagraph is to explain that the vendor will be issued results from CARB's Device Verification Testing and will be allowed to proceed to the next phase of testing only if passing results are received.

Rationale

This subparagraph is necessary to establish the process that CARB will review must and confirm all vendor lab testing as part of the CARB Device Verification testing before a vendor can move forward to field testing. By requiring that CARB provide approval prior to moving on to the next certification step, it would ensure that devices placed in vehicles would meet minimum operating and certification standards. This requirement also helps set expectations for the vendor community as to when they are allowed to proceed within the certification process.

Subparagraph C.2.4.

Purpose

The purpose of this subparagraph is to inform vendors that if a device is determined to fail CARB Device Verification Testing, all issues must be corrected before being able to proceed to the next phase of testing.

Rationale

This subparagraph is necessary to establish the steps required if a device fails CARB Device Verification Testing. Devices would not be allowed to proceed to the next phase of testing until CARB verifies that they meet all the requirements and functions as required by the specifications.

Subsection C.3. Vendor field testing.

Purpose

The purpose of this subsection is to establish the next phase of testing which would require vendors to test the use of the devices in the real world. The devices must be in the exact configuration that completed CARB Device Verification Testing.

Rationale

This subsection is necessary to ensure that devices are thoroughly tested prior to being deployed for consumer use, to establish the procedure for field testing, and to set forth requirements that must be met during the testing.

Subparagraph C.3.1.

Purpose

The purpose of this subparagraph is to explain the responsibilities and requirements to successfully complete field testing to ensure that the devices can support the wide variety of vehicles that are currently in the marketplace.

Rationale

This subparagraph is necessary to inform that vendors are responsible for completing the field testing and that there are specific requirements for CC-ROBD and NCC-ROBD devices. Field testing is necessary to make sure that devices are capable of testing multiple different vehicles in the real-world environment and potentially discover any issues that should be taken care of prior to certification. It is necessary to include a representative sample of vehicles on the road that the device may be used with to improve the chances of capturing any potential issues with a device's connectivity and communication with a vehicle. Vendors must use a minimum of 10 devices to ensure that manufacturing is established for the product and that the devices are all manufactured with the exact same specifications.

NCC-ROBD devices would need to be tested on a minimum of 100 vehicles and must collect a minimum of 100 OBD data submissions per OBD protocol to ensure that any issues are discovered early prior to the sale of devices to customers. These test volumes were established through discussions with the vendor community to ensure a robust field-testing effort to verify the devices meet the certification requirements, while at the same time, minimizing the potential testing burden on the vendor. A lower volume of testing could result in potential device-vehicle communication issues being missed as it would be difficult to ensure a large enough vehicle population to ensure devices work on all potential vehicle types. However, a larger testing volume could potentially result in larger costs to complete the testing within a significant increase in knowledge as to whether a communication problem potentially exists.

CC-ROBD devices would need to be tested on a minimum of 30 vehicles and must collect at least 100 data submissions to ensure that devices are performing as bench tested by CARB staff. These requirements are slightly adjusted from NCC-ROBD devices to acknowledge that CC-ROBD devices are generally intended to be installed on a single vehicle and remain connected to for longer

periods of time. Therefore, multiple data submissions are allowed from the same vehicle during certification testing to help test the device as it would likely be used in the field. The number of data records to be collected is consistent with the requirements of NCC-ROBD devices to provide a similar robust data set to assess compliance with the device requirements in the field.

CC-ROBD devices designed for a specific vehicle make would require testing on a minimum of 10 vehicles and at least 50 data submissions, a reduction from the 100 data test submissions required for the above device types. This is because a device specific to a single vehicle make would not need to be tested on as many vehicles to meet the representative sample requirements. These devices are made for a specific vehicle make, whereas, other device types above could be used on a much larger variety of vehicle makes and models. It is expected that most OEM vehicle and engine manufacturers would develop certified devices specific to their own vehicle makes, thus, would not need to perform testing on as large of an array of vehicle makes and models.

CARB staff worked with the vendor community to establish a length of time that made sense for completing the field testing requirements. Based on conversations during various workshops and meetings, a period of 90 days was established as a reasonable timeframe to complete the field testing. This length of time would provide the vendor community ample time to complete the testing requirements, while at the same time, would ensure the testing is completed in a reasonable amount of time. This requirement would ensure that devices are certified and get to the open market so fleets and testers would have ROBD devices for vehicle compliance testing as required in this proposed regulation.

Subparagraph C.3.2.

Purpose

The purpose of this subparagraph is to establish the requirement that the data obtained during field testing must be submitted to CARB through an electronic reporting system.

Rationale

This subparagraph is necessary to establish a submission method for all vendors to submit data collected during field testing. This requirement is necessary so that CARB staff could actively monitor results as they come in to ensure that devices are collecting data properly, communicating properly with the database system, and submitting the data in the required format.

Subparagraph C.3.3.

Purpose

The purpose of this subparagraph is to inform the vendor of the responsibility to ensure that the device is successfully communicating with the vehicles during field testing.

Rationale

This subparagraph is necessary to ensure that the device communicates with the vehicles with which it is certified for use. This requirement is important to ensure that the devices not only communicate properly in the lab setting, as during the initial validation testing, but also in the real world, as tested during the field testing portion of the certification process. Without being able to properly communicate with the vehicles the device is certified to, the device could not perform vehicle compliance tests.

Subparagraph C.3.4.

Purpose

The purpose of this subparagraph is to establish a requirement for the connectivity rate that devices must meet.

Rationale

This subparagraph is necessary to ensure that the data communicated from the vehicle to the reporting database would contain the required information to determine the passing submission. Thus, it is critical that devices collect the required data from the vehicle during the compliance inspection and submit all the required data to the database system.

Subparagraph C.3.5.

Purpose

The purpose of this subparagraph is to allow the Executive Officer to adjust the connectivity rate if it becomes necessary.

Rationale

This subparagraph is necessary to handle the situation of connectivity rates being too stringent or too loose and needing to be adjusted. This subparagraph would allow vendors to successfully complete field testing while still maintaining requirements to be able to determine passing and failing results from OBD data. Allowing incremental adjustments by 0.10 percent allows CARB to analyze test results and maintain a close relationship between

the allowable connectivity rate and real-world testing to ensure that as much data as possible is being collected and transmitted.

Subparagraph C.3.6.

Purpose

The purpose of this subparagraph is to explain that during field testing, the device must remain in the exact configuration that completes CARB Device Verification Testing.

Rationale

This subparagraph is necessary so that vendors do not alter the device when there are deficiencies identified during field testing and to allow the device to function as if it were being operated by end users. Furthermore, this would ensure the device that CARB staff has previously looked at and reviewed, is the same device being tested in the field. Without such a requirement, vendors could potentially make modifications that CARB is not aware of, which would hinder the effectiveness of the certification program.

Subparagraph C.3.7.

Purpose

The purpose of this subparagraph is to allow for exemptions in special cases where issues have been identified in specific vehicles during testing and to provide a way for vendors to submit a request to eliminate a vehicle from the field test calculation.

Rationale

This subparagraph is necessary because there may be scenarios that, through no fault of the device itself, result in miscommunication between the device and the vehicle it is connected to or result in the inability to collect the needed data. Such instances where the device is not at fault could be excluded to ensure the device is not being failed out of the certification process for something outside of its control.

Subparagraph C.3.8.

Purpose

The purpose of this subparagraph is to allow the vendor to submit a request to extend the field testing if they are unable to finish in the allotted timeframe. A secondary purpose is to explain the criteria that would be used to determine if the vendor will be granted the extension.

Rationale

This subparagraph is necessary to handle unexpected complications with completing the field testing and provide a way for the vendor to continue testing instead of automatically being required to start the application over. It is expected that field testing be completed in a 90-day timeframe, however, extenuating circumstances may sometimes prevent a vendor from doing so. It is expected that vendors establish a plan to ensure that this testing is completed on time, but by the 60th day, vendors should have a strong indication as to whether they are going to meet these timing requirements. Notifying CARB of delays would allow CARB staff to plan accordingly, assist vendors in completing their testing, and have adequate time to discuss the situation with the vendor and determine if an issue outside the vendor's control contributed to the testing not being completed on time prior to the expiration date. This will help allow both the vendor and CARB staff to make reasonable decisions on next steps and ensure the vendor has the best chance to meet certification requirements before being deemed to have failed the process.

Subparagraph C.3.9.**Purpose**

The purpose of this subparagraph is to explain the process if the device fails to meet the requirements during field testing. A secondary purpose is to allow the Executive Officer to use specified criteria to determine whether the vendor should be allowed to retest the device or if the vendor must resubmit a new certification application.

Rationale

This subparagraph is necessary to allow vendors operating in good faith to make minor corrections to devices and perform a second attempt at field testing instead of requiring all failed devices to restart the certification process from the beginning.

Section D. Post-certification requirements.**Purpose**

The new section specifies the decisions that CARB may make regarding certification of heavy-duty ROBD Devices and issuing of an EO. Additionally, it contains all post-certification requirements.

Rationale

This section is necessary to establish the post-certification requirements including receiving an EO, updating the hardware, firmware, and/or software, and recertifying the devices to

continue to conform with the device specifications. These requirements are necessary to ensure that devices are continuously in compliance with the certified configuration.

Subsection D.1.

Purpose

The subsection specifies the decisions that CARB may make regarding certification and issuing of a device EO that includes indicating the issued date. Device must be recertified annually.

Rationale

This subsection is necessary to establish the length of time for which a certification is valid. This subsection also establishes the requirement to recertify annually so that the device would be approved for continued use to determine vehicle compliance within the HD I/M program. Annual recertification helps ensure devices continually meet the requirements of the regulation throughout their use in the proposed regulation.

Subsection D.2.

Purpose

The subsection establishes the requirement to update the hardware, firmware, and/or software at a set schedule approved by CARB. This subsection also allows for waiving of the approved set schedule by the Executive Officer when applicable for the performance of an emergency update for devices that critically impacts the compliance with the certified configuration.

Rationale

This subsection is necessary to set forth the need to update the device to continue to conform with the required specifications. Updates would be important to enable continued compliance with the proposed regulation, address critical problems, and protect data. These requirements would help ensure devices remain consistent with the device requirements. Requiring updates to be performed on an established schedule with CARB approval would help ensure that changes in devices beyond what was tested during certification could be closely followed by CARB staff to ensure the devices do not deviate from the requirements of the proposed regulation. This would help ensure devices continue to perform vehicle compliance tests properly.

Subsection D.3.

Purpose

The subsection specifies the vendor requirement to let the users know when there are any changes on the device.

Rationale

This subsection is necessary to ensure users are informed of the latest status of their device. This subsection would ensure that only certified, registered, and activated devices would be used to determine vehicle compliance within the HD I/M program, thereby helping ensure vehicle compliance tests are performed properly with up-to-date devices.

Subsection D.4.**Purpose**

The subsection sets forth the requirements to resubmit a certification application for any changes that modify the device's certified configuration.

Rationale

This subsection is necessary to establish the requirement for resubmitting a certification application for any changes that modify the device's certified configuration. Maintaining a device in a certified configuration is necessary to remain functional and work properly as intended. The resubmission of a certification application would ensure that CARB staff can review the device and validate that it is still operating in a certified configuration. This would ensure vehicle compliance tests continue to be performed properly.

Section E. Reporting and recordkeeping requirements.**Purpose**

The new section sets forth the device reporting and recordkeeping requirements for device certification.

Rationale

This section is necessary to keep CARB informed regarding which devices are allowed to submit OBD data for compliance with the HD I/M program. This section is also necessary to ensure records are readily available for recall, audit, investigation, and enforcement of the proposed regulation.

Subsection E.1.**Purpose**

The subsection sets forth the requirements to report certified devices to CARB's electronic reporting system and keep the information up to date.

Rationale

This subsection is necessary to ensure the vendor reports certified devices to CARB. These reporting requirements would keep CARB staff informed regarding which

devices are allowed to perform vehicle compliance testing. The requirements would also help provide testing statuses and information related to the regulatory requirements for each device. The device reporting also would provide CARB with information that could help in future situations related to device or program evaluation, investigations, and audits.

Subsection E.2.

Purpose

The subsection sets forth the requirements to organize and maintain certification-related documents. This subsection also lists what documents must be maintained and organized by the vendor.

Rationale

This subsection is necessary to ensure a list of required documents would be maintained and organized by the vendor and made readily available at CARB request for recall, audit, and other types of investigations, related to the proposed regulation. These requirements would enhance CARB staff's enforcement capabilities to help ensure vendors develop devices that are performing as expected.

Subsection E.3.

Purpose

The subsection establishes a timeline after CARB issues the EO during which vendors must organize and keep certification related records for all devices manufactured, sold, and used for testing on vehicles subject to the proposed regulation.

Rationale

This subsection is necessary to ensure records are readily available for recall, audit, investigation, and enforcement of the proposed regulation. The timeframe, which is consistent with the proposed HD I/M recordkeeping requirements, required would provide enough of a document history to ensure CARB staff could conduct adequate enforcement investigations related to the proposed regulation if need be.

Subsection E.4.

Purpose

The subsection establishes the requirement that the records must be stored and readily sent to the Executive Officer if requested within the specified timeframe. The records must be written in English and must have the same format and be organized like the submitted application.

Rationale

This subsection is necessary to ensure records would be readily available for recall, audit, investigation, and enforcement of the proposed regulation. This requirement would ensure the vendor has adequate time to collect and send the required data, yet at the same time, CARB could conduct any needed enforcement investigations in a reasonable timeframe. The timeframe is consistent with the proposed HD I/M recordkeeping requirements.

Section F. Recertifying annually.**Purpose**

The new section sets forth the requirements for annual device recertification.

Rationale

This section is necessary to establish the requirements for submitting a device recertification application to obtain an EO good for another year. Recertifying annually is necessary to ensure that devices are continuously in compliance with the certified configuration, remain functional, and work properly as intended. It also would help ensure that vendors have strong incentive to continue to meet the requirements of the regulation even after they have sold the device to the original purchaser.

Subsection F.1.**Purpose**

The subsection specifies the requirement for submitting a device recertification application to obtain an EO good for another year, provided the device continues to meet the requirements. A device would not be recertified if it does not continue to meet the requirements and the vendor would need to address the issues to obtain another EO prior to the device being used for compliance purposes with this proposed regulation again.

Rationale

This subsection is necessary to establish the requirements for submitting a device recertification application to obtain an EO good for another year. Recertifying annually would be necessary to ensure that devices are continuously in compliance with the certified configuration, remain functional, and work properly as intended. This subsection is also necessary to specify that device could not be recertified if it does not continue to meet the requirements. Thus, it provides strong incentive to vendors to continue to meet the requirements of the regulation even after they have sold the device to the original purchaser.

Section G. Decertifying devices.

Purpose

The new section sets forth the process to decertify devices. All decertified devices by CARB would be considered noncompliant and shall no longer be used in the program for compliance determination purposes.

Rationale

This section is necessary to establish the process in decertifying devices if CARB finds that a certified vendor fails to furnish or install required software updates to the device or fails to meet the specifications and requirements. The section also ensures that all decertified devices shall no longer be used for compliance. After addressing the device deficiencies, the vendor could resubmit a new certification package to the Executive Officer and restart the certification process. Establishing a process to decertify devices that are not meeting the requirements of the regulation would ensure that vehicle compliance tests are performed properly and readily identify emissions control issues when present.

Section H. Other provisions.

Purpose

The new section specifies the consequences for not complying with the provision requirements for device vendors, including failing to submit and/or providing false information, reports, or statements.

Rationale

This section is necessary to ensure that a citation and/or decertification is given to the vendor who failed to submit requirements and/or provided false information. These provisions also would ensure that submission of all required information is complete, true, and accurate.

Subsection H.1.

Purpose

The subsection specifies the consequences for device vendors if they fail to comply with the provision requirements or fail to submit information, reports, or statements.

Rationale

This subsection is necessary to ensure that a citation and/or decertification would be given to a vendor who fails to submit requirements. This subsection would help ensure that submission of all required information is complete.

Subsection H.2.

Purpose

The subsection specifies the consequences for providing false information in any application, report, statement, or other document filed, maintained, or used for the purposes of compliance with this proposed regulation.

Rationale

This subsection is necessary to ensure that a citation and/or decertification would be given to a vendor who provides false information for compliance with the proposed regulation. This subsection would help ensure that submission of all required information is true and accurate.