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Note: The Air Resources Board (ARB) is providing the following version of the OBD II enforcement regulation, section 1968.5 of title 13, California Code of Regulations, as approved by OAL on July 25, 2016. 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.**

FINAL REGULATION ORDER

§ 1968.5. Enforcement of Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines.

(a) *General*

(1) *Applicability.*

(A) These procedures shall be used to assure compliance with the requirements of title 13, California Code of Regulations (CCR) section 1968.2 for all 2004 and subsequent model year passenger cars, light-duty trucks, medium-duty vehicles, and engines certified on an engine dynamometer for use in medium-duty vehicles (the classifications of which shall jointly be referred to for purposes of this regulation as vehicles) equipped with OBD II systems that have been certified for sale in California.

(B) Vehicles manufactured prior to the 2004 model year are covered by the general enforcement and penalty provisions of the Health and Safety Code, and the specific provisions of title 13, CCR sections 1968.1 and 2111 through 2149.

(2) *Purpose.*

The purpose of this section is to establish the enforcement protocol that shall be used by the ARB to assure that vehicles certified for sale in California are equipped with OBD II systems that properly function and meet the purposes and requirements of title 13, CCR section 1968.2.

(3) *Definitions.*

The definitions applicable to these rules include those set forth in Health and Safety Code section 39010 et seq. and in title 13, CCR sections 1900(b) and 1968.2(c), which are incorporated by reference herein. The following definitions are specifically applicable to section 1968.5 and take precedence over any contrary definitions.

“*Days*”, when computing any period of time, unless otherwise noted, means normal working days that a manufacturer is open for business.

“*Executive Officer*” means the Executive Officer of the Air Resources Board or his or her authorized representative.

“*Influenced OBD II-Related Recall*” means an inspection, repair, adjustment, or modification program initiated and conducted by a manufacturer as a result of enforcement testing conducted by the ARB or any other information for the purpose of correcting any nonconforming OBD II system for which direct notification of vehicle owners is necessary.

“Major Monitor” means those monitors covered by the requirements set forth in title 13, CCR sections 1968.2(e)(1.0) through (e)(8.0), (e)(11.0) through (e)(14.0), (e)(16.0), (f)(1.0) through (f)(9), (f)(12), (f)(13), (f)(14), and (f)(16).

“Motor Vehicle Class” means a group or set of vehicles subject to enforcement testing that have been determined by the Executive Officer to share common or similar hardware, software, OBD II monitoring strategy, or emission control strategy.

“Motor Vehicle Manufacturer” means the manufacturer granted certification to sell motor vehicles in the State of California.

“Nonconforming OBD II System” means an OBD II system on a production vehicle that has been determined not to comply with the requirements of title 13, CCR section 1968.2. For purposes of section 1968.5, a motor vehicle class shall be considered nonconforming irrespective of whether vehicles in the motor vehicle class, on average, meet applicable emission standards (e.g., exhaust emission standards defined in title 13, CCR section 1960.1, evaporative emission standards defined in title 13, CCR section 1976).

“OBD II Emission Testing” refers to testing conducted to determine compliance with the malfunction criteria in title 13, CCR sections 1968.2(e) and (f) that are based on a multiple of, or an additive to, a tailpipe emission standard or an absolute measurement from an applicable emission test cycle (e.g., 1.5 times the applicable FTP emission standards, PM standard plus 0.02 g/bhp-hr, PM level of 0.03 g/bhp-hr as measured from an applicable emission test cycle).

“OBD II Ratio Testing” refers to testing conducted to determine compliance with the required in-use monitor performance ratio in title 13, CCR section 1968.2(d)(3.2.1).

“Ordered OBD II-Related Recall” means an inspection, repair, adjustment, or modification program required by the ARB to be conducted by the manufacturer to correct any nonconforming OBD II system for which direct notification of vehicle owners is necessary.

“Quarterly Reports” refer to the following calendar periods: January 1 – March 31; April 1 – June 30; July 1 – September 30; October 1 – December 31.

“Test Sample Group” means a group of production vehicles in a designated motor vehicle class that are equipped with OBD II systems and are selected and tested as part of the ARB enforcement testing program set forth in section (b).

“Voluntary OBD II-Related Recall” means an inspection, repair, adjustment, or modification program voluntarily initiated and conducted by a manufacturer to correct any nonconforming OBD II system for which direct notification of vehicle owners is necessary.

(b) *Testing Procedures*

(1) *Purpose.*

To assure that OBD II systems on production motor vehicles comply with the requirements of title 13, CCR section 1968.2, the ARB may periodically evaluate vehicles from a motor vehicle class.

(2) *Preliminary Testing and Evaluation.*

(A) As part of his or her evaluation of vehicles to determine compliance with the requirements of title 13, CCR section 1968.2, the Executive Officer may routinely conduct testing on any production vehicles that have been certified for sale in California.

(B) Based upon such testing or any other information, including data from California or other State Inspection and Maintenance (I/M) stations, warranty information reports, and field information reports, the Executive Officer may conduct enforcement testing pursuant to sections (b)(3) through (5) below.

(3) *Vehicle Selection for Enforcement Testing.*

(A) *Determining the Motor Vehicle Class.*

(i) Upon deciding to conduct enforcement testing, the Executive Officer shall determine the motor vehicle class to be tested. In determining the scope of the motor vehicle class to be tested, the Executive Officer shall consider the similarities and differences in the OBD II systems of potentially affected vehicles. Among other things, the Executive Officer shall consider whether vehicles share similar computer hardware and software, calibrations, or OBD II monitoring and emission control strategies.

(ii) The default motor vehicle class is the test group or OBD II group used by the manufacturer to certify the vehicles to be tested. However, upon concluding that a subgroup of vehicles differs from other vehicles in the identified test group or OBD II group and that a reasonable basis exists to believe that the differences may directly impact the type of testing that will be performed, the Executive Officer may determine that a subgroup of the test group or OBD II group is the appropriate motor vehicle class for testing.

(iii) Similarly, upon concluding that vehicles from several OBD II groups (which may include OBD II groups from different model years) share such common characteristics that a reasonable basis exists to believe that results of enforcement testing may be applicable to a motor vehicle class larger than a specific test group or OBD II group, the Executive Officer may determine that the appropriate motor vehicle class includes more than one test group or OBD II group.

(iv) Except for testing to determine if an OBD II system has been designed to deactivate based on age and/or mileage (title 13, CCR section 1968.2 (d)(1.3)), the Executive Officer may not conduct testing of a motor vehicle class whose vehicles, on average, exceed the defined full useful life of the motor vehicle class. For

purposes of the determination of this average, the Executive Officer shall use the accrual rates appropriate for vehicles in the motor vehicle class as defined in EMFAC2000 "Public Meeting to Consider Approval of Revisions to the State's On-Road Motor Vehicle Emissions Inventory: Technical Support Document, Section 7.1, 'Estimation of Average Mileage Accrual Rates from Smog Check Data,'" May 2000, incorporated by reference.

(B) *Size of Test Sample Group.*

After determining the motor vehicle class to be tested, the Executive Officer shall determine the appropriate number of vehicles to include in the test sample group for enforcement testing in accordance with the following guidelines:

- (i) For OBD II emission testing, the Executive Officer shall follow the provisions of title 13, CCR section 2137 regarding test sample size. In accordance with section 2137, the Executive Officer shall test 10 vehicles that have been procured following the protocol of section (b)(3)(C) below and meet the selection criteria of section (b)(3)(D)(i) below to determine the emissions characteristics of the motor vehicle class being tested.
- (ii) For OBD II ratio testing, the Executive Officer shall collect data from a test sample group of 30 vehicles that have been procured following the protocol of section (b)(3)(C) below and meet the selection criteria of section (b)(3)(D)(ii) below to determine the in-use OBD II monitoring performance of the motor vehicle class being tested.
- (iii) In determining compliance with any other requirements of title 13, CCR section 1968.2 (e.g., diagnostic connector location, communication protocol standards, MIL illumination protocol, evaporative system diagnostics, etc.), the Executive Officer shall determine, on a case by case basis, the number of vehicles meeting the selection criteria of section (b)(3)(D)(iii) needed to assure that the results of such testing may be reasonably inferred to the motor vehicle class. The Executive Officer's determination shall be based upon the nature of the noncompliance and the scope of the motor vehicle class. The test sample group could be as few as two test vehicles.

(C) *Protocol for Procuring Vehicles for Test Sample Group.*

- (i) For OBD II emission and ratio testing, the Executive Officer shall procure vehicles consistent with the procurement process followed by the Executive Officer under title 13, CCR section 2137 (e.g., obtaining lists of all vehicles in the motor vehicle class within a specified geographical area, mailing postcards soliciting participation of vehicles within the specified area, selecting vehicles from those that responded to the solicitation, inspecting selected vehicles to determine whether appropriate to include in sample group, etc.). In selecting vehicles for OBD II emission testing, the

Executive Officer shall include only vehicles meeting the criteria set forth in section (b)(3)(D)(i) below. For OBD II ratio testing, the Executive Officer shall include only vehicles meeting the criteria set forth in section (b)(3)(D)(ii) below.

- (ii) For all other testing, the Executive Officer shall, on a case by case basis, determine the appropriate manner for procuring vehicles. In making his or her determination, the Executive Officer shall consider the nature of the noncompliance and the scope of the motor vehicle class. If the Executive Officer concludes that a reasonable basis exists to believe that a vehicle operator's driving or maintenance habits would not substantially impact test results to determine noncompliance, he or she may procure vehicle(s) by any means that assures effective collection and testing of vehicles (e.g., rental car agencies, fleet vehicles, etc.). In all cases, however, the selection process must ensure proper selection of vehicles in accord with section (b)(3)(D)(iii) below.
- (D) *Vehicles to be included in a Test Sample Group.*
- (i) In selecting vehicles to be included in a test sample group for enforcement OBD II emission testing, the Executive Officer shall include only vehicles that:
 - a. Are certified to the requirements of title 13, CCR section 1968.2 and California exhaust emission standards.
 - b. Are registered for operation in California.
 - c. Have mileage that is equal to or less than 75 percent of the certified full useful life mileage and have an age of less than the certified full useful life age for the subject vehicles.
 - d. Have not been tampered with or equipped with add-on or modified parts that would cause the OBD II system not to comply with the requirements of title 13, CCR section 1968.2 or would have a permanent effect on exhaust emission performance.
 - e. Have not been subjected to abuse (e.g., racing, overloading, misfueling) neglect, improper maintenance, or other factors that would cause the OBD II system not to comply with the requirements of title 13, CCR section 1968.2 or would have a permanent effect on exhaust emission performance.
 - f. Have no detected or known malfunction(s) that would affect the performance of the OBD II system and are unrelated to the monitor or system being evaluated. At its discretion, the ARB may elect to repair a vehicle with a detected or known malfunction and then include the vehicle in the test sample group.
 - g. Have had no major repair to the engine or major repair of the vehicle resulting from a collision.
 - h. Have no problem that might jeopardize the safety of laboratory personnel.

- (ii) In selecting vehicles to be included in a test sample group for enforcement OBD II ratio testing, the Executive Officer shall include only vehicles that:
 - a. Are certified to the requirements of title 13, CCR section 1968.2.
 - b. Have collected sufficient vehicle operation data for the monitor to be tested. For monitors required to meet the in-use monitor performance ratio and to track and report ratio data pursuant to title 13, CCR section 1968.2(d)(3.2), sufficient vehicle operation data shall mean the denominator meets the criteria set forth in sections (b)(3)(D)(ii)1. through 3. below. For monitors required to meet the in-use monitor performance ratio but not required to track and report ratio data pursuant to title 13, CCR section 1968.2(d)(3.2), sufficient vehicle operation data shall mean that vehicles that have a denominator that meets the criteria set forth in sections (b)(3)(D)(ii)1. through 3. below after undergoing testing as set forth in section (b)(4)(C)(ii) below. Specifically, the denominator, as defined in title 13, CCR section 1968.2(d)(4.3), for the monitor to be tested must have a value equal to or greater than:
 - 1. 150 for evaporative system monitors, secondary air system monitors, and monitors utilizing a denominator incremented in accordance with title 13, CCR sections 1968.2(d)(4.3.2)(E) or (F) (e.g., cold start monitors, air conditioning system monitors, etc.) and not covered in section (b)(3)(D)(ii)2. below, or
 - 2. 50 for PM filter monitors, NMHC converting catalyst monitors, PM sensor monitors, and PM sensor heater monitors utilizing a denominator incremented in accordance with title 13, CCR section 1968.2(d)(4.3.2)(F), (G), (H), or (I), or
 - 3. 300 for catalyst, oxygen sensor, EGR, VVT, and all other component monitors not covered in sections (b)(3)(D)(ii)1. and 2. above.
 - c. Have not been tampered with or equipped with add-on or modified parts that would cause the OBD II system not to comply with the requirements of title 13, CCR section 1968.2.
 - d. Have mileage and age that are less than or equal to the certified full useful life mileage and age for the subject vehicles.
- (iii) In selecting vehicles to be included in a test sample group for enforcement testing of any other requirement of title 13, CCR section 1968.2 (not covered by sections (b)(3)(D)(i) or (ii) above), the Executive Officer shall include only vehicles that:
 - a. Are certified to the requirements of title 13, CCR section 1968.2.
 - b. Have not been tampered with or equipped with add-on or modified parts that would cause the OBD II system not to comply with the requirements of title 13, CCR section 1968.2.

- c. Have no detected or known malfunction(s) that would affect the performance of the OBD II system and are unrelated to the monitor or system being evaluated. At its discretion, the ARB may elect to repair a vehicle with a detected or known malfunction and then include the vehicle in the test sample group.
 - d. Have mileage and age that are less than or equal to the certified full useful life mileage and age for the subject vehicles.
- (iv) If the Executive Officer discovers, by either evidence presented by the manufacturer as provided in section (b)(7) or on his or her own, that a vehicle fails to meet one or more of the applicable criteria of section (b)(3)(D)(i) through (iii), the Executive Officer shall remove the vehicle from the test sample group. The Executive Officer may replace any vehicle removed with an additional vehicle selected in accordance with sections (b)(3)(C) and (D) above. Test results relying on data from the removed vehicle shall be recalculated without using the data from the removed vehicle.
- (4) *Enforcement Testing Procedures.*
- (A) Prior to conducting any testing under section (b)(4), the Executive Officer may replace components monitored by the OBD II system with components that are sufficiently deteriorated or simulated to cause malfunctions that exceed the malfunction criteria established pursuant to title 13, CCR sections 1968.2(e) and (f) in a properly operating system. The Executive Officer may not use components deteriorated or simulated to represent failure modes that could not have been foreseen to occur by the manufacturer (e.g., the use of leaded gasoline in an unleaded vehicle, etc.). Upon request by the Executive Officer, the manufacturer shall make available all test equipment (e.g., malfunction simulators, deteriorated “threshold” components, etc.) necessary to duplicate testing done by the manufacturer to determine the malfunction criteria used for major monitors subject to OBD II emission testing.
 - (B) *OBD II Emission Testing.* After the test sample group has been selected and procured, the Executive Officer may perform one or more of the following tests:
 - (i) Emission testing with the test procedures used by the Executive Officer for in-use testing of compliance with exhaust emission standards in accordance with title 13, CCR sections 2138 and 2139.
 - (ii) On-road or dynamometer testing with the vehicle being driven in a manner that reasonably ensures that all of the monitoring conditions disclosed in the manufacturer's certification application for the tested monitor are encountered.
 - (C) *OBD II Ratio Testing.*
 - (i) For OBD II ratio testing of monitors required to meet the in-use monitor performance ratio and to track and report ratio data

pursuant to title 13, CCR section 1968.2(d)(3.2), after the test sample group has been selected and procured, the Executive Officer shall download the data from monitors required to track and report such data.

- (ii) For OBD II ratio testing of monitors required to meet the in-use monitor performance ratio but not required to track and report ratio data pursuant to title 13, CCR section 1968.2(d)(3.2), after the test sample group has been selected and procured, the Executive Officer shall collect data by installing instrumentation or data-logging equipment on the vehicles. After installation of the equipment, the vehicles shall be returned to the vehicle owner/operator to continue to operate the vehicle until the minimum denominator criteria (see section (b)(3)(D)(ii)b.) are satisfied. The Executive Officer shall then calculate the ratio from the data collected in a manner that will allow the Executive Officer to effectively determine the in-use monitor performance ratio in accordance with the requirements of title 13, CCR section 1968.2(d)(3.2).

(D) *Testing for compliance with any other requirement of title 13, CCR section 1968.2.* After the test sample group has been selected and procured, the Executive Officer may perform one or more of the following tests:

- (i) Emission testing on the applicable FTP cycle or other applicable emission test cycle used for measuring exhaust or evaporative emissions.
- (ii) On-road or dynamometer testing with the vehicle being driven in a manner that reasonably ensures that all of the monitoring conditions disclosed in the manufacturer's certification application for the tested monitor are encountered.
- (iii) Any other testing determined to be necessary by the Executive Officer. This may include, but is not limited to, the use of special test equipment to verify compliance with standardization requirements.

(5) *Additional Testing.*

(A) Based upon testing of the motor vehicle class in section (b)(4) above and after review of all evidence available at the conclusion of such testing, the Executive Officer may elect to conduct further testing of a subgroup of vehicles from the motor vehicle class if the Executive Officer has determined that:

- (i) a subgroup of tested vehicles differs sufficiently enough from other vehicles in the tested motor vehicle class, and
- (ii) a reasonable basis exists to believe that the identified differences may indicate that the subgroup may be nonconforming whereas the tested motor vehicle class as a whole is not.

(B) Hereinafter all references to motor vehicle class shall be applicable to the subgroup meeting the conditions of section (b)(5)(A) above.

(C) In any testing of a subgroup of vehicles under section (b)(5), the Executive Officer shall follow the vehicle selection and testing procedures set forth in sections (b)(3) and (4) above.

(6) *Finding of Nonconformance after Enforcement Testing.*

After conducting enforcement testing pursuant to section (b)(4) above, the Executive Officer shall make a finding of nonconformance of the OBD II system in the identified motor vehicle class if:

(A) *OBD II Emission Testing.*

(i) *Intermediate In-Use Gasoline Thresholds.* For 2004 through 2008 model year vehicles subject to gasoline/spark ignited monitoring requirements in title 13, CCR section 1968.2(e), the results of the OBD II emission tests indicate that 50 percent or more of the vehicles in the test sample do not properly illuminate the MIL when emissions exceed:

- a. 2.0 times the FTP standards for malfunction criteria defined in title 13, CCR section 1968.2(e) that require MIL illumination at 1.5 or 1.75 times the FTP standards;
- b. 3.5 times the FTP standards for malfunction criteria defined in title 13, CCR section 1968.2(e) that require MIL illumination at 2.5 times the FTP standards; or
- c. 4.5 times the FTP standards for malfunction criteria defined in title 13, CCR section 1968.2(e) that require MIL illumination at 3.5 times the FTP standards.

(ii) *Intermediate In-Use Diesel Thresholds.*

a. For 2007 through 2012 model year vehicles subject to diesel/compression-ignition monitoring requirements in title 13, CCR section 1968.2(f), the results of the OBD II emission tests indicate that 50 percent or more of the vehicles in the test sample do not properly illuminate the MIL when emissions exceed:

1. an additional 1.0 times the applicable standards above the malfunction criteria for malfunction criteria defined in title 13, CCR section 1968.2(f) that require MIL illumination at less than 3.5 times the applicable standards (e.g., 3.5 times the applicable standards for a malfunction criteria of 2.5 times the applicable standards); or
2. an additional 1.5 times the applicable standards above the malfunction criteria for malfunction criteria defined in title 13, CCR section 1968.2(f) that require MIL illumination at greater than or equal to 3.5 times the applicable standards (e.g., 6.5 times the applicable standards for a malfunction criteria of 5.0 times the applicable standards); or
3. an additional 1.0 times the applicable standards above the malfunction criteria for malfunction criteria defined in title 13, CCR section 1968.2(f) that require MIL illumination at an additive threshold of less than or equal to 0.3 g/bhp-hr NO_x,

- an additive threshold of less than or equal to 0.02 g/bhp-hr PM, or an absolute threshold of less than or equal to 0.03 g/bhp-hr (e.g., 0.07 g/bhp-hr PM for an additive malfunction criteria of 0.03 g/bhp-hr with a standard of 0.02 g/bhp-hr); or
4. an additional 1.5 times the applicable standards above the malfunction criteria for malfunction criteria defined in title 13, CCR section 1968.2(f) that require MIL illumination at an additive threshold of greater than 0.3 g/bhp-hr NO_x, an additive threshold of greater than 0.02 g/bhp-hr PM, or an absolute threshold of greater than 0.03 g/bhp-hr PM (e.g., 1.0 g/bhp-hr NO_x for an additive malfunction criteria of 0.5 g/bhp-hr with a standard of 0.2 g/bhp-hr).
 - b. For 2010 through 2012 model year medium-duty vehicles certified to an engine dynamometer standard, the “applicable standards” used in section (b)(6)(A)(ii) shall be limited to the emission test cycle and standard (i.e., FTP or SET) determined by the manufacturer to be more stringent and documented as such in the certification application in accordance with title 13, CCR section 1968.2(d)(6.1).
 - c. For 2007 through 2009 model year vehicles subject to adjustment for infrequent regeneration events in accordance with title 13, CCR section 1968.2(d)(6.2), OBD II emission enforcement testing for monitors using the provisions of title 13, CCR section 1968.2(d)(6.2.3) (baseline-derived adjustment factors instead of malfunction threshold component-specific adjustment factors) shall be limited to using emission test results without the infrequent regeneration event occurring and applying the same baseline-derived adjustment factors used by the manufacturer at the time of certification.
 - d. For 2013 through 2015 model year medium-duty vehicles, with respect to the NO_x malfunction criteria for the NO_x converting catalyst conversion efficiency monitor (title 13, CCR section 1968.2(f)(2.2.2)), reductant delivery performance monitor (title 13, CCR section 1968.2(f)(2.2.3)(A)), and NO_x sensor monitor (title 13, CCR section 1968.2(f)(5.2.2)(A)), the Executive Officer shall make a finding of nonconformance of the OBD II system if the results of the OBD II emission tests indicate that 50 percent or more of the vehicles in the test sample do not properly illuminate the MIL when emissions exceed an additional 0.2 g/bhp-hr above the NO_x malfunction criteria defined in title 13, CCR section 1968.2(f)(2.2.2)(A)(ii)c. or 1968.2(f)(5.2.2)(A)(ii)c.
 - e. For 2013 through 2015 model year medium-duty vehicles, for the PM filter filtering performance monitor (title 13, CCR section 1968.2(f)(9.2.1)), the Executive Officer shall make a finding of nonconformance of the OBD II system if the results of the

OBD II emission tests indicate that 50 percent or more of the vehicles in the test sample do not properly illuminate the MIL when emissions exceed 0.05 g/bhp-hr.

- (iii) *Final In-Use Thresholds.* For 2009 and subsequent model year vehicles subject to the gasoline/spark-ignited requirements of title 13, CCR section 1968.2(e) and, except as provided in sections (b)(6)(A)(ii)d. and e. above, for 2013 and subsequent model year vehicles subject to the diesel/compression-ignition requirements of title 13, CCR section 1968.2(f), the results of the OBD II emission tests indicate that 50 percent or more of the vehicles in the test sample do not properly illuminate the MIL when the emission malfunction criteria defined in title 13, CCR sections 1968.2(e) or (f) are exceeded.
- (B) *OBD II Ratio Testing.*
- (i) For monitors specified in sections (b)(6)(B)(i)a. through e. below, the data collected from the vehicles in the test sample indicate either that the average in-use monitor performance ratio for one or more of the monitors in the test sample group is less than 0.100 or that 66.0 percent or more of the vehicles in the test sample group have an in-use monitor performance ratio of less than 0.100 for the same monitor:
 - a. monitors on 2004 through 2027 model year vehicles certified to a ratio of 0.100 in accordance with title 13, CCR section 1968.2(d)(3.2.1)(D),
 - b. monitors specified in title 13, CCR section 1968.2(e) on 2007 through 2012 model year vehicles for the first three model years the monitor is certified to the in-use performance ratio monitoring requirements of title 13, CCR sections 1968.2(d)(3.2.1)(A) through (C),
 - c. the fuel system air-fuel ratio cylinder imbalance monitor specified in title 13, CCR section 1968.2(e)(6.2.1)(C) on 2015 through 2017 model year vehicles,
 - d. the secondary exhaust gas sensor monitor specified in title 13, CCR section 1968.2(e)(7.2.2)(C) on 2012 through 2014 model year vehicles, and
 - e. monitors specified in title 13, CCR section 1968.2(f) on 2013 through 2015 model year vehicles.
 - (ii) For monitors that are certified to the ratios in title 13, CCR sections 1968.2(d)(3.2.1)(A) through (C) and are not described in sections (b)(6)(B)(i)b. through e. above, the data collected from the vehicles in the test sample indicate either that (1) 66.0 percent or more of the vehicles in the test sample group have an in-use monitor performance ratio less than the required minimum ratio defined in title 13, CCR section 1968.2(d)(3.2.1) for the same monitor, or (2) the average in-use monitor performance ratio for one or more of the monitors in the test sample group is less than:

- a. 0.230 for secondary air system monitors and other cold start related monitors utilizing a denominator incremented in accordance with title 13, CCR section 1968.2(d)(4.3.2)(E) (e.g., cold start strategy monitors, etc.);
- b. For evaporative system monitors:
 1. 0.230 for monitors designed to detect malfunctions identified in title 13, CCR section 1968.2(e)(4.2.2)(C) (i.e., 0.020 inch leak detection);
 2. 0.460 for monitors designed to detect malfunctions identified in title 13, CCR section 1968.2(e)(4.2.2)(A) and (B) (i.e., purge flow and 0.040 inch leak detection);
- c. 0.297 for catalyst, oxygen sensor, EGR, VVT system, and all other monitors specifically required in section title 13, CCR sections 1968.2(e) and (f) to meet the monitoring condition requirements of title 13, CCR section 1968.2(d)(3.2).

(C) All Other OBD II Testing.

- (i) The results of the testing indicate that at least 30 percent of the vehicles in the test sample do not comply with the same requirement of title 13, CCR section 1968.2.
- (ii) The results of the testing indicate that at least 30 percent of the vehicles in the test sample do not comply with one or more of the requirements of title 13, CCR section 1968.2 while the engine is running and while in the key on, engine off position such that Inspection and Maintenance or scan tool equipment designed to access the following parameters via the standards referenced in title 13, CCR section 1968.2 cannot obtain valid and correct data for the following parameters:
 - a. The current readiness status from all on-board computers required to support readiness status in accordance with Society of Automotive Engineers J1979 (SAE J1979) as incorporated by reference in title 13, CCR section 1968.2(g)(1) and section 1968.2(g)(4.1);
 - b. The current MIL command status while the MIL is commanded off and while the MIL is commanded on in accordance with SAE J1979 and title 13, CCR section 1968.2(g)(4.2), and in accordance with SAE J1979 and title 13, CCR sections 1968.2(d)(2.1.2) during the MIL functional check and, if applicable, title 13, CCR 1968.2(g)(4.1.3) during the MIL readiness status check;
 - c. The current permanent fault code(s) in accordance with SAE J1979 and section title 13, CCR 1968.2(g)(4.4);
 - d. The data stream parameters (Mode/Service \$01) for: engine speed (PID \$0C) and OBD requirements to which the vehicle or engine is certified (PID \$1C); and for 2008 and subsequent model year vehicles using the ISO 15765-4 protocol that have not implemented permanent fault codes subject to (b)(6)(C)(ii)c.,

- number of warm-up cycles since codes cleared (PID \$30), distance since codes cleared (PID \$31), and engine run time since codes cleared (PID \$4E); as required in title 13, CCR section 1968.2(g)(4.2) and in accordance with SAE J1979;
 - e. The CAL ID, CVN, and VIN (Mode \$09 PIDs \$01 through \$06) as required in title 13, CCR sections 1968.2(g)(4.6), (g)(4.7.1), (g)(4.7.3), and (g)(4.8) and in accordance with SAE J1979;
 - f. The proper identification of all data identified in (b)(6)(C)(ii)a. through (b)(6)(C)(ii)e. as supported or unsupported as required in title 13, CCR section 1968.2(g)(4) and in accordance with SAE J1979 (e.g., Mode/Service \$01, PIDs \$00, \$20, \$40; Mode/Service \$09, PID \$00, etc.); or
 - g. For vehicles using an alternate connector and communication protocol (e.g., SAE J1939) as provided for in title 13, CCR section 1968.2(g)(7.1), the parameters and data identified in sections (b)(6)(C)(ii)a. through f. in accordance with title 13, CCR section 1968.2(g)(4) and with the specified alternate connector and communication protocol in lieu of in accordance with SAE J1979.
- (iii) If the finding of nonconformance under section (b)(6)(C)(i) above concerns vehicles that do not comply with the requirements of title 13, CCR section 1968.2(d)(4) or (5) (e.g., numerators or denominators are not properly being incremented), it shall be presumed that the nonconformance would result in an OBD II ratio enforcement test result that would be subject to an ordered OBD II-related recall in accord with the criterion in section (c)(3)(A)(i). The manufacturer may rebut such a presumption by presenting evidence in accord with section (b)(7)(C)(iii) below that demonstrates to the satisfaction of the Executive Officer that the identified nonconformance would not result in an ordered OBD II-related recall under section (c)(3)(A)(i).
- (7) *Executive Officer Notification to the Manufacturer Regarding Determination of Nonconformance.*
- (A) Upon making the determination of nonconformance in section (b)(6) above, the Executive Officer shall notify the manufacturer in writing.
 - (B) The Executive Officer shall include in the notice:
 - (i) a description of each group or set of vehicles in the motor vehicle class covered by the determination;
 - (ii) the factual basis for the determination, including a summary of the test results relied upon for the determination;
 - (iii) a statement that the Executive Officer shall provide to the manufacturer, upon request and consistent with the California Public Records Act, Government Code section 6250 et seq., all records material to the Executive Officer's determination;
 - (iv) a provision allowing the manufacturer no less than 90 days from the date of issuance of the notice to provide the Executive Officer

- with any information contesting the findings set forth in the notice;
and
- (v) a statement that if a final determination is made that the motor vehicle class is equipped with a nonconforming OBD II system, the manufacturer may be subject to appropriate remedial action, including recall and monetary penalties.
- (C) Within the time period set by the Executive Officer in section (b)(7)(B)(iv) and any extensions of time granted under section (b)(7)(H), the manufacturer shall provide the Executive Officer, consistent with paragraphs (i) through (iii) below, with any test results, data, or other information derived from vehicle testing that may rebut or mitigate the results of the ARB testing, including any evidence that a motor vehicle class, if determined to be nonconforming, should be exempted from mandatory recall. (See section (c)(3)(B) below.)
- (i) For OBD II emission testing and OBD II ratio testing:
 - a. The manufacturer may submit evidence to demonstrate that vehicles in the test sample group used by the Executive Officer were inappropriately selected, procured, or tested in support of a request to have vehicles excluded from the test sample group in accordance with section (b)(3)(D)(iv).
 - b. If the manufacturer elects to conduct additional testing of vehicles in the motor vehicle class and submit the results of such testing to the Executive Officer, the manufacturer shall:
 - 1. Present evidence that it has followed the vehicle procurement and test procedures set forth in sections (b)(3) and (4) above, or
 - 2. If the manufacturer elects to use different procurement and testing procedures, submit a detailed description of the procedures used and evidence that such procedures provide an equivalent level of assurance that the results are representative of the motor vehicle class.
 - (ii) If the manufacturer objects to the size of the test sample group or the method used to procure vehicles in the test sample group used by the Executive Officer pursuant to section (b)(3)(B)(iii) or (b)(3)(C)(ii), the manufacturer shall set forth what it considers to be the appropriate size and procurement method, the reasons therefore, and test data from vehicles that confirm the manufacturer's position.
 - (iii) If the manufacturer elects to present evidence to overcome the presumption of nonconformance in section (b)(6)(C)(iii) above, the manufacturer shall demonstrate that the vehicles in the motor vehicle class comply with in-use monitor performance ratio requirements of title 13, CCR section 1968.2(d)(3.2) by presenting:
 - a. Evidence in accord with the procurement and testing requirements of sections (b)(3) and (4).

- b. Any other evidence that provides an equivalent level of proof that vehicles operated in California comply with the in-use monitor performance ratio requirements.
- (D) The Executive Officer may, but is not required to, accept any information submitted by a manufacturer pursuant to section (b)(7)(C) above after the time established for submission of such information has passed unless the manufacturer could not have reasonably foreseen the need for providing the information within the time period provided. In determining whether to accept late information, the Executive Officer will consider the lateness of the submission, the manufacturer's reasons for why such information was not timely presented, the materiality of the information to the Executive Officer's final determination, and what effect any delay may have on effective enforcement and the health and welfare of the State.
- (E) The requirements of section (b)(7) shall not be construed to abridge the manufacturer's right to assert any privilege or right provided under California law.
- (F) After receipt of any information submitted by the manufacturer pursuant to section (b)(7)(C) above, the Executive Officer shall consider all information submitted by the manufacturer and may conduct any additional testing that he or she believes is necessary.
- (G) *Final Determination.*
- (i) Within 60 days after completing any additional testing that the Executive Officer deemed necessary under section (b)(7)(F) above, the Executive Officer shall notify the manufacturer of his or her final determination regarding the finding of nonconformity of the OBD II system in the motor vehicle class. The determination shall be made after considering all of the information collected and received, including all information that has been received from the manufacturer.
 - (ii) The notice must include a description of each test group(s), OBD II group(s), or subgroups thereof, that has been determined to have a nonconforming OBD II system and set forth the factual bases for the determination.
- (H) *Extensions.* The Executive Officer may for good cause extend the time requirements set forth in section (b)(7). In granting additional time to a manufacturer, the Executive Officer shall consider, among other things, any documentation submitted by the manufacturer regarding the time that it reasonably believes is necessary to conduct its own testing, why such information could not have been more expeditiously presented, and what effect any delay caused by granting the extension may have on effective enforcement and the health and welfare of the State. The Executive Officer shall grant a manufacturer a reasonable extension of time upon the manufacturer demonstrating that despite the exercise of reasonable diligence, the manufacturer has been unable to produce relevant evidence in the time initially provided.

(c) *Remedial Action*

(1) *Voluntary OBD II-Related Recalls.*

If a manufacturer initiates a voluntary OBD II-related recall campaign, the manufacturer shall notify the Executive Officer of the recall at least 45 days before owner notification is to begin. The manufacturer shall also submit a voluntary OBD II-related recall plan for approval, as prescribed under section (d)(1) below. A voluntary recall plan shall be deemed approved unless disapproved by the Executive Officer within 30 days after receipt of the recall plan.

(2) *Influenced OBD II-Related Recalls.*

(A) Upon being notified by the Executive Officer, pursuant to section (b)(7)(G), that a motor vehicle class is equipped with a nonconforming OBD II system, the manufacturer may, within 45 days from the date of service of such notification, elect to conduct an influenced OBD II-related recall of all vehicles within the motor vehicle class for the purpose of correcting the nonconforming OBD II systems. Upon such an election, the manufacturer shall submit an influenced OBD II-related recall plan for approval, as prescribed under section (d)(1) below.

(B) If a manufacturer does not elect to conduct an influenced OBD II-related recall under section (c)(2)(A) above, the Executive Officer may order the manufacturer to undertake appropriate remedial action, up to and including the recall and repair of the nonconforming OBD II systems.

(3) *Ordered Remedial Action-Mandatory Recall.*

(A) Except as provided in sections (c)(3)(B) below, the Executive Officer shall order the recall and repair of all vehicles in a motor vehicle class that have been determined to be equipped with a nonconforming OBD II system if enforcement testing conducted pursuant to section (b) above or information received from the manufacturer indicates any of the following:

(i) For monitors on 2007 and subsequent model year vehicles certified to the ratios in title 13, CCR sections 1968.2(d)(3.2.1)(A) through (C) (except monitors specified in sections (b)(6)(B)(i)b. through e.), the average in-use monitor performance ratio for one or more of the major monitors in the test sample group is less than or equal to 33.0 percent of the applicable required minimum ratio established in title 13, CCR section 1968.2(d)(3.2.1) (e.g., if the required ratio is 0.336, less than or equal to a ratio of 0.111) or 66.0 percent or more of the vehicles in the test sample group have an in-use monitor performance ratio of less than or equal to 33.0 percent of the applicable required minimum ratio established in title 13, CCR section 1968.2(d)(3.2.1) for the same major monitor. For monitors specified in sections (b)(6)(B)(i)a. through e., the Executive Officer shall determine the remedial action for nonconformances regarding

the in-use monitor performance ratio in accordance with section (c)(4) below.

- (ii) Except as provided in section (c)(3)(A)(ii)a. through e. below, when the vehicle is tested on-road and driven so as to reasonably encounter all monitoring conditions disclosed in the manufacturer's certification application, the OBD II system is unable to detect and illuminate the MIL for a malfunction of a component/system monitored by a major monitor (except for monitors with malfunction criteria that are not tied to emission thresholds such as the evaporative system monitor) prior to emissions exceeding two times the malfunction criteria of title 13, CCR sections 1968.2(e) and (f) (e.g., if the malfunction criteria is 1.75 times the applicable FTP standard, recall would be required when emissions exceed 3.5 times the applicable FTP standard or if the malfunction criteria is the PM standard plus 0.02 g/bhp-hr and the PM standard is 0.01 g/bhp-hr, recall would be required when emissions exceed 0.06 g/bhp-hr).
 - a. For the first two years that a new major monitor is required in title 13, CCR section 1968.2(e) (e.g., 2006 and 2007 model year for cold start strategy monitoring in title 13, CCR section 1968.2(e)(11)), the Executive Officer shall use three times the malfunction criteria in lieu of two times the malfunction criteria (e.g., if the malfunction criterion is 1.5 times the applicable FTP standard, recall would be required when emissions exceed 4.5 times the applicable FTP standard).
 - b. Except as provided for gasoline air-fuel ratio cylinder imbalance monitors in section (c)(3)(A)(ii)d. below, for the first three years a vehicle is certified to the Low Emission Vehicle III ULEV70 and ULEV50 standards but no later than the 2019 model year, the Executive Officer shall use 2.5 times the malfunction criteria (e.g., if the malfunction criterion is 2.0 times the applicable FTP standard, recall would be required when emissions exceed 5.0 times the applicable FTP standard).
 - c. For the gasoline air-fuel ratio cylinder imbalance monitor (required in title 13, CCR section 1968.2(e)(6.2.1)(C)) on 2015 through 2016 model year non-Low Emission Vehicle III applications, the Executive Officer shall use 8.0 times any of the applicable FTP standards for PC/LDT SULEV II vehicles and 6.0 times any of the applicable FTP standards for all other vehicles in lieu of two times the malfunction criteria.
 - d. For the gasoline air-fuel ratio cylinder imbalance monitor (required in title 13, CCR section 1968.2(e)(6.2.1)(C)) on 2019 through 2022 model year Low Emission Vehicle III ULEV70, ULEV50, SULEV30, and SULEV20 applications, the Executive Officer shall use 6.0 times any of the applicable FTP NMOG+NO_x or CO standards for ULEV70 and ULEV50

vehicles and 8.0 times any of the applicable FTP NMOG+NO_x or CO standards for SULEV30 and SULEV20 vehicles in lieu of two times the NMOG+NO_x or CO malfunction criteria. The Executive Officer shall use twice the malfunction criteria for PM emissions.

- e. For major monitors on 2007 through 2009 model year vehicles certified to the monitoring requirements in title 13, CCR section 1968.2(f) and for the PM filter filtering performance monitor (title 13, CCR section 1968.2(f)(9.2.1)) on 2013 model year medium-duty vehicles, the Executive Officer shall determine the remedial action for nonconformances regarding emission exceedance in accordance with section (c)(4) below in lieu of the criteria in section (c)(3)(ii).
 - f. For purposes of the emission exceedance determination, carbon monoxide (CO) emissions are not considered.
- (iii) For misfire monitors not covered under section (c)(3)(A)(ii) above:
- a. Gasoline misfire monitor: The monitor for misfire causing catalyst damage is unable to properly detect and illuminate the MIL for misfire rates that are more than 20 percentage points greater than the misfire rates disclosed by the manufacturer in its certification application as causing catalyst damage (e.g., if the disclosed misfire rate is 12 percent, recall would be required if the misfire rate is greater than 32 percent without proper detection).
 - b. Gasoline plug-in hybrid electric vehicle misfire monitor: For vehicles certified to the malfunction criteria in title 13, CCR section 1968.2(e)(3.2.3)(A), the misfire monitor is unable to properly detect and illuminate the MIL for misfire rates that are equal to or more than 5 percent. For vehicles certified to the malfunction criteria in title 13, CCR section 1968.2(e)(3.2.3)(B), the criteria under section (c)(3)(A)(ii) shall apply.
 - c. Diesel misfire monitor: For 2022 and subsequent model year passenger cars, light-duty trucks, and MDPVs certified to a chassis dynamometer tailpipe emission standard, and for 2019 and subsequent model year medium-duty diesel vehicles (except MDPVs certified to a chassis dynamometer tailpipe emission standard), the misfire monitor is unable to properly detect and illuminate the MIL for misfire rates that are more than 10 percentage points greater than the misfire malfunction criteria specified in title 13, CCR section 1968.2(f)(3.2.2) (e.g., misfire rate more than 15 percent if the misfire malfunction criteria is 5 percent).
- (iv) When the vehicle is tested on-road and driven so as to reasonably encounter all monitoring conditions disclosed in the manufacturer's certification application, the evaporative system monitor is unable to detect and illuminate the MIL for a cumulative leak or leaks in the

- evaporative system equivalent to that caused by an orifice with a diameter of at least 1.5 times the diameter of the required orifice in title 13, CCR section 1968.2(e)(4.2.2)(C).
- (v) When the vehicle is tested on-road and driven so as to reasonably encounter all monitoring conditions disclosed in the manufacturer's certification application, the OBD II system cannot detect and illuminate the MIL for a malfunction of a component that effectively disables a major monitor and the major monitor, by being disabled, meets the criteria for recall identified in sections (c)(3)(A)(ii) or (iv) above (e.g. is unable to detect and illuminate the MIL for malfunctions that cause FTP emissions to exceed two times the malfunction criteria).
 - (vi) For 2013 and subsequent model year medium-duty diesel vehicles (except MDPVs certified to a chassis dynamometer tailpipe emission standard) and 2016 and subsequent model year passenger cars, light-duty trucks, and MDPVs certified to a chassis dynamometer tailpipe emission standard, when the vehicle is tested on-road and driven so as to reasonably encounter all monitoring conditions disclosed in the manufacturer's certification application, the PM filter monitor is unable to detect and illuminate the MIL for any of the following:
 - a. a missing substrate fault in accordance with title 13, CCR section 1968.2(f)(9.2.5); or
 - b. a malfunction of the PM filter that causes PM emissions to be equal to or greater than the emission level of the engine or vehicle, as measured from an applicable emission test cycle (i.e., FTP or SET), with the PM filter substrate completely removed.
 - (vii) The motor vehicle class cannot be tested so as to obtain valid test results in accordance with the criteria identified in section (b)(6)(C)(ii) due to the nonconforming OBD II system.
- (B) A motor vehicle class shall not be subject to mandatory recall if the Executive Officer determines that any of the following conditions are met, even though a monitor meets a criterion set forth in section (c)(3)(A)(i)-(vi) for mandatory recall:
- (i) The OBD II system can still detect and illuminate the MIL for all malfunctions monitored by the nonconforming monitor (e.g., monitor "A" is non-functional but monitor "B" is able to detect all malfunctions of the component(s) monitored by monitor "A").
 - (ii) The monitor meets the criterion solely due to a failure or deterioration mode of a monitored component or system that could not have been reasonably foreseen to occur by the manufacturer.
 - (iii) The failure or deterioration of the monitored component or system that cannot be properly detected causes the vehicle to be undriveable (e.g., vehicle stalls continuously or the transmission will not shift out of first gear, etc.) or causes an overt indication such

that the driver is certain to respond and have the problem corrected (e.g., illumination of an over-temperature warning light or charging system light that uncorrected will result in an undriveable vehicle, etc.).

- (C) A motor vehicle class that is not subject to mandatory recall pursuant to paragraph (B) above may still be subject to remedial action pursuant to section (c)(4) below.
- (4) *Other Ordered Remedial Action.*
 - (A) If the Executive Officer has determined based upon enforcement testing conducted pursuant to section (b) above or information received from the manufacturer that a motor vehicle class is equipped with a nonconforming OBD II system and the nonconformance does not fall within the provisions of section (c)(3)(A) above, he or she may require the manufacturer to undertake remedial action up to and including recall of the affected motor vehicle class.
 - (B) In making his or her findings regarding remedial action, the Executive Officer shall consider the capability of the OBD II system to properly function. This determination shall be based upon consideration of all relevant circumstances including, but not limited to, those set forth below.
 - (i) Whether the manufacturer identified and informed the ARB about the nonconformance(s) or whether the ARB identified the nonconformance(s) prior to being informed by the manufacturer.
 - (ii) The number of nonconformances.
 - (iii) If the identified nonconformance(s) is with a major monitor(s), the nature and extent of the nonconformance(s), including:
 - a. the degree to which the in-use monitor performance ratio(s) is below the required ratio(s) specified in title 13, CCR section 1968.2(d)(3.2.1), and
 - b. the amount of the emission exceedance(s) over the established malfunction criteria set forth in title 13, CCR sections 1968.2(e) and (f) before a malfunction is detected and the MIL is illuminated.
 - (iv) If the identified nonconformance(s) is with a non-major monitor the nature and extent of the nonconformance(s), including:
 - a. the degree to which the in-use monitor performance ratio(s) (where applicable) is below the required ratio(s) specified in title 13, CCR section 1968.2(d)(3.2.1),
 - b. the degree to which the monitored component must be malfunctioning or exceed the established malfunction criteria set forth in title 13, CCR sections 1968.2(e) and (f) before a malfunction is detected and the MIL is illuminated, and
 - c. the effect that the nonconformance(s) has on the operation of a major monitor(s).
 - (v) The impact of the nonconformance on vehicle owners (e.g., cost of future repairs, driveability, etc.) and the ability of the service and

repair industry to make effective repairs (e.g., difficulty in accessing fault information, diagnosing the root cause of a failure, etc.).

- (vi) The degree to which the identified nonconformance(s) complicates, interferes with, disrupts, or hampers a service technician's ability to follow California I/M testing protocol when performing a California I/M inspection.
- (vii) The failure of the data link connector of the motor vehicle class to meet the requirements of title 13, CCR section 1968.2(g)(2).
- (viii) The failure of the crankcase ventilation system in a motor vehicle class to comply with the requirements of title 13, CCR sections 1968.2(e)(9) or (f)(10).
- (ix) The failure of the cooling system monitor in a motor vehicle class to properly verify that the cooling system reaches the highest enable temperature used for any other monitor when the vehicle is operated in the monitoring conditions disclosed in the manufacturer's certification application, or failure to comply with any requirement in title 13, CCR sections 1968.2(e)(10) or (f)(11).
- (x) The estimated frequency that a monitor detects a malfunction and illuminates the MIL when no component malfunction is present (i.e., false MILs).
- (xi) The estimated frequency that a monitor fails to detect a malfunction and illuminate the MIL when the monitoring conditions, as set forth in the manufacturer's approved certification application, have been satisfied and a faulty or deteriorated monitored component is present (i.e., false passes).
- (xii) Whether the manufacturer submitted false, inaccurate, or incomplete documentation regarding the identified nonconformance at the time of certification pursuant to title 13, CCR section 1968.2(i) and the extent to which the false, inaccurate, or incomplete documentation was material to the granting of certification.

(C) In making the determination, the average tailpipe and evaporative emissions of vehicles within the affected motor vehicle class shall not be considered.

(5) *Assessment of Monetary Penalties.*

The Executive Officer may seek penalties pursuant to the applicable provisions of the Health and Safety Code for violations of the requirements of title 13, CCR section 1968.2 or for production vehicles otherwise failing to be equipped with OBD II systems that have been certified by the ARB. In determining the penalty amounts that the ARB may seek, the Executive Officer shall consider all relevant circumstances including the factors set forth below:

- (A) Whether the manufacturer self-reported the nonconformity or the ARB discovered the nonconformity independent of the manufacturer.
- (B) The nature and degree of the nonconformity and whether the manufacturer should reasonably have discovered the nonconformity

- and taken corrective action by voluntary OBD II-related recall or running changes during the production year.
- (C) The economic benefits, if any, gained by the manufacturer from not complying with the provisions of title 13, CCR section 1968.2.
 - (D) The manufacturer's history of compliance with the OBD II requirements.
 - (E) The preventative efforts taken by the manufacturer to avoid noncompliance, including any programs followed by the manufacturer to ensure compliance.
 - (F) The manufacturer's efforts to correct the nonconformity once it was identified.
 - (G) The innovative nature and magnitude of effort, including the cost of any other proposed remedial action, necessary to correct the nonconformity.
 - (H) The deterrent effect of the penalty.
 - (I) Whether the manufacturer has failed to provide complete and accurate information required to be submitted at the time of certification pursuant to title 13, CCR section 1968.2(i).
 - (J) The nature and degree that OBD II systems on production vehicles differ from the systems that have been certified by the ARB.
- (6) *Notice to Manufacturer for an Ordered Remedial Action.*
- (A) The Executive Officer shall immediately notify the manufacturer upon the Executive Officer determining the type of remedial action to be taken.
 - (B) For remedial actions other than the assessment of monetary penalties, the notice must:
 - (i) specifically set forth the remedial action that is being ordered,
 - (ii) include a description of the test group(s), OBD II group(s), or subgroup(s) thereof, that has been determined to have a nonconforming OBD II system,
 - (iii) set forth the factual bases for the determination, and
 - (iv) designate a date at least 45 days from the date of receipt of such notice by which the manufacturer shall submit a plan, pursuant to section (d)(1) below, outlining the remedial action to be undertaken consistent with the Executive Officer's order. Except as provided in section (c)(7)(C) below, all plans shall be submitted to the Chief, Mobile Source Operations Division, 9528 Telstar Avenue, El Monte, California 91731, within the time limit specified in the notice. The Executive Officer may grant the manufacturer an extension of time for good cause.
 - (C) For cases in which the ARB elects to seek monetary penalties pursuant to authority granted under the Health and Safety Code, the Executive Officer shall issue a notice to the manufacturer that he or she will be filing a complaint in the appropriate administrative or civil court forum seeking penalties against the manufacturer for violations of title 13, CCR section 1968.2. The notice must include a description of

the test group(s), OBD II group(s), or subgroup(s) thereof, that have been determined to have a nonconforming OBD II system and set forth the factual bases for the determination.

- (7) *Availability of Public Hearing to Contest Remedial Actions Other than Determination to Seek Monetary Penalties.*
- (A) Within 45 days from the date of receipt of the notice that is required under section (c)(6) above, the manufacturer may request a public hearing pursuant to the procedures set forth in title 17, CCR section 60055.1, et seq., to contest the findings of nonconformity, the necessity for, or the scope of any ordered remedial action. Pursuant to those procedures, the Executive Officer has the initial burden of presenting evidence that those parts of the Executive Officer's determination specifically challenged are supported by the facts and applicable law. (Title 17, CCR section 60055.32(d)(1).) Each issue of controversy shall be decided based upon the preponderance of the evidence presented at the hearing. (Title 17, CCR section 60055.32(h).)
- (B) Notwithstanding the provisions of title 17, CCR section 60055.17(a)(1), administrative hearings conducted pursuant to a request filed under section (c)(7)(A) above shall be referred to the Office of Administrative Hearings, which shall otherwise follow the procedures established in title 17, CCR section 60055.1 et seq.
- (C) If a manufacturer requests a public hearing pursuant to section (c)(7)(A) above and if the Executive Officer's determination of nonconformity is confirmed at the hearing, the manufacturer shall submit the required remedial action plan in accordance with section (d)(1) below within 30 days after receipt of the Board's decision.

(d) *Requirements for Implementing Remedial Actions*

(1) *Remedial Action Plans.*

- (A) A manufacturer initiating a remedial action (voluntary, influenced, or ordered), other than payment of monetary penalties, shall develop a remedial action plan that contains the following information, unless otherwise specified:
- (i) A description of each test group, OBD II group, or subgroup thereof covered by the remedial action, including the number of vehicles, the engine families, test groups, or subgroups within the identified class(es), the make(s), model(s), and model years of the covered vehicles, and such other information as may be required to identify the covered vehicles.
- (ii) A description of the nonconforming OBD II system and, in the case of a recall (whether voluntary, influenced, or ordered), the specific modifications, alterations, repairs, adjustments, or other changes to correct the nonconforming OBD II system, including data and/or engineering evaluation supporting the specific corrections.

- (iii) A description of the method that the manufacturer will use to determine the names and addresses of vehicle owners and the manufacturer's method and schedule for notifying the service facilities and vehicle owners of the remedial action.
 - (iv) A copy of all instructions that the manufacturer will use to notify service facilities about the required remedial action and the specific corrections, if any, that will be required to be made to the nonconforming OBD II systems.
 - (v) A description of the procedure to be followed by vehicle owners to obtain remedial action for the nonconforming OBD II system. This must include the date, on or after which the owner can have required remedial action performed, the time reasonably necessary to perform the labor to remedy the nonconformity, and the designation of facilities at which the nonconformity can be remedied.
 - (vi) If some or all of the nonconforming OBD II systems are to be remedied by persons other than dealers or authorized warranty agents of the manufacturer, a description of such class of service agents and what steps, including a copy of all instructions mailed to such service agents, the manufacturer will take to assure that such agents are prepared and equipped to perform the proposed remedial action.
 - (vii) A copy of the letter of notification to be sent to vehicle owners.
 - (viii) A proposed schedule for implementing the remedial action, including identified increments of progress towards full implementation.
 - (ix) A description of the method that the manufacturer will use to assure that an adequate supply of parts will be available to initiate the remedial action campaign on the date set by the manufacturer and that an adequate supply of parts will continue to be available throughout the campaign.
 - (x) A description and test data of the emission impact, if any, that the proposed remedial action may cause to a representative vehicle from the motor vehicle class to be remedied.
 - (xi) A description of the impact, if any, and supporting data and/or engineering evaluation, that the proposed remedial action will have on fuel economy, driveability, performance, and safety of the motor vehicle class covered by the remedial action.
 - (xii) Any other information, reports, or data which the Executive Officer may reasonably determine to be necessary to evaluate the remedial action plan.
- (B) *Approval and Implementation of Remedial Action Plans.*
- (i) If the Executive Officer finds that the remedial action plan is designed effectively to address the required remedial action and complies with the provisions in section (d)(1)(A) above, he or she

shall notify the manufacturer in writing within 30 days of receipt of the plan that the plan has been approved.

- (ii) The Executive Officer shall approve a voluntary, influenced, or ordered remedial action plan if the plan contains the information specified in section (d)(1)(A) above and is designed to notify the vehicle owner and implement the remedial action in an expeditious manner.
 - (iii) In disapproving an ordered remedial action plan, the Executive Officer shall notify the manufacturer in writing of the disapproval and the reasons for the determination. The manufacturer shall resubmit a revised remedial action plan that fully addresses the reasons for the Executive Officer's disapproval within 10 days of receipt of the disapproval notice.
 - (iv) Upon receipt of the approval notice of the ordered remedial action plan from the Executive Officer, the manufacturer shall, within 45 days of receipt of the notice, begin to notify vehicle owners and implement the remedial action campaign.
 - (v) If the Executive Officer disapproves a voluntary or influenced remedial action plan, the manufacturer shall either accept the proposed modifications to the plan as suggested by the Executive Officer, resubmit a revised remedial action plan that fully addresses the reasons for the Executive Officer's disapproval within 30 days, or be subject to an Executive Officer order that the manufacturer undertake appropriate remedial action pursuant to section (c)(2)(B) above.
 - (vi) Upon receipt of the voluntary or influenced remedial action approval notice from the Executive Officer, the manufacturer shall begin to notify vehicle owners and implement the remedial action campaign according to the schedule indicated in the remedial action plan.
- (2) *Eligibility for Remedial Action.*
- (A) The manufacturer may not condition a vehicle owner's eligibility for remedial action required under section 1968.5 on the proper maintenance or use of the vehicle.
 - (B) The manufacturer shall not be obligated to repair a component which has been modified or altered such that the remedial action cannot be performed without additional cost.
- (3) *Notice to Owners.*
- (A) The manufacturer shall notify owners of vehicles in the motor vehicle class covered by the remedial order. The notice must be made by first-class mail or by such other means as approved by the Executive Officer. When necessary, the Executive Officer may require the use of certified mail for ordered remedial actions to assure effective notification.
 - (B) The manufacturer shall use all reasonable means necessary to locate vehicle owners, including motor vehicle registration lists available from

the California Department of Motor Vehicles and commercial sources such as R.L. Polk & Co.

(C) The notice must contain the following:

- (i) For ordered remedial actions, a statement: "The California Air Resources Board has determined that your (vehicle or engine) (is or may be) equipped with an improperly functioning on-board emission-related diagnostic system that violates established standards and regulations that were adopted to protect your health and welfare from the dangers of air pollution."
- (ii) For voluntary and influenced remedial actions, a statement: "Your (vehicle or engine) (is or may be) equipped with an improperly functioning on-board emission-related diagnostic system that violates (California or California and Federal) standards and regulations" if applicable as determined by the Executive Officer.
- (iii) A statement that the nonconformity of any such vehicles will be remedied at the expense of the manufacturer.
- (iv) A statement that eligibility for remedial action may not be denied solely on the basis that the vehicle owner used parts not manufactured by the original equipment vehicle manufacturer, or had repairs performed by outlets other than the vehicle manufacturer's franchised dealers.
- (v) Instructions to the vehicle owners on how to obtain remedial action, including instructions on whom to contact (i.e., a description of the facilities where the vehicles should be taken for the remedial action), the first date that a vehicle may be brought in for remedial action, and the time that it will reasonably take to correct the nonconformity.
- (vi) The statement: "In order to assure your full protection under the emission warranty provisions, it is recommended that you have your (vehicle or engine) serviced as soon as possible. Failure to do so could be determined as lack of proper maintenance of your (vehicle or engine)."
- (vii) A telephone number for vehicle owners to call to report difficulty in obtaining remedial action.
- (viii) A card to be used by a vehicle owner in the event the vehicle to be recalled has been sold. Such card should be addressed to the manufacturer, have postage paid, and shall provide a space in which the owner may indicate the name and address of the person to whom the vehicle was sold or transferred.
- (ix) If the remedial action involves recall, the notice must also provide:
 - a. A clear description of the components that will be affected by the remedial action and a general statement of the measures to be taken to correct the nonconformity.
 - b. A statement that such nonconformity, if not corrected, may cause the vehicle to fail an emission inspection or I/M smog check test.

- c. A statement describing the adverse effects, if any, of an uncorrected nonconforming OBD II system on the performance, fuel economy, or durability of the vehicle.
 - d. A statement that after remedial action has been taken, the manufacturer will have the service facility issue a certificate showing that a vehicle has been corrected under the recall program, and that such a certificate will be required to be provided to the Department of Motor Vehicles as a condition for vehicle registration.
- (D) A notice sent pursuant to this section or any other communication sent to vehicle owners or dealers may not contain any statement, expressed or implied, that the OBD II system is compliant or that the OBD II system will not degrade air quality.
- (E) The Executive Officer shall inform the manufacturer of any other requirements pertaining to the notification under section (d)(3) which the Executive Officer has determined as reasonable and necessary to assure the effectiveness of the recall campaign.
- (4) *Label Indicating that Recall Repairs Have Been Performed.*
- (A) If the required remedial action involves recall of a test group(s), OBD II group(s), or subgroup(s) thereof, the manufacturer shall require those who perform inspections and/or recall repairs to affix a label to each vehicle that has been inspected and/or repaired.
- (B) The label must be placed in a location approved by the Executive Officer and must be fabricated of a material suitable for such location in which it is installed and which is not readily removable.
- (C) The label must contain the remedial action campaign number and a code designating the facility at which the remedial action or inspection to determine the need for remedial action was performed.
- (5) *Proof of Performance of Remedial Action Certificate.*
- If the required remedial action involves a recall, the manufacturer shall provide, through its service agents, to owners of vehicles that have had the remedial action performed a certificate that confirms that the vehicle has been recalled and that required inspection and/or repairs have been performed. The certificate must be in a format prescribed by the Executive Officer, however, the Executive Officer may not require a format different in any way from the format of the certificate required in title 13, CCR sections 2117 and 2129.
- (6) *Record Keeping and Reporting Requirements.*
- (A) The manufacturer shall maintain sufficient records to enable the Executive Officer to conduct an analysis of the adequacy of the remedial action.
- (B) Unless otherwise specified by the Executive Officer, the manufacturer shall report on the progress of the remedial action campaign by submitting reports for eight consecutive quarters commencing with the quarter immediately after the recall campaign begins. The reports shall be submitted no later than 25 days after the close of each

calendar quarter to: Chief, Mobile Source Operations Division, 9528 Telstar Avenue, El Monte, California 91731. For each recall campaign, the quarterly report must contain the following:

- (i) The test group and the remedial action campaign number designated by the manufacturer and a brief description of the nature of the campaign.
- (ii) The date owner notifications began and date completed.
- (iii) The number of vehicles involved in the remedial action campaign.
- (iv) The number of vehicles known or estimated to be equipped with the nonconforming OBD II system and an explanation of the means by which this number was determined.
- (v) The number of vehicles inspected during the campaign since its inception.
- (vi) The number of vehicles found to be affected by the nonconformity during the campaign since its inception.
- (vii) The number of vehicles receiving remedial action during the campaign since its inception.
- (viii) The number of vehicles determined to be unavailable for inspection or remedial action, during the campaign since its inception, due to exportation, theft, scrapping, or other reasons (specify).
- (ix) The number of vehicles, during the campaign since its inception, determined to be ineligible for remedial action under section (d)(2)(B).
- (x) An initial list, using the following data elements and designated positions, indicating all vehicles subject to recall that the manufacturer has not been invoiced for, or a subsequent list indicating all vehicles subject to the recall that the manufacturer has been invoiced for since the previous report. The list must be supplied in a standardized computer format to be specified by the Executive Officer. The data elements must be written in "ASCII" code without a comma separating each element. For example: XTY32A71234E-9456123408-25-91A. The add flag (see below) should reflect the vehicles for which the manufacturer has not been invoiced and the delete flag should reflect changes since the previous report. The Executive Officer may change the frequency of this submittal depending on the needs of enforcement. The Executive Officer may not, however, require a frequency or format for this submittal that is different in any way from the frequency or format determined by the Executive Officer as required for reporting of data in title 13, CCR sections 2119(a)(10) and 2133(a)(10).

<i>Data Elements</i>	<i>Positions</i>
• File Code (designated by DMV)	1
• License Plate Number	2-8
• Last three VIN positions	9-11
• Recall ID Number	12-17
• Mfg. ID Number (Mfg. Occupational License Number)	18-22
• Recall Start Date (mmddyyyy)	23-30
• Add or Delete Flag (A/D)	31
• Complete VIN if personalized license plate (File Code "L" or "S")	32-48

- (xi) A copy of any service bulletins issued during the reporting period by the manufacturer to franchised dealerships or other service agents that relate to the nonconforming OBD II system and the remedial action and have not previously been reported to the Executive Officer.
- (xii) A copy of all communications transmitted to vehicle owners that relate to the nonconforming OBD II systems and the required remedial action and have not been previously reported to the Executive Officer.
- (C) If the manufacturer determines that any of the information submitted to the Executive Officer pursuant to section (d) has changed or is incorrect, the manufacturer shall submit the revised information, with an explanation.
- (D) The manufacturer shall maintain in a form suitable for inspection, such as computer information, storage devices, or card files, and shall make available to the Executive Officer or his or her authorized representative upon request, the names and addresses of vehicle owners:
 - (i) To whom notification was sent;
 - (ii) Whose vehicles were repaired or inspected under the recall campaign;
 - (iii) Whose vehicles were determined not to be eligible for remedial action because the vehicles were modified, altered, or unavailable due to exportation, theft, scrapping, or other reason specified in the answer to sections (d)(6)(B)(viii) and (ix).
- (E) The information gathered by the manufacturer to compile the reports required by these procedures must be retained for no less than one year beyond the useful life of the vehicles and must be made available to authorized personnel of the ARB upon request.
- (F) The filing of any report under the provisions of these procedures must not affect the manufacturer's responsibility to file reports or applications, obtain approval, or give notice under any other provisions of law.

(7) *Extension of Time.*

Upon request of the manufacturer, the Executive Officer may extend any deadline set forth in section 1968.5(d) upon finding that the manufacturer has demonstrated good cause for the requested extension.

(e) *Penalties for Failing to Comply with the Requirements of Section (d).*

- (1) In addition to the penalties that may be assessed by the Executive Officer pursuant to section (c) because of a manufacturer's failure to comply with the requirements of title 13, CCR section 1968.2, a manufacturer may be subject to penalties pursuant to section 43016, Health and Safety Code for failing to comply with the requirements of section (d).
- (2) If a manufacturer fails to comply with a voluntary or influenced remedial action plan, the Executive Officer may order remedial action pursuant to section (c) above.

NOTE: Authority cited: Sections 39010, 39600, 39601, 39602.5, 43000.5, 43013, 43016, 43018, 43100, 43101, 43104, 43105, 43105.5, 43106, 43154, 43211, and 43212, Health and Safety Code; and *Engine Manufacturers Association v. California Air Resources Board* (2014) 231 Cal.App.4th 1022. Reference: Sections 39002, 39003, 39010, 39018, 39021.5, 39024, 39024.5, 39027, 39027.3, 39028, 39029, 39031, 39032, 39032.5, 39033, 39035, 39037.05, 39037.5, 39038, 39039, 39040, 39042, 39042.5, 39046, 39047, 39053, 39054, 39058, 39059, 39060, 39515, 39600, 39601, 39602.5, 43000, 43000.5, 43004, 43006, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105, 43105.5, 43106, 43150, 43151, 43152, 43153, 43154, 43155, 43156, 43204, 43211 and 43212, Health and Safety Code.