

Attachment A

Proposed Second 15-Day Modified Regulation Order,
OBD Regulations
Title 13, California Code of Regulations, Sections 1968.2
and 1971.1

Proposed Revisions to the On-Board Diagnostic System
Requirements and Associated Enforcement Provisions for
Passenger Cars, Light-Duty Trucks, Medium-Duty
Vehicles and Engines, and Heavy-Duty Engines

Attachment A

Proposed Second 15-Day Modified Regulation Order

This attachment shows the modifications to the originally proposed regulatory language. The originally proposed regulatory language is shown in underline to indicate additions and ~~strikeout~~ to indicate deletions. The suggested modifications to the proposed regulation that were made public with the first 15-day notice are shown in double underline to indicate additions and ~~double strikeout~~ to indicate deletions. New suggested modifications to the proposed regulation that are made public with this notice are shown in **bold italic double underline** to indicate additions and ~~**bold italic double strikeout**~~ to indicate deletions. Various portions of the regulations that are not modified by the proposed amendments are omitted from the text shown and indicated by " * * * * ".

Amend sections 1968.2 and 1971.1, title 13, California Code of Regulation (CCR), to read as follows:

§ 1968.2 Malfunction and Diagnostic System Requirements - 2004 and Subsequent Model Year Passenger Cars, Light Duty Trucks, and Medium Duty Vehicles and Engines.

* * * * *

(c) *Definitions.*

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"*Alternate phase-in*" is a phase-in schedule that achieves equivalent compliance volume by the end of the last year of a scheduled phase-in provided in this regulation. The compliance volume is the number calculated by multiplying the percent of vehicles (based on the manufacturer's projected sales volume of all vehicles unless specifically stated otherwise in sections ~~(e) or (f)~~**(d) through (g)**) meeting the new requirements per year by the number of years implemented prior to and including the last year of the scheduled phase-in and then summing these yearly results to determine a cumulative total (e.g., a three year, 30/60/100 percent scheduled phase-in would be calculated as (30*3 years) + (60*2 years) + (100*1 year) = 310). On phase-ins scheduled to begin prior to the 2004 model year, manufacturers are allowed to include vehicles introduced before the first year of the scheduled phase-in (e.g., in the previous example, 10 percent introduced one year before the scheduled phase-in begins would be calculated as (10*4 years) and added to the cumulative total). However, on phase-ins scheduled to begin in 2004 or subsequent model years, manufacturers are only allowed to include vehicles introduced up to one model year before the first year of the scheduled phase-in. The Executive Officer shall consider acceptable any alternate phase-in that results in

an equal or larger cumulative total by the end of the last year of the scheduled phase-in and ensures that all vehicles subject to the phase-in will comply with the respective requirements no later than two model years following the last year of the scheduled phase-in.

* * * *

(i) *Certification Documentation*

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- (2) The following information shall be submitted as "Part 1" of the certification application. Except as provided below for demonstration data, the Executive Officer will not issue an Executive Order certifying the covered vehicles without the information having been provided. The information must include:

* * * *

- (2.14) A cover letter identifying all concerns and deficiencies applicable to the equivalent previous model year test group, the changes and/or resolution of each concern or deficiency for the current model year test group, and all other known issues that apply to the current model year test group (e.g., concerns or deficiencies of another test group that also apply to this test group, issues found during demonstration testing under section (h), unresolved issues identified found during production vehicle evaluation testing under section (j) from a previous model year).

* * * *

(j) *Production Vehicle Evaluation Testing*.

- (1) Verification of Standardized Requirements.

* * * *

- (1.4) Required Testing (i.e., "static" testing portion of SAE J1699-3):

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- (1.4.2) The testing shall further verify that the vehicle can properly communicate to any SAE J1978 scan tool:

* * * *

- (E) Any emission-related fault code (permanent, confirmed, and pending) in accordance with SAE J1979 or SAE J1979-2, whichever is applicable, (including correctly indicating the number of stored fault codes and MIL command status (e.g., Mode/Service \$01, PID \$01, Data A for SAE J1979, Service \$22, PID \$F501 for SAE J1979-2)) and section (g)(4.4) for each diagnostic and emission critical electronic powertrain control unit;

* * * *

- (1.5) Reporting of Results: The manufacturer shall submit to the Executive Officer all information described in sections (j)(1.5.1), (j)(1.5.2), and (j)(1.5.4), except

for the test log files, in one report for each model year. The report shall be one single file for each model year and shall include the information for all testing completed in that specific model year. The manufacturer shall update the report for each new test within the deadlines described below. **The manufacturer shall submit the test log files described in sections (j)(1.5.1) and (j)(1.5.2) to the Executive Officer separately from the report described above.**

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(k) Deficiencies.

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(3) The fines are in the amount of \$50 per deficiency per vehicle for non-compliance with any of the monitoring requirements specified in sections (e)(1) through (e)(8), (e)(11), (e)(13), (e)(14), (e)(16), (f)(1) through (f)(9), (f)(12), (f)(13), and (f)(16) and \$25 per deficiency per vehicle for non-compliance with any other requirement of section 1968.2. The fines are applied to vehicles produced **and delivered** for sale in California. In determining the identified order of deficiencies, deficiencies subject to a \$50 fine are identified first. Total fines per vehicle under section (k) may not exceed \$500 per vehicle and are payable to the State Treasurer for deposit in the Air Pollution Control Fund. Except as provided below, a manufacturer shall submit the fines payment not more than 30 calendar days after the close of a calendar quarter. Within 30 days from the end of the calendar quarter, a manufacturer shall report the number of affected vehicles produced **and delivered** for sale in California during the quarter and submit the total payment for the vehicles produced **and delivered** for sale during that quarter. A manufacturer may request Executive Officer approval for an alternate payment schedule in lieu of the schedule described above. Executive Officer approval shall be based on the projected sales volume of the entire manufacturer product line, and the appropriateness and effectiveness of the schedule in paying the total fines in a timely manner.

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NOTE: Authority cited: Sections 38501, ~~38505~~, 38510, 39010, 39600, 39601, 39602.5, 43000.5, 43013, 43018, 43100, 43101, 43104, 43105, 43105.5 and 43106, Health and Safety Code; and Engine Manufacturers Association v. California Air Resources Board (2014) 231 Cal.App.4th 1022. Reference: Sections 38501, 38505, 38510, 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.

§ 1971.1 On-Board Diagnostic System Requirements--2010 and Subsequent Model-Year Heavy-Duty Engines

* * * *

(c) *Definitions.*

* * * *

"Alternate phase-in" ~~as allowed in section (g)(5-8)~~ is a phase-in schedule that achieves equivalent compliance volume by the end of the last year of a scheduled phase-in provided in this regulation. The compliance volume is the number calculated by multiplying the percent of engines (based on the manufacturer's projected sales volume of all engines unless specifically stated otherwise in sections ~~(e), (f), or (g)~~ **(e) through (h)**) meeting the new requirements per year by the number of years implemented prior to and including the last year of the scheduled phase-in and then summing these yearly results to determine a cumulative total (e.g., a three year, 20/50/100 percent scheduled phase-in would be calculated as (20*3 years) + (50*2 years) + (100*1 year) = 260; a two-year 20/50 percent scheduled phase-in would be calculated as (20*2 years) + (50*1 year) = 90). Manufacturers are allowed to include engines introduced before the first year of the scheduled phase-in (e.g., in the previous example, 10 percent introduced one year before the scheduled phase-in begins would be calculated as (10*4 years) and added to the cumulative total). However, manufacturers are only allowed to include engines introduced up to one model year before the first year of the scheduled phase-in. The Executive Officer shall consider acceptable any alternate phase-in that results in an equal or larger cumulative total by the end of the last year of the scheduled phase-in and ensures that all engines subject to the phase-in will comply with the respective requirements no later than two model years following the last year of the scheduled phase-in.

* * * *

"Start of engine production" is the time when the manufacturer has produced two percent of the projected volume for the engine. ~~or vehicle, whichever is specified in sections (j), (k), and (l),~~ **the start of engine production shall be based on the engine rating subject to the specific regulatory provision.**

"Start of vehicle production" is the time when the manufacturer has produced two percent of the projected volume for the vehicle. In sections (j), (k), and (l), the start of vehicle production shall be based on the engine rating and chassis application combination for the engine rating subject to the specific regulatory provision.

* * * *

(d) *General Requirements.*

Section (d) sets forth the general requirements of the OBD system. Specific performance requirements for components and systems that shall be monitored are set forth in sections (e) through (g) below. The OBD system is required to detect all

malfunctions specified in sections (e) through (g). However, except as specified elsewhere, the OBD system is not required to use a unique monitor to detect each malfunction specified.

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(4) In-Use Monitor Performance Ratio Definition.

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(4.3) Denominator Specifications

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(4.3.2) Specifications for incrementing:

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(N) In addition to the requirements of section (d)(4.3.2)(B) above, the denominator for the cold start emission reduction strategy cold start catalyst heating monitor (section (f)(4.2.3)) shall be incremented ~~if and~~ only if the CSERS monitoring conditions (as defined in section (c)) have been met and:

(i) For monitors not covered under section (d)(4.3.2)(N)(ii), idle operation in park or neutral during the first 30 seconds after engine start is greater than or equal to 10 seconds, or

(ii) For monitors for which manufacturers have received Executive Officer approval to enable without regard to the transmission gear position as provided for in section (f)(4.2.3), idle operation during the first 30 seconds after engine start is greater than or equal to 10 seconds.

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(f) Monitoring Requirements for Gasoline/Spark-Ignited Engines.

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(4) Cold Start Emission Reduction Strategy Monitoring

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(4.2) Malfunction Criteria:

* * * *

(4.2.3) Cold Start Catalyst Heating Monitor: For ~~2026~~ 20 percent of 2026, 50 percent of 2027, and 100 percent of 2028 and subsequent model year engines utilizing catalyst heating through combustion inefficiency during idle in park or neutral at cold start, except as provided for in section (f)(4.2.3)(C), the OBD system shall monitor the commanded (or delivered, if feasible) extra cold start exhaust heat energy directed to the catalyst during idle in park or neutral. The monitor shall begin when the engine

starts and the conditions of the CSERS monitoring conditions ~~cold start~~ criteria (as defined in section (c)) are met, and shall continue no longer than 30 seconds after engine start. Monitoring is not required if the idle operation in park or neutral during the first 30 seconds after engine start is less than 10 seconds. ***In lieu of monitoring when the transmission is in park or neutral, manufacturers may request Executive Officer approval to monitor catalyst heating at idle without regard to the transmission gear position. The Executive Officer shall approve the request upon determining that the manufacturer has submitted data or an engineering evaluation which demonstrate that the transmission gear position has no effect on the catalyst heating strategy (e.g., there is no decrease in airflow and no advancement of spark timing when the transmission is in gear compared to the airflow and spark timing in park or neutral).***

* * * *

(g) Monitoring Requirements For All Engines.

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(5) Exceptions to Monitoring Requirements

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(5.8) Whenever the requirements in section (e), (f), or (g) of this regulation require a manufacturer to meet a specific phase-in schedule:

(5.8.1) Except as provided for ***elsewhere in sections (e) through (g) in section (g)(5.8.3) below for the diesel NO_x converting catalyst and NO_x and PM sensor phase-ins and in section (c)(8.2.1) for the PM filter monitor phase-in***, manufacturers may use an alternate phase-in schedule in lieu of the phase-in schedule set forth in sections (e), (f), or (g) if the alternate phase-in schedule provides for equivalent compliance volume as defined in section (c).

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(h) Standardization Requirements.

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(7) Exceptions to Standardization Requirements

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(7.3) Whenever the requirements in section (h) of this regulation require a manufacturer to meet a specific phase-in schedule:

(7.3.1) The phase-in percentage shall be based on the manufacturer's projected sales volume of all engines unless specifically stated otherwise in section (h).

(7.3.2)Manufacturers may use an alternate phase-in schedule in lieu of the phase-in schedule set forth in section (h) if the alternate phase-in schedule provides for equivalent compliance volume as defined in section (c) except as specifically noted elsewhere in section (h).

(7.3.3)Small volume manufacturers may use an alternate phase-in schedule in accordance with section (h)(7.3.2) in lieu of the required phase-in schedule or may meet the requirements on all engines by the final year of the phase-in in lieu of meeting the specific phase-in requirement for each model year.

* * * *

(j) *Certification Documentation.*

* * * *

(2) The following information shall be submitted as part of the certification application. Except as provided below for demonstration data, the Executive Officer will not issue an Executive Order certifying the covered engines without the information having been provided. The information must include:

* * * *

(2.16) A cover letter identifying all concerns and deficiencies applicable to the equivalent previous model year engine, the changes and/or resolution of each concern or deficiency for the current model year engine, a list of modifications to the OBD system that were made as part of a running change or field fix applied to the previous model year (for this engine or another engine), and all other known issues that apply to the current model year engine (e.g., concerns or deficiencies of another engine that also apply to this engine, unresolved issues identified found during production engine/vehicle evaluation testing under section (l) from a previous model year).

* * * *

(l) *Production Engine/Vehicle Evaluation Testing.*

(1) *Verification of Standardized Requirements.*

* * * *

(1.4) *Required Testing:*

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(1.4.3) The testing shall further verify that the following information can be properly communicated to any SAE J1978/J1939 scan tool:

* * * *

(E) An emission-related fault code (permanent, confirmed, pending, MIL-on, and previously MIL-on) in accordance with SAE J1979/J1979-2/J1939-73 (including correctly indicating the number of stored fault codes and MIL command status (e.g., Mode/Service \$01, PID \$01, Data A for SAE J1979, Service \$22, PID \$F501 for SAE J1979-2, or J1939/73 Diagnostic Message 1)) and section (h)(4.4) for each diagnostic and emission critical electronic powertrain control unit;

* * * *

(1.5) Reporting of Results:

(1.5.1) The manufacturer shall submit to the Executive Officer all information described in sections (l)(1.5.1)(A) through (C), **except for the test log files**, in one report for each engine model year. The report shall be one single file for each engine model year and shall include the information for all testing completed in that specific engine model year. The manufacturer shall update the report for each new test within the deadlines described below. **The manufacturer shall submit the test log files described in sections (l)(1.5.1)(A) and (B) to the Executive Officer separately from the report described above.**~~The manufacturer shall submit to the Executive Officer the following, based on the results of testing:~~

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NOTE: Authority cited: Sections 38501, 38510, 39010, 39600, 39601, 39602.5, 43000.5, 43013, 43018, 43100, 43101, 43104, 43105, 43105.5, and 43106, 43154, 43211, and 43212, Health and Safety Code. Reference: Sections 38501, 38505, 38510, 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.