## APPENDIX A

## FINAL REGULATION ORDER

# AMENDMENTS TO THE HEAVY-DUTY VEHICLE INSPECTION PROGRAM AND THE PERIODIC SMOKE INSPECTION PROGRAM

Section Number	Section Name
Section 2180.1	Definitions (Final Amendments)
Section 2181	Responsibilities of the Driver and Inspector During the Inspection Procedure (Final Amendments)
Section 2182	Heavy-Duty Vehicle Smoke Opacity Standards and Test Procedures; Excessive Smoke (Final Amendments)
Section 2183	Inspection of the Emission Control System on a Heavy Duty Vehicle <i>(Final Amendments)</i>
Section 2185	Civil Penalty Schedule (Final Amendments)
Section 2186	Demonstration of Correction and Post-Repair Test or Inspection (Final Amendments)
Section 2187	Vehicles Removed from Service (Final Amendments)
Section 2190	Vehicles Subject to the Periodic Smoke Inspection Requirements <i>(Final Amendments)</i>
Section 2191	Definitions (Final Amendments)
Section 2192	Vehicle Inspection Responsibilities (Final Amendments)
Section 2193	Smoke Opacity Standards, Inspection Intervals, and Test Procedures <i>(Final Amendments)</i>
Section 2194	Record Keeping Requirements (Final Amendments)

**Note:** The Air Resources Board (ARB) is providing the following version of the HD HDVIP and PSIP regulations, sections 2180.1 - 2187 of title 13, California Code of Regulations, as approved by OAL on May 8, 2019. This document does not indicate additions or deletions from previous versions of the regulatory text (i.e., no strikeouts or underlines), and **does not constitute an official version of the regulation. The official version of the regulation is** *Barclays Official California Code of Regulations* **and can be obtained at www.oal.ca.gov.** 

TITLE 13. MOTOR VEHICLES DIVISION
3. CALIFORNIA AIR RESOURCES BOARD
CHAPTER 3.5 HEAVY-DUTY DIESEL SMOKE EMISSION TESTING, AND
HEAVY-DUTY VEHICLE EMISSION CONTROL SYSTEM INSPECTIONS

Amend section 2180.1, 2181, 2182, 2183, 2185, 2186, and 2187, title 13, California Code of Regulations.

§ 2180.1. Definitions.

- (a) The definitions of this section supplement and are governed by the definitions set forth in Chapter 2 (commencing with section 39010), Part 1, Division 26 of the Health and Safety Code. The following definitions shall govern the provisions of this chapter.
- (1) "Authorized dealer" means a group of independent service and repair facilities that are recognized by the motor vehicle or engine manufacturer as being capable of performing repairs to factory specifications; including warranty repair work.
- (2) "CARB post-repair inspection" means a repeat emission control system inspection, conducted by the California Air Resources Board at a California Air Resources Board-specified site, for the purpose of clearing a Citation issued under section 2185(a)(1)(C).
- (3) "CARB post-repair test" means a repeat test, conducted by the California Air Resources Board at a California Air Resources Board-specified site, for the purpose of clearing a Citation issued under section 2185(a)(1)(C).
- (4) "Basic penalty" means the civil penalty of (\$500) for a test procedure or emission control system inspection violation that is to be deposited in the Vehicle Inspection and Repair Fund.
- (5) "Citation" means a legal notice issued by the California Air Resources Board to the owner of a heavy-duty vehicle requiring the owner to repair the vehicle, to submit a demonstration of correction, and to pay a civil penalty.
- (6) "Day" means calendar day.

- (7) "Defective" means a condition in which an emission control system or an emission control system component is malfunctioning due to age, wear, malmaintenance, improper installation, or design defects.
- (8) "Demonstration of correction" means the documents identified in section 2186.
- (9) "Driver" has the same meaning as defined in California Vehicle Code section 305.
- (10) "Emission control label (ECL)" means the label required by the "California Motor Vehicle Emission Control Label Specifications", incorporated by reference in 13 CCR, section 1965, or Title 40, Code of Federal Regulations (CFR), Part 86, Subpart A.
- (11) "Emission control system" means the pollution control components on an engine at the time its engine family is certified, including, but not limited to, the emission control label.
- (12) "Engine control module (ECM)" means the computer system responsible for providing fuel to the engine and controlling a vehicle's emissions.
- (13) "Engine manufacturer diagnostic (EMD) system" means any system certified to meet the requirements of title 13, California Code of Regulations, section 1971.
- (14) "Executive Officer" means the Executive Officer of the California Air Resources Board or his or her designee.
- (15) "Federal emission standards" means the emission standards adopted by the U.S. Environmental Protection Agency, pursuant to Title 42 United States Code, section 7521(a), that are required to be met for the certification of heavy-duty vehicles or engines.
- (16) "Fleet" means two (2) or more heavy-duty vehicles.
- (17) "Heavy-duty commercial vehicle" means a "motor truck" designed, used, or maintained primarily for the transportation of property, as defined in section 410 of the California Vehicle Code, and having a gross vehicle weight rating (GVWR) greater than 10,000 pounds.
- (18) "Heavy-duty vehicle" means a motor vehicle having a manufacturer's maximum gross vehicle weight rating (GVWR) greater than 6,000 pounds, except passenger cars.
- (19) "Implement of husbandry" is a vehicle used exclusively in the conduct of agricultural operations, including vehicles described in California Vehicle Code sections 36000, 36005, and 36015.
- (20) "Inspection procedure" means the test procedure specified in section 2182 and

the emission control system inspection specified in section 2183.

- (21) "Inspection site" means an area including a random roadside location, a weigh station, or a fleet facility used for conducting the heavy-duty vehicle test procedure, emission control system inspection, or both.
- (22) "Inspector" means a California Air Resources Board employee with the duty of enforcing Health and Safety Code sections 43701(a) and 44011.6 and title 13, CCR sections 2180 through 2194.
- (23) "Interrogation" refers to a thorough examination of any and all relevant digital records for the purposes of the inspection.
- (24) "Issuance" means the act of mailing or personally delivering a Citation or Notice of Violation to the owner.
- (25) "Minimum penalty" means the (\$300) penalty that is to be deposited in the Diesel Emission Reduction Fund pursuant to Health and Safety Code section 44011.6(I).
- (26) "Notice of Violation" means a legal notice issued to the owner of a heavy-duty vehicle powered by a diesel engine with a measured smoke opacity exceeding the applicable opacity standard, requiring the owner to repair the vehicle and submit a demonstration of correction.
- (27) "Officer" means a uniformed member of the Department of the California Highway Patrol.
- (28) On Board Diagnostics (OBD) means any system certified to meet the requirements of title 13, California Code of Regulations, sections 1968.1, 1968.2, 1971.1, or future OBD requirements adopted by the California Air Resources Board.
- (29) "Opacity" means the percentage of light obstructed from passage through an exhaust smoke plume.
- (30) "Owner" means either (A) the person registered as the owner of a vehicle by the California Department of Motor Vehicles (DMV), or its equivalent in another state, province, or country; or (B) a person shown by the registered owner to be legally responsible for the vehicle's maintenance. The person identified as the owner on the registration document carried on the vehicle at the time a Citation is issued shall be deemed the owner unless that person demonstrates that another person is the owner of the vehicle.
- (31) "Payment" means a financial transaction intended as a recompense or restitution by bank check, money order, electronic bank transfer or credit card.
- (32) "Removal from service" means the towing and storage of a vehicle under

California Vehicle Code section 27159 and under the auspices of the Department of the California Highway Patrol.

- (33) "Repair facility" means any place where heavy-duty vehicles are repaired, rebuilt, reconditioned, or in any way maintained for the public at a charge, and fleet maintenance facilities.
- (34) "SAE J1667" means Society of Automotive Engineers (SAE) Recommended Practice SAE J1667 "Snap-Acceleration Smoke Test Procedure for Heavy-Duty Diesel Powered Vehicles," as issued February 1996 ("1996-02"), which is incorporated herein by reference.
- (35) "Schoolbus" means the same as defined in California Vehicle Code section 545.
- (36) "Smokemeter" means a detection device used to measure the opacity of smoke in percent opacity.
- (37) "Specialty farm vehicle" means a vehicle exempted from DMV registration under California Vehicle Code section 36101 or 36102.
- (38) "Tampered" means missing, modified, or disconnected, or, as it applies to emission control labels, permanently obscured.
- (39) "Test procedures," for the purpose of chapter 3.5, means the test procedures set forth in SAE J1667.
- (40) "Uncleared Citation" means a Citation for which demonstration of correction and, if required, payment of any civil penalty has not been made.
- (41) "Verified Diesel Emissions Control Strategy (VDECS)" means a verified diesel emission control strategy or system that has received approval from the Executive Officer according to the "Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines" in title 13, California Code of Regulations, commencing with section 2700. Level 2 VDECS means the strategy reduces engine diesel particulate matter emissions by between 50 and 84 percent. Level 3 VDECS means the strategy reduces engine particulate matter emissions by 85 percent or greater, or reduces engine emissions to less than or equal to 0.01 grams diesel particulate matter per brake horsepower-hour.

Note: Authority cited: Sections 39600, 39601, 43013, 43701 and 44011.6, Health and Safety Code; Section 312, Corporations Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43018, 43701 and 44011.6, Health and Safety Code; Sections 410 and 505, Vehicle Code; title 42 United States Code, section 7521(a); and title 40, Code of Federal Regulations Part 86, Subpart A.

- § 2181. Responsibilities of the Driver and Inspector during the Inspection Procedure.
- (a) Driver of heavy-duty diesel-powered vehicle. The driver of a heavy-duty diesel-powered vehicle selected to undergo the inspection procedure shall do all of the following:
- (1) Drive the vehicle to the inspection site upon direction of an officer.
- (2) Show proof of driver's license and vehicle registration to the inspector or officer upon request.
- (3) Perform the test procedure upon request by an inspector.
- (4) Open the vehicle door so that the inspector can observe the driver depress the accelerator pedal.
- (5) Permit an emission control system inspection and open the hood of the vehicle upon the request of the inspector.
- (6) As applicable, sign the Citation or Notice of Violation to acknowledge its receipt and sign the smoke test report to acknowledge performance of the test procedure.
- (b) Driver of heavy-duty gasoline-powered vehicle. The driver of a heavy-duty gasoline-powered vehicle selected to undergo the inspection shall do all of the following:
- (1) Drive the vehicle to the inspection site upon direction of an officer.
- (2) Show proof of driver's license and vehicle registration to the inspector or officer upon request.
- (3) Permit an emission control system inspection and open the hood of the vehicle upon request of the inspector.
- (4) As applicable, sign the Citation or Notice of Violation to acknowledge its receipt.
- (c) Inspector. The inspector in performing the inspection procedures shall do all of the following:
- (1) Advise the driver that refusal to submit to the inspection procedure is a violation of these regulations.
- (2) Obtain engine identification information from the vehicle when tested pursuant to section 2182 to determine which opacity standard specified in section 2182 applies.

- (3) Except as otherwise provided in section 2181(c)(4), issue a Citation to the driver of a vehicle that fails the applicable opacity standard as specified in section 2182, the emission control system inspection or is missing an emission control label.
- (4) For the first 6 months from the effective date of the amended regulation, issue a Notice of Violation to the driver of a vehicle that fails the applicable smoke opacity standard as specified in section 2182(a). If the same vehicle has already been issued a Notice of Violation for failing the applicable smoke standard in section 2182(a) subsequent to the effective date of the amended regulation, issue a Citation. This provision sunsets six (6) months from July 1, 2019.

Note: Authority cited: Sections 39600, 39601, 43013, 43701 and 44011.6, Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43018, 43701 and 44011.6, Health and Safety Code; and Sections 260 and 305, Vehicle Code.

- § 2182. Heavy-Duty Diesel Vehicle Smoke Opacity Standards and Test Procedures; Excessive Smoke.
- (a) Standards. All heavy-duty vehicles operating within the State of California, when tested in accordance with the test procedures specified in section 2182(b), shall not exceed a smoke opacity percentage of:
  - 1. 5% for any heavy-duty vehicle powered by a 2007 or subsequent model-year diesel engine.
  - 5% for any heavy-duty vehicle required to be equipped or retrofitted with a Level 3 VDECS, regardless of its diesel engine model-year.
  - 3. 20% for any heavy-duty vehicle equipped or retrofitted with a Level 2 VDECS, regardless of its diesel engine model-year.
  - 4. 20% for any heavy-duty vehicle powered by a 1997 to 2006 model-year diesel engine.
  - 5. 30% for any heavy-duty vehicle powered by a 1991 to 1996 model-year diesel engine.
  - 6. 40% for any heavy-duty vehicle powered by a pre-1991 model-year diesel engine.
  - 7. 40% for any heavy-duty two-engine crane that has been reported to CARB per title 13 section 2449(g) and that is powered by an off-road propulsion engine without a diesel particulate filter.

Test Procedures: The test procedures set forth in Society of Automotive Engineers (SAE) Recommended Practice J1667 "Snap-Acceleration Smoke Test Procedure for Heavy-Duty Diesel Powered Vehicles," as issued February 1996 ("1996-02"), which is incorporated herein by reference.

- (c) Effect of missing emission control label on applicable standard. When the owner of a heavy-duty diesel-powered vehicle receives a Citation from the CARB that the emission control label was missing during an inspection, the owner must replace the emission control label and provide the engine number identification to the CARB within 45 days of receipt of the Citation in addition to paying applicable penalties under section 2185(a)(3). If the owner fails to comply with this requirement, it will be conclusively presumed in any subsequent smoke opacity test where the emission control label remains missing that the vehicle is subject to the 5 percent smoke opacity standard in section 2182(a)(1), (2).
- (d) Excessive Smoke. A heavy-duty vehicle has excessive smoke, as that term is used in the California Health and Safety Code section 44011.6, if it fails to comply with the applicable smoke opacity standard under section 2182(a).
- (e) Tactical military vehicles, as described in title 13, CCR, section 1905, are exempt from the requirements of this chapter.

Note: Authority cited: Sections 39600, 39601, 43013, 43701 and 44011.6, Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43018, 43701 and 44011.6, Health and Safety Code.

- § 2183. Inspection of the Emission Control System on a Heavy-Duty Vehicle.
- (a) Heavy-duty diesel-powered vehicles. No heavy-duty diesel-powered vehicle shall operate in California with tampered, inadequately maintained, or defective emission control components. The CARB shall conduct a visual inspection of heavy-duty diesel-powered vehicles to determine whether emission control components have been tampered with, inadequately maintained, or are defective. The inspection shall include, but is not limited to, the following:
- (1) The engine governor.
- (2) Any seals or covers protecting the air-fuel ratio adjustments.
- (3) Any fuel injection pump seals and covers.
- (4) The air cleaner and flow restriction indicator.

- (5) The exhaust gas recirculation valve.
- (6) The particulate matter trap system or catalytic converter system, including all related sensors, actuators, and monitors.
- (7) Related hoses, connectors, brackets, and hardware for these components.
- (8) Engine computer controls, related sensors, and actuators.
- (9) Emission control label (ECL).
- (10) Any other emissions-related components for a particular vehicle/engine as determined from the manufacturer's specifications, emission control label, certification data, or published vehicle parts manuals.
- (11) An interrogation or visual inspection of a malfunction indicator light (MIL) of the on-board diagnostics (OBD) system, engine manufacturer diagnostic system (EMD), or emission control module (ECM) system, where applicable.
- (b) Heavy-duty gasoline-powered vehicles. No heavy-duty gasoline-powered vehicle shall operate in California with tampered or defective emission control components. The CARB shall conduct a visual inspection of heavy-duty gasoline-powered vehicles to determine whether emission control components have been tampered with or are defective. The inspection shall include, but is not limited to, the following:
- (1) The air injection system.
- (2) The positive crankcase ventilation system.
- (3) The exhaust gas recirculation system.
- (4) The catalytic converter, including pipes and valves.
- (5) The evaporative emission control system.
- (6) Related hoses, connectors, brackets, and hardware for these components.
- (7) Engine computer controls, related sensors, and actuators.
- (8) On-Board Diagnostic (OBD) systems for 1994 and subsequent model year vehicles, if so equipped.
- (9) Emission control label (ECL).
- (10) Any other emissions-related component for a particular vehicle/engine as

determined from the manufacturer's specifications, emission control label, certification data, or published vehicle parts manuals.

- (11) An interrogation or visual inspection of a malfunction indicator light (MIL) of the on-board diagnostics (OBD) system.
- (c) No 1974 or newer diesel powered heavy-duty commercial vehicle shall operate in California without evidence that, at the time of manufacture, the installed engine met emission standards at least as stringent as applicable federal emission standards for the model year of the engine. The CARB shall base its determination on whether an engine meets the above requirements by inspecting the emission control label (ECL) affixed to the vehicle's engine.

Note: Authority cited: Sections 39600, 39601, 43013, 43701 and 44011.6, Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43018, 43701 and 44011.6, Health and Safety Code.

- § 2185. Civil Penalty Schedule.
- (a) The owner of a heavy-duty vehicle that fails the test procedure or the emission controls system inspection, including by refusal to submit, is subject to the following penalty schedule:
- (1) Heavy-Duty Vehicle Opacity and Tampering Penalties for Violating Sections 2182 and 2183(a) and (b), Except for Violations Involving a Tampered ECL.
- (A) Except as provided below, the owner of a heavy-duty vehicle, that is cited for the first time pursuant to section 2182 or 2183 (a) and (b), other than for a tampered ECL, and for which demonstration of correction is provided and payment is made within 45 days from personal or certified mail receipt of the Citation, shall pay the minimum penalty of \$300. An owner who fails to correct the vehicle or pay the minimum penalty within 45 days of receipt of the Citation shall be assessed a penalty of \$800.
- (B) The above penalty shall not apply to the first Citation received by an owner of a school bus, but the owner shall be subject to the penalty provisions of paragraphs 2185(a)(1)(A) and (C) respectively for second and any subsequent violations. A second violation shall be subject to the penalty in section 2185(a)(1)(A) and any subsequent violations shall be subject to the penalty in section 2185(a)(1)(C).
- (C) The owner of a vehicle that is cited pursuant to section 2182 or 2183(a) and (b), other than for a tampered ECL, for a second time within a 12 month period for the same vehicle shall within 45 days from personal or certified mail receipt of the current Citation provide demonstration of correction and pay the penalty of \$1,500 and the minimum penalty of \$300 for a total of \$1,800, notwithstanding section 2185(b).

- (D) The owner of an implement of husbandry or specialty farm vehicle cited pursuant to section 2182 or 2183(a) and (b), other than for a tampered ECL, shall have 90 days from personal or certified mail receipt of the Citation to provide a demonstration of correction and is otherwise subject to the same penalty structure as all other heavy-duty vehicles as specified under section 2185(a)(1)(A) and section 2185(a)(1)(C).
- (2) Penalties for a Tampered ECL under section 2183. The owner of a vehicle with a tampered ECL shall receive a Citation assessing the owner a \$300 penalty. The penalty shall only be waived if, at the time of inspection, the owner provides other documentation from the engine manufacturer or an authorized dealer that demonstrates compliance with section 2183(c), and provided the ECL is replaced within 45 days. The documentation shall identify the engine by serial number.
- (3) Penalties for Violations of Section 2183(c). The owner of a heavy-duty commercial vehicle that is cited for a violation of section 2183(c) shall be subject to the following penalties:
- (A) The owner shall be subject to a penalty of \$500 for each violation.
- (B) For the purposes of section 2185(a)(3), it shall be presumed that a heavy-duty commercial vehicle with a tampered ECL is not in compliance with section 2183(c) and is subject to a \$500 penalty for each violation in addition to the penalties provided for under section 2185(a)(2). If the owner demonstrates to CARB that a new ECL has been affixed to the vehicle's engine within 45-days of receipt of the Citation, pursuant to section 2186(a)(3) below, and the ECL demonstrates that the vehicle's engine was designed to at least meet U.S. EPA promulgated emission standards for the year of the engine's manufacture, the penalty for violation of section 2183(c) shall be waived.
- (b) When a heavy-duty vehicle is cited after a bona fide change of ownership between non-related persons or entities, the new owner shall not be subject to the penalty schedule in section 2185(a)(1)(A) and (C) if the only Citations issued for the vehicle within the previous 12 months were issued prior to the change of ownership to the new owner.

Note: Authority cited: Sections 39600, 39601, 43013, 43016, 43701 and 44011.6, Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43016, 43018, 43701 and 44011.6, Health and Safety Code. Sections 305, 505 and 545, Vehicle Code.

- § 2186. Demonstration of Correction and Post-Repair Test or Inspection.
- (a) Demonstration of Correction. The owner must demonstrate correction of the vehicle by submitting to the California Air Resources Board documents demonstrating compliance with (1) or (2) or (3):

- (1) Where repairs are made at a repair facility, a repair receipt or a completed work order which contains the following information:
- (A) Name, address, and phone number of the facility.
- (B) Name of mechanic.
- (C) Date of the repair.
- (D) Description of component replacement(s), repair(s), and/or adjustment(s).
- (E) Itemized list of replaced component(s), including description of part, part number, and cost.
- (2) Where the owner makes his or her own repairs outside of a repair facility.
- (A) An itemized receipt for the parts used in the repair.
- (B) A statement identifying the date and nature of the repairs made.
- (3) The owner of the heavy-duty vehicle who has received a Citation for a tampered ECL shall:
- (A) Have the engine manufacturer through its authorized dealer, affix an emission control label identical to the label that was installed on the engine at the time of its original manufacturer.
- (B) Provide written verification from the heavy-duty vehicle/engine manufacturer or its authorized dealer that the label has been replaced. The written verification must include identification of the engine serial number.
- (b) Statement of Correction. The owner must also submit to the California Air Resources Board documents demonstrating compliance with (1) or (2):
- (1) If the Citation or Notice of Violation was based on a failure to meet the opacity standard applicable under section 2182, a smoke test report from a subsequent test showing that the repaired vehicle passed the applicable section 2182 standard along with a statement to that effect made under penalty of perjury by the person who conducted the subsequent test.
- (A) The person performing the smoke test in section 2186(b)(1) is required to be a trained smoke tester as defined in section 2191(a)(8).
- (2) If the Citation or Notice of Violation was based on a failure to pass an emission control system inspection as specified in section 2183, a statement by a person,

under penalty of perjury, that the person has reinspected any components identified in the Citation or Notice of Violation as defective or tampered and has determined that these components are correct, are installed, and are in good working order.

- (c) The California Air Resources Board shall require a CARB post-repair test or a CARB post-repair inspection whenever:
- (1) A submitted repair receipt or work order does not comply with (a) above.
- (2) A repair receipt, work order or authorized dealer verification appears to be falsified.
- (3) A second and subsequent failures of the test procedure or an emission control system inspection on the vehicle occur within a one year period.

Note: Authority cited: Sections 39600, 39601, 43013, 43701 and 44011.6, Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43018, 43701 and 44011.6, Health and Safety Code. Section 505, Vehicle Code.

- § 2187. Vehicles Removed from Service.
- (a) Vehicles are subject to removal from service by the Department of the California Highway Patrol pursuant to California Vehicle Code section 27159 if requested by the California Air Resources Board inspector, and if one or more uncleared Citations issued under section 2182 exist at the time of inspection.
- (b) Upon payment of all unpaid penalties for a vehicle that has been removed from service, the California Air Resources Board shall provide the owner, or designee, a release form for presentation to the Department of the California Highway Patrol.
- (c) The release of the vehicle shall be subject to the condition that it be repaired and post- repair tested or inspected within 15 days.

Note: Authority cited: Sections 39600, 39601, 43013 and 44011.6, Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43013, 43018 and 44011.6, Health and Safety Code. Section 505, Vehicle Code.

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# TITLE 13. MOTOR VEHICLES DIVISION 3. AIR RESOURCES BOARD CHAPTER 3.6. PERIODIC SMOKE INSPECTIONS OF HEAVY-DUTY DIESEL-POWERED VEHICLES

Amend section 2190, 2191, 2192, 2193, and 2194, title 13, California Code of Regulations.

§ 2190. Vehicles Subject to the Periodic Smoke Inspection Requirements.

These regulations shall be applicable as follows:

- (a) Except as provided in subsection (b), the requirements of this chapter apply to all heavy-duty diesel-powered vehicles with gross vehicle weight ratings greater than 6,000 pounds that operate on the streets or highways within the State of California and diesel vehicles 1998 model year and newer with gross vehicle weight ratings of greater than 6,000 pounds to 14,000 pounds that are registered in areas of California not designated for the biennial smog check program.
- (b) Exemptions. The following vehicles are exempt from the requirements of this chapter:
- (1) Heavy-duty diesel-powered vehicles that are not part of a fleet or are employed exclusively for personal use.
- (2) Heavy-duty diesel-powered vehicles that are registered under the International Registration Plan as authorized by Article 4 (commencing with section 8050), Chapter 4, Division 3 of the California Vehicle Code and that have established a base state other than California (non-California based vehicles).
- (3) Heavy-duty diesel-powered vehicles that operate in California under the

terms of Interstate Reciprocity Agreements as authorized by Article 3 (commencing with section 8000), Chapter 4, Division 3 of the California Vehicle Code and that belong to fleets that are not based in California.

- (4) Heavy-duty diesel-powered vehicles operating in California under the terms of any other apportioned registration, reciprocity, or bilateral prorate registration agreement between California and other jurisdictions and that belong to fleets that are not based in California.
- (5) Heavy-duty diesel-powered vehicles operating in California under short-term vehicle registrations or permits of 90 days or less (including but not limited to 90-day temporary registrations and 4-day permits under California Vehicle Code section 4004).
- (6) Diesel vehicles 1998 model year and newer with gross vehicle weight ratings of greater than 6,000 pounds to 14,000 pounds that are registered within an area designated for biennial smog check program coverage. If the vehicle is registered in areas of California designated for smog check inspections only upon initial registration in this state or during change of ownership, however, then the requirements of this chapter shall apply on a biennial basis as determined by the last digit of the Vehicle Identification Number (VIN). VIN's ending with an even digit would be subject to the PSIP in even calendar years (2010, 2012, 2014 . . .) and VIN's ending with an odd number would be subject to the PSIP in odd calendar years (2011, 2013, 2015 . . .).
- (7) Heavy-duty vehicles equipped with engines less than four years of age. Any heavy-duty vehicle is exempt from this chapter until January 1 of the calendar year that is four years after the model year of the engine. All vehicles are to be treated as having been acquired by the owner on January 1 of the engine model year. For example, a 1995 model year engine will be exempt until January 1, 1999, and testing must first be done for a 1995 model year engine in 1999.
- (8) Tactical military vehicles, as described in title 13, CCR, section 1905.

Note: Authority cited: Sections 39600, 39601 and 43701(a), Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43018, 43701(a), 44011 and 44011.6, Health and Safety Code.

#### § 2191. Definitions.

- (a) The definitions of this section supplement and are governed by the definitions set forth in Chapter 2 (commencing with Section 39010), Part 1, Division 26 of the Health and Safety Code. The provisions of this chapter shall also be governed by the definitions set forth in section 2180.1, Title 13, California Code of Regulations including the following modifications:
- (1) "Executive Officer" means the Executive Officer of the California Air Resources Board (CARB) or his or her authorized representative.
- (2) "Fleet" means any group of 2 or more heavy-duty diesel-powered vehicles which are owned or operated by the same agency or entity.
- (3) "Individual directly employed by the owner of the fleet" means a person hired by the fleet having a direct employee/employer relationship, excluding individuals either employed by a third-party or self-employed who contract with a fleet to perform smoke testing for that fleet.
- (4) "OBD data review" means a check of the On Board Diagnostics system for fault codes using the procedures described in section 2193(f).
- (5) "Post-repair smoke test" means a smoke test following a vehicle repair, conducted using the procedures described in section 2193(d).
- (6) "Smoke tester identification number" means the identification number provided by CARB given to a trained smoke tester following the successful completion of an approved training class.
- (7) "Smoke test" or "smoke opacity test" means a test of a vehicle's emissions for smoke opacity level conducted using the procedures described in section 2193(d).
- (8) "Trained Smoke Tester" means a person who has successfully completed the smoke tester training requirements in accordance with section 2193(g).

Note: Authority cited: Sections 39600, 39601 and 43701(a), Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39033, 43000, 43018, 43701(a), and 44011.6, Health and Safety Code.

§ 2192. Vehicle Inspection Responsibilities.

The owner of a heavy-duty diesel-powered vehicle subject to the requirements of this chapter shall do all of the following:

- (a) Inspection. Conduct an annual smoke test using the procedures set forth in section 2193(d). Alternatively, an owner may elect to conduct an annual review of OBD data for fault codes, as described in sections 2193(e), (f), for model year 2013 and newer vehicles.
- (1) Record the vehicle test information as specified in section 2194.
- (b) Repair. Have the vehicle repaired if either it exceeds the applicable smoke opacity standard specified in section 2193(a), or, for vehicles conducting an annual review of OBD data, if the OBD data revealed fault codes described in section 2193(e). Repairs must be done within 45 days of the smoke opacity test or the OBD data review. After repairing the vehicle, the owner shall:
- (1) Record the vehicle repair information as specified in section 2194.
- (2) Conduct a post-repair smoke test to determine if the vehicle complies with the applicable smoke opacity standard as specified in section 2193(a), or, for vehicles complying via submission of OBD data, confirm the vehicle has been repaired and submit a post-repair OBD scan that shows those fault codes have been cleared, as specified in section 2193(e).
- (3) Record the post-repair smoke test results or OBD review results as specified in section 2194.
- (4) Make additional repairs to achieve compliance if the vehicle remains out of compliance, and repeat the post-repair smoke test procedure or OBD review procedure under section 2193 as necessary to ensure compliance.
- (c) Recordkeeping. Comply with the recordkeeping requirements set forth in section 2194. Keep the specified records for two years after the date of inspection.
- (d) Auditing. Permit a California Air Resources Board inspector to review the inspection records specified in section 2194.

Note: Authority cited: Sections 39600, 39601 and 43701(a), Health and Safety Code. Reference: Sections 39002, 39003, 39033, 43000, 43016, 43018, 43701(a), and 44011.6, Health and Safety Code.

- § 2193. Smoke Opacity Standards, Inspection Intervals, and Test Procedures.
- (a) Standards. For any vehicle subject to the requirements of this chapter, the maximum smoke opacity standard when tested in accordance with the test procedures specified in section 2193(d) is:
- (1) 5% for any heavy-duty vehicle powered by a 2007 or subsequent model year diesel engine.
- (2) 5% for any heavy-duty vehicle required to be equipped or retrofitted with a Level 3 VDECS, regardless of its diesel engine model year.
- (3) 20% for any heavy-duty vehicle equipped or retrofitted with a Level 2 VDECS, regardless of its diesel engine model year.
- (4) 20% for any heavy-duty vehicle powered by a 1997 to 2006 model year diesel engine.
- (5) 30% for any heavy-duty vehicle powered by a 1991 to 1996 model year diesel engine.
- (6) 40% for any heavy-duty vehicle powered by a pre-1991 model year diesel engine.
- (7) 40% for any heavy-duty two-engine crane that has been reported to CARB per title 13 section 2449(g) and that is powered by an off-road propulsion engine without a diesel particulate filter.
- (b) Inspection intervals.
- (1) Annual testing. A fleet, as defined in section 2191(a)(2), shall comply with the requirements of this chapter. A vehicle subject to the requirements must be tested annually (on or before December 31 of each year) for smoke opacity (and repaired if the applicable smoke opacity standard is exceeded) in

accordance with the requirements of section 2193. An owner may elect instead to review annually an eligible vehicle's OBD data using the procedure set forth in section 2193(f).

- (2) New fleets. Fleets that first become subject to the requirements of this chapter subsequent to the effective date of these regulations must be tested in accordance with section 2193 on or before December 31 of the next calendar year from the date the fleet first becomes subject to the requirements of this chapter.
- (c) Smoke test equipment. The smoke measurement equipment shall consist of a full-flow end-of-line or a sampling type smoke meter, a data-processing unit, and a printer and/or electronic storage medium to record and output the test results.
  - (1) The smoke meter shall comply with the specifications provided in the Society of Automotive Engineers (SAE) procedure J1667, "Snap-Acceleration Smoke Test Procedure for Heavy-Duty Powered Vehicles," February 1996, section 6, which is incorporated herein by reference, and shall be calibrated in accordance with specifications in SAE procedure J1667, section 7.
  - (2)The data-processing unit shall be capable of performing the functions described in SAE procedure J1667, Appendices A and C (February 1996).
- (d) Smoke test procedures.

The smoke opacity test procedures are those set forth in the SAE Recommended Practice SAE J1667 as issued February 1996 ("1996-02"), which is incorporated herein by reference. The test procedure shall consist of preparation, preconditioning, and test phases:

- (1) In the preparation phase, the tester shall ensure the vehicle is placed at rest, verify that the transmission is placed in neutral, and ensure the vehicle wheels are properly restrained to prevent any rolling motion, in accordance with specifications in SAE procedure J1667, section 5.1 (February 1996).
- (2) In the preconditioning phase, the tester shall perform at least three preliminary snap-acceleration test cycles on the vehicle using the sequence described in SAE procedure J1667, section 5.3 (February 1996). Prior to

conducting smoke measurements, the zero and full scale readings of the smoke meter shall be verified by the tester in accordance with specifications in SAE procedure J1667, section 5.4.2 (February 1996).

- (3) In the test phase, the tester shall put the vehicle through three snap-acceleration test cycles.
- (4) The tester shall measure the opacity during the preconditioning and test phases with a smoke meter and shall record the opacity measurements during each snap-acceleration test cycle.
- (5) The smoke test opacity level to determine the compliance with section 2193(a) shall be the average of the corrected maximum 0.5-second average smoke values from the three snap-acceleration test cycles.
- (6) The testing shall be performed by a "Trained Smoke Tester" as defined in section 2191(a)(8).
- (e) OBD submission alternative.

In lieu of performing a smoke test as specified in section 2193(d), for 2013 and newer model year engines, fleets may review OBD data and submit the data to CARB as specified in section 2193(f).

- (1) If the OBD data submission shows that the malfunction indicator light (MIL) status is commanded on or that any permanent fault code is stored, the vehicle is considered to have failed the test. The fleet owner shall then repair the vehicle and submit a post-repair OBD scan result that shows the MIL status is commanded off and that there are no permanent fault codes. The fleet owner shall keep vehicle repair information as specified in section 2194(b) for two years.
- (f) OBD submission alternative procedure. If a fleet owner chooses to submit OBD data in accordance with section 2193(e), the owner shall submit the data to CARB using a format approved by the Executive Officer for electronic data reporting, to be made available on CARB's website, <a href="https://www.arb.ca.gov">https://www.arb.ca.gov</a>.
- (1) Owner information. The owner shall submit to CARB the following information:

OAL-Approved: May 8, 2019

- Owner's name
- Name of company or agency
- Name of responsible person
- Title of responsible person
- Contact phone number
- Contact email address (if applicable)
- Street Address and Mailing Address
- (2) Vehicle information. For each vehicle subject to the requirements of this chapter for which a fleet owner elects to conduct an annual review of OBD data, the fleet owner shall submit to CARB the following information:
  - License plate number
  - Engine model year
  - Engine make
- (3) OBD information. For each vehicle subject to the requirements of this chapter for which a fleet owner elects to conduct an annual review of OBD data, the fleet owner shall submit to CARB the following data from an OBD data scan which are available from vehicles pursuant to Title 13, California Code of Regulations, Section 1971.1(h)(4), "On-Board Diagnostic System Requirements--2010 and Subsequent Model -Year Heavy-Duty Engines" for vehicles with gross vehicle weight rating greater than 14,000 pounds, and Title 13, California Code of Regulations, Section 1968.2(g)(4), "Malfunction and Diagnostic System Requirements--2004 and Subsequent Model -Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" for vehicles with GVWR 6001 pounds to 14,000 pounds.
  - MIL status
  - All stored emission-related fault codes:
    - Active (MIL on) fault codes
    - Previously active fault codes (if available)
    - Pending fault codes
    - Permanent fault codes
  - Vehicle Identification Number
  - Engine Serial Number (if available)
  - Status of each readiness indicator
  - Calibration Verification Number (CVN)
  - OBD requirements to which the engine is certified
  - Distance traveled/engine run time while MIL activated

- Distance traveled/engine run time since fault memory last cleared
- Number of warm-up cycles since fault memory last cleared

### (g) Smoke Tester Training Requirements

A smoke tester must have a CARB-approved smoke tester identification number to perform the testing requirements in section 2193. To receive a smoke tester identification number through CARB, an individual that is not the owner and that is not directly employed by the fleet must submit a copy of the certificate of completion upon successful completion of one of the following training courses specified in section 2193(g)(1) or (2). An owner or an individual directly employed by the owner of the fleet may instead complete an on-line training course developed and distributed by CARB.

- (1) The California Council on Diesel Education and Technology HDVIP/PSIP Course (CCDET I), or
- (2) A training course meeting the requirements of section 2193(h), which has received Executive Officer approval as an approved smoke tester training.
- (h) Smoke Tester Training Course Requirements

An entity offering a smoke tester training course must apply to the Executive Officer for approval to become a CARB-approved smoke tester training course provider. An approved smoke tester training course must include the following:

- (1) Hands-on training on how to properly perform the testing requirements of this chapter following the equipment and procedure specifications required in section 2193.
- (2) Hands-on training on how to properly calibrate a smoke meter to meet the specifications of SAE procedure J1667 and the requirements of section 2193(c)(1).
- (3) Instructional curriculum on the requirements and responsibilities of both the fleet owner and the smoke tester to meet the requirements of sections 2190-2194.
- (4) A requirement that potential smoke testers successfully pass a written examination and the hands-on training specified in sections 2193(h)(1) and (2).

(5) Issuance of a certificate of completion for smoke testers who have successfully passed the smoke tester training examinations as specified in section 2193(h)(4).

Note: Authority cited: Sections 39600, 39601, 43013 and 43701(a), Health and Safety Code. Reference: Sections 39002, 39003, 39033, 43000, 43013, 43018, 43701(a), and 44011.6, Health and Safety Code.

- § 2194. Record Keeping Requirements.
- (a) The owner of a vehicle subject to the requirements of this chapter shall record the following information when performing the smoke opacity testing:
- (1) The brand name and model of the opacity meter.
- (2) The dates of last calibration of the opacity meter.
- (3) The name and the smoke tester identification number of the trained smoke tester who conducted the test.
- (4) The name and address of the contracted smoke test facility or vehicle repair facility that conducted the test (if applicable).
- (5) The applicable smoke opacity standard for the tested vehicle.
- (6) Vehicle identification number, engine model year, engine make, engine model, and test date.
- (7) The initial smoke test opacity levels (for three successive test readings) and the J1667 standards including the average of the three snap-acceleration test cycles and the range.
- (8) An indication of whether the vehicle passed or failed the initial smoke test.
- (9) The post-repair test date.
- (10) The post-repair smoke test opacity levels (for three successive test readings).

- (11) An indication of whether the vehicle passed or failed the post-repair smoke test.
- (12) For vehicles that have failed the smoke test and have been repaired, the vehicle repair information specified in section 2186(a), Title 13, California Code of Regulations.
- (b) The owner of a vehicle subject to the requirements of this chapter shall record the following information when performing a review of the OBD system:
- (1) Vehicle identification number, engine model year, engine make, engine model, and test date.
- (2) The name and address of the test facility or vehicle repair facility that conducted the test (if applicable).
- (3) A copy of the OBD data submission meeting the requirements of 2193(e).
- (4) An indication of whether the vehicle passed or failed the initial OBD review.
- (5) The post-repair test date.
- (6) The post-repair OBD data submission meeting the requirements of 2193(e).
- (7) For vehicles that have failed the OBD review test and have been repaired, the vehicle repair information specified in section 2186(a), Title 13, California Code of Regulations.
- (c) The owner of a vehicle subject to the requirements of this chapter shall maintain an accurate list of vehicles in the fleet including model year, make, model, manufacturer, chassis, engine, engine serial number, vehicle identification number and license plate number.
- (d) Upon request, the owner of a vehicle subject to the requirements of this chapter shall provide to CARB, as applicable, a copy of the vehicle OBD data submission in a comma separated value (CSV), Excel, or hypertext markup language (html) electronic file format, or smoke opacity records in a legible meter print out strip signed by the trained smoke tester.

Note: Authority cited: Sections 39600, 39601, 43013, and 43701(a), Health and Safety Code. Reference: Sections 39002, 39003, 39033, 43000, 43018, 43701(a), and 44011.6, Health and Safety Code.