APPENDIX F-1

Purpose and Rationale for Proposed Changes to Title 13, CCR and Incorporated Test Procedures

List of Changes to Appendix A – Proposed Regulation Order

Amendments to Title 13, CCR, Section 1900

Purpose: The purpose of this section is to establish definitions for terms that are set forth in chapter 2 (commencing with section 39010), part 1, division 26 of the Health and Safety Code, unless a specific definition set forth therein has been revised in section (b) below to conform to federal law pursuant to Health and Safety Code section 39601.

Rationale:

Subsection (b)(11): It is necessary to revise the definition of "light-duty truck" to include light-duty trucks certified to new section 1961.4.

Subsection (b)(13): It is necessary to revise the definition of "medium-duty vehicle" to include medium-duty vehicles certified to new section 1961.4.

Amendments to Title 13, CCR, Section 1961.2

Section Title

Purpose: The purpose of this section is to establish the "LEV III" criteria pollutant exhaust emission standards for 2015 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles. The title of § 1961.2 is being changed from "Exhaust Emission Standards and Test Procedures - 2015 and Subsequent Model Year Passenger Cars and Light-Duty Trucks, and Medium-Duty Vehicles" to "Exhaust Emission Standards and Test Procedures - 2015 through 2025 Model Year Passenger Cars and Light-Duty Trucks, and 2015 through 2028 Model Year Medium-Duty Vehicles."

Rationale: It is necessary to change the title of this section, because the LEV III standards contained herein will no longer apply for light-duty vehicles in

2026 and subsequent model years and will no longer apply for medium-duty vehicles in 2029 and subsequent model years.

Introduction

Purpose: The purpose of the Introduction is to establish requirements that apply to all 2015 and subsequent model passenger cars, light-duty trucks, and medium-duty vehicles that certify to title 13, section 1961.2. It is necessary to change the applicability of this section because the LEV IV standards contained herein will no longer apply for light-duty vehicles in 2026 and subsequent model years and will no longer apply for medium-duty vehicles in 2029 and subsequent model years.

Language has also been added to the Introduction to clarify that the exhaust standards in subsection (a) do not apply to ZEVs, but ZEVs are subject to the phase-in requirements in subsection (b) as noted. This new language does not create either a new requirement or a new prohibition, since the term "ZEV" does not appear in subsection (a) and has limited applicability in subsection (b).

Finally, two changes have been made to the third paragraph of the Introduction. First, the references to specific subsections (c) and (h) have been remove from the reference to title 13, section 1956.8. This change is needed to reflect the current structure of title 13, section 1956.8. Second, this paragraph has been revised to allow medium-duty vehicles to certify to the more stringent requirements in new title 13 section 1961.4 as an alternative to this section 1961.2.

Rationale: The proposed changes to the Introduction are necessary to facilitate manufacturers transition from compliance with title 13, section 1961.2 and the new title 13, section 1961.4.

Pooling Provision

Purpose: The purpose of this provision is to provide manufacturers with two options for complying with this section 1961.2. The wording of the second option Pooling Provision has been revised for clarity.

Rationale: The current wording of the second option appears to say that District of Columbia has already adopted California's LEV III standards in this section 1961.2. This is not accurate. It is necessary to revise the wording to correct that conclusion.

Subsection (a)

Subsection (a)(1)

Purpose: The purpose of this subsection is to establish LEV III exhaust emission standards. It is necessary to revise this paragraph and table to specify that the emission standards shown apply to 2015 through 2025 model year LEV III vehicles rather than 2015 and subsequent model year vehicles.

Rationale: In the 2026 and subsequent model years, passenger cars, light-duty trucks, and medium-duty vehicles will be required to certify to the "LEV IV" exhaust emission standards in new title 13, section 1961.4. The changes to this subsection are necessary to reflect that new requirement.

Subsection (a)(2)

Subsection (a)(2)(A)

Purpose: The purpose of this subsection is to establish LEV III particulate emission standards and phase-in requirements for passenger cars, light-duty trucks, and medium-duty passenger vehicles. It is necessary to revise the table to only show the phase-in of these standards through the 2025 model year. It is also necessary to modify the table headings to clarify that the second column shows the maximum percentage of vehicles that may be certified to the 3 mg/mi PM standard and the third column shows the minimum percentage of vehicles that may be certified to the 1 mg/mi PM standard.

Rationale: In the 2026 and subsequent model years, passenger cars, light-duty trucks, and medium-duty passenger vehicles will be required to comply with the particulate emission standards and phase-in requirements in new title 13, section 1961.4. The changes to this subsection are necessary to reflect that new requirement. It is also necessary to modify the table column headings to clearly show that manufacturers may introduce vehicles that are certified to the 1 mg/mi standard at a higher percentage than the values shown in the table.

Subsection (a)(2)(B)

Subsection (a)(2)(B)2

Purpose: The purpose of this subsection is to establish LEV III particulate emission standard phase-in requirements for medium-duty vehicles, other than medium-duty passenger vehicles. It is necessary to revise the table to only show the phase-in of these standards through the 2025 model year.

Rationale: In the 2026 and subsequent model years, medium-duty vehicles will be required to comply with the particulate emission standards and phase-in requirements in new title 13, section 1961.4. The changes to this subsection are necessary to reflect that new requirement.

Subsection (a)(2)(C)

Purpose: The purpose of this subsection is to establish particulate standards for small volume manufacturers. It is necessary to revise this subsection to only show the applicable standards through the 2025 model year.

Rationale: In the 2026 and subsequent model years, small volume manufacturers will be required to comply with the particulate emission standards in new title 13, section 1961.4. The changes to this subsection are necessary to reflect that new requirement.

Subsection (a)(2)(D)

Subsection (a)(2)(D)2

Purpose: The purpose of this subsection is to establish an alternative phase-in schedule for the 1 mg/mi PM standard for passenger cars, light-duty trucks, and medium-duty passenger vehicles. The alternative phase-in schedule requires that the PM emission reductions that are achieved using this phase-in are equivalent to or greater than those achieved using the primary phase-in schedule. Under the current regulation, the primary phase-in schedule, which applies for the 2025 through 2028 model years, is shown in subsection (a)(2)(A). Changes have been made

to the wording of this subsection. However, the requirements set forth in this subsection are identical to the current regulation.

Rationale: It is necessary to change the wording of this subsection, because part of the part of the phase-in schedule that applies in model years 2026 through has been moved to new section 1961.4. It is necessary to change the wording of this subsection to clearly show that the PM emission reductions that are achieved using this phase-in are equivalent to or greater than those achieved using the primary phase-in schedules in both section 1961.2 and the new section 1961.4.

Subsection (a)(3)

Purpose: The purpose of this subsection is to require that for fuel-flexible, bi-fuel, and dual-fuel passenger cars, light-duty trucks, and medium-duty vehicles, compliance with the NMOG+NOx exhaust mass emission standards must be based on exhaust emission tests both when the vehicle is operated on the gaseous or alcohol fuel it is designed to use. This subsection specifies the test procedure that must be used to demonstrate compliance with this requirement. The title of the applicable referenced document is being changed from “California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles” to “California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles”.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the referenced document.

Subsection (a)(4)

Purpose: The purpose of this subsection is to establish NMOG+NOx and formaldehyde (HCHO) exhaust emission standards for passenger cars, light-duty trucks, and medium-duty vehicles, other than natural gas and diesel-fueled vehicles. This subsection specifies that the test procedure that must be used to demonstrate compliance with these standards is “the

FTP (40 CFR, Part 86, Subpart B) conducted at a nominal test temperature of 50°F, as modified by Part II, Section D of the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The title of the applicable referenced document is being changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: It is necessary to amend this subsection to reflect the change to the title of the referenced document.

Subsection (a)(5)

Purpose: The purpose of this subsection is to establish cold temperature exhaust carbon monoxide emission levels from new passenger cars, light-duty trucks, and medium-duty passenger vehicles. It is necessary to revise this subsection to only show the applicable standards through the 2025 model year.

The title of the applicable referenced document is being changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: Cold temperature exhaust carbon monoxide emission levels for 2026 and subsequent model year vehicles are being moved to new title 13, section 1961.4. The changes to this subsection are necessary to

reflect that new requirement and to reflect the change to the title of the referenced document.

Subsection (a)(6)

Purpose: The purpose of this subsection is to establish NMOG+NOx exhaust emission standards for passenger cars, light-duty trucks and medium-duty vehicles measured on the federal Highway Fuel Economy Test (HWFET; 40 CFR Part 600 Subpart B or 40 CFR § 1066.840), as modified by the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The title of the applicable referenced document is being changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: It is necessary to amend this subsection to reflect the change to the title of the referenced document.

Subsection (a)(7)

Subsection (a)(7)(A)

Purpose: The purpose of this subsection is to establish Supplemental Federal Test Procedure (SFTP) NMOG+NOx and CO exhaust emission standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles. It is necessary to revise this subsection to only show the applicable standards through the 2025 model year.

Rationale: SFTP NMOG+NOx and CO exhaust emission standards for 2026 and subsequent model year vehicles are being moved to new title 13, section 1961.4. The changes to this subsection are necessary to reflect that new requirement.

Subsection (a)(7)(A)1

Purpose: The purpose of this subsection is to establish SFTP NMOG+NOx and CO exhaust "stand-alone" emission standards for LEV III passenger cars, light-duty trucks, and medium-duty passenger vehicles. This subsection has been modified to limit its applicability only through the 2025 model year. This title of the document that contains the testing requirements for demonstrating compliance with this subsection, is also being changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: The change to the model year applicability of the standards set forth in this subsection is necessary, because in the 2026 and subsequent model years, passenger cars, light-duty trucks, and medium-duty passenger vehicles must comply with the "LEV IV" SFTP NMOG+NOx and CO exhaust emission standards in the new section 1961.4. It is also necessary to amend this subsection to reflect the change to the title of the referenced document.

Subsection (a)(7)(A)2

Purpose: The purpose of this subsection is to establish SFTP NMOG+NOx and CO exhaust "composite" emission standards for LEV III passenger cars, light-duty trucks, and medium-duty passenger vehicles. This subsection has been modified to limit its applicability only through the 2025 model year. This title of the document that contains the testing requirements for demonstrating compliance with this subsection, is also being changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and

Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: The change to the model year applicability of the standards set forth in this subsection is necessary, because in the 2026 and subsequent model years, passenger cars, light-duty trucks, and medium-duty passenger vehicles must comply with the "LEV IV" SFTP NMOG+NOx and CO exhaust emission standards in the new title 13, section 1961.4. It is also necessary to amend this subsection to reflect the change to the title of the referenced document.

Subsection (a)(7)(B)

Purpose: The purpose of this subsection is to establish SFTP PM exhaust emission standards for LEV III passenger cars, light-duty trucks, and medium-duty passenger vehicles. This subsection has been modified to limit its applicability only through the 2025 model year. This title of the document that contains the testing requirements for demonstrating compliance with this subsection, is also being changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: The change to the model year applicability of the standards set forth in this subsection is necessary, because in the 2026 and subsequent model years, passenger cars, light-duty trucks, and medium-duty passenger vehicles must comply with the "LEV IV" SFTP PM exhaust emission standards in the new title 13, section 1961.4. It is also necessary to amend this subsection to reflect the change to the title of the referenced document.

Subsection (a)(7)(C)

Purpose: The purpose of this subsection is to establish SFTP NMOG+NOx and CO exhaust "composite" emission standards for LEV III medium-duty vehicles, other than medium-duty passenger vehicles. This subsection has been modified to limit its applicability only through the 2028 model year. This title of the document that contains the testing requirements for demonstrating compliance with this subsection, is also being changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles". A new test procedure, the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," has also been added as a reference document.

Rationale: The change to the model year applicability of the standards set forth in this subsection is necessary because the emission standards set forth in this subsection "phase-out" through the 2028 model years. In the 2029 and subsequent model years, medium-duty vehicles other than medium-duty passenger vehicles must comply with the "LEV IV" SFTP NMOG+NOx and CO exhaust emission standards in the new section 1961.4. It is also necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 through 2028 model year vehicles.

Subsection (a)(7)(D)

Purpose: The purpose of this subsection is to establish SFTP PM exhaust emission standards for LEV III medium-duty vehicles, other than medium-duty passenger vehicles. This subsection has been modified to limit its applicability only through the 2028 model year. This title of the document that contains the testing requirements for demonstrating compliance with this subsection, is also being changed

from “California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles” to “California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles”. A new test procedure, the “California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles,” has also been added as a reference document.

Rationale: The change to the model year applicability of the standards set forth in this subsection is necessary because the emission standards set forth in this subsection “phase-out” through the 2028 model years. In the 2029 and subsequent model years, medium-duty vehicles other than medium-duty passenger vehicles must comply with the “LEV IV” SFTP PM exhaust emission standards in the new section 1961.4. It is also necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 through 2028 model year vehicles.

Subsection (a)(8)

Subsection (a)(8)(B)

Subsection (a)(8)(B)1

Purpose: The purpose of this subsection is to establish LEV III particulate interim in-use compliance standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles. It is necessary to revise this subsection to only show the applicable particulate interim in-use compliance standards through the 2025 model year rather than through the 2028 model year.

Rationale: For the 2026 through 2028 model years, passenger cars, light-duty trucks, and medium-duty passenger vehicles must comply with the particulate standards in new title 13, section

1961.4. The change to this subsection is necessary to reflect that new requirement.

Subsection (a)(9)

Purpose: The purpose of this subsection is to establish criteria for allowing a vehicle that is certified to the LEV III standards in section 1961.2 subsection (a)(1) to generate additional NMOG+NOx fleet average credits. This subsection references two documents that are contain provisions that disqualify a vehicle from generating additional credits. The title of one of the documents is being changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: It is necessary to amend this subsection to reflect the change to the title of the referenced document.

Subsection (a)(11)

Purpose: The purpose of this subsection is to establish criteria for allowing a manufacturer that certifies vehicles equipped with direct ozone reduction technologies to receive NMOG credits that can be applied to the NMOG exhaust emissions of the vehicle when determining compliance with the standard. These criteria include a requirement that a vehicle is tested in accordance with a referenced document. The title of the referenced is document is being changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: It is necessary to amend this subsection to reflect the change to the title of the referenced document.

Subsection (a)(12)

Subsection (a)(12)(A)

Purpose: The purpose of this subsection is to establish criteria for when a federally-certified vehicle model is required in California. The last year this requirement will apply is model year 2025, since the LEV IV standards in new section 1961.4 are more stringent than the federal standards. The title of the document that specifies that the criteria for applying this requirement is being changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: It is necessary to amend this subsection to eliminate this provision subsequent to the 2025 model year, since the LEV IV standards in new section 1961.4 are more stringent than the federal standards and to reflect the change to the title of the referenced document.

Subsection (a)(13)

Purpose: The purpose of this subsection is to set emission standards and establish criteria for measuring emissions from fuel-fired heaters if a manufacturer elects to utilize an on-board fuel-fired heater on any passenger car, light-duty truck, or medium-duty vehicle. This subsection references three documents that contain requirements for testing fuel-fired heaters. The title of two of the documents are being changed. The "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" is being changed to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-

Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes". The "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" is being changed to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: It is necessary to amend this subsection to reflect the change to the titles of these referenced documents.

Subsection (b)

Subsection (b)(1)

Subsection (b)(1)(A)

Purpose: The purpose of this subsection is to establish fleet average NMOG+NOx exhaust mass emission values from the passenger cars, light-duty trucks, and medium-duty passenger vehicles that are produced and delivered for sale in California each model year for the 2014 and subsequent model years by a manufacturer other than a small volume manufacturer. The table has been changed so the last applicable model year is 2025.

Rationale: It is necessary to remove the applicability of this table for 2026 and subsequent model years, because new phase-in requirements for the 2026 and subsequent model year have been moved to new section 1961.4.

Subsection (b)(1)(A)2

Purpose: The purpose of this subsection is to require that in the 2018 and subsequent model years, a manufacturer continues to produce and deliver for sale in California a minimum percentage of its passenger car and light-duty truck fleet that certifies to SULEV30 and SULEV20 standards that is equal to the average percentage of PZEVs produced and deliver for sale in California for that

manufacturer for the 2015 through 2017 model year. CARB incorporated this subsection into LEV III to provide flexibility to the manufacturers in meeting SULEV emissions across their light-duty fleets. However, by combining NMOG and NOx emission values, absent a backstop provision, the LEV III fleet average requirement would not require manufacturers to produce SULEVs until the NMOG+NOx fleet average falls below the ULEV50 NMOG+NOx emission standard in model year 2023. Since the backstop provision only requires manufacturers to continue their production at a rate commensurate with their unique ZEV obligation, it only requires manufacturers to maintain their production of SULEVs, not increase it. Accordingly, the PZEV backsliding provision was included to preserve the emission reductions provided by these vehicles. The applicability of this requirement has been changed to end after the 2025 model year.

Rationale: This new section 1961.4 phases-out the use of zero-emission vehicles that may be included in the NMOG+NOx fleet average between the 2026 and 2029 model years. This phase-out eliminates the need for this requirement in this subsection after the 2025 model year.

Subsection (b)(1)(B)

Subsection (b)(1)(B)1

Subsection (b)(1)(B)1.c

Purpose: The purpose of this subsection is to specify the applicable emission standards to be used to calculate NMOG+NOx fleet average emissions. The table has been modified to indicate the standards set forth only apply through the 2025 model year.

Rationale: The last applicable model year of the NMOG+NOx fleet average in subsection (b)(1)(A) is model year 2025. It is, therefore, necessary to change the last applicable model year for the standards in this subsection to model year 2025.

Subsection (b)(1)(B)2

Purpose: The purpose of this subsection is to establish equations for calculating "HEV NMOG+NOx contribution factors" for light-duty off-vehicle charge capable hybrid electric vehicles. These factors are intended to provide additional NMOG+NOx fleet average emission credit to light-duty off-vehicle charge capable hybrid electric vehicles that are meet certain criteria for all-electric range capability. For the 2018 and subsequent model years, the criteria are set forth in a referenced document. The title of this referenced document is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes". It is necessary to make two changes to this subsection. First, it is necessary to change the applicability of this subsection from "2018 and subsequent model years" to "2018 through 2025 model years." Second, it is necessary to change the name of the referenced test procedure.

Rationale: The change to the applicability of this subsection is necessary, because the last applicable model year of the NMOG+NOx fleet average in subsection (b)(1)(A) is model year 2025. It is necessary to change the name of the referenced test procedure, because the title is being changed in this rulemaking.

Subsection (b)(1)(C)

Subsection (b)(1)(C)1

Purpose: The purpose of this subsection is to establish NMOG+NOx fleet average requirements for small volume manufacturers. This subsection is being modified, so the requirements set forth only apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year,

because the requirements for the 2026 and subsequent model years have been moved to new section 1961.4.

Subsection (b)(2)

Purpose: The purpose of this subsection is to establish LEV III phase-in requirement for passenger cars, light-duty trucks, and medium-duty passenger vehicles. This subsection has been modified, so the phase-in requirements set forth only apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicles will be required to certify to the LEV IV standards in new section 1961.4.

Subsection (b)(3)

Subsection (b)(3)(A)

Subsection (b)(3)(A)1

Purpose: The purpose of this subsection is to establish the LEV III phase-in requirements for manufacturers of medium-duty vehicle, other than small volume manufacturers that are certified to subsection (a)(1). The phase-in requirements are being changed, so the final model year set forth in this subsection set forth in this subsection is model year 2025.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year, because starting with the 2026 model year, medium-duty vehicles will be required to certify to the LEV IV standards in new section 1961.4.

Subsection (b)(3)(A)2

Purpose: The purpose of this subsection is to establish the LEV III phase-in requirements for manufacturers of incomplete medium-duty vehicles using Otto-cycle engines certified to title 13, CCR, section 1956.8, and medium-duty vehicles using diesel engines certified to title 13, CCR, Section 1956.8. The phase-in

requirements are being changed, so the final model year set forth in this subsection set forth in this subsection is model year 2025.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year, because starting with the 2026 model year, these types of medium-duty vehicles will be required to comply with the phase-in schedule for these vehicles that is in new section 1961.4.

Subsection (b)(3)(B)

Purpose: The purpose of this subsection is to establish LEV III phase-in requirements for small volume medium-duty vehicle manufacturers. The phase-in requirements are being changed, so the final model year set forth in this subsection set forth in this subsection is model year 2025.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year, because starting with the 2026 model year, these types of medium-duty vehicles will be required to comply with the phase-in schedule for these vehicles that is in new section 1961.4.

Subsection (b)(3)(C)

Subsection (b)(3)(C)1

Subsection (b)(3)(C)1.a

Purpose: The purpose of this subsection is to establish fleet average NMOG+NOx exhaust mass values for medium-duty vehicles as an alternative to the phase-in requirement in subsection (b)(3)(A)1. The phase-in requirements are being changed, so the final model year set forth in this subsection set forth in this subsection is model year 2025.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year, because starting with the 2026 model year, these types of medium-duty vehicles will be required to comply with the phase-in schedule for these vehicles that is in new section 1961.4.

Subsection (b)(3)(C)1.d

Purpose: The purpose of this subsection is to specify the applicable emission standards to be used to calculate NMOG+NOx fleet average emissions. The table has been modified to indicate the standards set forth only apply through the 2025 model year.

Rationale: The last applicable model year of the NMOG+NOx fleet average in subsection (b)(3)(C)1.a is model year 2025. It is, therefore, necessary to change the last applicable model year for the standards in this subsection to model year 2025.

Subsection (b)(3)(C)1.e

Purpose: The purpose of this subsection is to establish equations for calculating "NMOG+NOx contribution factors" for medium-duty off-vehicle charge capable hybrid electric vehicles. These factors are intended to provide additional NMOG+NOx fleet average emission credit to medium-duty off-vehicle charge capable hybrid electric vehicles that are meet certain criteria for all-electric range capability. For the 2018 and subsequent model years, the criteria are set forth in a referenced document. It is necessary to make two changes to this subsection. First, it is necessary to change the applicability of this subsection from "2018 and subsequent model years" to "2018 through 2025 model years." Second, it is necessary to change the name of the referenced test procedure from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because the last applicable model year of the NMOG+NOx fleet average in subsection (b)(1)(A) is model year 2025. It is necessary to change the name of the referenced test

procedure, because the title is being changed in this rulemaking.

Subsection (b)(3)(C)2

Purpose: The purpose of this subsection is to establish alternate phase-in schedules for LEV III medium-duty vehicles certified to subsection (a)(1) for manufacturers with a limited number of test groups. This subsection is being changed, to say that the final model year these alternate phase-in schedules will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year these alternate phase-in schedules will apply is model year 2025, because starting with the 2026 model year, these types of medium-duty vehicle manufacturers will be required to comply with the phase-in schedule for these vehicles in new section 1961.4.

Subsection (b)(3)(C)2.a

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to subsection (b)(3)(A)1 for a manufacturer that produces and delivers for sale in California four medium-duty test groups certified to subsection (a)(1). This subsection is being changed, to say that the final model year this alternate phase-in schedules will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year these alternate phase-in schedules will apply is model year 2025, because starting with the 2026 model year, these types of medium-duty vehicle manufacturers will be required to comply with the phase-in schedule for these vehicles in new section 1961.4.

Subsection (b)(3)(C)2.b

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to subsection (b)(3)(A)1 for a manufacturer that produces and delivers for sale in California three medium-duty test groups certified to subsection (a)(1). This subsection is being changed, to say that the final model

year this alternate phase-in schedules will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year these alternate phase-in schedules will apply is model year 2025, because starting with the 2026 model year, these types of medium-duty vehicle manufacturers will be required to comply with the phase-in schedule for these vehicles in new section 1961.4.

Subsection (b)(3)(C)2.c

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to subsection (b)(3)(A)1 for a manufacturer that produces and delivers for sale in California two medium-duty test groups certified to subsection (a)(1). This subsection is being changed, to say that the final model year this alternate phase-in schedules will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year these alternate phase-in schedules will apply is model year 2025, because starting with the 2026 model year, these types of medium-duty vehicle manufacturers will be required to comply with the phase-in schedule for these vehicles in new section 1961.4.

Subsection (b)(3)(C)2.d

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to subsection (b)(3)(A)1 for a manufacturer that produces and delivers for sale in California one medium-duty test group certified to subsection (a)(1). This subsection is being changed, to say that the final model year this alternate phase-in schedules will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year these alternate phase-in schedules will apply is model year 2025, because starting with the 2026 model year, these types of medium-duty vehicle manufacturers will be required to comply with the phase-in schedule for these vehicles in new section 1961.4.

Subsection (b)(4)

Subsection (b)(4)(A)

This subsection establishes phase-in Requirement for passenger cars, light-duty trucks, and medium-duty passenger vehicle test groups certifying to LEV III SFTP emission standards. Manufacturers have two options for phasing into the SFTP NMOG+NOx and CO emission standards, as follows.

Subsection (b)(4)(A)1

Purpose: The purpose of this subsection is to establish the first option - “Option 1” - for phasing into the SFTP NMOG+NOx and CO emission standards. This subsection is being changed, to say that the final model year Option 1 will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year Option 1 will apply is model year 2025, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicle will be required to comply with the LEV IV SFTP standards in new section 1961.4.

Subsection (b)(4)(A)2

Purpose: The purpose of this subsection is to establish the second option - “Option 2” - for phasing into the SFTP NMOG+NOx and CO emission standards. This subsection is being changed, to say that the final model year Option 2 will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year Option 2 will apply is model year 2025, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicle will be required to comply with the LEV IV SFTP standards in new section 1961.4.

Subsection (b)(4)(B)

Purpose: The purpose of this subsection is to establish phase-in the SFTP NMOG+NOx and CO emission standards for medium-duty vehicles other than medium-duty passenger vehicles. This subsection is being changed, to say that the final model year of the phase-in will be model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year the medium-duty vehicle SFTP phase-in will apply is model year 2025, because starting with the 2026 model year, medium-duty vehicle will be required to comply with the LEV IV SFTP standards in new section 1961.4.

Subsection (b)(4)(C)

Purpose: The purpose of this subsection is to define a manufacturer's medium-duty vehicle fleet for the purpose of compliance with medium-duty vehicle SFTP requirements. This subsection is being changed, to say that the requirements set forth in this subsection only apply through model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, medium-duty vehicle will be required to comply with the LEV IV SFTP standards in new section 1961.4.

Subsection (c)

Subsection (c)(1)

Subsection (c)(1)(A)

Purpose: The purpose of this subsection is to establish an equation to be used by a manufacturer to calculate its NMOG+NOx fleet average credits and debits for passenger cars, light-duty trucks, and medium-duty passenger vehicles. The applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicles will be required to comply with the LEV IV NMOG+NOx fleet average requirements in new section 1961.4.

Subsection (c)(1)(B)

Purpose: The purpose of this subsection is to explain how credits and debits are determined using the equations in subsection (c)(1)(A). The

applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicles will be required to comply with the LEV IV NMOG+NOx fleet average requirements in new section 1961.4.

Subsection (c)(2)

Subsection (c)(2)(A)

Subsection (c)(2)(A)1

Purpose: The purpose of this subsection is to establish an equation for calculating "Vehicle-Equivalent" credits and debits (VECs) for a manufacturer's medium-duty vehicle fleet. The applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicles will be required to comply with the LEV IV NMOG+NOx fleet average requirements in new section 1961.4.

Subsection (c)(2)(A)2

Purpose: The purpose of this subsection is to establish a method for calculating "HEV VEC factors" to be used for medium-duty off-vehicle charge capable hybrid electric vehicles when calculating VECs for a manufacturer's medium-duty vehicle fleet. These factors are intended to provide additional VECs to medium-duty off-vehicle charge capable hybrid electric vehicles that are meet certain criteria for all-electric range capability. For the 2018 and subsequent model years, the criteria are set forth in a referenced test procedure. It is necessary to change the title of the referenced test procedure from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-

Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: It is necessary to change the name of the referenced test procedure, because the title is being changed in this rulemaking.

Subsection (c)(2)(B)

Subsection (c)(2)(B)1

Purpose: The purpose of this subsection is to establish an equation for calculating fleet average NMOG+NOx credits and debits for a manufacturer's medium-duty vehicle fleet. The applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, medium-duty vehicles will be required to comply with the LEV IV NMOG+NOx fleet average requirements in new section 1961.4.

Subsection (c)(2)(B)2

Purpose: The purpose of this subsection is to explain a manufacturer that achieves fleet average NMOG+NOx values lower than the fleet average NMOG+NOx requirement for the corresponding model year shall receive credits in units of g/mi NMOG+NOx, and a manufacturer with fleet average NMOG+NOx values greater than the fleet average requirement for the corresponding model year shall receive debits in units of g/mi NMOG+NOx equal to the amount of negative credits determined by the aforementioned equation. The applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, medium-duty vehicles will be required to comply with the LEV IV NMOG+NOx fleet average requirements in new section 1961.4.

Subsection (c)(3)

Subsection (c)(3)(A)

Purpose: The purpose of this subsection is to establish requirements for offsetting credits and debits. Three editorial changes have been made to this section. Two of these changes replace the symbol "§" with the word "section." The third replaces the words "greenhouse gas" with "NMOG+NOx."

Rationale: The replacement of the symbol "§" with the word "section" is an editorial change that improves clarity of the reference. The replacement of the words "greenhouse gas" with "NMOG+NOx" is necessary to correct an error, because greenhouse gas emission standards are not part of section 1961.2.

Subsection (c)(3)(B)

Purpose: The purpose of this subsection is to specify the number of model years emission credits shall retain value. The applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, the number of model years emission credits will retain value will be set forth in new section 1961.4.

Subsection (d)

Purpose: The purpose of this subsection is to identify the titles of the test procedures that contain the certification requirements and test procedures for determining compliance with the emission standards in this section 1961.2.

Rationale: It is necessary to amend this subsection to change the name and the amended date of the incorporated test procedure, because these are both

being changed as part of this rulemaking. The name of the incorporated test procedure is being changed from “California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles” to “California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles”.

It is also necessary to add a new document, the “California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles,” incorporated by reference in section 1961.4, because this new test procedure contains the certification requirements and test procedures for determining compliance with the emission standards with 2026 through 2028 model year standards in section 1961.2.

Finally, it is necessary to change the amended date of the “California Non-Methane Organic Gas Test Procedures for 2017 and Subsequent Model Year Vehicles,” because it is being changed as part of this rulemaking.

Subsection (e)

Purpose: The purpose of this subsection is to define the acronyms used in section 1961.2. These are needed to enable the reader to understand these acronyms and the regulatory requirements of the section. The definition of the term “ZEV” has been changed to provide additional explanation of the meaning of the term.

Rationale: It is necessary to modify this definition to clarify that the term “ZEV” does not include all vehicles that receive ZEV credit under section 1962.2, but only includes those vehicles that produce zero exhaust emissions of any criteria pollutant (or precursor pollutant) or greenhouse gas, excluding emissions from air conditioning systems, under any possible operational modes or conditions.

Amendments to Title 13, CCR, Section 1961.3

Subsection (d)

Purpose: The purpose of the proposed amendments to this greenhouse gas regulation are limited to conforming amendments that are necessary to maintain the existing greenhouse gas emission requirements that are not being proposed for amendment and preserve use of existing test procedures necessary to determine compliance that are incorporated by reference and that are not applicable to the new proposed zero-emission vehicle standards or updated LEV III, OBD, or new LEV IV criteria pollutant emission standards and related requirements. CARB is not proposing or considering any other amendments to the greenhouse gas regulation for any other purpose.

The purpose of this subsection is to specify the test procedures that must be used to determine compliance with section 1961.3. The proposed amendments maintain reference to the existing versions of these test procedures that must continue to be used to demonstrate compliance with the existing emission standards.

Rationale: It is necessary to amend this subsection to continue to incorporate by reference the test procedures that are required to determine compliance, but which are otherwise being updated for purposes of other proposed adopted and amended regulations. The proposed amendments to this subsection ensure the existing test procedures will remain applicable for this regulation.

Proposed New Title 13, CCR, Section 1961.4

Purpose: Section 1961.4 is an entirely new section to be added to title 13, CCR, which contains the criteria pollutant exhaust emission standards for 2026 and subsequent model passenger cars, light-duty trucks, and medium-duty vehicles.

Rationale: It is necessary to create this new section because the structure of the requirements set forth herein are substantially different than that structure of the requirements that apply through the 2025 model year.

Subsection (a)

Purpose: The purpose of this “Introduction” subsection is to provide context and background for section 1961.4.

Rationale: This subsection is necessary to set forth requirements that apply throughout the entire section 1961.4.

Subsection (a)(1)

Purpose: The purpose of this subsection is to specify how a manufacturer must demonstrate compliance with section 1961.4 and to note how ZEVs are to be included in the standards subsection (c) and phase-in subsection (d) of this regulation.

Rationale: This subsection is necessary to establish requirements for complying with section 1961.4.

Subsection (a)(2)

Purpose: The purpose of this subsection is to allow a manufacturer to certify its vehicle fleet to section 1961.4 instead of section 1961.2 prior to the 2026 model year.

Rationale: This subsection is necessary to provide manufacturers with flexibility in certifying its vehicle fleet and complying during the transition to the new LEV IV standards.

Subsection (a)(3)

Purpose: The purpose of this subsection is to provide a manufacturer with the option of certifying engines used in incomplete and diesel medium-duty vehicles with a gross vehicle weight rating of greater than 10,000 lbs. GVW to the heavy-duty engine standards and test procedures set forth in section 1956.8.

Rationale: It is necessary to provide this certification option, because medium-duty vehicles in this weight class are often not built as a "complete" vehicle. Rather, a manufacturer will develop and certify an engine, which can be used in a variety of vehicle chassis.

Subsection (b)

Purpose: The purpose of this "Pooling Provisions" subsection is to establish two options a manufacturer may use for demonstrating compliance with section 1961.4.

Rationale: This subsection is necessary to provide manufacturers with compliance flexibility in managing its vehicle fleet when demonstrating

compliance with the requirements that apply throughout the entire section 1961.4.

Subsection (b)(1) (including subsections (b)(1)(A) and (b)(1)(B))

Purpose: The purpose of this subsection is to set forth the two options a manufacturer may use to demonstrate compliance with section 1961.4. For Option 1 in subsection (b)(1)(A), a manufacturer must demonstrate compliance based on the total number of passenger cars, light-duty trucks, and medium-duty vehicles that are certified to the California exhaust emission standards in subsection (c) and are produced and delivered for sale in California. For Option 2 in subsection (b)(1)(B), a manufacturer must demonstrate compliance using the pooled fleet of new vehicles produced and delivered for sale in California and all states, including the District of Columbia if applicable, that adopt California's emission requirements for light- and medium-duty vehicles.

Rationale: It is necessary to provide these two compliance options, because Option 2 provides additional compliance flexibility to vehicle manufacturers, particularly with respect to meeting a separate fleet average requirement in those states with limited new vehicle sales.

Subsection (b)(2)

Purpose: The purpose of this subsection is to require a manufacturer that selects compliance Option 2 to notify CARB of that selection in writing prior to the start of the applicable model year.

Rationale: This reporting requirement is necessary to enable CARB to ensure a manufacturer is complying with all of the requirements in section 1961.4.

Subsection (b)(3)

Purpose: The purpose of this subsection is to specify that when a manufacturer is demonstrating compliance with section 1961.4 using Option 2, all requirements in section 1961.4 must be met using that manufacturer's pooled fleet.

Rationale: This subsection is necessary to explain that compliance is evaluated across all states that have adopted California's standards under

Section 177 of the Clean Air Act. This promotes compliance in California by allowing manufacturers to minimize costs through regulatory flexibility.

Subsection (c)

This subsection sets forth the exhaust emission standards that apply in the 2026 and subsequent model years.

Subsection (c)(1)

Purpose: The purpose of this subsection is to establish the LEV IV emission "bins" that apply to this regulation.

Rationale: This subsection is necessary to establish the maximum exhaust emissions for the full useful life from new 2026 and subsequent model year "LEV IV" passenger cars, light-duty trucks, and medium-duty vehicles. The use of emission categories allows manufacturers multiple options to comply with greater granularity scaled to various needs for vehicles with different capabilities, thereby reducing overall emissions and minimizing costs.

Subsection (c)(1)(A)

Purpose: The purpose of this subsection is to establish the LEV IV emission "bins" for passenger cars, light-duty trucks, and medium-duty passenger vehicles that apply to this regulation.

Rationale: This subsection is necessary to establish the maximum exhaust emissions for the full useful life from new 2026 and subsequent model year "LEV IV" passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Subsection (c)(1)(B)

Purpose: The purpose of this subsection is to establish the LEV IV emission "bins" for medium-duty vehicles, other than medium-duty passenger vehicles, that apply to this regulation.

Rationale: This subsection is necessary to establish the maximum exhaust emissions for the full useful life from new 2026 and subsequent model year "LEV IV" medium-duty vehicles, other than medium-duty passenger vehicles.

Subsection (c)(2)

Purpose: The LEV III regulations in section 1961.2, subsection (a)(2), established new particulate standards for passenger cars, light-duty trucks, and medium-duty vehicles that phased-in beginning with the 2017 model year. The purpose of this subsection 1961.4 (c)(2) is to move the particulate standards and phase-in for the 2026 and subsequent model years to this section 1961.4.

Rationale: It is necessary to move the particulate standards and phase-in for the 2026 and subsequent model years to this section 1961.4, for clarity, in order to create a single title 13 section that contain all of the LEV criteria pollutant exhaust emission standards for 2026 and subsequent model years.

Subsection (c)(2)(A)

Purpose: The purpose of this subsection is to specify the particulate standards and the phase-in requirements for passenger cars, light-duty trucks, and medium-duty passenger vehicles that are applicable to 2026 and subsequent model year vehicles. The particulate standards and phase-in shown in this subsection are identical to those in section 1961.2, subsection (a)(2)(A). The terms “maximum” and “minimum” have been added to this subsection to clarify that a manufacturer may exceed the phase-in percentages for the more stringent standard, if it chooses to do so. This subsection does not apply to small volume manufacturers.

Rationale: It is necessary to move these particulate standards and phase-in requirements from section 1961.2, subsection (a)(2)(A) to this subsection, for clarity in order to create a single title 13 section that contain all of the criteria pollutant exhaust emission standards for 2026 and subsequent model year passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Subsection (c)(2)(B)

Purpose: The purpose of this subsection is to specify the applicable particulate standards and the phase-in requirements for small volume manufacturers of passenger cars, light-duty trucks, and medium-duty passenger vehicles. It is identical to the requirements in section

1961.2, subsection (a)(2)(C) for the 2026 and subsequent model years, thereby reducing costs through consistency.

Rationale: It is necessary to move these particulate standards and phase-in requirements for small volume manufacturers from section 1961.2, subsection (a)(2)(C) to this subsection, for clarity in order to create a single title 13 section that contain all of the criteria pollutant exhaust emission standards for 2026 and subsequent model year passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Subsection (c)(2)(C)

Purpose: The purpose of this subsection is to establish an alternative phase-in schedule for manufacturers to comply with the 1 mg/mi particulate standard phase-in requirements for passenger cars, light-duty trucks, and medium-duty passenger vehicles in subsection (c)(2)(A).

Rationale: This alternative phase-in schedule is necessary to provide manufacturers with flexibility in complying with the phase-in schedule in subsection (c)(2)(A), while ensuring that the particulate emission reductions that are achieved using the alternative phase-in schedule are equivalent to or greater than those that are achieved using the phase-in schedule in subsection (c)(2)(A) by the 2028 model year.

Subsection (c)(3)

Purpose: The purpose of this subsection is to set forth the requirements for bi-fuel, fuel-flexible, and dual-fuel vehicles to demonstrate compliance with NMOG+NOx standards. The requirements in this subsection are identical to those in section 1961.2, subsection (a)(3), except that the requirements that were contained in two paragraphs in section 1961.2, subsection (a)(3) have been separated into two subsections – subsection (c)(3)(A) and subsection (c)(3)(B) in section 1961.4.

Rationale: This subsection is necessary to ensure that NMOG+NOx emissions from bi-fuel, fuel-flexible, and dual-fuel vehicles do not increase above certification levels when the vehicles operate using an alternative fuel.

Subsection (c)(4)

Purpose: The purpose of this subsection is needed to set forth the LEV IV 50° F exhaust emission standards and to explain how to demonstrate compliance with the standards.

Rationale: These standards are necessary to ensure adequate emission control from vehicles under temperatures that occur during summer morning in southern California. Control of emissions at these temperatures help to prevent increased ozone caused by inadequate emission control during morning hour commutes.

Subsection (c)(4)(A)

Purpose: The purpose of this subsection is to establish LEV IV 50° F exhaust emission standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles. Under LEV III (section 1961.2, subsection (a)(4)(A)), a formaldehyde (HCHO) standard of 0.016 g/mi was established for all ULEV categories, and a HCHO standard of 0.008 g/mi was established for all SULEV categories. These standards apply to vehicles when operating on both gasoline and on the alcohol fuel. These standards are maintained for LEV IV (section 1961.4, subsection (c)(4)(A)). Under LEV III (section 1961.2, subsection (a)(4)(A)), vehicles tested at 50° F using gasoline are required to meet NMOG+NOx standards that are twice the value of the "FTP" NMOG+NOx standards, which apply at temperatures between 68° F and 86° F). This methodology is continued for LEV IV. The methodology for establishing LEV IV 50° F NMOG+NOx standards for vehicles operating on alcohol fuels and the resulting standards has been changed for this subsection compared with LEV III (section 1961.2, subsection (a)(4)(A)). While under LEV III, NMOG+NOx standards for vehicles operating on alcohol fuels were higher than the NMOG+NOx standards for vehicles operating on gasoline, this is no longer allowed. This subsection now requires vehicles operating on alcohol fuels to meet the same NMOG+NOx standards as vehicles operating on gasoline.

Rationale: It is necessary to require vehicles operating on alcohol fuels to meet the same NMOG+NOx standards as vehicles operating on gasoline to ensure adequate emission control from fuel-flexible, bi-

fuel, and dual-fuel passenger cars, light-duty trucks, and medium-duty passenger vehicles when a vehicle is operating on the alcohol fuel.

Subsection (c)(4)(B)

Purpose: The purpose of this subsection is to establish LEV IV 50° F exhaust emission standards for medium-duty vehicles, other than medium-duty passenger vehicles. Under LEV III (section 1961.2, subsection (a)(4)(B)), for medium-duty vehicles 8,501-10,000 lbs. GVWR, a formaldehyde (HCHO) standard of 0.032 g/mi was established for the ULEV250 category, and a HCHO standard of 0.016 g/mi was established for lower-emission categories; for medium-duty vehicles 10,001-14,000 lbs. GVWR, a HCHO standard of 0.042 g/mi was established for the ULEV400 category, and a HCHO standard of 0.020 g/mi was established for lower-emission categories. These standards apply to vehicles when operating on both gasoline and on the alcohol fuel. These standards are maintained for LEV IV (section 1961.4, subsection (c)(4)(B)). Under LEV III (section 1961.2, subsection (a)(4)(B)), vehicles tested at 50° F using gasoline are required to meet NMOG+NOx standards that are twice the value of the "FTP" NMOG+NOx standards, which apply at temperatures between 68° F and 86° F). This methodology is continued for LEV IV. The methodology for establishing LEV IV 50° F NMOG+NOx standards for vehicles operating on alcohol fuels and the resulting standards has been changed for this subsection compared with LEV III (section 1961.2, subsection (a)(4)(B)). While under LEV III, NMOG+NOx standards for vehicles operating on alcohol fuels were higher than the NMOG+NOx standards for vehicles operating on gasoline, this is no longer allowed. This subsection now requires vehicles operating on alcohol fuels to meet the same NMOG+NOx standards as vehicles operating on gasoline.

Rationale: It is necessary to require vehicles operating on alcohol fuels to meet the same NMOG+NOx standards as vehicles operating on gasoline to ensure adequate emission control from fuel-flexible, bi-fuel, and dual-fuel medium-duty vehicles, other than medium-duty passenger vehicles when a vehicle is operating on the alcohol fuel.

Subsection (c)(5)

Purpose: The purpose of this subsection is to establish the LEV IV 20° F exhaust emission standards and testing requirements from new 2026 and subsequent model-year passenger cars, light-duty trucks, and medium-duty passenger vehicles. These standards are identical to the LEV III 20° F exhaust emission standards and testing requirements in section 1961.2, subsection (a)(5).

Rationale: This subsection is necessary to retain the emission benefits of section 1961.2, subsection (a)(5) for 2026 and subsequent model years.

Subsection (c)(6)

Purpose: The purpose of this subsection is to establish Partial Soak NMOG+NOx Compliance Requirements for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This subsection is necessary to ensure better control of cold-start emissions from passenger cars, light-duty trucks, and medium-duty passenger vehicles. This is important, because oftentimes, the majority of NMOG+NOx emissions that are produced from these types of vehicles are cold-start emissions. Current NMOG+NOx emission standards regulate cold-start emissions that follow an overnight soak where the vehicle is turned off for 12 hours or more, assuming that it represents the worst case emissions with a fully cold catalyst. However, CARB's vehicle testing found that there were excess emissions for shorter soaks, especially in the range of 30 minutes to 5 hours. This emission bump can have a significant effect on in-use emissions, since these partial soaks represent about 40-50% of in-use driving. This subsection is necessary to establishes emission standards for partial soak times to minimize excess emissions during real-world driving.

Subsection (c)(6)(A)

Purpose: The purpose of this subsection is to establish Partial Soak NMOG+NOx exhaust standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles for 10 minute, 40 minute, and 3 to 12 hour soaks.

Rationale: It is necessary to establish Partial Soak NMOG+NOx exhaust standards for passenger cars, light-duty trucks, and medium-

duty passenger vehicles for 10 minute, 40 minute, and 3 to 12 hour soaks to ensure adequate emission control at these time intervals.

Subsection (c)(6)(B)

Purpose: The purpose of this subsection is to establish a linear interpolation equation to determine Partial Soak NMOG+NOx Standards for soaks between 10 to 40 minutes.

Rationale: The Partial Soak NMOG+NOx compliance requirements specify that a vehicle's NMOG+NOx emissions must not exceed the standards derived by the linear interpolation of the NMOG+NOx standards in the table in subsection (c)(6)(A) for any soak time greater than or equal to 10 minutes and less than 40 minutes. The equation in subsection (c)(6)(B) is necessary to calculate the NMOG+NOx standards established by this linear interpolation.

Subsection (c)(6)(C)

Purpose: The purpose of this subsection is to establish a linear interpolation equation to determine Partial Soak NMOG+NOx Standards for soaks between 40 minutes to 3 hours.

Rationale: The Partial Soak NMOG+NOx compliance requirements specify that a vehicle's NMOG+NOx emissions must not exceed the standards derived by the linear interpolation of the NMOG+NOx standards in the table in subsection (c)(6)(A) for any soak time greater than or equal to 40 minutes and less than 3 hours. The equation in subsection (c)(6)(C) is necessary to calculate the NMOG+NOx standards established by this linear interpolation.

Subsection (c)(7)

Purpose: The purpose of this subsection is to establish Quick Drive-Away NMOG+NOx Standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This subsection is necessary to ensure better control of NMOG+NOx emissions from passenger cars, light-duty trucks, and medium-duty passenger vehicles during "quick drive-away" conditions. Quick drive-away conditions occur in the real world when the time between when a vehicle is started and when it is driven away is shorter

than the initial 20 section idle time that occurs during the official test cycle when vehicle emissions are tested in a laboratory. This shorter initial idle time may result in excess cold-start emissions due to inadequate emission control during these conditions. This subsection is necessary to establishes emission standards for “quick drive-away” conditions to minimize excess emissions during real-world driving.

Subsection (c)(8)

Purpose: The purpose of this subsection is to establish Highway NMOG+NOx Standards for passenger cars, light-duty trucks, and medium-duty vehicles. The requirements in this subsection are identical to those in section 1961.2, subsection (a)(6).

Rationale: This subsection is necessary to maintain the emission benefits of the current regulation section 1961.2.

Subsection (c)(9)

Purpose: The purpose of this subsection is to establish the LEV IV supplemental Federal Test Procedure (SFTP) off-cycle emission standards for passenger cars, light-duty trucks, and medium-duty vehicles.

Rationale: It is necessary to establish SFTP off-cycle emission standards to ensure adequate control of motor vehicle emissions not accounted for by the Federal Test Procedure (FTP). Specifically, the SFTP captures so-called “off-cycle” emissions resulting from aggressive driving and air conditioner use. Off-cycle operating modes represent a significant portion of real-world driving and could result in significant emissions if vehicles are not properly calibrated.

Subsection (c)(9)(A)

Purpose: The purpose of this subsection is to establish US06 NMOG+NOx and CO exhaust emission standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This subsection is necessary to adequately control vehicle emissions during aggressive accelerations and freeway speeds. Currently, automakers have the option of certifying their aggressive driving emissions using a composite method, which combines the emission results from three different test cycles. These include the

FTP cycle, which represents lower speed urban driving, the SC03 test cycle, which represents urban driving but with the air conditioning turned on, and the US06 test cycle, which represents driving with aggressive accelerations and freeway speeds. The emissions from these three tests are then weighted, and a composite value is calculated. The problem with this approach is that it allows the aggressive driving cycle to have much higher emissions than the other two cycles. Therefore, in order to ensure adequate control of vehicle emissions during aggressive accelerations and freeway speeds, it is necessary to establish "stand-alone" NMOG+NOx and CO exhaust emission standards using the US06 test cycle and eliminate the composite certification option.

Subsection (c)(9)(A)1

Purpose: The purpose of this subsection is to establish US06 NMOG+NOx and CO exhaust emission standards for 2026 and subsequent model year passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This subsection is necessary to adequately control NMOG+NOx and CO exhaust emissions from 2026 and subsequent model year passenger cars, light-duty trucks, and medium-duty passenger vehicles during aggressive accelerations and freeway speeds.

Subsection (c)(9)(A)2

Purpose: The purpose of this subsection is to establish Interim US06 NMOG+NOx and CO exhaust emission standards for 2026 and 2027 model year passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: These interim standards are necessary to provide additional lead time to automakers that are transitioning their fleets to compliance with the new US06 standards in subsection (c)(9)(A)1. Since we are switching to a stand-alone US06 and requiring all vehicles to certify to the stand-alone standard in 2026, we have allowed higher interim standards since we do not expect all vehicles to be newly recalibrated in 2026. Having higher interim standards will give additional lead time for the vehicle test groups

that may not be ready to meet the FTP standard on the US06 cycle in 2026.

Subsection (c)(9)(B)

Purpose: The purpose of this subsection is to lower the US06 PM exhaust emission standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles from 6 mg/mi to 3 mg/mi, with a phase-in of the lower standard beginning with the 2027 model year.

Rationale: It is necessary to adopt lower US06 PM standards, to help prevent excessive PM emissions during aggressive driving. High emissions during the US06 cycle may relate to higher near-roadway emission levels and subsequent exposures, which can have a disproportionate impact on low income and sensitive populations who may reside, work, or spend significant time near busy roadways. Accordingly, a more stringent US06 cycle PM emission standard of 3 mg/mile will help ensure PM is well-controlled over more aggressive in-use driving conditions.

Subsection (c)(9)(B)1

Purpose: The purpose of this subsection is to set forth the US06 PM exhaust emission standards for 2026 and subsequent model year passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This subsection is necessary to achieve the purpose of subsection (c)(9)(B).

Subsection (c)(9)(B)2

Purpose: The purpose of this subsection is to establish an alternative phase-in schedule for manufacturers to comply with the US06 PM exhaust emission standards and phase-in requirements for passenger cars, light-duty trucks, and medium-duty passenger vehicles in subsection (c)(9)(B)1.

Rationale: This alternative phase-in schedule is necessary to provide manufacturers with flexibility in complying with the phase-in schedule in subsection (c)(9)(B)1, while ensuring that the particulate emission reductions that are achieved using the

alternative phase-in schedule are equivalent to or greater than those that are achieved using the phase-in schedule in subsection (c)(9)(B)1 by the 2030 model year.

Subsection (c)(9)(C)

Purpose: The purpose of this subsection is to establish SC03 NMOG+NOx and CO exhaust emission standards for 2026 and subsequent model year passenger cars, light-duty trucks, and medium-duty passenger vehicles

Rationale: This subsection is necessary to control exhaust emissions resulting from use of the vehicle's air conditioner using a climate-controlled, air conditioning test cycle called the SC03 cycle.

Subsection (c)(9)(D)

Purpose: The purpose of this subsection is to establish SFTP NMOG+NOx and CO exhaust emission standards for medium-duty vehicles, other than medium-duty passenger vehicles.

Rationale: This subsection is necessary to adequately control NMOG+NOx and CO exhaust emissions from medium-duty vehicles, other than medium-duty passenger vehicles. Currently, medium-duty vehicles certify to a composite SFTP standard similar to light-duty vehicles that takes into account emissions across three different cycles. However, just like light-duty vehicles, the composite standard does not ensure good emission control during US06 driving conditions. Accordingly, the new stand-alone standard for medium-duty vehicles on the US06 test cycle set forth in this subsection will better ensure robust control than the current composite standard does.

Subsection (c)(9)(E)

Purpose: The purpose of this subsection is to establish SFTP PM exhaust emission standards for medium-duty vehicles, other than medium-duty passenger vehicles.

Rationale: It is necessary to lower the SFTP PM exhaust emission standards for medium-duty vehicles, other than medium-duty passenger vehicles, to reduce PM emissions from GDI vehicles during aggressive driving.

Subsection (c)(9)(F)

Purpose: The purpose of this subsection is to establish SC03 NMOG+NOx and CO exhaust emission standards for 2026 and subsequent model year medium-duty vehicles other than medium-duty passenger vehicles

Rationale: This subsection is necessary to control exhaust emissions resulting from use of the vehicle's air conditioner using a climate-controlled, air conditioning test cycle called the SC03 cycle.

Subsection (c)(10)

Purpose: The purpose of this subsection is to establish High Power Cold Start US06 Emission Standards for plug-in hybrid electric vehicles (PHEVs) in the passenger car, light-duty truck, and medium-duty passenger vehicle classes.

Rationale: It is necessary to establish High Power Cold Start US06 Emission Standards for PHEVs, because there are cold start issues that are unique to these types of vehicles. PHEVs can start out driving in pure electric mode, then when they get to the freeway and accelerate hard, the internal combustion engine can turn on due to the high power demand. This can create a huge spike in emissions. This subsection established emission standards that limit these emission impacts.

Subsection (c)(11)

Purpose: The purpose of this subsection is to establish Interim In-Use Compliance Standards for passenger cars, light-duty trucks, and medium-duty vehicles certifying to the 1 mg/mi PM standard and the US06 NMOG+NOx and PM standards.

Rationale: During the phase-in period of the 1 mg/mi PM standard and the US06 NMOG+NOx and PM standards, manufacturers will be subject to less stringent in-use compliance standards (for the purpose of determining if a test group is in non-compliance and a possible recall is warranted) for the first two years after a test group is subject to a new, more stringent emission standard. These less stringent interim in-use compliance standards are necessary to provide manufacturers with a compliance cushion that helps to address any unexpected problems that may occur when a new technology is introduced into the real world.

Subsection (c)(11)(A)

Purpose: The purpose of this subsection is to establish interim in-use compliance standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles certifying to the 1 mg/mi particulate standard.

Rationale: It is necessary to retain the interim in-use compliance particulate standards and phase-in for the 1 mg/mi PM standard shown in this subsection, which are identical to those in section 1961.2, subsection (a)(8)(B)1, because manufacturers have relied on these in developing their vehicle production plans.

Subsection (c)(11)(B)

Purpose: This purpose of this subsection is to establish US06 interim in-use compliance standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This subsection is necessary to provide manufacturers with a compliance cushion when certifying to the new US06 standards. These new US06 interim in-use compliance standards include those set forth in subsection (c)(11)(B)1 and (c)(11)(B)2.

Subsection (c)(11)(B)1

Purpose: The purpose of this subsection is to establish US06 NMOG+NOx interim in-use compliance standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: See the rationale for subsection (c)(11)(B), above.

Subsection (c)(11)(B)2

Purpose: The purpose of this subsection is to establish US06 PM interim in-use compliance standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: See the rationale for subsection (c)(11)(B), above.

Subsection (c)(11)(C)

Purpose: This purpose of this subsection is to establish Quick Drive-Away NMOG+NOx interim in-use compliance standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This subsection is necessary to provide manufacturers with a compliance cushion when certifying to the new Quick Drive-Away NMOG+NOx standards in subsection (c)(7).

Subsection (c)(12)

Purpose: The purpose of this subsection is to establish criteria that allow a manufacturer to generate additional NMOG+NOx fleet average credit.

Rationale: It is necessary to retain the criteria that allow a manufacturer to generate additional NMOG+NOx fleet average credit shown in this subsection, which are identical to those in section 1961.2, subsection (a)(9), because manufacturers have relied on these credits for developing their vehicle production plans.

Subsection (c)(13)

Purpose: The purpose of this subsection is to allow a manufacturer that certifies vehicles equipped with direct ozone reduction technologies to receive NMOG credits that can be applied to the NMOG exhaust emissions of the vehicle when determining compliance with the NMOG+NOx standards in subsection (c)(1).

Rationale: It is necessary to retain this provision, which is identical to that in section 1961.2, subsection (a)(11), because manufacturers have relied on these credits for developing their vehicle production plans.

Subsections (c)(13)(A), (c)(13)(B), and (c)(13)(C)

Purpose: The purpose of these subsection is to specify the information that a manufacturer must submit to CARB in order to receive credits.

Rationale: This subsection is necessary to establish clear criteria that CARB will use to determine whether or not a manufacturer is eligible for these credits.

Subsection (c)(14)

Purpose: The purpose of this subsection is to establish criteria for allowing a manufacturer to utilize an on-board fuel-fired heater on any passenger car, light-duty truck, or medium-duty vehicle. These criteria include a methodology for measuring emissions from the heater and a requirement that emissions from the fuel-fired heater be added to the measured exhaust emissions from a vehicle if the heater operates at ambient temperatures above 40° F, for the purpose of demonstrating compliance with applicable emission standards.

Rationale: This subsection is necessary to ensure that vehicle emissions do not increase above certification levels due to the use of a fuel-fired heater, in order to preserve the emission reductions from this regulation.

Subsection (c)(15)

Purpose: The purpose of this subsection is to require vehicles that are sold in California to certify to LEV IV emission standards that are at least as stringent as the federal emission standards to which comparable vehicles are certified.

Rationale: This requirement is necessary to ensure that California receives the cleanest vehicles available.

Subsection (c)(15)(A)

Purpose: The purpose of this subsection is to specify that a manufacturer may not certify a 2026 or subsequent model-year passenger car, light-duty truck, or medium-duty vehicle model to a California emission category that is less stringent than the emission bin to which the equivalent vehicle model certifies federally.

Rationale: This subsection is necessary to establish general requirement that apply for determining when a federally-certified vehicle model is required to be sold in California.

Subsection (c)(15)(B)

Purpose: The purpose of this subsection is to exempt clean fuel fleet vehicle models that are only marketed to fleet operators for applications that are subject to clean fuel fleet requirements

established pursuant to section 246 of the federal Clean Air Act (42 U.S.C. sec. 7586) from the requirements of this subsection (c)(15).

Rationale: This subsection is necessary, because these types of vehicles are tailored to the needs of fleet operators rather than to the general public.

Subsection (d)

Purpose: The purpose of this subsection is to establish emission standards phase-in requirements for manufacturers.

Rationale: This subsection is necessary to clearly provide manufacturers with phase-in schedules that must be met for each of the sets of standards in subsection (c), in order to comply with this regulation.

Subsection (d)(1)

Purpose: The purpose of this subsection is to establish fleet average NMOG + NOx requirements for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This subsection is necessary to establish a phase-in schedule for the standards in subsection (c)(1)(A) and a methodology for demonstrating compliance with the phase-in schedule that a manufacturer must meet.

Subsection (d)(1)(A)

Purpose: The purpose of this subsection is to establish fleet average NMOG + NOx requirements for passenger cars, light-duty trucks, and medium-duty passenger vehicles and to specify the declining percentage of ZEVs and “Enhanced” plug in hybrid electric vehicles (PHEVs) (i.e., PHEVs that receive extra NMOG+NOx credit for all-electric range capability) that may be included in the fleet average.

Rationale: This subsection is necessary to ensure that emissions from conventional internal combustion engine vehicles do not increase as an increasing number of ZEVs and “enhanced” PHEVs are sold in California. The regulation phases out consideration of ZEV and “enhanced” PHEV emission rates when determining the average emissions of vehicles with combustion engines.

Subsection (d)(1)(B)

Purpose: The purpose of this subsection is to establish the methodology a manufacturer must use to calculate its fleet average NMOG+NOx value.

Rationale: This subsection is necessary to clearly instruct manufacturers how to demonstrate compliance with subsection (d)(1)(A).

Subsection (d)(1)(B)1

Purpose: The purpose of this subsection is to set forth the equations and methodology to be used to calculate a manufacturer's NMOG+NOx fleet average value.

Rationale: These equations and methodology are necessary to demonstrate compliance with subsection (d)(1)(A).

Subsection (d)(1)(B)2

Purpose: The purpose of this subsection is to set forth the applicable emission standards to be used in the equations in subsection (d)(1)(B)1.

Rationale: It is necessary to specify the applicable emission standards to be used in the equations in subsection (d)(1)(B)1 in order to perform the calculations.

Subsection (d)(1)(B)3

Purpose: The purpose of this subsection is to set forth the equations and methodology to calculate "PHEV NMOG+NOx Contribution Factors" to be used in the equations in subsection (d)(1)(B)1.

Rationale: It is necessary to specify the "PHEV NMOG+NOx Contribution Factors" to be used in the equations in subsection (d)(1)(B)1 in order to perform the calculations.

Subsection (d)(1)(C)

Purpose: The purpose of this subsection is to establish phase-in requirements for small volume manufacturers. These phase-in

requirements are identical to the small volume manufacturer phase-in requirements in section 1961.2, subsection (b)(1)(C).

Rationale: This subsection is necessary to provide small volume manufacturers, which produce a limited number of vehicles, thereby making it difficult to comply with the fleet average NMOG+NOx values in subsection (d)(1)(A), with alternative phase-in requirements. Applying consistent requirements reduces costs while maintaining emission benefits.

Subsection (d)(1)(C)1

Purpose: The purpose of this subsection is to establish the NMOG+NOx fleet average requirements for small volume manufacturers.

Rationale: This subsection is necessary to provide small volume manufacturers with a phase-in schedule that's better tailored to low vehicle production volumes.

Subsection (d)(1)(C)2

Purpose: The purpose of this subsection is to set forth the requirements for when a small volume manufacturer must meet the fleet average requirements that apply to large volume manufacturers based on an increased sales by the small volume manufacturer.

Rationale: This subsection is necessary to ensure that no excess emissions occur due to manufacturers that are capable of meeting the fleet average NMOG+NOx phase-in requirements in subsection (d)(1)(A) taking advantage of the less stringent phase-in requirements in subsection (d)(1)(C)1.

Subsection (d)(1)(C)3

Purpose: The purpose of this subsection is to set forth the requirements for when a large volume manufacturer may meet the fleet average requirements that apply to small volume manufacturers based on decreased sales by the large volume manufacturer.

Rationale: This subsection is necessary to provide the former large volume manufacturer with less stringent phase-in requirements. based on its reduced ability to comply with the phase-in requirements in subsection (d)(1)(A).

Subsection (d)(2)

Purpose: The purpose of this subsection is to establish LEV IV phase-in requirements medium-duty vehicles, other than medium-duty passenger vehicles.

Rationale: This subsection is necessary to establish a phase-in schedule and a methodology for demonstrating compliance with the phase-in schedule that a manufacturer must meet for vehicles certifying to the standards in subsection (c)(1) and to the optional heavy-duty engine emission standards in section 1956.8.

Subsection (d)(2)(A)

Purpose: The purpose of this subsection is to establish a phase-in schedule for manufacturers of medium-duty vehicles, other than small volume manufacturers.

Rationale: This subsection is necessary to clearly provide manufacturers with phase-in schedules that must be met for each of the sets of standards in subsection (c)(1) and to the optional heavy-duty engine emission standards in section 1956.8, in order to comply with this regulation.

Subsection (d)(2)(A)1

Purpose: The purpose of this subsection is to establish requirements for medium-duty vehicles, other than small volume manufacturers, certified to subsection (c)(1).

Rationale: This subsection is necessary to clearly provide manufacturers with phase-in schedules that must be met for applicable medium-duty vehicles certifying to the standards in subsection (c)(1) and to set forth the methodology needed to demonstrate compliance with the fleet average requirement.

Subsection (d)(2)(A)1.a

Purpose: The purpose of this subsection is to establish fleet average NMOG+NOx exhaust mass emission values from the medium-duty vehicles produced and delivered for sale in California each model year.

Rationale: This subsection is necessary to clearly provide manufacturers with phase-in schedules that must be met for medium-duty vehicles, other than medium-duty passenger vehicles, certifying to the standards in subsection (c)(1).

Subsection (d)(2)(A)1.b

Purpose: The purpose of this subsection is to specify the equation that must be used by a manufacturer to calculate its fleet average NMOG+NOx value for the total number of medium-duty vehicles 8,501 to 10,000 lbs. GVWR produced and delivered for sale in California.

Rationale: This equation is necessary to demonstrate compliance with subsection (d)(2)(A)1.a.

Subsection (d)(2)(A)1.c

Purpose: The purpose of this subsection is to specify the equation that must be used by a manufacturer to calculate its fleet average NMOG+NOx value for the total number of medium-duty vehicles 10,001 to 14,000 lbs. GVWR produced and delivered for sale in California.

Rationale: This equation is necessary to demonstrate compliance with subsection (d)(2)(A)1.a.

Subsection (d)(2)(A)1.d

Purpose: The purpose of this subsection is to set forth the applicable emission standards to be used in the equations in subsections (d)(2)(A)1.b and (d)(2)(A)1.c.

Rationale: It is necessary to specify the applicable emission standards to be used in the equations in subsections (d)(2)(A)1.b and (d)(2)(A)1.c in order to perform the calculations.

Subsection (d)(2)(A)2

Purpose: The purpose of this subsection is to establish compliance requirements for incomplete medium-duty vehicles that use Otto-cycle engines certified to section 1956.8 and medium-duty vehicles that use diesel engines certified to section 1956.8.

Rationale: This subsection is necessary to establish compliance requirements for these types of medium-duty vehicles.

Subsection (d)(2)(B)

Purpose: The purpose of this subsection is to establish a phase-in schedule for small volume manufacturers of medium-duty vehicles.

Rationale: This subsection is necessary to provide small volume manufacturers, which produce a limited number of vehicles, thereby making it difficult to comply with the fleet average NMOG+NOx requirements in subsection (d)(2)(A), with alternative phase-in requirements.

Subsection (d)(2)(C)

Purpose: The purpose of this subsection is to establish alternate phase-in schedules for LEV IV medium-duty vehicles certified to subsection (c)(1) for manufacturers with a limited number of test groups.

Rationale: It is necessary to establish alternate phase-in schedules for LEV IV medium-duty vehicles certified to subsection (c)(1) for manufacturers with a limited number of test groups, because the limited number of test groups make it much more difficult to comply with a fleet average requirement. Consequently, manufacturers with a limited number of test groups may be forced to certify their vehicles to lower emission standards than manufacturers with more test groups in order to over comply with the fleet average requirement.

Subsection (d)(2)(C)1

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to subsection (d)(2)(A)1 for a manufacturer that produces and delivers for sale in California four medium-duty test groups certified to subsection (c)(1).

Rationale: This subsection is necessary, because it is difficult to comply with a fleet average requirement when only four test groups are included in the fleet average.

Subsection (d)(2)(C)2

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to subsection (d)(2)(A)1 for a manufacturer that produces and delivers for sale in California three medium-duty test groups certified to subsection (c)(1).

Rationale: This subsection is necessary, because it is difficult to comply with a fleet average requirement when only three test groups are included in the fleet average.

Subsection (d)(2)(C)3

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to subsection (d)(2)(A)1 for a manufacturer that produces and delivers for sale in California two medium-duty test groups certified to subsection (c)(1).

Rationale: This subsection is necessary, because it is difficult to comply with a fleet average requirement when only two test groups are included in the fleet average.

Subsection (d)(2)(C)4

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to subsection (d)(2)(A)1 for a manufacturer that produces and delivers for sale in California one medium-duty test group certified to subsection (c)(1).

Rationale: This subsection is necessary, because it is difficult to comply with a fleet average requirement when only one test group is included in the fleet average.

Subsection (d)(2)(D)

Purpose: The purpose of this subsection is to specify how each manufacturer's medium-duty vehicle fleet is defined for the purpose of demonstrating compliance with the LEV IV phase-in requirements in subsection (d)(2).

Rationale: This subsection is necessary to ensure proper compliance with the phase-in requirements.

Subsection (d)(2)(E)

Purpose: The purpose of this subsection is to specify that medium-duty vehicles that certify to section 1956.8 are subject to the requirements in the heavy-duty Otto-cycle test procedure or the heavy-duty diesel test procedure, as applicable.

Rationale: The two heavy-duty test procedures referenced in this subsection contain the testing requirements for demonstrating compliance with section 1956.8 and are incorporate by reference therein. It is, therefore, necessary for medium-duty vehicles that certify to section 1956.8 to demonstrate compliance with the section using the incorporated heavy-duty test procedures.

Subsection (d)(3)

Purpose: The purpose of this subsection is to establish phase-in requirements for vehicles certifying to the LEV IV SFTP standards.

Rationale: This subsection is necessary to establish a phase-in schedule for the standards in subsection (c)(9) and a methodology for demonstrating compliance with the phase-in schedule that a manufacturer must meet.

Subsection (d)(3)(A)

Purpose: The purpose of this subsection is to establish phase-in schedules for passenger cars, light-duty trucks, and medium-duty passenger vehicles certifying to SFTP standards.

Rationale: These phase-in schedules are necessary for demonstrating compliance with this regulation.

Subsection (d)(3)(A)1

Purpose: The purpose of this subsection is to establish a phase-in schedule for manufacturers, other than small volume manufacturers, certifying to the LEV IV US06 NMOG+NOx and CO emission standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This subsection is necessary for phasing-in the US06 NMOG+NOx and CO emission standards in subsection (c)(9)(A).

Subsection (d)(3)(A)2

Purpose: The purpose of this subsection is to establish a phase-in schedule for small volume manufacturers, certifying to the LEV IV US06 NMOG+NOx and CO emission standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This subsection is necessary for providing small volume manufacturers with additional flexibility in phasing-in the US06 NMOG+NOx and CO emission standards in subsection (c)(9)(A) that is not granted to larger manufacturers. This additional flexibility is needed due to the low volume of vehicles that are produced by a small volume manufacturer, which makes it difficult to meet fleet average requirements.

Subsection (d)(3)(A)3

Purpose: The purpose of this subsection is to establish an alternative phase-in schedule for manufacturers to comply with the US06 NMOG+NOx and CO exhaust emission standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This alternative phase-in schedule is necessary to provide manufacturers with flexibility in complying with the phase-in schedule in subsection (d)(3)(A)1, while ensuring that the particulate emission reductions that are achieved using the alternative phase-in schedule are equivalent to or greater than those that are achieved using the phase-in schedule in subsection (d)(3)(A)1 by the 2028 model year.

Subsection (d)(3)(B)

Purpose: The purpose of this subsection is to establish phase-in schedules for medium-duty vehicles, other than medium-duty passenger vehicles, certifying to SFTP standards.

Rationale: These phase-in schedules are necessary for demonstrating compliance with this regulation.

Subsection (d)(3)(B)1

Purpose: The purpose of this subsection is to establish a phase-in schedule for manufacturers, other than small volume manufacturers, certifying to the LEV IV SFTP NMOG+NOx and CO emission standards for medium-duty vehicles, other than medium-duty passenger vehicles.

Rationale: This subsection is necessary for phasing-in the SFTP NMOG+NOx and CO emission standards in subsection (c)(9)(D).

Subsection (d)(3)(B)2

Purpose: The purpose of this subsection is to establish a phase-in schedule for manufacturers, other than small volume manufacturers, certifying to the LEV IV SFTP PM emission standards for medium-duty vehicles, other than medium-duty passenger vehicles.

Rationale: This subsection is necessary for phasing-in the SFTP PM emission standards in subsection (c)(9)(E).

Subsection (d)(3)(C)

Purpose: The purpose of this subsection is to specify how each manufacturer's medium-duty vehicle fleet is defined for the purpose of demonstrating compliance with the LEV IV phase-in requirements in subsection (d)(3).

Rationale: This subsection is necessary to ensure proper compliance with the phase-in requirements.

Subsection (d)(4)

Purpose: The purpose of this subsection is to establish Partial Soak NMOG+NOx Compliance Requirements.

Rationale: This subsection is necessary to establish a phase-in schedule and alternative phase-in schedule for the Partial Soak NMOG+NOx requirements in subsection (c)(6).

Subsection (d)(4)(A)

Purpose: The purpose of this subsection is to establish a phase-in schedule for demonstrating compliance with the Partial Soak NMOG+NOx requirements.

Rationale: This subsection is necessary for phasing-in the Partial Soak NMOG+NOx standards in subsection (c)(6).

Subsection (d)(4)(B)

Purpose: The purpose of this subsection is to establish an alternative phase-in schedule for manufacturers to comply with the Partial Soak NMOG+NOx requirements.

Rationale: This alternative phase-in schedule is necessary to provide manufacturers with flexibility in complying with the phase-in schedule in subsection (d)(4)(A), while ensuring that the NMOG+NOx emission reductions that are achieved using the alternative phase-in schedule are equivalent to or greater than those that are achieved using the phase-in schedule in subsection (d)(4)(A) by the 2028 model year.

Subsection (d)(5)

Purpose: The purpose of this subsection is to establish Quick Drive-Away NMOG+NOx Emission Standards compliance requirements.

Rationale: This subsection is necessary to establish a phase-in schedule and alternative phase-in schedule for the Quick Drive-Away NMOG+NOx emission standards in subsection (c)(7).

Subsection (d)(5)(A)

Purpose: The purpose of this subsection is to establish a phase-in schedule for the Quick Drive-Away NMOG+NOx emission standards.

Rationale: This subsection is necessary for phasing-in the Quick Drive-Away NMOG+NOx emission standards in subsection (c)(7).

Subsection (d)(5)(B)

Purpose: The purpose of this subsection is to establish an alternative phase-in schedule for manufacturers to comply with the Quick Drive-Away NMOG+NOx emission standards.

Rationale: This alternative phase-in schedule is necessary to provide manufacturers with flexibility in complying with the phase-in schedule in subsection (d)(5)(A), while ensuring that the NMOG+NOx emission reductions that are achieved using the alternative phase-in schedule are equivalent to or greater than those that are achieved using the phase-in schedule in subsection (d)(5)(A) by the 2028 model year.

Subsection (d)(6)

Purpose: The purpose of this subsection is to establish phase-in schedules for High Power Cold Start US06 Emission Standards for plug-in hybrid electric vehicles in the passenger car, light-duty truck, and medium-duty passenger vehicle classes.

Rationale: This subsection is necessary to establish a phase-in schedule for High Power Cold Start US06 emission standards in subsection (c)(10).

Subsection (d)(6)(A)

Purpose: The purpose of this subsection is to establish a phase-in schedule and an alternative phase-in schedule for High Power Cold Start US06 emission standards for manufacturers that produce and deliver for sale in California three or more passenger car, light-duty truck, or medium-duty passenger vehicle test groups certified to subsection (c)(10).

Rationale: This subsection is necessary for phasing-in the High Power Cold Start US06 emission standards in subsection (c)(10).

Subsection (d)(6)(A)1

Purpose: The purpose of this subsection is to establish a phase-in schedule for the High Power Cold Start US06 emission standards.

Rationale: This subsection is necessary for phasing-in the High Power Cold Start US06 emission standards in subsection (c)(10).

Subsection (d)(6)(A)2

Purpose: The purpose of this subsection is to establish an alternative phase-in schedule for the High Power Cold Start US06 emission standards.

Rationale: This alternative phase-in schedule is necessary to provide manufacturers with flexibility in complying with the phase-in schedule in subsection (d)(6)(A)1, while ensuring that the NMOG+NOx emission reductions that are achieved using the alternative phase-in schedule are equivalent to or greater than those that are achieved using the phase-in schedule in subsection (d)(6)(A)1 by the 2028 model year.

Subsection (d)(6)(B)

Purpose: The purpose of this subsection is to establish a phase-in schedule and an alternative phase-in schedule for High Power Cold Start US06 emission standards for manufacturers that produce and deliver for sale in California one or two passenger car, light-duty truck, or medium-duty passenger vehicle test groups certified to subsection (c)(10).

Rationale: This subsection is necessary for providing manufacturers with one or two test groups with phase-in schedules for the High Power Cold Start US06 emission standards in subsection (c)(10) that's feasibility and appropriate to achieve.

Subsection (d)(6)(B)1

Purpose: The purpose of this subsection is to establish a phase-in schedule for the High Power Cold Start US06 emission standards for manufacturers with one or two test groups.

Rationale: This subsection is necessary for phasing-in the High Power Cold Start US06 emission standards in subsection (c)(10).

Subsection (d)(6)(B)2

Purpose: The purpose of this subsection is to establish an alternative phase-in schedule for the High Power Cold Start US06 emission standards for manufacturers with one or two test groups.

Rationale: This alternative phase-in schedule is necessary to provide manufacturers with flexibility in complying with the phase-in schedule in subsection (d)(6)(B)1, while ensuring that the NMOG+NOx emission reductions that are achieved using the alternative phase-in schedule are equivalent to or greater than

those that are achieved using the phase-in schedule in subsection (d)(6)(B)1 by the 2028 model year.

Subsection (d)(6)(C)

Purpose: The purpose of this subsection is to establish a phase-in schedule for small volume manufacturers, certifying to the High Power Cold Start US06 emission standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles.

Rationale: This subsection is necessary for providing small volume manufacturers with additional flexibility in phasing-in the High Power Cold Start US06 emission standards in subsection (c)(10) that is not granted to larger manufacturers. This additional flexibility is needed due to the low volume of vehicles that are produced by a small volume manufacturer, which makes it difficult to meet fleet average requirements.

Subsection (e)

Purpose: The purpose of this subsection is to set forth criteria and a methodology for calculating a NMOG+NOx credits and debits that are earned by a manufacturer for over compliance and under compliance, respectively, with this section.

Rationale: This subsection is necessary to clearly set forth these criteria and methodology, because a manufacturer that does not comply with this section may be subject to penalties.

Subsection (e)(1)

Purpose: The purpose of this subsection is to set forth criteria and a methodology for calculating NMOG+NOx credits and debits for that are earned by a manufacturer for its passenger car, light-duty truck, and medium-duty passenger vehicle fleet for over compliance and under compliance, respectively, with this section.

Rationale: This subsection is necessary to clearly set forth these criteria and methodology, because a manufacturer that does not comply with this section may be subject to penalties.

Subsection (e)(1)(A)

Purpose: The purpose of this subsection is to set forth the equation that must be used to calculate a manufacturer's NMOG+NOx credits and debits for its passenger car, light-duty truck, and medium-duty passenger vehicle fleet.

Rationale: This subsection is necessary to clearly set forth this equation, because a manufacturer that does not comply with this section may be subject to penalties.

Subsection (e)(1)(B)

Purpose: The purpose of this subsection is to describe how credits and debits will be calculated based on the calculated values in subsection (e)(1)(A).

Rationale: This subsection is necessary to clearly set describe how credits and debits will be calculated, because a manufacturer that does not comply with this section may be subject to penalties.

Subsection (e)(2)

Purpose: The purpose of this subsection is to set forth criteria and a methodology for calculating NMOG+NOx credits and debits for that are earned by a manufacturer for its medium-duty vehicle, other than medium-duty passenger vehicle fleet, for over compliance and under compliance, respectively, with this section.

Rationale: This subsection is necessary to clearly set forth these criteria and methodology, because a manufacturer that does not comply with this section may be subject to penalties.

Subsection (e)(2)(A)

Purpose: The purpose of this subsection is to set forth the equation that must be used to calculate a manufacturer's NMOG+NOx credits and debits for its medium-duty vehicle, other than medium-duty passenger vehicle fleet.

Rationale: This subsection is necessary to clearly set forth this equation, because a manufacturer that does not comply with this section may be subject to penalties.

Subsection (e)(2)(B)

Purpose: The purpose of this subsection is to describe how credits and debits will be calculated based on the calculated values in subsection (e)(2)(A).

Rationale: This subsection is necessary to clearly set describe how credits and debits will be calculated, because a manufacturer that does not comply with this section may be subject to penalties.

Subsection (e)(3)

Purpose: The purpose of this subsection is to establish a procedure for offsetting debits.

Rationale: This subsection is necessary to clearly set forth a procedure that a manufacturer may use to offset debits, thereby avoiding paying penalties.

Subsection (e)(3)(A)

Purpose: The purpose of this subsection is to: (1) specify the requirements for equalizing emission debits and (2) specify the conditions that will cause a manufacturer to be subject to the Health and Safety Code §43211 civil penalty applicable to a manufacturer which sells a new motor vehicle that does not meet the applicable emission standards adopted by the state board.

Rationale: This subsection is necessary to clearly set forth the conditions that will subject a manufacturer to penalties for non-compliance with this section.

Subsection (e)(3)(B)

Purpose: The purpose of this subsection is to specify the number of model years in which the emission credits earned in any given model year will retain full value, and when they will no longer have any value.

Rationale: This subsection is necessary to clearly set forth the conditions that will subject a manufacturer to penalties for non-compliance with this section.

Subsection (e)(4)

Purpose: The purpose of this subsection is to explain the method for converting NMOG Credits and Debits earned under the LEV III program to LEV IV NMOG+NOx Credits and Debits.

Rationale: This subsection is necessary to clearly explain how the credit and debit transfer between the two regulations (section 1961.2 and section 1961.4) is to occur.

Subsection (e)(5)

Purpose: The purpose of this subsection is to describe how to convert the value of any vehicle-equivalent credits and debits earned in accordance with subsection 1961.2(c)(2)(A) to NMOG+NOx fleet average credits and debits for the purpose of determining compliance under this section 1961.4.

Rationale: This subsection is necessary to clearly explain how the conversion of credit and debit that are transferred between the two regulations (section 1961.2 and section 1961.4) is to occur.

Subsection (f)

Purpose: The purpose of this section is to incorporate by reference the test procedures for determining compliance with the emission standards in section 1961.4.

Rationale: This subsection is necessary to provide clear and consistent methods for manufacturers to use to demonstrate compliance with section 1961.4.

Subsection (g)

Purpose: The purpose of this subsection is to define the abbreviations and acronyms used in section 1961.4.

Rationale: This subsection is necessary to enable someone who reads section 1961.4 to understand the requirements therein.

Subsection (h)

Purpose: The purpose of this subsection is to establish a “severability” provision for section 1961.4.

Rationale: This subsection is necessary to establish that each provision of this section is severable, and in the event that any provision of this section is held to be invalid, the remainder of both this section and this article remains in full force and effect.

Amendments to Title 13, CCR, Section 1965

Purpose: The purpose of this section is to establish requirement for Emission Control, Smog Index, and Environmental Performance Labels to be used on 1979 and subsequent model-year motor vehicles. This section specifies that emission control labels are required by the California certification procedures contained in a number of test procedures. The title of one of the applicable referenced document is being changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles". In addition, a new test procedure, the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" that also requires emission control labels on new vehicles has been added to this section.

Rationale: It is necessary to amend this section to reflect the change to the title of the referenced document that is currently referenced therein and to add the new document that also contains labeling requirements.

Amendments to Title 13, CCR, Section 1976

Subsection (b)

Subsection (b)(1)

Purpose: The purpose of this amendment to the applicability statement, is to allow deviations from this applicability statement as otherwise indicated. Additionally the applicability statement has been modified to remove reference to a type of vehicle which is not on the market.

Rationale: Allowing deviations to the applicability statement sets the stage for an amendment in the incorporated evaporative emissions test

procedure, which expands the alternative fuel system test requirement to encompass diesel and compressed natural gas fueled vehicles, which would otherwise be exempt from evaporative emission testing.

The reason for the second change to the applicability statement is that "hybrid electric vehicles that have sealed fuel systems which can be demonstrated to have no evaporative emissions" are not being manufactured or offered for sale, and therefore do not need to be referred to.

Subsection (b)(1)(G)

Subsection (b)(1)(G)7

Purpose: The purpose of this subsection is to establish evaporative emission requirements for vehicles equipped with an auxiliary engine and fuel system.

Rationale: This new subsection is necessary to ensure that evaporative emissions vehicles equipped with an auxiliary engine and fuel system are adequately controlled.

Subsection (b)(1)(H)

Purpose: The purpose of this subsection is to establish evaporative emission requirements apply to 2026 and subsequent model year motor vehicles in addition to the evaporative emission requirements in section 1976(b)(1)(G).

Rationale: These new emission requirements are necessary to help improve California's air quality.

Subsection (b)(1)(H)1

Purpose: The purpose of this amendment is to reduce the running loss standard from 0.05 grams/mile down to 0.01 grams/mile and provide a phase-in schedule.

Rationale: This amendment is supported by auto manufacturer's model year 2019 certification data, in which 87% of the vehicles certified at or below the proposed standard of 0.01 grams/mile. This amendment is necessary to prevent emission backsliding of the larger percentage of cleaner vehicles and clean up the smaller

percentage of dirtier vehicles. Since the majority of vehicles already meet the proposed new standard, staff believes the phase-in schedule is reasonable as proposed.

Subsection (b)(1)(H)2

Purpose: The purpose of this amendment is to specify a minimum canister size requirement in the regulation, for vehicles with a non-integrated refueling canister only system (NIRCOS) fuel system that are commonly used on PHEVs, and other vehicles which have fuel tank pressure exceeding a specified threshold. And OEMs would demonstrate compliance using a CARB defined calculation in which they would input their vehicle's specific parameters.

Rationale: This amendment is necessary to help to address a small shortcoming in the current test procedures which does not cover a worst case event. Specifically, on vehicles with a NIRCOS type fuel system this amendment will help that the canister has enough capacity to capture the fuel vapors resulting from a specific sequence of driving on hot day followed by refueling.

Subsection (b)(1)(H)2.a

Purpose: The purpose of this subsection is to specify that compliance with the minimum canister size requirement must be demonstrated using the equation in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles."

Rationale: It is necessary to specify how compliance with the minimum canister size requirement must be demonstrated, in order to ensure the emission benefits of this provision are achieved.

Subsection (c)

Purpose: The purpose of this subsection is to incorporate the test procedures that contain the certification requirements and test procedures for determining compliance with the emission standards in this section 1976. The heading "Test Procedures" has been added to this subsection to clarify its intent. The

title and amended date of one of the incorporated test procedures has been amended, and a new test procedure has been added to this subsection.

Rationale: It is necessary to amend this subsection to change the name and the amended date of the incorporated test procedure, because these are both being changed as part of this rulemaking. The name of the incorporated test procedure is being changed from the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" to the "California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles".

It is also necessary to incorporate by reference a new document, the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles," because this new test procedure contains the certification requirements and test procedures for determining compliance with the emission standards with 2026 and subsequent model year standards in section 1976.

Amendments to Title 13, CCR, Section 1978

Subsection (b)

Purpose: The purpose of this subsection is to incorporate the test procedures that contain the certification requirements and test procedures for determining compliance with the emission standards in this section 1978. The heading "Test Procedures" has been added to this subsection to clarify its intent. The amended date of one of the incorporated test procedures, the "California Refueling Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" has been changed.

Rationale: It is necessary to amend this subsection to change the amended date of the incorporated the "California Refueling Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," because this document is being changed as part of this rulemaking.

Amendments to Title 13, CCR, Section 2037

Subsection (g)

Purpose: The purpose of section 2037 is to establish Defects Warranty Requirements for 1990 and Subsequent Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Motor Vehicle Engines Used in Such Vehicles. The purpose of this subsection is to require that each manufacturer submit the documents required by specified applicable test procedures. The referenced document the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" is being split into two new documents the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" and the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection reflect this change.

Rationale: It is necessary to amend this subsection to reflect the split in the currently incorporated test procedure.

Amendments to Title 13, CCR, Section 2038

Subsection (c)

Subsection (c)(3)

Purpose: The purpose of section 2038 is to establish Performance Warranty Requirements for 1990 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, and Motor Vehicle Engines Used in Such Vehicles. The purpose of this subsection is to require that each manufacturer submit the documents required by specified applicable test procedures. The referenced document "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" is being split into two new documents the "California 2015 through 2025 Model Criteria Pollutant

Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" and the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection reflect this change.

Rationale: It is necessary to amend this subsection to reflect the split in the currently incorporated test procedure.

Amendments to Title 13, CCR, Section 2112

This section establishes definitions for terms that are used in Title 13, Division 3, Chapter 2, Article 2.1. Procedures for in-Use Vehicle Voluntary and Influenced Recalls.

Subsection (b)

Purpose: The purpose of this subsection is to define the term "Correlation factor" to mean "a pollutant-specific multiplicative factor calculated by a manufacturer for an engine family or test group which establishes a relationship between chassis exhaust emission data." The new 2026 and subsequent model year LEV IV criteria pollutant regulations have been added to **t**itle 13, CCR in a new section 1961.4. New section 1961.4 has been added to this subsection.

Rationale: The change to this subsection was necessary to incorporate a reference to the new section 1961.4, otherwise this subsection would not apply to vehicles that are certified to the new section 1961.4.

Subsection (l)

Subsection (l)(18)

Purpose: The purpose of this subsection is to define the full useful life for passenger cars, light-duty trucks, and medium-duty vehicles. The new 2026 and subsequent model year LEV IV criteria pollutant regulations have been added to **t**itle 13, CCR in a new section 1961.4. New section 1961.4 has been added to this subsection.

Rationale: The change to this subsection was necessary to incorporate a reference to the new section 1961.4, otherwise this subsection would not apply to vehicles that are certified to the new section 1961.4.

Amendments to Title 13, CCR, Section 2139

This section establishes emission testing requirements for Title 13, Division 3, Chapter 2, Article 2.3. in-Use Vehicle Enforcement Test Procedures.

Subsection (a)

Purpose: This subsection is modified to include section 1961.4 in the applicability of the requirement "For passenger cars and light-duty trucks, in-use compliance emission tests shall be performed pursuant to section 1960.1, 1961, 1961.2, or 1961.3, Title 13, California Code of Regulations, as applicable." The change to this subsection is necessary in order to include the new 2026 and subsequent model year LEV IV criteria pollutant regulations, which have been added to **t**itle 13, CCR in a new section 1961.4.

Rationale: The change to this subsection is necessary to incorporate a reference to the new section 1961.4, otherwise this subsection would not apply to vehicles that are certified to the new section 1961.4.

Subsection (b)

Purpose: This subsection is modified to include section 1961.4 in the applicability of the requirements "For medium-duty vehicles certified according to the chassis standards and test procedures specified in section 1960.1, 1961, 1961.2, or 1961.3, Title 13, California Code of Regulations and the documents incorporated by reference therein, in-use compliance emission tests shall be performed pursuant to section 1960.1, 1961, 1961.2, or 1961.3, Title 13, California Code of Regulations, as applicable." The change to this subsection is necessary in order to include the new 2026 and subsequent model year LEV IV criteria pollutant regulations, which have been added to **t**itle 13, CCR in a new section 1961.4.

Rationale: The change to this subsection is necessary to incorporate a reference to the new section 1961.4, otherwise this subsection would not apply to vehicles that are certified to the new section 1961.4.

Purpose: An editorial change has also been made to this subsection. The acronym "GHG" has been spelled out as "Greenhouse Gas."

Rationale: The acronym “GHG” is not defined in section 2139. So, it is necessary to replace the acronym with the written-out name for clarity.

Subsection (c)

Subsection (c)(2)

Purpose: This subsection specifies that medium-duty vehicles may be tested according to the applicable chassis test procedures specified in section 1960.1(k), 1961, and 1961.2, title 13, CCR. The new 2026 and subsequent model year LEV IV criteria pollutant regulations have been added to title 13, CCR in a new section 1961.4. So, section 1961.4 has been added to the list of sections that contain applicable chassis test procedures.

Rationale: The change to this subsection is necessary to incorporate a reference to the new section 1961.4, otherwise this subsection would not apply to applicable chassis test procedures that are incorporated in the new section 1961.4.

Amendments to Title 13, CCR, Section 2140

Purpose: This subsection introduces the notification and use of test results and defines under the applicable regulations that if in-use testing is conducted and the vehicle is found to exceed the standards the Executive Officer will notify the manufacturer and they shall submit a recall plan with 45 days following the applicable regulations. The Executive Officer may order corrective action if no recall plan is submitted.

Rationale: These amendments are necessary to ensure CARB has the authority to notify the manufacturer of their failure for a test group and that corrective action is taken by the manufacturer. The MAW in-use standard is a new test procedure and standard requiring manufacturers to control emission across the full range of engine operation on the road. CARB must continue to have the same authority as it did for its in-use lab test procedures as it will for its in-use PEMS test procedures.

Subsection (b)

Purpose: The purpose of this subsection is to specify the sections of title 13, CCR that contain emission standards that are subject to enforcement action under title 13, Division 3, Chapter 2, Article 2.3. The new 2026 and subsequent model year LEV IV criteria pollutant regulations have been added

to **t**itle 13, CCR in a new section 1961.4. So, section 1961.4 has been added to the list of sections that are subject to these enforcement actions.

Rationale: The change to this subsection was necessary to incorporate a reference to the new section 1961.4, otherwise this subsection would not apply to vehicles that are certified to the new section 1961.4.

Subsection (d)

Purpose: This subsection introduces the criteria when a medium-duty vehicle is considered a failure and under which applicable regulations.

Rationale: These amendments are necessary to explicitly define when a test group will be considered a failure for the moving average window (MAW) in-use standard and that corrective action is required by the manufacturer.

Subsections (d)(1) and (d)(2)

Purpose: These subsections will define the criteria when a diesel test group will be considered a failure. This will be based on either 3 failed vehicles that fail to meet the 3B-MAW in-use threshold or the arithmetic mean of 10 vehicles tested with emission calculated using the sum-over-sum method.

Rationale: These amendments are necessary to set the conditions of failure for the MAW in-use standards. The condition of at least 3 failed vehicles for the same bin and same pollutant sets a limit to the number of failures allowed for the MAW in-use standards. The second condition for a 10-vehicle average would apply under conditions where two vehicles may fail egregiously and the other 8 are passing. If the two failures are having very high emissions, this could push the average beyond the emission threshold. Setting these criteria for failures will ensure the effectiveness of the new MAW in-use standards and ensure manufacturers are using the best emission control components and strategies to effectively control emissions throughout the vehicle's full useful life.

Subsections (d)(3) and (d)(4)

Purpose: These subsections will define the criteria when an Otto-cycle engine (gasoline) test group will be considered a failure. This will be based on either 3 failed vehicles that fail to meet the 3B-MAW in-use

threshold or the arithmetic mean of 10 vehicles tested with emission calculated using the sum-over-sum method.

Rationale: These amendments are necessary to set the conditions of failure for the MAW in-use standards. These amendments also differentiate the requirements for gasoline from diesel vehicles. The failure condition of at least 3 failed vehicles for the same bin and same pollutant sets a limit to the number of failures allowed for the MAW in-use standards. The second condition for a 10-vehicle average would apply under conditions where two vehicles may fail egregiously and the other 8 are passing. If the two failures are having very high emissions, this could push the average beyond the emission threshold. Setting these criteria for failures will ensure the effectiveness of the new MAW in-use standards and ensure manufacturers are using the best emission control components and strategies to effectively control emissions throughout the vehicle's full useful life.

Amendments to Title 13, CCR, Section 2147

The purpose of this section is to establish a procedure for Demonstration of Compliance with Emission Standards under title 13, Division 3, Chapter 2, Article 2.4. Procedures for Reporting Failures of Emission-Related Components.

Subsection (b)

Purpose: The purpose of this subsection is to specify that a manufacturer may test properly maintained in-use vehicles and trailers with the failed emission-related component pursuant to the applicable certification emission tests specified in specifically referenced title 13, CCR sections. The new 2026 and subsequent model year LEV IV criteria pollutant regulations have been added to **t**itle 13, CCR in a new section 1961.4. So, section 1961.4 has been added to the list of title 13, CCR sections that are referenced herein.

Rationale: The change to this subsection was necessary to incorporate a reference to the new section 1961.4, otherwise this subsection would not apply to vehicles that are certified to the new section 1961.4.

Subsection (b)(3):

Purpose: The purpose of this subsection is to allow manufacturers to demonstrate compliance with emission standards using deterioration factors that they generate. The deterioration factors must be based on in-

use data generated from certification emission tests performed on properly maintained and used vehicles in accordance with the procedures set forth in specified sections of title 13, CCR. The new 2026 and subsequent model year LEV IV criteria pollutant regulations have been added to **t**itle 13, CCR in a new section 1961.4. So, section 1961.4 has been added to the list of title 13, CCR sections that are referenced herein.

Rationale: The change to this subsection was necessary to incorporate a reference to the new section 1961.4, otherwise this subsection would not apply to vehicles that are certified to the new section 1961.4.

Amendments to Title 13, CCR, Section 2317

Subsection (a)

Subsection (a)(1)

Purpose: The purpose of this subsection is to allow any person to petition CARB to designate by regulation a substitute fuel which may be used instead of a primary designated clean fuel to satisfy any requirements in title 13, Division 3, Chapter 8. Clean Fuels Program pertaining to a designated clean fuel. This subsection specifies the procedure that must be used to demonstrate that the proposed substitute fuel does not cause motor vehicle emissions to increase. The procedure is the "California Test Procedure for Evaluating Substitute Fuels and New Clean Fuels in 2015 and Subsequent Years." This evaluation procedure is being updated to reflect the new title 13, CCR section 1961.4 and changes to the incorporated test procedures. This section is being revised to incorporate the latest version of the evaluation procedure.

Rationale: The change to this subsection is needed to allow the continued use of section 2317 upon approval of the proposed regulatory changes.

Amendments to Title 13, CCR, Section 2903

Purpose: The purpose of this section is to establish definitions that apply to title 13, CCR, Division 3, Chapter 16, Article 2. Certification Fees for On-Road Mobile Sources. The definition of "test group" that's being modified is a basic unit of classification that is used to assign certification fees for on-road mobile sources. The document that is referenced by this definition, the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test

Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" is being split into two new documents the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" and the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection reflect this change.

Rationale: It is necessary to amend this subsection to reflect the split in the currently incorporated test procedure.

Appendix B-1 – "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles"

Document Title

Purpose: The title of this document has been changed from "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

The amended title of the test procedure references the 2025 model year because it is for the criteria pollutant standards in Section 1961.2 that primarily apply for those model years, even though some of those standards for medium-duty vehicles apply through the 2028 model year. Referencing model year 2025 avoids confusion with the proposed test procedures for the criteria pollutant standards in proposed Section 1961.4 that commence in the 2026 model year.

This title change has been made throughout this document.

Rationale: This change is necessary to distinguish the applicable criteria [and toxic] pollutants and greenhouse gas test procedures that will apply to different model years, with the current criteria/toxic procedures ending in and applicable only through the 2025 model year. The model year applicability of the current greenhouse gas procedures is not being changed. A new test procedure, titled "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," has been created and incorporated by reference in section 1961.4, title 13, CCR.

List of Documents to be Used in Conjunction with this Document

Purpose: The purpose of this section is to provide a list of CARB test procedures that are referenced in these test procedures that contain additional requirements necessary to complete an application for certification. These other documents are designed to be used in conjunction with this document. Changes to this list include the following. Note that documents numbered 2 through 13 have been renumbered 3 through 15, because of the addition of a new document 2.

2: A new document has been added that is titled “California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles” (incorporated by reference in section 1961.4(f), title 13, CCR).

4: “California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes” (incorporated by reference in section 1962.2, title 13, CCR). (An “as amended” date of September 3, 2015 has been added to this reference, and the title 13 section where this document is incorporated has been changed from section 1962.2 to section 1961.3.)

5: A new document has been added that is titled “California Exhaust Emission Standards and Test Procedures for through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes” (incorporated by reference in section 1962.2, title 13, CCR).

6: The title of the “California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles” (incorporated by reference in section 1976(c), title 13, CCR) is being changed to the “California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles”.

Rationale: It is necessary to modify the list of documents to be used in conjunction with this test procedure to accurately set forth the testing requirements for completing an application for certification.

Part I. Subpart A

Section 1

Subsection 1.1

Subsection 1.1.7

Purpose: The purpose of this subsection is to set forth the Applicability of these test procedures. Subsection 1.1.7 specifies requirements that are applicable to complete and incomplete medium-duty vehicles. This subsection has been modified to specify that the applicable requirements only apply to “2020 through 2025” model year medium-

duty vehicles 10,000 pounds GVWR or less rather than "2020 and subsequent" model year vehicles 10,000 pounds GVWR or less.

Rationale: This change is necessary, because for 2026 and subsequent model years, medium-duty vehicles 10,000 pounds GVWR or less must certify to criteria pollutant requirements using the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

Part I. Subpart B

Section 1

Subsection 1.1

Purpose: The purpose of this subsection is to incorporate definitions in Code of Federal Regulations (CFR) § 86.1803-01 into this test procedure. This subsection has been updated to incorporate the most recent definitions set forth in CFR § 86.1803-01 into this test procedure.

Rationale: It is necessary to incorporate the most recent definitions set forth in CFR § 86.1803-01 into this test procedure to allow harmonization with federal regulations.

Section 2

Purpose: The purpose of this section is to establish California-specific definitions for terms used in this test procedure. These definitions have been changed as follows:

"All-Electric Range Test" means a test sequence used to determine the range of an electric or hybrid electric vehicle without the use of its auxiliary power unit. The All-Electric Range Test is described in the "California Exhaust Emission Standards and Test Procedures for 2009 through 2017 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" and the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes." The title of the second document is being changed to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles

and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

"Full-size pickup truck" – This definition has been deleted.

"Zero-emission vehicle" or "ZEV" means any vehicle certified to the zero-emission standards set forth in the "California Exhaust Emission Standards and Test Procedures for 2009 through 2017 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" and the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes." The title of the second document is being changed to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: It is necessary to modify the title of the referenced test procedure in the definitions for "All-Electric Range Test" and "Zero-emission vehicle," because the title of this document is being changed. It is necessary to delete the definition of "Full-size pickup truck," because the identical definition is included in incorporated CFR § 86.1803-01.

Section 3

Subsection 3.2

Purpose: The purpose of this section is to establish California-specific Acronyms and Abbreviations used in this test procedure. One of these Acronyms has been changed as follows:

"PZEV" means any vehicle that receives partial zero-emission vehicle credit, in accordance with the "California Exhaust Emission Standards and Test Procedures for 2009 through 2017 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" and/or the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes." The title of the second document is being changed to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-

Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: It is necessary to modify the title of one of the referenced test procedures, because the title of this document is being changed in this rulemaking.

Part I. Subpart C

Section 3

Subsection 3.2

Subsection 3.2.2

Subsection 3.2.2(b)

Purpose: The purpose of this subsection is to establish abbreviations to be used on the tune-up label for passenger cars, light-duty trucks, and medium-duty vehicles. The version of SAE J1930 that is incorporated in this subsection has be updated from October 2008 to March 2017.

Rationale: This change is necessary to ensure that the version of SAE J1930 that is incorporated in this subsection aligns the nomenclature required by this subsection with the emission-related nomenclature that is currently used within the automotive industry to avoid potential confusion.

Part I. Subpart D

Section 1

Subsection 1.7

Purpose: The purpose of this subsection is to set forth general provisions for complying with evaporative emission standards. The title of the referenced document is being changed.

Rationale: The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 1.10

Subsection 1.10.1

Purpose: The purpose of this subsection is to set forth requirements for compliance with the LEV II and LEV III exhaust standards in section E.1.1.1 and E.1.1.2, respectively. This subsection allows a manufacturer to test vehicles to demonstrate compliance with applicable emission standards using either California certification gasoline or federal E10 certification gasoline in 40 CFR § 1065.710(b). This subsection is being modified to change the version date to 40 CFR § 1065.710(b).

Rationale: It is necessary to add the date of the incorporated version of 40 CFR § 1065.710(b) to ensure that vehicles are tested using the correct federal fuel.

Section 2

Purpose: The purpose of this change is to incorporate the current version of CFR § 86.1810-17 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.1810-17 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsection 2.7

Purpose: The purpose of this subsection is to establish Supplemental FTP General Provisions for California under CFR § 86.1810-17. The purpose of this change is to specify that this subsection applies to 2017 through 2025 model test groups rather than 2017 and subsequent model test groups.

Rationale: This modification is necessary, because 2026 and subsequent model test groups are subject to the Supplemental FTP General Provisions for California under the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

Part I. Subpart E California Exhaust Emission Standards

Introduction

Purpose: The purpose of an introduction is to provide context and background for this subpart E. Two changes are being made to the Introduction. The first allows 2020 and subsequent model medium-duty vehicles with a gross vehicle weight rating of less than or equal to 10,000 lbs. GVW, including incomplete Otto-cycle medium-duty vehicles and medium-duty vehicles that use diesel cycle engines, to certify to the LEV IV chassis standards and test procedures set forth in section E of the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The second change modifies the title of one of the referenced documents that set forth the procedures for meeting the ZEV phase-in requirements and for earning ZEV credits. This title of this document is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes"..

Rationale: The first change is necessary to allow a manufacturer to certify medium-duty vehicles to the LEV IV chassis standards, which are more stringent than the LEV III chassis standards, resulting in lower emissions from the medium-duty fleet. The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Section 1

Subsection 1.1

Subsection 1.1.1

Purpose: The purpose of this subsection is to set forth the LEV II standards from new 2015 through 2019 model year LEVs, ULEVs, and SULEVs. This subparagraph states that SULEV exhaust standards shall only apply to vehicles that receive partial zero-emission vehicle credits according to the criteria set forth in one of two referenced

documents. The title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 1.1.2

Purpose: The purpose of this subsection is to set forth the maximum exhaust emissions for the full useful life from new "LEV III" passenger cars, light-duty trucks, and medium-duty vehicles. The applicability of these standards in both the paragraph and the table are being changed from "2015 and subsequent" model year vehicles to "2015 through 2025" model year vehicles.

Rationale: In the 2026 and subsequent model years, passenger cars, light-duty trucks, and medium-duty vehicles will be required to certify to the "LEV IV" exhaust emission standards in new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 1.1.2.1

Subsection 1.1.2.1.1

Purpose: The purpose of this subsection is to establish LEV III particulate emission standards and phase-in requirements for passenger cars, light-duty trucks, and medium-duty passenger vehicles. It is necessary to revise the table to only show the phase-in of these standards through the 2025 model year. It is also necessary to modify the table headings to clarify that the second column shows the maximum percentage of vehicles that

may be certified to the 3 mg/mi PM standard and the third column shows the minimum percentage of vehicles that may be certified to the 1 mg/mi PM standard.

Rationale: In the 2026 and subsequent model years, passenger cars, light-duty trucks, and medium-duty passenger vehicles will be required to comply with the particulate emission standards and phase-in requirements in new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement. It is also necessary to modify the table column headings to clearly show that manufacturers may introduce vehicles that are certified to the 1 mg/mi standard at a higher percentage than the values shown in the table.

Subsection 1.1.2.1.2

Subsection 1.1.2.1.2.2

Purpose: The purpose of this subsection is to establish LEV III particulate emission standard phase-in requirements for medium-duty vehicles, other than medium-duty passenger vehicles. It is necessary to revise the table to only show the phase-in of these standards through the 2025 model year.

Rationale: In the 2026 and subsequent model years, medium-duty vehicles will be required to comply with the particulate emission standards and phase-in requirements in new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 1.1.2.1.3

Purpose: The purpose of this subsection is to establish particulate standards for small volume manufacturers. It is

necessary to revise this subsection to only show the applicable standards through the 2025 model year.

Rationale: In the 2026 and subsequent model years, small volume manufacturers will be required to comply with the particulate emission standards in new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 1.1.2.1.4

Subsection 1.1.2.1.4.2

Purpose: The purpose of this subsection is to establish an alternative phase-in schedule for the 1 mg/mi PM standard for passenger cars, light-duty trucks, and medium-duty passenger vehicles. The alternative phase-in schedule requires that the PM emission reductions that are achieved using this phase-in are equivalent to or greater than those achieved using the primary phase-in schedule. Under the current regulation, the primary phase-in schedule, which applies for the 2025 through 2028 model years, is shown in section E.1.1.2.1.1. Changes have been made to the wording of this subsection. However, the requirements set forth in this subsection are identical to the current regulation.

Rationale: It is necessary to change the wording of this subsection, because part of the part of the phase-in schedule that applies in model years 2026 through has been moved to new section 1961.4. It is necessary to change the wording of this subsection to clearly show that the PM emission reductions that are achieved using this phase-in are equivalent to or greater than those achieved using the primary phase-in schedules in both section E.1.1.2.1.1 and the new title 13, section 1961.4.

Subsection 1.2

Subsection 1.2.2

Subsection 1.2.2.1

Purpose: The purpose of this subsection is to establish Supplemental Federal Test Procedure (SFTP) NMOG+NOx and CO exhaust emission standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles. It is necessary to revise this subsection to only show the applicable standards through the 2025 model year.

Rationale: SFTP NMOG+NOx and CO exhaust emission standards for 2026 and subsequent model year vehicles are being moved to new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 1.2.2.1.1

Purpose: The purpose of this subsection is to establish SFTP NMOG+NOx and CO exhaust "stand-alone" emission standards for LEV III passenger cars, light-duty trucks, and medium-duty passenger vehicles. This subsection has been modified to limit its applicability only through the 2025 model year.

Rationale: The change to the model year applicability of the standards set forth in this subsection is necessary, because in the 2026 and subsequent model years, passenger cars, light-duty trucks, and medium-duty passenger vehicles must comply with the "LEV IV" SFTP NMOG+NOx and CO exhaust emission standards in the new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 1.2.2.1.2

Purpose: The purpose of this subsection is to establish SFTP NMOG+NOx and CO exhaust "composite" emission standards for LEV III passenger cars, light-duty trucks, and medium-duty passenger vehicles. This subsection has been modified to limit its applicability only through the 2025 model year.

Rationale: The change to the model year applicability of the standards set forth in this subsection is necessary, because in the 2026 and subsequent model years, passenger cars, light-duty trucks, and medium-duty passenger vehicles must comply with the "LEV IV" SFTP NMOG+NOx and CO exhaust emission standards in the new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 1.2.2.2

Purpose: The purpose of this subsection is to establish SFTP PM exhaust emission standards for LEV III passenger cars, light-duty trucks, and medium-duty passenger vehicles. This subsection has been modified to limit its applicability only through the 2025 model year.

Rationale: The change to the model year applicability of the standards set forth in this subsection is necessary, because in the 2026 and subsequent model years, passenger cars, light-duty trucks, and medium-duty passenger vehicles must comply with the "LEV IV" SFTP PM exhaust emission standards in the new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 1.2.2.3

Purpose: The purpose of this subsection is to establish SFTP NMOG+NOx and CO exhaust "composite" emission standards for LEV III medium-duty vehicles, other than medium-duty passenger vehicles. This subsection has been modified to limit its applicability only through the 2025 model year.

Rationale: The change to the model year applicability of the standards set forth in this subsection is necessary because the in the 2026 and subsequent model years, the applicable test procedure for complying with the SFTP NMOG+NOx and CO exhaust emission standards for medium-duty vehicles other than medium-duty passenger vehicles in title 13, sections 1961.2 and 1961.4 are contained in the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

Subsection 1.2.2.4

Purpose: The purpose of this subsection is to establish SFTP PM exhaust emission standards for LEV III medium-duty vehicles, other than medium-duty passenger vehicles. This subsection has been modified to limit its applicability only through the 2025 model year.

Rationale: The change to the model year applicability of the standards set forth in this subsection is necessary because the in the 2026 and subsequent model years, the applicable test procedure for complying with the SFTP PM exhaust emission standards for medium-duty vehicles other than medium-duty passenger vehicles in title 13, sections 1961.2 and 1961.4 are contained in the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

Subsection 1.3

Subsection 1.3.2

Purpose: The purpose of this subsection is to require that for fuel-flexible, bi-fuel, and dual-fuel passenger cars, light-duty trucks,

and medium-duty vehicles, compliance with the NMOG+NOx exhaust mass emission standards must be based on exhaust emission tests both when the vehicle is operated on the gaseous or alcohol fuel it is designed to use. This subsection has been modified to limit its applicability only through the 2025 model year.

Rationale: The change to the model year applicability of the standards set forth in this subsection is necessary, because in the 2026 and subsequent model years, passenger cars, light-duty trucks, and medium-duty vehicles must comply with the requirements in the new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 1.5

Purpose: The purpose of this subsection is to establish cold temperature exhaust carbon monoxide emission levels from new passenger cars, light-duty trucks, and medium-duty passenger vehicles. It is necessary to revise this subsection to only show the applicable standards through the 2025 model year.

Rationale: Cold temperature exhaust carbon monoxide emission levels for 2026 and subsequent model year vehicles are being moved to new title 13, section 1961.4. The changes to this subsection are necessary to reflect that new requirement.:

Subsection 1.7

Purpose: The purpose of this subsection is to establish criteria for allowing a vehicle that is certified to the LEV III standards in section E.1.1.2 to generate additional NMOG+NOx fleet average credits. This subsection references two documents that are contain provisions that disqualify a vehicle from generating additional credits. The title of one of the documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025

Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: It is necessary to amend this subsection to reflect the change to the title of the referenced document.

Subsection 1.11

Subsection 1.11.1

Purpose: The purpose of this subsection is to establish criteria for when a federally-certified vehicle model is required in California. The last year this requirement will apply is model year 2025, since the LEV IV standards in new section 1961.4 are more stringent than the federal standards.

Rationale: It is necessary to amend this subsection to eliminate this provision subsequent to the 2025 model year, since the LEV IV standards in new title 13, section 1961.4 are more stringent than the federal standards.

Subsection 1.12

Purpose: The purpose of this subsection is to set emission standards and establish criteria for measuring emissions from fuel-fired heaters if a manufacturer elects to utilize an on-board fuel-fired heater on any passenger car, light-duty truck, or medium-duty vehicle. This subsection references two documents that contain requirements for testing fuel-fired heaters. The title of one of the documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: It is necessary to amend this subsection to reflect the change to the title of the referenced document.

Section 2

Subsection 2.1

Subsection 2.1.1

Purpose: The purpose of this subsection is to establish fleet average NMOG+NOx exhaust mass emission values from the passenger cars, light-duty trucks, and medium-duty passenger vehicles that are produced and delivered for sale in California each model year for the 2014 and subsequent model years by a manufacturer other than a small volume manufacturer. The table has been changed so the last applicable model year is 2025.

Rationale: It is necessary to remove the applicability of this table for 2026 and subsequent model years, because new phase-in requirements for the 2026 and subsequent model year have been moved to new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.1.1.1

Subsection 2.1.1.1.a

Purpose: The purpose of this provision is to provide manufacturers with two options for complying with section E.2.1.1. The wording of the second option Pooling Provision has been revised for clarity.

Rationale: The current wording of the second option appears to say that District of Columbia has already adopted California's LEV III standards in this section 1961.2. This is not accurate. It is necessary to revise the wording to correct that conclusion.

Subsection 2.1.1.1.d

Purpose: The purpose of this subsection is to require a manufacturer that selects compliance Option 2 to notify CARB of that selection in writing prior to the start of the applicable

model year. The wording of the second option Pooling Provision has been revised for clarity.

Rationale: The current wording of the second option appears to say that District of Columbia has already adopted California's LEV III standards in sections E.2.1.2 and E.3.1. This is not accurate. It is necessary to revise the wording to correct that conclusion.

Subsection 2.1.1.2

Purpose: The purpose of this subsection is to require that in the 2018 and subsequent model years, a manufacturer continues to produce and deliver for sale in California a minimum percentage of its passenger car and light-duty truck fleet that certifies to SULEV30 and SULEV20 standards that is equal to the average percentage of PZEVs produced and deliver for sale in California for that manufacturer for the 2015 through 2017 model year. CARB incorporated this subsection into LEV III to provide flexibility to the manufacturers in meeting SULEV emissions across their light-duty fleets. However, by combining NMOG and NOx emission values, absent a backstop provision, the LEV III fleet average requirement would not require manufacturers to produce SULEVs until the NMOG+NOx fleet average falls below the ULEV50 NMOG+NOx emission standard in model year 2023. Since the backstop provision only requires manufacturers to continue their production at a rate commensurate with their unique ZEV obligation, it only requires manufacturers to maintain their production of SULEVs, not increase it. Accordingly, the PZEV backsliding provision was included to preserve the emission reductions provided by these vehicles. The applicability of this requirement has been changed to end after the 2025 model year.

Rationale: This new section 1961.4 phases-out the use of zero-emission vehicles that may be included in the NMOG+NOx fleet average between the 2026 and 2029 model years. This phase-out eliminates the need for this requirement in this subsection after the 2025 model year.

Subsection 2.1.2

Subsection 2.1.2.1

Subsection 2.1.2.1(c)

Purpose: The purpose of this subsection is to specify the applicable emission standards to be used to calculate NMOG+NOx fleet average emissions. The table has been modified to indicate the standards set forth only apply through the 2025 model year.

Rationale: The last applicable model year of the NMOG+NOx fleet average in section E.2.1.1 is model year 2025. It is, therefore, necessary to change the last applicable model year for the standards in this subsection to model year 2025.

Subsection 2.1.2.2

Purpose: The purpose of this subsection is to establish equations for calculating "HEV NMOG+NOx contribution factors" for light-duty off-vehicle charge capable hybrid electric vehicles. These factors are intended to provide additional NMOG+NOx fleet average emission credit to light-duty off-vehicle charge capable hybrid electric vehicles that are meet certain criteria for all-electric range capability. For the 2018 and subsequent model years, the criteria are set forth in a referenced document. It is necessary to make two changes to this subsection. First, it is necessary to change the applicability of this subsection from "2018 and subsequent model years" to "2018 through 2025 model years." Second, it is necessary to change the name of the referenced test procedure from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because the last applicable model year of the

NMOG+NOx fleet average in subsection E.2.1.1 is model year 2025. It is necessary to change the name of the referenced test procedure, because the title is being changed in this rulemaking.

Subsection 2.1.3

Subsection 2.1.3(a)

Purpose: The purpose of this subsection is to establish NMOG+NOx fleet average requirements for small volume manufacturers. This subsection is being modified, so the requirements set forth only apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year, because the requirements for the 2026 and subsequent model years have been moved to new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.1.4

Purpose: The purpose of this subsection is to specify how ZEVs are to be treated in the calculation of fleet average NMOG+NOx values. For the 2018 and subsequent model years, this subsection references the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes." It is necessary to make two changes to this subsection. It is necessary to change the name of the referenced test procedure to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: It is necessary to change the name of the referenced test procedure, because the title is being changed in this rulemaking.

Subsection 2.2

Purpose: The purpose of this subsection is to establish LEV III phase-in requirement for passenger cars, light-duty trucks, and medium-duty passenger vehicles. This subsection has been modified, so the phase-in requirements set forth only apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicles will be required to certify to the LEV IV standards in new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.3

Subsection 2.3.1

Subsection 2.3.1.1

Purpose: The purpose of this subsection is to establish the LEV III phase-in requirements for manufacturers of medium-duty vehicles, other than small volume manufacturers that are certified to section E.1.1. The phase-in requirements are being changed, so the final model year set forth in this subsection set forth in this subsection is model year 2025.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year, because starting with the 2026 model year, medium-duty vehicles will be required to certify to the LEV IV standards in new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.3.1.2

Purpose: The purpose of this subsection is to establish the LEV III phase-in requirements for manufacturers of incomplete medium-duty vehicles using Otto-cycle engines certified to title 13, CCR, section 1956.8, and medium-duty vehicles using diesel engines certified to title 13, CCR, Section 1956.8. The phase-in requirements are being changed, so the final model year set forth in this subsection set forth in this subsection is model year 2025.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year, because starting with the 2026 model year, these types of medium-duty vehicles will be required to comply with the phase-in schedule for these vehicles that is in new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.3.2

Purpose: The purpose of this subsection is to establish LEV III phase-in requirements for small volume medium-duty vehicle manufacturers. The phase-in requirements are being changed, so the final model year set forth in this subsection set forth in this subsection is model year 2025.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year, because starting with the 2026 model year, these types of medium-duty vehicles will be required to comply with the phase-in schedule for these vehicles that is in new section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.3.3

Subsection 2.3.3.1

Subsection 2.3.3.1.1

Purpose: The purpose of this subsection is to establish fleet average NMOG+NOx exhaust mass values for medium-duty vehicles as an alternative to the phase-in requirement in section E.2.3.1.1. The phase-in requirements are being changed, so the final model year set forth in this subsection set forth in this subsection is model year 2025.

Rationale: It is necessary to revise this subsection to remove the phase-in requirements subsequent to the 2025 model year, because starting with the 2026 model year, these types of medium-duty vehicles will be required to comply with the phase-in schedule for these vehicles that is in new section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.3.3.1.4

Purpose: The purpose of this subsection is to specify the applicable emission standards to be used to calculate NMOG+NOx fleet average emissions. The table has been modified to indicate the standards set forth only apply through the 2025 model year.

Rationale: The last applicable model year of the NMOG+NOx fleet average in section E.2.3.3.1.1 is model year 2025. It is, therefore, necessary to change the last applicable model year for the standards in this subsection to model year 2025.

Subsection 2.3.3.1.5

Purpose: The purpose of this subsection is to establish equations for calculating "NMOG+NOx contribution factors" for medium-duty off-vehicle charge capable hybrid electric vehicles.

These factors are intended to provide additional NMOG+NOx fleet average emission credit to medium-duty off-vehicle charge capable hybrid electric vehicles that are meet certain criteria for all-electric range capability. For the 2018 and subsequent model years, the criteria are set forth in a referenced document. It is necessary to make two changes to this subsection. First, it is necessary to change the applicability of this subsection from "2018 and subsequent model years" to "2018 through 2025 model years." Second, it is necessary to change the name of the referenced test procedure from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because the last applicable model year of the NMOG+NOx fleet average in section E.2.3.3.1.1 is model year 2025. It is necessary to change the name of the referenced test procedure, because the title is being changed in this rulemaking.

Subsection 2.3.3.2

Purpose: The purpose of this subsection is to establish alternate phase-in schedules for LEV III medium-duty vehicles certified to section E.1.1 for manufacturers with a limited number of test groups. This subsection is being changed, to say that the final model year these alternate phase-in schedules will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year these alternate phase-in schedules will apply is model year 2025, because starting with the 2026 model year, these types of medium-duty vehicle manufacturers will be required to comply with the phase-in schedule for these vehicles in new section 1961.4 and to the "California 2026 and Subsequent Model Criteria

Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.3.3.2.1

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to section E.2.3.1.1 for a manufacturer that produces and delivers for sale in California four medium-duty test groups certified to subsection E.1.1. This subsection is being changed, to say that the final model year this alternate phase-in schedules will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year these alternate phase-in schedules will apply is model year 2025, because starting with the 2026 model year, these types of medium-duty vehicle manufacturers will be required to comply with the phase-in schedule for these vehicles in new section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.3.3.2.2

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to section E.2.3.1.1 for a manufacturer that produces and delivers for sale in California three medium-duty test groups certified to section E.1.1. This subsection is being changed, to say that the final model year this alternate phase-in schedules will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year these alternate phase-in schedules will apply is model year 2025, because starting with the 2026 model year, these types of medium-duty vehicle manufacturers will be required to comply with the phase-in schedule for these vehicles in new section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission

Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.3.3.2.3

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to section E.2.3.1.1 for a manufacturer that produces and delivers for sale in California two medium-duty test groups certified to section E.1.1. This subsection is being changed, to say that the final model year this alternate phase-in schedules will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year these alternate phase-in schedules will apply is model year 2025, because starting with the 2026 model year, these types of medium-duty vehicle manufacturers will be required to comply with the phase-in schedule for these vehicles in new section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.3.3.2.4

Purpose: The purpose of this subsection is to establish an alternate phase-in schedule to section E.2.3.1.1 for a manufacturer that produces and delivers for sale in California one medium-duty test group certified to section E.1.1. This subsection is being changed, to say that the final model year this alternate phase-in schedules will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year these alternate phase-in schedules will apply is model year 2025, because starting with the 2026 model year, these types of medium-duty vehicle manufacturers will be required to comply with the phase-in schedule for these vehicles in new section 1961.4.

Subsection 2.4

Subsection 2.4.1

Subsection 2.4.1(a)

Purpose: The purpose of this subsection is to establish the first option - “Option 1” - for phasing into the SFTP NMOG+NOx and CO emission standards. This subsection is being changed, to say that the final model year Option 1 will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year Option 1 will apply is model year 2025, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicle will be required to comply with the LEV IV SFTP standards in new title 13, section 1961.4 and to the “California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.” The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.4.1(b)

Purpose: The purpose of this subsection is to establish the second option - “Option 2” - for phasing into the SFTP NMOG+NOx and CO emission standards. This subsection is being changed, to say that the final model year Option 2 will apply is model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year Option 2 will apply is model year 2025, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicle will be required to comply with the LEV IV SFTP standards in new title 13, section 1961.4 and to the “California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.” The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.4.2

Purpose: The purpose of this subsection is to establish phase-in the SFTP NMOG+NOx and CO emission standards for medium-duty

vehicles other than medium-duty passenger vehicles. This subsection is being changed, to say that the final model year of the phase-in will be model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year the medium-duty vehicle SFTP phase-in will apply is model year 2025, because starting with the 2026 model year, medium-duty vehicle will be required to comply with the LEV IV SFTP standards in new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 2.4.3

Purpose: The purpose of this subsection is to define a manufacturer's medium-duty vehicle fleet for the purpose of compliance with medium-duty vehicle SFTP requirements. This subsection is being changed, to say that the requirements set forth in this subsection only apply through model year 2025.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, medium-duty vehicle will be required to comply with the LEV IV SFTP standards in new title 13, section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Section 3

Subsection 3.1

Subsection 3.1.1

Subsection 3.1.1.1

Purpose: The purpose of this subsection is to establish an equation to be used by a manufacturer to calculate its NMOG+NOx

fleet average credits and debits for passenger cars, light-duty trucks, and medium-duty passenger vehicles. The applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicles will be required to comply with the LEV IV NMOG+NOx fleet average requirements in new section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 3.1.1.2

Purpose: The purpose of this subsection is to explain how credits and debits are determined using the equations in section E.3.1.1.1. The applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicles will be required to comply with the LEV IV NMOG+NOx fleet average requirements in new section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 3.1.2

Subsection 3.1.2.1

Subsection 3.1.2.1.1

Purpose: The purpose of this subsection is to establish an equation for calculating "Vehicle-Equivalent" credits and debits

(VECs) for a manufacturer's medium-duty vehicle fleet. The applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, passenger cars, light-duty trucks, and medium-duty passenger vehicles will be required to comply with the LEV IV NMOG+NOx fleet average requirements in new section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 3.1.2.1.2

Purpose: The purpose of this subsection is to establish a method for calculating "HEV VEC factors" to be used for medium-duty off-vehicle charge capable hybrid electric vehicles when calculating VECs for a manufacturer's medium-duty vehicle fleet. These factors are intended to provide additional VECs to medium-duty off-vehicle charge capable hybrid electric vehicles that are meet certain criteria for all-electric range capability. For the 2018 and subsequent model years, the criteria are set forth in a referenced test procedure. It is necessary to change the name of the referenced test procedure from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: It is necessary to change the name of the referenced test procedure, because the title is being changed in this rulemaking.

Subsection 3.1.2.2

Subsection 3.1.2.2.1

Purpose: The purpose of this subsection is to establish an equation for calculating fleet average NMOG+NOx credits and debits for a manufacturer's medium-duty vehicle fleet. The applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, medium-duty vehicles will be required to comply with the LEV IV NMOG+NOx fleet average requirements in new section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 3.1.2.2.2

Purpose: The purpose of this subsection is to explain a manufacturer that achieves fleet average NMOG+NOx values lower than the fleet average NMOG+NOx requirement for the corresponding model year shall receive credits in units of g/mi NMOG+NOx, and a manufacturer with fleet average NMOG+NOx values greater than the fleet average requirement for the corresponding model year shall receive debits in units of g/mi NMOG+NOx equal to the amount of negative credits determined by the aforementioned equation. The applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, medium-duty vehicles will be required to comply with the LEV IV NMOG+NOx fleet average requirements in new section 1961.4.

Subsection 3.1.3

Subsection 3.1.3.1

Purpose: The purpose of this subsection is to establish requirements for offsetting credits and debits. Three editorial changes have been made to this section. Two of these changes replace the symbol "§" with the word "section." The third replaces the words "greenhouse gas" with "NMOG+NOx."

Rationale: The replacement of the symbol "§" with the word "section" is an editorial change that improves clarity of the reference. The replacement of the words "greenhouse gas" with "NMOG+NOx" is necessary to correct an error, because greenhouse gas emission standards are not part of section E.2.1.1.1.a.

Subsection 3.1.3.2

Purpose: The purpose of this subsection is to specify the number of model years emission credits shall retain value. The applicability of this subsection has been changed to only allow it to apply through the 2025 model year.

Rationale: It is necessary to revise this subsection to say that the final model year the requirements in this subsection apply is model year 2025, because starting with the 2026 model year, the number of model years emission credits will retain value will be set forth in new section 1961.4 and to the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." The changes to this subsection are necessary to reflect that new requirement.

Subsection 3.2

Subsection 3.2.4

Subsection 3.2.4.1

Purpose: The purpose of this subsection is to allow a manufacturer that has Greenhouse Gas credits remaining after equalizing all of its Greenhouse Gas debits to use those Greenhouse Gas credits to

comply with its ZEV obligations for that model year. The title of the referenced document is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes". This proposed amendment is a conforming amendment that is necessary to the title and applicability of a test procedure that is incorporated by reference and that is not applicable to the new proposed zero-emission vehicle standards. We are not proposing or considering any other amendments to the greenhouse gas regulation for any other purpose.

Rationale: It is necessary to change the name of the referenced test procedure, because the title is being changed in this rulemaking.

Part I. Subpart F

Section 2

Purpose: The purpose of this subsection is to set forth the Evaporative/refueling emission family determination requirements for complying with evaporative emission standards. The title of the referenced document is being changed.

Rationale: The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Section 5

Purpose: The purpose of this subsection is to set forth the Durability demonstration procedures for evaporative emissions. The title of the referenced document is being changed.

Rationale: The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Part I. Subpart G

Section 2

Subsection 2.1

Purpose: The purpose of this change is to incorporate the current version of CFR § 86.1828-01 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.1828-01 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Section 3

Subsection 3.2

Subsection 3.2.3

Purpose: Subsection 3.2 incorporates CFR § 86.1829-15 “Durability data and emission data testing requirements; waivers” into this test procedure. The purpose of subsection 3.2.3 is to specify how CFR § 86.1829-15, subparagraph (d) is incorporated into these test procedures. The current version of these test procedures specifies that § 86.1829-15, subparagraph (d) does not apply in California. This subsection has added a new subsection 3.2.3.1 to specify that CFR § 86.1829-15, subparagraph (d)(4) will apply in California.

Rationale: This change is necessary to allow manufacturers to provide a statement in the application for certification that vehicles comply with the applicable formaldehyde standard instead of submitting test data.

Subsection 3.2.4

Purpose: The purpose of this subsection is to specify that the provisions in CFR § 86.1829-15, subparagraph (e), which pertain to compliance with evaporative emission standards and which pertain to refueling testing, do not apply in California. The title of the document that replaces the evaporative emission standards in CFR § 86.1829-15, subparagraph (e) is replaced with the evaporative emission requirements in the “California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-

Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles".

Rationale: The change to the name of this referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 3.6

Purpose: The purpose of this subsection is to establish LEV III particulate matter durability data and emission data testing requirements. The applicability of this subsection is being changed from "2017 and subsequent model years" to "2017 through 2025 model years."

Rationale: This change is necessary, because for 2026 and subsequent model years, vehicles will be subject to the LEV IV particulate matter durability data and emission data testing requirements set forth in the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

Section 8

Subsection 8.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.1834-01 into this test procedure. This subsection has been updated to incorporate the most recent version of CFR § 86.1834-01 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.1834-01 into this test procedure to allow harmonization with federal regulations.

Section 12

Subsection 12.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.1838-01 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.1838-01 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.1838-01 into this test procedure to allow harmonization with federal regulations.

Part I. Subpart H

Section 4

Subsection 4.3

Purpose: The purpose of this subsection is to establish reporting requirements that are specific to hybrid-electric vehicles (HEVs). This subsection specifies that the information required under two HEV test procedures must be supplied with the Part I application for certification. The title of one of these documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the name of this referenced document is necessary, because the title of this document is being changed in this rulemaking.

Part I. Subpart I

Incorporated Appendices

Purpose: The purpose of this modification is to change the "subsection" to incorporate Appendices I, II, and III into this test procedure from "§ 86.1845-01" to "40 CFR, Part 86, Subpart S".

Rationale: This change is necessary to correct an incorrect reference.

Part I. Subpart J

Section 1

Purpose: The purpose of this subsection is to incorporate CFR § 86.1848-10 into this test procedure. The title of this section has been revised in the CFR, and this subsection has been updated to incorporate that name change.

Rationale: It is necessary to accurately incorporate change CFR § 86.1848-10 to avoid confusion for the reader.

Section 6

Purpose: The purpose of this subsection is to incorporate CFR § 86.1853-01 into this test procedure. The section number has been revised in the CFR, and this CFR section has also been revised. Both of these changes have been incorporated into these test procedures.

Rationale: It is necessary to incorporate the change to CFR § 86.1853-01, as noted, to avoid confusion for the reader. It is necessary to incorporate the most recent version of CFR § 86.1853-01 into this test procedure to allow harmonization with federal regulations.

Part II. Subpart A

Section 100.2

86.111-94

Purpose: The purpose of this subsection is to incorporate CFR § 86.111-94 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.111-94 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.111-94 into this test procedure to allow harmonization with federal regulations.

Section 100.3

86.113-04

Purpose: The purpose of this subsection is to incorporate CFR § 86.113-04 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.113-04 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.113-04 into this test procedure to allow harmonization with federal regulations.

Subsection 100.3.1

Subsection 100.3.1.1

Purpose: The purpose of this subsection is to establish certification gasoline fuel specifications for LEV II light-duty vehicles and medium-duty vehicles. These specifications incorporate CFR § 1065.710 and specify that use of these fuels for evaporative emission testing shall be required as specified in a referenced test procedure. This subsection has been updated to incorporate the most current version of CFR § 1065.710 and to change the title of the referenced test procedure from the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" to the "California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles".

Rationale: It is necessary to incorporate the most recent version of CFR § 1065.710 into this test procedure to allow harmonization with federal regulations. The change to the name of this referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 100.3.1.2

Purpose: The purpose of this subsection is to establish certification gasoline fuel specifications for LEV III light-duty vehicles and medium-duty vehicles. These specifications incorporate CFR § 1065.710 and specify that use of these fuels for evaporative emission testing shall be required as specified in a referenced test procedure. This subsection has been updated to incorporate the most current version of CFR § 1065.710 and to change the title of the referenced test procedure from the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" to the "California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles".

Rationale: It is necessary to incorporate the most recent version of CFR § 1065.710 into this test procedure to allow harmonization with federal regulations. The change to the name of this referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 100.3.2

Subsection 100.3.2.1

Purpose: The purpose of this subsection is to establish specifications for diesel fuel to be used in exhaust emission testing for emission-data and durability-data vehicles. The applicability of this subsection is being changed from "2015 and subsequent model years" to "2015 through 2025 model years

Rationale: This change to the applicability of this provision is necessary, because for 2026 and subsequent model years, vehicles will be subject to the diesel fuel specifications set forth in the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

Subsection 100.3.4

Subsection 100.3.4.1

Purpose: The purpose of this subsection is to establish specifications for M-85 fuel methanol and E-85 fuel ethanol to be used in exhaust emission testing for emission-data and durability-data vehicles. These specifications incorporate CFR § 1065.725. This subsection has been updated to incorporate the most current version of CFR § 1065.725.

Rationale: It is necessary to incorporate the most recent version of CFR § 1065.725 into this test procedure to allow harmonization with federal regulations.

Subsection 100.3.4.3

Purpose: The purpose of this subsection is to establish specifications for M-85 fuel methanol and E-85 fuel ethanol to be used in evaporative emission testing for emission-data and durability-data vehicles. These specifications incorporate CFR § 1065.710 and a referenced test

procedure. This subsection has been updated to incorporate the most current version of CFR § 1065.710 and to change the title of the referenced test procedure from the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" to the "California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles".

Rationale: It is necessary to incorporate the most recent version of CFR § 1065.710 into this test procedure to allow harmonization with federal regulations. The change to the name of this referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 100.3.8

Purpose: The purpose of this subsection is to establish criteria for allowing any person to petition the state board to establish by regulation certification testing specifications for a new clean fuel for which specifications for a new clean fuel are not specifically established for California. This subsection incorporates CFR § 1065.710. This subsection has been updated to incorporate the most current version of CFR § 1065.710.

Rationale: It is necessary to incorporate the most recent version of CFR § 1065.710 into this test procedure to allow harmonization with federal regulations.

Section 100.5

86.129-00

Purpose: The purpose of this subsection is to incorporate CFR § 86.129-00 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.129-00 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.129-00 into this test procedure to allow harmonization with federal regulations.

86.130-96

Purpose: The purpose of this subsection is to incorporate CFR § 86.130-96 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.130-96 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.130-96 into this test procedure to allow harmonization with federal regulations.

Subsection 100.5.2

Subsection 100.5.2.1

Purpose: The purpose of this subsection is to specify the test sequence for California. This subsection specifies that for all hybrid electric vehicles and all vehicles certifying to running loss and useful life evaporative emission standards, the test sequence specified in a referenced test procedure shall apply. The title of the referenced test procedure is being changed from the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" to the "California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles".

Rationale: It is necessary to change to the name of this referenced document, because the title of this document is being changed in this rulemaking.

86.132-00

Purpose: The purpose of this subsection is to incorporate CFR § 86.132-00 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.132-00 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.132-00 into this test procedure to allow harmonization with federal regulations.

Subsection 100.5.3

Subsection 100.5.3.1

Purpose: The purpose of this subsection is to establish preconditioning requirements for testing California vehicles. This subsection specifies that for all hybrid electric vehicles and all 2015 and subsequent model-year vehicles subject to running loss and useful life evaporative emission standards, the preconditioning sequence for the Federal Test Procedure specified in a referenced test procedure shall apply. This subsection has been updated to change the applicability of the provision and the title of the referenced test procedure. The title of the referenced test procedure has been changed from the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" to the "California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles".

Rationale: This change to the applicability of this provision is necessary, because for 2026 and subsequent model years, vehicles will be subject to the preconditioning requirements for testing California vehicles set forth in the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." It is necessary to change to the name of this referenced document, because the title of this document is being changed in this rulemaking.

86.138-96

Purpose: The purpose of this subsection is to incorporate CFR § 86.138-96 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.138-96 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.138-96 into this test procedure to allow harmonization with federal regulations.

86.144-94

Purpose: The purpose of this subsection is to incorporate CFR § 86.144-94 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.144-94 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.144-94 into this test procedure to allow harmonization with federal regulations.

86.159-08

Purpose: The purpose of this subsection is to incorporate CFR § 86.159-08 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.159-08 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.159-08 into this test procedure to allow harmonization with federal regulations.

Subsection 100.5.5

Purpose: The purpose of this subsection is to establish California SFTP exhaust emission test procedures. The applicability of this subsection is being changed from “2017 and subsequent model years” to “2017 through 2025 model years

Rationale: This change to the applicability of this provision is necessary, because for 2026 and subsequent model years, vehicles will be subject to the California SFTP exhaust emission test procedures set forth in the “California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.”

86.164-08

Purpose: The purpose of this subsection is to incorporate CFR § 86.164-08 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.164-08 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.164-08 into this test procedure to allow harmonization with federal regulations.

Part II. Subpart B

Section 200.2

86.213

Purpose: The purpose of this subsection is to incorporate CFR § 86.213 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.213 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.213 into this test procedure to allow harmonization with federal regulations.

Appendix I to Part 86

Purpose: The purpose of this subsection is to incorporate Appendix I to Part 86 of the CFR into this test procedure. The title of this section has been changed in the CFR, and this CFR section has also been revised. Both of these changes have been incorporated into these test procedures

Rationale: It is necessary to incorporate the most recent version of Appendix I to Part 86 of the CFR into this test procedure to allow harmonization with federal regulations. It is also necessary to incorporate the title change for Appendix I into the test procedures to avoid confusion for the reader.

Part II. Subpart C

Section 1

1066.1

Purpose: The purpose of this subsection is to incorporate CFR § 1066.1 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.1 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.1 into this test procedure to allow harmonization with federal regulations.

Section 2

1066.135

Purpose: The purpose of this subsection is to incorporate CFR § 1066.135 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.135 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.135 into this test procedure to allow harmonization with federal regulations.

Section 3

1066.210

Purpose: The purpose of this subsection is to incorporate CFR § 1066.210 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.210 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.210 into this test procedure to allow harmonization with federal regulations.

1066.255

Purpose: The purpose of this subsection is to incorporate CFR § 1066.255 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.255 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.255 into this test procedure to allow harmonization with federal regulations.

1066.260

Purpose: The purpose of this subsection is to incorporate CFR § 1066.260 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.260 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.260 into this test procedure to allow harmonization with federal regulations.

1066.265

Purpose: The purpose of this subsection is to incorporate CFR § 1066.265 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.265 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.265 into this test procedure to allow harmonization with federal regulations.

1066.270

Purpose: The purpose of this subsection is to incorporate CFR § 1066.270 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.270 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.270 into this test procedure to allow harmonization with federal regulations.

1066.275

Purpose: The purpose of this subsection is to incorporate CFR § 1066.275 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.275 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.275 into this test procedure to allow harmonization with federal regulations.

Section 5

1066.420

Purpose: The purpose of this subsection is to incorporate CFR § 1066.420 into this test procedure. This subsection has been updated to

incorporate the most current version of CFR § 1066.420 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.420 into this test procedure to allow harmonization with federal regulations.

Section 6

Purpose: The purpose of this subsection is to specify California-specific hybrid and electric vehicle testing requirements. Title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: It is necessary to change to the name of this referenced document, because the title of this document is being changed in this rulemaking.

Section 7

1066.605

Purpose: The purpose of this subsection is to incorporate CFR § 1066.605 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.605 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.605 into this test procedure to allow harmonization with federal regulations.

Section 8

1066.710

Purpose: The purpose of this subsection is to incorporate CFR § 1066.710 into this test procedure. This subsection has been updated to

incorporate the most current version of CFR § 1066.710 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.710 into this test procedure to allow harmonization with federal regulations.

Section 9

1066.801

Purpose: The purpose of this subsection is to incorporate CFR § 1066.801 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.801 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.801 into this test procedure to allow harmonization with federal regulations.

1066.835

Purpose: The purpose of this subsection is to incorporate CFR § 1066.835 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.835 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.835 into this test procedure to allow harmonization with federal regulations.

Section 10

1066.1005

Purpose: The purpose of this subsection is to incorporate CFR § 1066.1005 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.1005 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.1005 into this test procedure to allow harmonization with federal regulations.

New Appendix B-2 – "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles"

It is necessary to create this new document the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," for two reasons. First, the proposed new criteria and toxic pollutant emission standards in title 13, section 1961.4, which are duplicated in section E of this test procedure, differ significantly from the current criteria/toxic standards in title 13, section 1961.2. In addition, many of the provisions in the current "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" will not be applicable in the 2026 and subsequent model years. Consequently, if the new requirements are simply added to the current ones, the resulting document would be cumbersome and difficult to read.

Nonetheless, many of the provisions set forth in this test procedure are identical to those currently applicable to 2026 and subsequent model year passenger cars, light-duty trucks, and medium-duty vehicles under the current regulations that would otherwise apply to those vehicles absent these proposed regulations, and the associated "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." For those provisions that are identical to those that currently apply to 2026 and subsequent model year vehicles under the current test procedures, the Purpose and Rationale discussion for the applicable section will be replaced by the statement "This section is identical to the current test procedures." Because passenger cars, light-duty trucks, and medium-duty vehicles produced and delivered for sale in California beginning with the 2026 model year will be called "LEV IV" vehicles under these proposed regulations, for those provisions that are identical to those that would otherwise apply to 2026 and subsequent model year vehicles under the current test procedures absent these amendments, the Purpose and Rationale discussion for the applicable section will be replaced by the statement "This section is identical to the current test procedures, except that the applicability has been changed to say "LEV IV vehicles."

In addition, these test procedures continue the practice of incorporating federal test procedures for California emission standards that are of the same kind but not identical to federal emission standards. It is necessary to incorporate these federal testing provisions because they provide a means of determining compliance with California's standards while minimizing costs and burdens from duplicative or cumulative test procedures.

List of Documents to be Used in Conjunction with this Document

Purpose: The purpose of this section is to provide a list of CARB test procedures that are referenced in these test procedures that contain additional requirements necessary to complete an application for certification.

Rationale: This list is necessary to clearly set forth the testing requirements for completing an application for certification.

Part I. Subpart A. General Applicability

Section 1

This section is identical to the current test procedures, except that the applicability has been changed to say “LEV IV vehicles”.

Sections 2 and 3

These sections are identical to the current test procedures.

Part I. Subpart B. Definitions, Acronyms and Abbreviations

Section 1

Purpose: The purpose of this section is to incorporate definitions in CFR § 86.1803 into this test procedure.

Rationale: This section is necessary in order to understand and implement this test procedure.

Subsection 1.1

Purpose: The purpose of this subsection is to incorporate the most recent definitions set forth in § 86.1803-01 into these test procedures.

Rationale: This subsection is necessary to provide consistency between the definitions used in this test procedure and the definitions used for federal vehicle certification.

Section 2

Purpose: The purpose of this section is needed to incorporate California-specific definitions into this test procedure.

Rationale: This section is necessary in order to understand and implement this test procedure.

Section 3

Purpose: The purpose of this section is to incorporate the acronyms and abbreviations in CFR § 86.1804 into this test procedure.

Rationale: This section is necessary in order to understand and implement this test procedure.

Subsection 3.1

Purpose: The purpose of this subsection is needed to incorporate the most recent acronyms and abbreviations set forth in § 86.1804-01 into this test procedure.

Rationale: This subsection is necessary to provide consistency between the acronyms and abbreviations used in this test procedure and the acronyms and abbreviations used for federal vehicle certification.

Subsection 3.2

Purpose: The purpose of this subsection is to incorporate California-specific acronyms and abbreviations into this test procedure.

Rationale: This section is necessary in order to understand and implement this test procedure.

Part I. Subpart C. General Requirements for Certification

Sections 1 and 2

These sections are identical to the current test procedure, except that the applicability has been changed to say “LEV IV vehicles”.

Section 3

Purpose: The purpose of this section is to establish vehicle labeling provisions for California.

Rationale: This section is necessary to provide vehicle owners with information pertaining to a vehicle including, but not limited to: name of manufacturer, vehicle emission control information, a statement of compliance with applicable emission standards, or any other information that

such manufacturer deems necessary for, or useful to, the proper operation and satisfactory maintenance of the vehicle (or engine).

Subsection 3.1

Purpose: The purpose of this subsection is to incorporate the most recent vehicle labeling provisions in CFR § 86.1807-07 into these test procedures.

Rationale: The only changes to this subsection from current requirements are in subsections 3.1.3 and 3.1.5.

Subsections 3.1.3 and 3.1.5 It is necessary to modify these subsections to add the acronyms for the new LEV IV emission categories.

Subsection 3.2

Purpose: The purpose of this subsection is to incorporate California-specific labeling requirements into these test procedures. The only change to this subsection from current requirements is that the version of SAE J1930 that is incorporated in this subsection has be updated from October 2008 to March 2017.

Rationale: This change is necessary to ensure that the version of SAE J1930 that is incorporated in this subsection aligns the nomenclature required by this subsection with the emission-related nomenclature that is currently used within the automotive industry to avoid potential confusion.

Sections 4 and 5

These sections are identical to the current test procedure.

Part I. Subpart D. § 86.1810 General standards; increase in emissions; unsafe conditions; waivers

Section 1

Purpose: The purpose of this section is to incorporate § 86.1810-17 into this test procedure. This section is identical to the current test procedure, except that it has been updated to incorporate the current version of CFR § 86.1810-17 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.1810-17 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Section 2

This section is identical to the current test procedure.

Part I. Subpart E. California Exhaust Emission Standards

Purpose: The purpose of this Subpart is to specify that compliance with the standards applicable to the requirements in these test procedures are those set forth in title 13, CCR, section 1961.4.

Rationale: This subsection is necessary to implement title 13, CCR, section 1961.4.

Part I. Subpart F. Requirements and Procedures for Durability Demonstration

Sections 1 through 3

These sections are identical to the current test procedure, except that the name of the referenced document in section 2 has been changed to the evaporative emission test procedure that will be applicable in 2026 and subsequent model years.

Section 4

Subsection 4.1

This section is identical to the current test procedures.

Subsection 4.2

This section is identical to the current test procedures, except that the reference to “vehicles certifying to the 2012 through 2016 MY National greenhouse gas program” has been removed, because it no longer applies.

Subsection 4.3

Purpose: The purpose of this subsection is to specify changes to the Durability demonstration procedures for SFTP exhaust emissions in CFR § 86.1823. The current test procedure specifies that this provision in CFR § 86.1823 does not apply to vehicles certified to the 4,000-mile SFTP

NMOG+NOx and CO standards that are applicable to LEV II vehicles in model years 2015 through 2021. This subsection has been changed to remove that exemption.

Rationale: This change is necessary, because the SFTP standards that receive the exemption will not be applicable in the 2026 and subsequent model years.

Subsection 4.4 and 4.5

These sections are identical to the current test procedures.

Sections 5 through 7

These sections are identical to the current test procedure, except that the name of the referenced document in section 5 has been changed to the evaporative emission test procedure that will be applicable in 2026 and subsequent model years.

Part I. Subpart G.

Section 1

This section is identical to the current test procedure.

Section 2

This purpose of this section is to establish Emission Data Vehicle selection criteria, which is needed to demonstrate compliance with emission standards.

Subsection 2.1

Purpose: The purpose of this change is to incorporate CFR § 86.1828-01 into this test procedure. This section has been updated to incorporate the current version of CFR § 86.1828-01 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.1828-01 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsection 2.1.1

This section is identical to the current test procedures, except that the applicability has been changed to say “LEV IV” standards.

Subsection 2.2

Purpose: The purpose of this subsection is to establish Emission Data Vehicle selection criteria for demonstrating compliance with the 50° F emission standards. This subsection is identical to the current test procedures, except that the LEV IV classifications have been added to the categories of vehicles to which this subsection applies.

Rationale: It is necessary to include the LEV IV classifications to subsection 2.2.2, otherwise the provisions of this subsection will not apply to LEV IV vehicles.

Subsection 2.3

This section is identical to the current test procedures, except that the applicability has been changed to say “LEV IV” PM.

Section 3

Subsection 3.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.1829-15, which established Durability data and emission data testing requirements, into this test procedure. This subsection is identical to the current test procedures, except as follows.

Subsection 3.1.2

Purpose: The purpose of this subsection is to establish criteria for demonstrating compliance with emission standards at both low altitude and high altitude conditions. This subsection has been amended to exclude the new Partial Soak NMOG+NOx exhaust standards, Quick Drive-Away NMOG+NOx standards, and Cold Start US06 NMOG+NOx exhaust emission standards from high altitude testing requirements.

Rationale: It is necessary to exclude Partial Soak NMOG+NOx exhaust standards, Quick Drive-Away NMOG+NOx standards, and Cold Start US06 NMOG+NOx exhaust emission standards from high altitude testing requirements, because it is currently unknown whether or not these are achievable under high altitude conditions.

Subsection 3.1.3

Purpose: The purpose of subsection 3.1.3 is to specify how CFR § 86.1829-15, subparagraph (d) is incorporated into this test procedure. The current version of these test procedures specifies that § 86.1829-15, subparagraph (d) does not apply in California. This subsection has added a new subsection 3.1.3.1 to specify that CFR § 86.1829-15, subparagraph (d)(4) will apply in California.

Rationale: This change is necessary to allow manufacturers to provide a statement in the application for certification that vehicles comply with the applicable formaldehyde standard instead of submitting test data.

Subsection 3.1.4

Purpose: The purpose of this subsection is to specify that the provisions in CFR § 86.1829-15, subparagraph (e), which pertain to compliance with evaporative emission standards and which pertain to refueling testing, do not apply in California. The title of the document that replaces the evaporative emission test procedure in CFR § 86.1829-15, subparagraph (e) is replaced with the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles."

Rationale: This change is necessary to incorporate the evaporative test procedure that will be applicable in 2026 and subsequent model years.

Subsections 3.2, 3.3, and 3.4

These subsections are identical to the current test procedure sections G.3.3, G.3.4, and G.3.5.

Subsection 3.5

This section is identical to the current test procedure section G.3.6, except that the applicability has been changed to say "LEV IV" PM.

Sections 4 through 7

These sections are identical to the current test procedure.

Section 8

Subsection 8.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.1834-01 into this test procedure. This subsection has been updated to incorporate the most recent version of CFR § 86.1834-01 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.1834-01 into this test procedure to allow harmonization with federal regulations.

Subsection 8.2

This subsection is identical to the current test procedure.

Sections 9 through 11

These sections are identical to the current test procedure.

Section 12

Subsection 12.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.1838-01 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.1838-01 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.1838-01 into this test procedure to allow harmonization with federal regulations.

Sections 13 and 14

These sections are identical to the current test procedure.

Part I. Subpart H

Section 1

Subsections 1.1 through 1.3

These subsections are identical to the current test procedure.

Subsection 1.4

Subsection 1.4.1

Purpose: The purpose of this subsection is to establish criteria for demonstrating compliance with the requirements in title 13, section 1961.4, subsection (c)(15) and Part I, Section E.1.10 of these test procedures.

Rationale: These criteria are necessary to clearly identify the characteristics that must be identical to determine when a California vehicle model is to be treated as equivalent to a federal vehicle model.

Subsection 1.4.2

Purpose: The purpose of this subsection is to require manufacturers to submit the information required in subsection H.1.4.1 to CARB prior to certification of a 2026 or subsequent model-year vehicle.

Rationale: It is necessary for manufacturers to submit the required information to CARB prior to the start of each model year to enable CARB to determine whether there is a federally-certified vehicle model for that model year that is equivalent to the California vehicle model.

Subsection 1.4.3

Purpose: The purpose of this subsection is to specify that the requirements in section H.1.4 do not apply in the case of a federally-certified vehicle model that is only marketed to fleet operators for applications that are subject to clean fuel fleet requirements established pursuant to section 246 of the federal Clean Air Act (42 U.S.C. sec. 7586).

Rationale: This exemption is necessary, because these types of vehicles are not subject to the “Equivalency with Federal Vehicle” requirements in title 13, CCR, section 1961.4, subsection (c)(15) or Part I, Section E.1.10 of these test procedures.

Section 2

This section is identical to the current test procedures.

Section 3

Subsection 3.1

This subsection is identical to the current test procedure.

Previous Subsection 3.2

Purpose: The purpose of this subsection was to establish alternative fuel vehicle reporting requirements. This subsection has been deleted.

Rationale: It is necessary to delete this subsection, because the alternative fuel vehicle reporting requirements have been moved to the "California Test Procedures for 2026 and Subsequent Model Zero-Emission Vehicles and Plug-in Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" (incorporated by reference in section 1962.4, title 13, CCR).

New Subsection 3.2 (previous subsection 3.3)

Purpose: The purpose of this subsection is to establish requirements for credit reporting. This subsection is identical to the current test procedure, except that it has been updated to correctly identify the subsections in this test procedure that contain the "fleet average and phase-in requirements" for criteria pollutant emissions and the title 13, CCR section that contains the greenhouse gas requirements.

Rationale: These changes are necessary to correctly identify the criteria pollutant and greenhouse gas requirements to which the reporting requirements in this subsection apply.

Section 4

Subsections 4.1 and 4.2

These subsections are identical to the current test procedure.

Subsection 4.3

Purpose: The purpose of this subsection is to establish requirements for manufacturers to report information with the Part I application for certification that is specific to hybrid electric vehicles. The title of the referenced document that contains these requirements has been changed to the "California Test Procedures for 2026 and Subsequent Model Zero-

Emission Vehicles and Plug-in Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes."

Rationale: It is necessary to update title of the referenced document, because the new test procedure will be the applicable version in the 2026 and subsequent model years.

Subsection 4.4 and 4.5

These subsections are identical to the current test procedures.

Part I. Subpart I.

Section 1

Subsection 1.1

Subsections 1.1.1 and 1.1.2 It is necessary to modify these subsections to establish in-use verification test requirements for vehicles certifying to the LEV III particulate standards in subsection E.1.1.2.1 that are different than those that apply to other criteria pollutants.

Subsection 1.1.3 Since the LEV III regulations require emission standards to be met at 150,000 miles, rather than at 120,000 mile, which is the requirement for LEV II vehicles, it is necessary to modify this section to distinguish between the LEV II high mileage testing requirements and the LEV III high mileage testing requirements.

Subsection 1.2 It is necessary to modify subsections (a) and (b) to include the LEV III classifications in along with the list of LEV II vehicles, otherwise the provisions of this subsection will not apply to LEV III vehicles. Otherwise, this subsection is identical to the current test procedures. Subsection (c) is identical to the current teat procedures.

Section 2 This section is identical to the current test procedures.

Section 3 This section is identical to the current test procedures.

Section 4

Purpose: The purpose of this new section is to introduce and define the applicable medium-duty vehicles (MDVs) that are required to meet the California provision for moving average window (MAW) in-use test requirements and the required data that must be submitted at time of

certification for model year 2027 and subsequent diesel and gasoline vehicles.

Rationale: These amendments are necessary to align the chassis certified in-use test procedures for MDVs with the in-use test procedures required for engine certified MDVs. This helps ensure both certification paths for MDVs are equivalent in stringency. It is applicable to MDVs with a GCWR greater than 14,000 lbs. and will allow CARB's in-use program to effectively assess emission across the full range of engine operation for MDVs with higher tow capability.

Subsection 4.1 (3B-MAW and MAW 2027 and subsequent diesel and gasoline)

Purpose: The purpose of this amendment is to add the test procedures for the three-bin moving average window (3B-MAW) and Moving Average Window (MAW). This will introduce the new test procedures defines what model year and fuel type these test procedures will apply to.

Rationale: The amendment will align the in-use test procedures for LEV IV MDVs with the same in-use test procedures as those adopted for engine certified MDVs. The test procedures will require on-road PEMS testing and will cover all areas of engine operation that occur for MDVs. Current chassis dynamometer test procedures cannot cover high engine speeds and loads associated with towing heavy loads. This requirement for PEMS in-use testing will allow for measuring emissions on-road at heavier weight loadings during operations such as towing. The new test procedures will better ensure that emissions are adequately controlled during all operations for LEV IV MDVs by requiring manufacturers and allowing CARB to conduct in-use testing on the road. Additionally, it will ensure that both engine certification and chassis certification for MDVs remain equivalent. For 2027 and subsequent model year LEV IV MDVs that are gasoline and diesel, the 3B-MAW and MAW is applicable. This algins with the heavy-duty MAW standards that step down for 2027.

Subsection 4.1.1 (exclude dyno testing)

Purpose: This subsection requires that MDVs meeting the MAW in-use requirement will not have to perform chassis dynamometer in-use testing.

Rationale: This amendment is necessary to relieve manufacturers from having to meet the test procedures for two in-use programs. The MAW covers the full range of engine operation and ensures emission is adequately assessed, therefore the need for dynamometer in-use testing is not required.

Subsection 4.1.2 (attestation)

Purpose: This amendment requires manufacturers to attest at time of certification that their vehicles can meet the MAW in-use standards.

Rationale: This amendment is necessary to ensure manufactures take necessary steps before certification to ensure their vehicles will be compliant with the MAW in-use standards. Suppliers have brought up the issue that a vehicle may not be known to have a problem meeting the MAW standards until in-use compliance testing when the vehicle has been on the road for some time. This attestation is an additional assurance from manufacturers to ensure they take necessary steps to meet the MAW in-use standards.

Subsection 4.1.3 (manufacturer shall perform)

Purpose: This subsection requires manufacturers to perform the in-use testing and reporting to CARB.

Rationale: This amendment is necessary, so manufacturer know they are required for conducting their own testing and reporting to CARB. This ensures manufacturers take all steps required for procuring, testing, and reporting which we be detailed in later sections. It will help CARB's in-use compliance program be as effective as possible.

Subsection 4.1.4 (sampling period)

Purpose: The purpose of this subsections is to define the minimum sampling period of three hours. The test sampling period will include driving and idling with the engine on and the PEMS instrument must continuously record data during the entire sampling period whether the engine is on or off.

Rationale: This subsection is necessary to set a minimum test time to ensure enough data is collected for the MAW in-use testing. Having enough data will ensure the data is representative of driving during on-

road conditions. This subsection also outlines the condition of a start of a test to include a cold start at a specific coolant temperature. Cold start emissions are a large part of a vehicles' emissions because the catalyst is not fully warmed up to operating temperature. Collecting emission with a cold start will ensure manufacturers are using strategies to effectively heat up the catalyst and control cold start emission that normally occur at drive off. Since the testing is performed on the road, it is necessary for all testing to be performed with PEMS equipment and calibrated to the requirements specified. This ensures emissions measured with different PEMS equipment is standardized based on the same calibration requirements.

Subsection 4.1.5 (Emissions and window requirement)

Purpose: The purpose of this subsection is to define the criteria pollutants that will be measured for the MAW in-use testing and it introduces the Moving Average Window principle, defines the length of each window and when each window starts. Each window is used for evaluating emissions against the standards using the equations introduced in later subsections.

Rationale: This subsection is necessary to define which pollutants are measured and will be evaluated using the MAW in-use test procedures. It defines the length of each window so the data is separated into equal lengths and can be binned appropriately under the same conditions. The sampling frequency is necessary to ensure data is collected accurately and enough windows can be generated which is used for smoothing out the data based on a moving average principle.

Subsections 4.1.6 through 4.1.6.1 (GCWR limit and trailer)

Purpose: These subsections define the minimum test requirement at a certain percentage GCWR and the type of trailer that may be used.

Rationale: The GCWR test minimum is necessary to ensure vehicles are tested while towing enough weight. CARB test data had shown operation between 70-80% GCWR was enough for the vehicle to operate in the higher engine speeds and loads that are not covered by chassis dynamometer testing. The need for PEMS in-use testing is to ensure emissions during operations such as towing have emissions

that are adequately controlled. Therefore, having this requirement will ensure manufacturers test over the full range of engine operation for the in-use reporting. This subsection further indicates that the trailer should meet SAE J2807 specifications. Manufacturers asked for guardrails in ensuring trailers are within specifications that were used for determining GCWR and are within manufacturer specifications for frontal area.

Subsection 4.1.7 (Paved Roads)

Purpose: This subsection requires the manufacturer to test on roads representative of California paved roads.

Rationale: This amendment is necessary to ensure testing conditions for manufacturers test are on or representative of roads commonly found in California. This will include roads with changing grade which occurs during uphill and downhill driving that is common on many highways and regular city driving. Manufacturers may perform testing in areas where roads could be flat, and this requirement would prevent testing under these conditions that are not representative of California paved roads.

Subsections 4.1.8 through 4.1.8.8 (Window exclusions)

Purpose: These subsections define the exclusions allowed and how the windows are evaluated when data is invalid. Applicable exclusions pertain to environmental, PEMS, and certain vehicle conditions.

Rationale: These subsections are necessary to ensure the 3B-MAW and MAW testing is operating within the design tolerances of the PEMS equipment to accurately measure emissions. This ensures test to test repeatability and reliable emission measurements. The exclusions allow the PEMS equipment to be properly checked and calibrated during testing. Exclusion for low atmospheric pressure and high altitudes where oxygen is significantly lower and a higher potential of sensor nonlinearity. Exclusion for very low ambient temperature where air is denser will affect fuel metering calibrations and measurement system linearity. Operation of MDVs in California is expected to be very low at these extreme conditions. Other exclusions apply to ambient temperature for different altitudes between sea level and 5,500 feet above sea level. Excessive ambient temperatures can

result in nonlinear measurements and possible fuel metering irregularities which can adversely affect reliable emission control system operation. Additional exclusion for 2027-2029 model years will allow manufacturers to exclude data when the coolant temperature is less than 158^{o} F and not stabilized over a 5-minute period. This exclusion would exclude emissions during the cold start and operation when idle or low temperature emissions may fall under the exclusion requirements. This give manufacturers additional lead time to further calibrate and develop strategies to deal with emissions under these conditions in the first few years when these vehicles are subject to the 3B-MAW or MAW standards.

Subsections 4.1.8.9 through 4.1.8.9.2 (Fuel Enrichment Exclusion)

Purpose: These subsections define the fuel enrichment exclusion for gasoline vehicles and procedures required to apply the exclusion. It describes how it must be determined, and that it must be documented in the manufacturers test plan and final reports to CARB and can be reviewed.

Rationale: The amendment is necessary to give manufacturers additional lead time to further calibrate and develop strategies to control the use of enrichment operation. Enrichment for gasoline vehicles is usually for component protection or for additional engine power. Manufacturers will use enrichment to protect the catalyst during high temperatures which can occur during high load operation. During enrichment, CO emissions will increase to lower the temperature of exhaust gas. This exclusion will allow manufacturers to exclude all emissions data during enrichment for 5% of the total test time if they fail a test. This will give manufacturers flexibility with enrichment, but it will help limit its use. As manufacturers make changes to their after-treatment systems, addition of new technologies, and develop better thermal management strategies, then the need for enrichment will decrease.

Subsections 4.1.9 through 4.1.9.4 (Valid test conditions)

Purpose: These subsections define the conditions required for a valid test. This includes the relevant data collected during emissions

sampling and number of valid windows required for diesel and gasoline vehicles.

Rationale: These amendments are necessary for ensuring the correct data is collected for evaluating the vehicle by the 3B-MAW or MAW test procedures and standards. If these conditions are not met, then the test is considered invalid, and the vehicle must be retested. The conditions for a valid test require all the emissions, ambient, exhaust, OBD, and coolant temperature to be collected. The test must also include a cold start at the start of each test. Collecting all the defined data will determine if the vehicle is operating under conditions for normal vehicle operation and is necessary to perform a MAW analysis. For example, CO_2 must be measured and although it is not used for compliance determination, it is necessary for binning the windows that are used to determine compliance for the other pollutants. Furthermore, each bin is required to have a minimum number of windows. This ensures there is enough valid data collected in each bin for determining compliance with the standard. This is especially important for diesel vehicles since high load operation only occurs under towing heavier loads. The last requirement is that the MAW test conducted for model years 2027 through 2029 will be greater than 10% of the engine's peak power for a valid test. This requirement ensures that the MAW test for those model years is operated at sufficient loading and this ensures thermal management is maintained for the aftertreatment systems for representative emission control.

Subsection 4.1.10 (Window Percent Load Equation)

Purpose: This subsection defines how the percent engine load is calculated for each window and shows the formula. The engine load percent will be used to bin the windows in later subsections to be compared to their respective standards.

Rationale: This amendment is necessary because the engine load must be calculated for each window in order for each window to be binned. This engine load percentage determines if the diesel vehicle was operating in idle, low load, or med/high load operation for that 300 second window. This allows the MAW analysis to accurately separate test time by vehicle load operation to be compared with their respective standards. The engine load is determined by the average CO_2 emissions rate over the 300 second window and converted to a

percentage based on the maximum CO_2 produced for that engine. This calculates engine load as a function of CO_2. The moving average also filters out anomalies caused by electrical interference or other types of noise introduced into the system that are not normal. The moving averaged data results in evaluations that are more representative of actual in-use emissions control than the raw data alone.

Subsections 4.1.11 through 4.1.11.3 (Window Bins)

Purpose: This subsection defines the window bins for diesel vehicles and the percentage range each bin pertains to regarding idle, low load, and medium/high operation.

Rationale: These amendments are necessary to differentiate the engine load percentage range for each bin that diesel vehicles must meet. The idle operation falls under engine load percentage of 6%. Data has shown this is consistent with when the vehicle is idling, under very slow acceleration at drive off or operating at very light loads that don't fall under low load conditions. The greater than 6% and under 20% bin is designated for the low load bin. Data has shown this bin to consist of normal driving operations. For medium-duty vehicles, this comprises of much of the operation when the vehicle is not towing. The med/high bin consist of any engine load greater than 20%. Data has shown this engine load operation to occur more when the vehicle is towing heavy loads or during certain on-road driving conditions. Binning the data by respective engine operation provides a representative comparison between emissions and the standards.

Subsections 4.1.12 through 4.1.12.1 (SOS)

Purpose: This subsection introduces and defines the sum over sum equations for diesel vehicles that are used to determine in-use compliance with the bin standards for low, and medium/high bins

Rationale: These amendments are necessary to define which criteria emissions the sum over sum equation will apply to and how the equation is used to calculate emissions. The equation is calculated based on the ratio of summed mass emissions for each pollutant (NMHC, CO, NOx, and PM) to the summed mass emissions of CO_2 multiplied by the family certification level for CO_2. The family

certification level (FCL) will be based on the chassis-certified FTP-75 test cycle. The FCL is used to convert the CO_2 to engine work in units of bhp-hr, since CO_2 and engine work are proportional to one another. This will allow the emissions calculated by the sum over sum equation to be compared to the emission threshold standard for that bin.

Subsection 4.1.12.2 (idle Equation)

Purpose: This subsection defines the sum over sum equation for calculating the idle emissions for the idle bin for diesel vehicles.

Rationale: The idle bin is calculated based on the total emissions in the idle bin divided by the total time of operation in the idle bin. It is calculated as a grams per hour value since emissions during idle are expected to be at very low engine loads. This gives a more accurate calculation of emissions at idle for comparison with the idle threshold standard.

Subsection 4.1.12.3 (MAW standards)

Purpose: This subsection defines the in-use threshold for the three bin standards for criteria emissions. These standards determine whether a vehicle passes or fails the in-use test for that pollutant.

Rationale: The amendments are necessary to show how the emission threshold is calculated for each of the diesel bins. This aligns the chassis certified MDV in-use MAW standards with heavy-duty in-use MAW standards which is transitioning to their more stringent standards for model year 2027. Manufacturers have stated that their heavy-duty sister engines and aftertreatment systems could carry over to chassis certified MDVs for meeting the MAW in-use standard. The manufacturers are given a “conformity factor” (CF) of 2 for the first few years to better calibrate their engines and make adjustments to meet the MAW. For subsequent model years, they would meet a CF of 1.5. The Heavy-Duty Low NOx Omnibus demonstrated a diesel technology package that could be applied to MDV diesel engines to meet the MAW Nox standards.

Subsection 4.1.13 (gasoline SOS equation)

Purpose: This subsection defines the sum over sum equation for calculating the emissions for gasoline vehicles. The equation will be used to determine compliance with the gasoline in-use threshold defined in later subsections.

Rationale: This amendment is necessary to define the sum over sum equation for gasoline vehicles, which is nearly the same as the diesel equation but is based on 0-100% engine load bin. Emission for gasoline vehicles will be calculated using the FCL and sum over sum method.

Subsections 4.1.13.2 through 4.1.11.4 (gasoline in-use threshold)

Purpose: These subsections introduce and define the in-use threshold for the gasoline bin to determine if the vehicle passes or fails the in-use test for that pollutant.

Rationale: These amendments are necessary to define the in-use threshold for gasoline vehicles meeting the MAW which is similar to diesels, but different because they are only required to meet a one bin MAW standard. Gasoline vehicles have shown better emission control during PEMS on-road testing. There engine load and tow ratings are lower than diesel vehicles. Manufacturers of gasoline vehicles are given a CF of 2.0 for the first several years for calibration and adjustments to meet the MAW, then they will meet a CF of 1.5 for subsequent model years. The standards will align with heavy-duty vehicle requirements for 2027 model year where manufacturer heavy-duty sister engines could carry over along with aftertreatment systems for chassis certified MDVs.

Subsection 4.1.14 (FCL calculation for chassis cert.)

Purpose: This subsection defines how to calculate the FCL for chassis certified MDVs meeting the in-use MAW standards.

Rationale: These amendments are necessary to define how the FCL is calculated, which is used as a conversion factor for calculating the sum over sum emissions. Chassis certified MDVs are certified on the chassis FTP-75, therefore their FCL is based on their standard certification test cycle which represents normal driving operation. The

factor is calculated using the OBD-II data stream parameters available from the vehicle to calculate the work on the test cycle. The total CO_2 emissions are measured using the dynamometer instruments. Chassis certified MDVs and heavy-duty vehicles must meet reducing greenhouse gas standards each year and further improvements in their greenhouse gas technology will further improve a manufacturer's FCL factor. This further increases the feasibility of manufacturers meeting the in-use MAW standards.

Subsections 4.1.14.1 through 4.1.4.1.3 (FCL test data selection)

Purpose: These subsections define how a manufacture will select test data to calculate their FCL and are required to submit and FCL value(s) at time of certification.

Rationale: These amendments are necessary to ensure manufacturers select test data to calculate an FCL value that can be applied across all vehicles in their test group. The intention is for manufacturers to determine an FCL value that will ensure adequate emission reductions across all vehicles instead of selecting an FCL value that will make the MAW in-use standards less stringent.

Subsections 4.2 through 4.2.1 (PEMS)

Purpose: These subsections introduce the requirement to use PEMS for measuring emissions and references the CFR reference for the PEMS procedures used for field testing.

Rationale: These amendments are necessary to standardize the setup and preparation of PEMS instruments for MAW in-use testing. This aligns the PEMS procedures with the procedures used for heavy-duty MAW in-use testing to ensure testing is performed equivalently.

Subsections 4.2.2 through 4.2.2.2 (PEMS drift)

Purpose: These subsections address the validity of MAW test intervals and provides guidance on how to determine emission results and compliance of the engine tested when new test intervals of the test engine do not meet the drift criteria described in 40 CFR § 1065.550.

Rationale: This amendment is necessary because it provides more representative emissions data to be utilized to make compliance determination during in-use compliance testing. The federal test procedures in 40 CFR § 1065.905(g)(5) simply invalidate test intervals that do not meet the drift criteria described in 40 CFR § 1065.550. The invalidation of such test intervals and consequent elimination of the emissions data collected during the test intervals could reduce the advantage of more representative MAW in-use compliance. Manufactures are required to compensate for drifted data in test intervals by establishing a relationship between a drifted measurement and a nondrifted measurement and by then applying the correction factors to the previously sampled data. Additionally, the amendment stipulates that if 10 percent or more of the test intervals are subject to drift then the test must be invalidated unless the manufacturer can otherwise prove compliance using the drifted data.

Subsections 4.3 through 4.3.3 (Test plan approval)

Purpose: This subsection defines the test plan approval process, and all the required information manufacturers will have to submit to CARB.

Rationale: These amendments are necessary to ensure CARB can review manufacturer test plans for in-use testing before they begin testing. This helps ensure representative data will be collected on their test group and that testing will be executed properly. This will also minimize delays in the in-use compliance program ensuring test plans are valid and developed within a certain time and approved within a certain time. This further improve the effectiveness of CARB's in-use compliance program.

Subsections 4.4 through 4.4.1 (Pass/Fail Criteria)

Purpose: These subsections introduce the pass/fail criteria manufacturers will have to meet for the 3B-MAW and MAW in-use testing and sets a time limit for when manufacturers must report a failed test group and recall plan.

Rationale: These amendments are necessary to better ensure the effectiveness of CARB's in-use compliance program by ensuring manufacturers report and submit recall plans in a timely manner. This will help CARB and the manufacturer better assess and take corrective action against non-compliant test groups.

Subsections 4.4.2 through 4.4.4 (arithmetic mean)

Purpose: These subsections define the pass/fail criteria that determines if a test group is compliant or non-compliant with the MAW in-use standards.

Rationale: The MAW is efficient in the amount of valid data that will be collected from testing. This ensures that only one phase of testing is necessary to determine noncompliance of a test group. This better ensures the effectiveness of CARB's in-use compliance program. If manufacturers, determine their vehicles are compliant with 5 valid vehicles their testing is complete and relieves the burden of any additional testing. If a manufacturer finds they fail the 10-vehicle arithmetic mean for a pollutant, they would begin discussions with CARB for corrective action, which reduces the burden of additional testing and any delays in correcting action toward noncompliant test groups.

Subsections 4.5 through 4.5.1.1 (CARB Authority)

Purpose: These subsections introduce and define CARB's authority to perform their own in-use compliance testing using the appropriate procedures for MAW in-use testing on chassis-certified MDVs.

Rationale: This amendment is necessary to give CARB the authority to perform their own in-use compliance testing using these new test procedures for chassis certified MDVs and take corrective action based on the results of CARB's in-use testing. This will help ensure manufacturers are adequately testing their vehicles and there will not be any noncompliant test groups that go undetermined.

Subsections 4.5.1.2 through 4.5.1.2.2 (CARB authority pass/fail criteria)

Purpose: These subsections define the criteria that CARB will used to determine if a test group is found non-compliant with the MAW in-use standards for both gasoline and diesel vehicles.

Rationale: These amendments are necessary to show that CARB will follow the same pass/fail criteria manufacturers are required to meet, and this will better ensure the effectiveness of CARB's in-use compliance program. The MAW is efficient in valid data collection that

CARB can determine compliance or non-compliance within a 5-10 vehicle test window.

Subsections 4.6 through 4.6.2

Purpose: These subsections introduce the test group selection and requirements for the MAW in-use program requirements. It defines how many test groups CARB can select from a manufacturer to begin their own in-use testing.

Rationale: These amendments are necessary to give CARB the authority to select test groups for a manufacturer to perform MAW in-use testing on. Manufacturers have stated they would like to align with the heavy-duty in-use compliance program that is based on a 25% selection their test groups for in-use testing. The amendment also provides a cap on the amount of test groups selected in a four-year period which manufacturers have requested, which also aligns with the heavy-duty in-use compliance program.

Subsections 4.6.3 through 4.6.3.2

Purpose: These subsections define when CARB may select additional test groups beyond the 25% selection limit, which pertains to test groups that have been found to be in nonconformity from previous cases.

Rationale: This gives CARB the authority to select additional test groups to ensure they have been correctly remedied. These amendments are necessary to ensure the effectiveness of CARB's in-use compliance program. CARB has a 25% limit to the number test groups that can be selected and these amendments ensure that limit is not affected by having to request testing for test groups that have already been found to be in nonconformity.

Subsection 4.6.4

Purpose: This subsection defines the amount of time a manufacturer has for conducting self-testing after directed by CARB, and gives them additional time if necessary, under certain circumstances.

Rationale: These amendments are necessary to give manufacturers adequate time to complete valid testing and sets a time limit for when testing will need to be completed.

Subsection 4.6.5

Purpose: This subsection defines when a manufacturer may ask CARB to consider making changes to the testing requirements of the MAW in-use program.

Rationale: These amendments are necessary to give manufacturers some flexibility when there are burdens with testing preventing them completing it. A manufacturer has stated that vehicle selection for towing may be limited, and this amendment will give CARB the authority to make changes to their testing if necessary.

Subsection 4.6.6

Purpose: This subsection states that after a manufacturer completes in-use testing, then CARB may select that test group again to evaluate that test group's compliance closer to useful life.

Rationale: These amendments are necessary to ensure test groups can be tested again, since there are not any specific mileage requirement for manufacturers to select test vehicles based on. CARB will have to select test groups again in later calendar years to ensure these vehicles are meeting the MAW standards throughout their full useful life.

Subsection 4.6.7 (CARB email)

Purpose: This subsection defines the CARB email address to be contacted for communication on this section.

Rationale: This amendment is necessary to ensure the effective of CARB's in-use compliance program and ensure proper communication is maintained, so these regulations are properly executed.

Subsections 4.7 through 4.7.1

Purpose: These subsections introduce and will define the vehicle selection and screening criteria a manufacturer must follow when selecting vehicles.

Rationale: These amendments are necessary to ensure a representative sample of vehicles are selected for in-use MAW testing. This will reduce any bias in vehicle selection and ensure the test group is adequately represented based on the same criteria.

Subsections 4.7.1.1 through 4.7.1.5

Purpose: These subsections are necessary to define what a representative selection of vehicles will include, that the vehicle comes from multiple sources, vehicle is properly maintained, and has not been tampered with or had significant repair that could affect test results.

Rationale: These amendments are necessary to ensure there is no bias in the vehicle sample. It will further improve the effectiveness of CARB's in-use compliance program. Manufacturers have asked for clarification on what is representative. The amendments will help ensure there is no delay in test plan approval regarding vehicle selection when the manufacturer has properly followed these amendments.

Subsection 4.7.1.6

Purpose: This subsection defines when a diesel vehicle has not been misfueled for commercial diesel or bio diesel fuels meeting 4, CCR, section 4148.

Rationale: Manufacturers need to be calibrating and engineering their products to be compliant on all legal commercially available fuels, and any such fuels are fair game for use in CARB's in-use compliance programs.

Subsections 4.7.1.7 through 4.7.1.10

Purpose: These subsections define requirements for the vehicle being selected and ensuring they are in proper working condition. Vehicles must be able to be tested for the entire sampling period, no OBD codes that would lead to rejection later during testing, within the applicable useful life, and the vehicle has enough space for PEMS testing equipment.

Rationale: These amendments are necessary to ensure there are no delays in testing. Manufacturers are required to select vehicles that are within conditions for being adequate test vehicles. This limits any problems during testing and will ensure the vehicle test sample is within operable conditions to sample representative emissions from the test group.

Subsections 4.7.2 through 4.7.4

Purpose: These amendments require the manufacturer to obtain and keep records on the vehicles selected for MAW in-use testing, notify CARB of any candidate vehicle rejection for reasons outside these subsections, and report to CARB in the MAW reporting section, reasons for vehicle rejection.

Rationale: These amendments are necessary to ensure the effectiveness of CARB's in-use program. Documentation of the vehicle selected for in-use testing and not selected for in-use testing will help CARB determine if the vehicle test sample selected is representative and non-bias.

Subsections 4.8 through 4.8.1 (Vehicle prep)

Purpose: These subsections introduce the vehicle preparation for MAW In-use Testing and define what type of maintenance can be performed on the vehicle for testing. Manufacturers can adjust adjustable parameters that fall under 40 CFR § 86.1833-01. Manufacturer must request permission to adjust any parameter that falls outside these subsections and must keep records of all maintenance and adjustments.

Rationale: These amendments are necessary to ensure manufacturers only adjust vehicles to be within conditions of their appropriate service and age. This ensures an accurate representation of the vehicle and its emission control systems at the selected mileage point. At time of certification, these vehicles should be calibrated and equipped with components to ensure emissions are adequately controlled throughout its full useful life with only regular maintenance by the owner.

Subsections 4.8.2 through 4.8.2.2 (MIL before test)

Purpose: These subsections define the options a manufacturer has when a vehicle has an illuminated MIL or stored trouble code before testing.

Rationale: These amendments are necessary to give manufacturers flexibility with vehicles if they receive a vehicle that may have not been properly maintained and cannot be repaired. This ensures a more representative test sample of vehicles within the appropriate service and age and eliminates a bias.

Subsections 4.8.3 through 4.8.3.4 (MIL during test)

Purpose: These subsections define the options a manufacturer has when a MIL or trouble code occurs during in-use testing.

Rationale: These amendments are necessary to give manufacturers flexibility to repair their vehicle once testing has started or use the data collected during testing without MIL or trouble codes. This removes a bias from the vehicle test sample due to the manufacturer not fully diagnosing any issues with the vehicle during preparation.

Subsections 4.8.4 through 4.8.4.2.2 (commercial fuel)

Purpose: These subsections define the references for commercial fuel that will be required for diesel and gasoline vehicles.

Rationale: These amendments are necessary to ensure manufacturers test with commercial fuel that is found in California. This ensures representative emissions of vehicles using California fuel and eliminates a bias from using fuels found from other available sources.

Subsection 4.8.4.3 (fuel location)

Purpose: This subsection defines where a manufacturer may purchase fuel from. It must be from a local retail establishment around screening, along the test route, or from a central source that has fuel representative of the vehicle's local location.

Rationale: These amendments are necessary to give specify where manufacturers can purchase fuel for their vehicles and to

prevent any invalidation of testing due to the incorrect fuel being used.

Subsection 4.8.4.4

Purpose: This subsection excludes the use of post-refinery fuel additives except if the owner regularly uses the additive and is allowed by the manufacturer's manual. The manufacturer must provide documentation to support using the fuel additives.

Rationale: This amendment is necessary to prevent the use of fuel additives to skew emission results unless it is normally used by the owner.

Subsection 4.8.4.5

Purpose: This subsection gives manufacturers the ability to take fuel samples from vehicles to ensure appropriate fuels were used to meet the vehicle pass/fail criteria. If a vehicle fails due to improper fueling, they are allowed to void the test.

Rationale: This amendment is necessary to give manufacturers flexibility during issues with improper fueling. The purpose of the MAW is to assess emission from the vehicles using the specified commercial fuel.

Subsection 4.8.5

Purpose: This subsection defines conditions manufacturers must take into account when conducting their testing. This includes conditions of normal vehicle operation and use, routes, loads, and normal ambient conditions.

Rationale: This amendment is necessary to ensure the manufacturer test vehicles under conditions which represents normal everyday use for these vehicles. This will prevent a bias in the emission results that were based on favorable conditions of driving that do not represent normal driving conditions.

Subsection 4.8.6 (waive)

Purpose: This subsection gives manufacturers the option of asking CARB to waive a particular emission measurement from in-use testing when they show it is unnecessary.

Rationale: This amendment is necessary to relieve some testing burden manufacturers may have. A manufacturer may have new technology or data to support cases where collecting a certain emission is not necessary to determine compliance.

Subsections 4.9 through 4.9.1 (MAW reporting)

Purpose: These subsections introduce and define the MAW in-use reporting requirement manufacturers must follow when submitting their reports to CARB.

Rationale: These amendments are necessary to establish a central email contact for MAW in-use reports and a standard formatting. This increases the effectiveness of CARB's in-use program and reduces delay.

Subsection 4.9.2 (45 days notice)

Purpose: This subsection defines the amount of time manufacturer must submit their report, the data it must contain, and establishes that there will be certain required information in the test report.

Rationale: This amendment will prevent delays in reporting and ensure that the proper information is provided in manufacturer reports to CARB. This will enhance the effectiveness of CARB's in-use program to determine if testing was properly conducted and the test group was properly assessed.

Subsection 4.9.2.1 (recruited vehicles)

Purpose: This subsection defines the information required in the report for describing recruited vehicles and how manufacturers searched for vehicles.

Rationale: This amendment is necessary for CARB to have a clear understanding of the vehicle selection process and to determine if the selection process was unbiased.

Subsection 4.9.2.2 (summary)

Purpose: This subsection requires manufacturers to provide in their report reasons for rejecting vehicles, and data of fuel samples, if vehicles were rejected based on misfuelling.

Rationale: This amendment is necessary for CARB to have a clear understanding of the vehicle selection process and to determine if the selection process was unbiased. The reports and data will help CARB determine if the rejection of vehicles was justified and that a representative vehicle sample was selected.

Subsections 4.9.2.3 through 4.9.2.3.9 (background)

Purpose: These subsections define the required information in the report pertaining to specific vehicle information, owner maintenance/OBD history, MIL or OBD history during testing or procurement, and manufacturer maintenance or repairs during preparation for testing.

Rationale: These amendments are necessary to ensure the effectiveness of CARB's in-use program in assessing manufacturer in-use testing. Full detail reports on the vehicles will help CARB better understand the vehicles and manufacturers preparation of vehicles for testing. This provides transparency of each manufacturers test project to ensure vehicles are representative of their current service and age.

Subsections 4.9.2.4 through 4.9.2.11 (data and measurements)

Purpose: These subsections define the data required to be collected during testing and provided in the testing reports to CARB.

Rationale: These amendments are necessary for CARB to assess the test data collected during the manufactures test to determine validity of the test data. This will give CARB access to the test data and necessary information to evaluate whether testing was properly conducted and if the vehicle meets the MAW in-use standards. Any summary the manufacturer makes at the end of the report should be supported by the test data provided.

Subsection 4.9.2.4.12 (OBD)

Purpose: This subsection requires manufacturers to provide all OBD data stream parameters, all service mode data, and tracked data throughout the sampling period.

Rationale: This amendment is necessary to ensure manufactures provide all necessary OBD data during specific events during the sampling period. This data will allow CARB to assess any changes to the vehicle between key on and key off events. The data helps provide validity to the testing to determine if it was properly conducted.

Subsection 4.9.2.4.13 (summary)

Purpose: This amendment defines the required information in the manufacturer's summary portion of the reports.

Rationale: This will increase the effectiveness of the CARB in-use program and help prevent delays in assessing a manufacturers in-use testing report.

Subsections 4.9.3 through 4.9.3.7

Purpose: This subsection describes additional information a manufacturer will have to provide in their report regarding the testing of the vehicles.

Rationale: These amendments are necessary to ensure all relevant information and data is provided for CARB to fully assess the manufactures in-use testing. This will provide transparency and help CARB better ensure manufacture testing is being conducted following the proper MAW in-use test procedures.

Subsections 4.9.4 through 4.9.5

Purpose: These subsections define the email address for contact regarding voluntary information a manufacture will provide regarding a test group selected for testing. It also defines the time period for when a manufacturer should send CARB notification of a failed test group based on the pass/fail criteria during a manufactures initial review of the test data.

Rationale: These amendments are necessary to establish a point of contact with CARB's in-use compliance program to ensure its effectiveness. This will also limit delays when noncompliant test groups have been determined by the manufacture, so corrective action can be taken quickly.

Subsections 4.9.6 through 4.9.7

Purpose: These subsections give CARB the authority to ask the manufacture to send less information or more information for evaluation.

Rationale: These amendments are necessary to ensure the effectiveness of CARB's in-use compliance program. It allows CARB to better assess a manufacturer's in-use testing to determine if it was conducted properly. Manufactures may not provide all the necessary information or CARB may require additional information under certain circumstances.

Subsections 4.10 through 4.10.1

Purpose: These subsections introduce the MAW In-use recording and requires the manufacturer to organize and maintain records.

Rationale: These amendments are necessary to ensure manufactures keep relevant data and records necessary for any future evaluations.

Subsections 4.10.2 through 4.10.3

Purpose: These subsections require the manufacturer to keep records for a period of 5 years after testing and the required information these records must contain.

Rationale: These amendments are necessary to ensure manufactures keep records for a certain time period for any further evaluation. This improves the effectiveness of CARB's in-use program in case these records will be required for evaluations regarding that test group or similar test groups.

Appendices I, II, and III to § 86.1845-01 This subsection is identical to the current test procedures.

Part I. Subpart J

Section 1

Purpose: The purpose of this section is to incorporate CFR § 86.1848-10 into this test procedure. The title of this section has been changed in the CFR, so this title change has been incorporated into this test procedure

Rationale: It is necessary to incorporate the title change for CFR § 86.1848-10 into the test procedures to avoid confusion for the reader.

Sections 2 through 5

These sections are identical to the current test procedures.

Section 6

Purpose: The purpose of this section is to incorporate CFR § 86.1853 into this test procedure. The section number has been changed in the CFR from "§ 86.1853" to "§ 86.1853-01." This subsection has been updated to reflect that change and to incorporate the most current version of CFR § 86.1853-01 into this test procedure.

Rationale: It is necessary to incorporate the section number change for CFR § 86.1853-01 into the test procedures to avoid confusion for the reader. It is necessary to incorporate the most recent version of CFR § 86.1838-01 into this test procedure to allow harmonization with federal regulations.

Sections 7 through 20

These sections are identical to the current test procedures, as they pertain to criteria pollutant emissions.

Part II. Introductory Paragraph

Purpose: The purpose of an introduction is to provide context and background for this Part II. This introductory paragraph has been changed to remove the language that indicates whether the testing requirements for complying with various emission standards are contained in 40 CFR Part 86 or 40 CFR Part 1066.

Rationale: It is necessary to remove this language, because in the 2026 and subsequent model years, all testing must be conducted in accordance with 40 CFR Part 1066.

Part II. Subpart A

Purpose: The title of Part II Subpart A has been changed from the current test procedure. Currently, Part II Subpart A, which is titled "40 CFR Part 86, Subpart B Emission Regulations for 1977 and Later Model Year New Light-Duty Vehicles and New Light-Duty Trucks and New Otto-Cycle Complete Heavy-Duty Vehicles; Test Procedures," incorporates testing provisions from 40 CFR Part 86 into this test procedure. However, most of the testing provisions from 40 CFR Part 86 will no longer apply in the 2026 and subsequent model years, and only the certification test fuel specifications will remain. The title of Part II Subpart A has, therefore, been changed to "Certification Fuel Specifications."

Rationale: This change is necessary to clearly identify the testing provisions set forth in this subpart.

Previous Section 100.1 and 100.2

These sections have been removed from the current test procedure, because they will no longer be applicable in the 2026 and subsequent model years.

New Section 100.1 (Section 100.3 in current test procedure)

Purpose: The purpose of this section is to establish California certification gasoline specifications for LEV IV light-duty and medium-duty vehicles. This section is identical to section 100.3 in the current test procedures, except as modified below.

Rationale: It is necessary to establish California certification gasoline specifications to ensure that emission testing is conducted using gasoline that is representative of California commercial gasoline. This ensures that the emission benefits that are expected from California-certified vehicles are achieved in the real world.

86.113-04

Purpose: The purpose of this subsection is to incorporate CFR § 86.113-04 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 86.113-04 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.113-04 into this test procedure to allow harmonization with federal regulations.

Previous Subsection 100.3.1.1

This subsection has been removed from the current test procedure, because it will no longer by applicable in the 2026 and subsequent model years.

New Subsection 100.1

Purpose: The purpose of this subsection is to establish California certification gasoline specifications for LEV IV vehicles. This subsection is identical to subsection 100.3.1.2 in the current test procedure, except that the incorporated version of CFR § 1065.710 has been updated to incorporate the most current version of CFR § 1065.710 into this test procedure. In addition, the specification for "multi-substituted alkyl aromatic hydrocarbons" has been replaced with a specification for "C7 Aromatics (toluene)."

Rationale: It is necessary to incorporate the most recent version of CFR § 1065.710 into this test procedure to allow harmonization with federal regulations. It is necessary to replace the specification for "multi-substituted alkyl aromatic hydrocarbons" with a specification for "C7 Aromatics (toluene)," because (1) "multi-substituted alkyl aromatic hydrocarbons" are very difficult to measure, (2) there is no specification for "multi-substituted alkyl aromatic hydrocarbons" as part of California's commercial gasoline regulations, and (3) there is no difference in the ozone impacts from making this change to the certification gasoline specifications. Since federal certification gasoline includes a "C7 Aromatics (toluene)" specification as an alternative to a "multi-substituted alkyl aromatic hydrocarbons," the specification for "multi-substituted alkyl aromatic hydrocarbons" in the current test procedure is being replaced with the federal "C7 Aromatics (toluene)" specification in this test procedure.

New Subsection 100.2

The purpose of this subsection is to establish California certification diesel specifications for LEV IV vehicles. This subsection is identical to subsection 100.3.2 in the current test procedure.

New Subsection 100.3

The purpose of this subsection is to establish California alcohol fuel certification specifications for LEV IV vehicles. This subsection is identical to subsection 100.3.3 in the current test procedure.

New Subsection 100.4

Purpose: The purpose of this subsection is to establish specifications for M-85 fuel methanol and E-85 fuel ethanol to be used in exhaust emission testing for emission-data and durability-data vehicles. These specifications incorporate CFR § 1065.725 and § 1065.710. This subsection is identical to subsection 100.3.4 in the current test procedure, except that this subsection has been updated to incorporate the most current versions of CFR § 1065.725 and § 1065.710. Also, the name of the test procedure referenced in subsection 100.4.3 has been changed to reflect the name of the currently applicable document.

Rationale: It is necessary to incorporate the most recent version of CFR § 1065.725 and § 1065.710 into this test procedure to allow harmonization with federal regulations. It is also necessary to change the name of the referenced test procedure to reflect the name of the currently applicable document.

New Subsection 100.5

The purpose of this subsection is to establish California natural gas certification specifications for LEV IV vehicles. This subsection is identical to subsection 100.3.5 in the current test procedure.

New Subsection 100.6

The purpose of this subsection is to establish California liquefied petroleum gas certification specifications for LEV IV vehicles. This subsection is identical to subsection 100.3.6 in the current test procedure.

New Subsection 100.7

The purpose of this subsection is to incorporate CFR § 86.113-94(g) into this test procedure. This subsection is identical to subsection 100.3.7 in the current test procedure.

New Subsection 100.8

Purpose: The purpose of this subsection is to establish criteria for allowing any person to petition the state board to establish by regulation certification testing specifications for a new clean fuel for which specifications for a new clean fuel are not specifically established for California. This subsection incorporates CFR § 1065.710. This subsection is identical to subsection 100.3.8 in the current test procedure, except that it has been updated to incorporate the most current version of CFR § 1065.710.

Rationale: It is necessary to incorporate the most recent version of CFR § 1065.710 into this test procedure to allow harmonization with federal regulations.

Previous Section 86.114-94 through the end of previous Subpart A

These sections have been removed from the current test procedure, because they will no longer be applicable in the 2026 and subsequent model years.

Part II. Subpart B

Part II Subpart B in the current test procedure has been removed, because it will not be applicable in the 2026 and subsequent model years. This new Part II Subpart B is identical to Part II Subpart C in the current test procedures, except for the following.

Section 1

1066.1

Purpose: The purpose of this subsection is to incorporate CFR § 1066.1 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.1 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.1 into this test procedure to allow harmonization with federal regulations.

Section 2

1066.135

Purpose: The purpose of this subsection is to incorporate CFR § 1066.135 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.135 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.135 into this test procedure to allow harmonization with federal regulations.

Section 3

1066.210

Purpose: The purpose of this subsection is to incorporate CFR § 1066.210 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.210 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.210 into this test procedure to allow harmonization with federal regulations.

1066.255

Purpose: The purpose of this subsection is to incorporate CFR § 1066.255 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.255 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.255 into this test procedure to allow harmonization with federal regulations.

1066.260

Purpose: The purpose of this subsection is to incorporate CFR § 1066.260 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.260 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.260 into this test procedure to allow harmonization with federal regulations.

1066.265

Purpose: The purpose of this subsection is to incorporate CFR § 1066.265 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.265 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.265 into this test procedure to allow harmonization with federal regulations.

1066.270

Purpose: The purpose of this subsection is to incorporate CFR § 1066.270 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.270 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.270 into this test procedure to allow harmonization with federal regulations.

1066.275

Purpose: The purpose of this subsection is to incorporate CFR § 1066.275 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.275 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.275 into this test procedure to allow harmonization with federal regulations.

Section 5

1066.420

Purpose: The purpose of this subsection is to incorporate CFR § 1066.420 into this test procedure. This subsection has been updated to

incorporate the most current version of CFR § 1066.420 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.420 into this test procedure to allow harmonization with federal regulations.

Section 6

Purpose: The purpose of this subsection is to specify California-specific hybrid and electric vehicle testing requirements. This requirement has been changed to say, "All zero-emission vehicles and hybrid electric vehicles must demonstrate compliance with all applicable exhaust emission standards in accordance with Part II Subpart I or with the "California Test Procedures for 2026 and Subsequent Model Zero-Emission Vehicles and Plug-in Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes," as applicable."

Rationale: It is necessary to change this reference, because for the 2026 and subsequent model years, the California-specific requirements for hybrid electric vehicles other than plug-in hybrid electric vehicles have been moved to Part II Subpart I of this test procedure, and the requirements for plug-in hybrid electric vehicles and electric vehicle have been moved to the "California Test Procedures for 2026 and Subsequent Model Zero-Emission Vehicles and Plug-in Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes."

Section 7

1066.605

Purpose: The purpose of this subsection is to incorporate CFR § 1066.605 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.605 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.605 into this test procedure to allow harmonization with federal regulations.

Section 8

1066.710

Purpose: The purpose of this subsection is to incorporate CFR § 1066.710 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.710 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.710 into this test procedure to allow harmonization with federal regulations.

Section 9

1066.801

Purpose: The purpose of this subsection is to incorporate CFR § 1066.801 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.801 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.801 into this test procedure to allow harmonization with federal regulations.

1066.815

Purpose: The purpose of this subsection is to incorporate CFR § 1066.815 into this test procedure. This subsection is being amended, as follows, to add exhaust emission test procedures for FTP testing for the California-specific Partial Soak emission testing requirements and the Quick Drive-Away emission testing requirements.

Rationale: It is necessary to incorporate this section of the CFR into this test procedure to allow harmonization with federal regulations, when possible. It is necessary to add the California-specific Partial Soak emission testing requirements and the Quick Drive-Away emission testing requirements to this section, because these are not included in the CFR.

Subsection 9.1

Purpose: The purpose of this subsection is to establish exhaust emission test procedures for FTP testing for the California-specific Partial Soak emission testing requirements.

Rationale: This subsection is necessary to instruct manufacturers how to perform the Partial Soak emission test for the purpose of demonstrating compliance with the applicable emission standards.

Subsection 9.1.1

Purpose: The purpose of this subsection is to amend CFR § 1066.815 subparagraph (a) to specify that the partial soak FTP exhaust emission test sequence consists of an FTP emission test as described in § 1066.801 followed by one, or a consecutive sequence of, partial soak cold-start test(s).

Rationale: This subsection is necessary to set forth the requirements for a valid partial soak emission test sequence so that all test vehicles will follow the same sequence.

Subsection 9.1.2

Purpose: The purpose of this subsection is to specify that the provisions set forth in CFR § 1066.815 subparagraph (b) do not apply to the partial soak FTP exhaust emission.

Rationale: This subsection is necessary, because PM emission standards are not being established for the partial soak FTP test.

Subsection 9.1.3

Purpose: The purpose of this subsection is to specify that the provisions set forth in CFR § 1066.815 subparagraph (c) apply to the partial soak FTP exhaust emission with no changes.

Rationale: This subsection is necessary to set forth the requirements for a valid partial soak FTP emission test.

Subsection 9.1.4

Purpose: The purpose of this subsection is to set forth the changes to the provisions set forth in CFR § 1066.815 subparagraph (d) that

are required for a valid partial soak FTP exhaust test. These changes are described in subsections 9.1.4.1 through 9.1.4.3 (CFR § 1066.815 subparagraphs (d)(1) through (d)(3)), and the accompanying subsections to these subsections.

Rationale: The partial soak test is based on the FTP test in CFR § 1066.815 but there are certain details that are different that need to be outlined. Therefore, this subsection is necessary to amend CFR § 1066.815 subparagraphs (d)(1) through (d)(3) to outline the unique requirements that are needed to satisfy a valid partial soak FTP emission test.

Subsection 9.2

Purpose: The purpose of this subsection is to establish exhaust emission test procedures for FTP testing for the California-specific Quick Drive-Away emission testing requirements.

Rationale: This subsection is necessary to instruct manufacturers how to perform the Quick Drive-Away emission test for the purpose of demonstrating compliance with the applicable emission standards.

Subsection 9.2.1

Purpose: The purpose of this subsection is to amend CFR § 1066.815 subparagraph (a) to specify that the quick drive-away FTP exhaust emission test sequence consists of a cold-start Quick Drive-Away FTP Test and an FTP emission test as described in § 1066.801.

Rationale: This subsection is necessary to set forth the requirements for a valid quick drive-away FTP emission test sequence so that all test vehicles will follow the same sequence.

Subsection 9.2.2

Purpose: The purpose of this subsection is to specify that the provisions set forth in CFR § 1066.815 subparagraph (b) do not apply to the quick drive-away FTP exhaust emission.

Rationale: This subsection is necessary, because PM emission standards are not being established for the quick drive-away FTP test.

Subsection 9.2.3

Purpose: The purpose of this subsection is to specify that the provisions set forth in CFR § 1066.815 subparagraph (c) apply to the quick drive-away FTP exhaust emission with no changes.

Rationale: This subsection is necessary to set forth the requirements for a valid quick drive-away FTP emission test.

Subsection 9.2.4

Purpose: The purpose of this subsection is to set forth the changes to the provisions set forth in CFR § 1066.815 subparagraph (d) that are required for a valid quick drive-away FTP exhaust test. These changes are described in subsections 9.2.4.1 through 9.2.4.3 (CFR § 1066.815 subparagraphs (d)(1) through (d)(3)), and the accompanying subsections to these subsections.

Rationale: The Quick Drive-Away emission test is based on the FTP emission test in CFR § 1066.815 but there are certain details that are different that need to be outlined. Therefore, this subsection is necessary to amend CFR § 1066.815 subparagraphs (d)(1) through (d)(3) to outline the unique requirements that are needed to satisfy a valid Quick Drive-Away emission test.

1066.835

Purpose: The purpose of this subsection is to incorporate CFR § 1066.835 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.835 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.835 into this test procedure to allow harmonization with federal regulations.

Section 10

1066.1005

Purpose: The purpose of this subsection is to incorporate CFR § 1066.1005 into this test procedure. This subsection has been updated

to incorporate the most current version of CFR § 1066.1005 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.1005 into this test procedure to allow harmonization with federal regulations.

Part II. Subpart C

This subpart sets forth the 50ºF Emission Test Procedure. This subpart is identical to Part II Subpart D in the current test procedures.

Part II. Subpart D

This subpart presents the speed versus time sequence for a valid Unified Cycle trace. This subpart is identical to Part II Subpart E in the current test procedures.

Part II. Subpart E

This subpart presents the speed versus time sequence for a valid Highway Driving trace. This subpart is identical to Part II Subpart F in the current test procedures.

Part II. Subpart F

This subpart presents the speed versus time sequence for a valid US06 Bag 2 trace. This subpart is identical to Part II Subpart G in the current test procedures.

Part II. Subpart G

This subpart presents the speed versus time sequence for a valid Hot 1435 Unified Cycle trace. This subpart is identical to Part II Subpart H in the current test procedures.

Part II. Subpart H

Purpose: The purpose of this subpart is to establish the speed versus time sequence for a valid Quick Drive-Away UDDS trace.

Rationale: It is necessary that the required trace be defined to ensure identical test are performed to determine compliance with the Quick Drive-Away UDDS emission standards.

Part II. Subpart I

Purpose: The provisions in Subpart F of the current "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes," incorporated by reference in title 13, CCR, section 1962.2(h), that pertain to testing of hybrid-electric vehicles, other than off-vehicle charge capable hybrid electric vehicles have been moved to Part II, Subpart I. "Off-vehicle charge capable hybrid electric vehicles" have been renamed "plug-in hybrid electric vehicles" in Part II, Subpart I.

Rationale: This change is necessary, because these types of hybrid electric vehicles operate more like conventional vehicles than like off-vehicle charge capable hybrid electric vehicles. The test procedures set forth in this subpart are identical to those in Subpart F of the current "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes," except for the following.

Section 2

Purpose: The purpose of this section is to establish Urban Emission Test Provisions for all hybrid electric vehicles, except hybrid fuel cell vehicles and plug-in hybrid electric vehicles. The first paragraph in this section, as it currently appears in Subpart F of the current "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes," section states, "Alternative procedures may be used if shown to yield equivalent results and if approved in advance by the Executive Officer of the California Air Resources Board." This paragraph has been modified to provide criteria for receiving CARB approval for use of an alternative procedure.

Rationale: The changes to this paragraph are necessary to meet the clarity requirement that regulated parties knows exactly what is required to get CARB approval of an alternative procedure.

Section 7

Purpose: The purpose of this section is to describe the test sequence of the Partial Soak Emission Test for 2026 and subsequent model hybrid-electric vehicles, except plug-in hybrid electric vehicles.

Rationale: It is necessary to describe the test sequence so that all hybrid electric vehicles follow the same test sequence to determine partial soak emissions.

Subsection 7.1

Purpose: The purpose of this subsection is to require an Urban Emission Test as a preconditioning test cycle.

Rationale: Vehicle preconditioning is required to ensure that all vehicles are prepared for the Partial Soak Emission Test in a consistent manner. Furthermore, conducting an Urban Emission Test is necessary to determine the stabilized and hot start emissions to calculate Partial Soak Emissions as described below in subsection 7.7.

Subsection 7.2

Purpose: The purpose of this subsection is to describe the requirements for a valid soak period.

Rationale: An outline of conditions for a valid soak period is necessary because soak conditions can affect emission test results.

Subsection 7.3

Purpose: The purpose of this subsection is to describe required procedure for conducting the cold-start portion of the Partial Soak Test and for measuring emissions during the test.

Rationale: It is necessary to define the procedure for the cold-start portion of the Partial Soak Test and for measuring emissions during the test because different methods can lead to different emission results. The procedure outlined in this subsection will ensure that all hybrid electric vehicles follow a standardized procedure to determine emissions. The required procedure follows 40 CFR § 1066.815 to be consistent with other urban emission tests while some revisions are made only to reflect the specific characteristics of the Partial Soak Test.

Subsection 7.4

Purpose: The purpose of this subsection is to outline the end-of-test requirements to terminate a valid Partial Soak Test.

Rationale: Variance in end-of-test criteria can affect the emission results. Therefore, end-of-test criteria are defined in this subsection to ensure that HEVs are not gaining a favorable advantage by using different end-of-test criteria. The end-of-test criteria defined in this section ensures that the emissions measured during the Partial Soak Test are representative of charge-sustaining operation and that hybrid electric vehicles are not using extra battery power to reduce emissions.

Subsection 7.4.1

Purpose: The purpose of this subsection is to allow alternative end-of-test criteria that has a bigger tolerance than the end-of-test criteria defined in subsection 7.3.

Rationale: The alternative end-of-test criteria defined in this section follows the guidance given in Appendix C of SAE J1711 to allow a bigger end-of-test tolerance to hybrid electric vehicles that do not have precise enough control to consistently meet the end-of-test tolerances required by subsection 7.3.

Subsection 7.4.2

Purpose: The purpose of this subsection is to allow alternative end-of-test criteria to end a test if the battery state-of-charge at the end of a Partial Soak Test is larger than the battery state-of-charge at the start of a Partial Soak Test.

Rationale: The alternative end-of-test criteria outlined in this subsection is necessary because a higher battery state-of-charge at the end of a Partial Soak Test means that the hybrid electric vehicle used less battery power than required for charge-sustaining operation and the measured exhaust emissions represent a worse-case scenario than charge-sustaining operation. Therefore, this alternative end-of-test criteria is needed to ensure that worse-case emissions are considered as a valid test.

Subsection 7.5

Purpose: The purpose of this subsection is to introduce that alternative end-of-test criteria may be used, upon approval, to terminate a valid Cold-Start Partial Soak Test

Rationale: It is necessary to allow alternative end-of-test criteria because there may be valid reasons that the end-of-test criteria in subsection 7.4 cannot be met.

Subsection 7.6

Purpose: The purpose of this subsection is to allow additional Cold-Start Partial Soak Tests to be conducted by repeating the test sequence outlined in subsections 7.2 to 7.5.

Rationale: Allowing additional Cold-Start Partial Soak Tests to be conducted by following subsections 7.2 to 7.5 will reduce testing burden by allowing the very lengthy preconditioning in subsection 7.1 to be skipped if it has been already done one time.

Subsection 7.7

Purpose: This subsection outlines that the gaseous emission calculations shall be conducted in accordance to 40 CFR § 1066.820 with certain revisions that are outlined in the subsequent subsections 7.7.1 to 7.7.3.

Rationale: This provision is necessary so that gaseous emission for the Partial Soak Emission Test will be calculated consistently. The calculation follows the standard procedure outlined in 40 CFR § 1066.820 that is used for other urban emission tests. The revisions outlined in the following subsections 7.7.1 to 7.7.3 are necessary to provide precise terminology that specifically applies to the Partial Soak Emission Test.

Subsection 7.7.1

Purpose: This section outlines how to determine the mas of exhaust emissions of each pollutant

Rationale: The method used to determine mass emissions follows the common method given by 40 CFR § 1066.605 that is also used for other hybrid electric vehicle urban emission tests while specifically referring to the pollutants for the Partial Soak Emission Test intervals given by the equation in subsection 7.7.2.

Subsection 7.7.2

Purpose: This subsection defines the equation used to calculate Partial Soak Test emissions and the terms in the equation.

Rationale: The Partial Soak Test includes several emission measurement intervals and the equation and terms in this subsection define exactly how to calculate the final composite Partial Soak Test emission value using the emissions measured from each test interval. Determining a final composite emission value is necessary to determine if a hybrid electric vehicle is in compliance with the Partial Soak Emission Standards.

Subsection 7.7.3

Purpose: This subsection states that subparagraph (c) of 40 CFR § 1066.820 does not apply to the Partial Soak Test emission calculation.

Rationale: Subparagraph (c) of 40 CFR § 1066.820 defines the calculation method for particulate matter emissions. This does not apply to the Partial Soak Test because the Partial Soak Test does not measure particulate matter emissions.

Section 8

Subsection 8.1

Purpose: The purpose of this subsection is to define the preconditioning procedure for the Quick Drive-Away Emission Test.

Rationale: Vehicle preconditioning is required to ensure that all vehicles are prepared for the Quick Drive-Away Test in a consistent manner. The preconditioning procedures in the subsection are consistent with the preconditioning procedures outlined in subsection 2.2 for the Urban Emission Test.

Subsection 8.2

Purpose: The purpose of this subsection is to describe required procedure for conducting the cold-start portion of the Quick Drive-Away Test and for measuring emissions during the test.

Rationale: It is necessary to define the procedure for the cold-start portion of the Quick Drive-Away Test and for measuring emissions during the test because different methods can lead to different emission results. The procedure outlined in this subsection will ensure that all hybrid electric vehicles follow a standardized procedure to determine emissions. The

required procedure follows 40 CFR § 1066.815, which is consistent with other urban emission tests, while some revisions are made only to reflect the specific characteristics of the Quick Drive-Away Test.

Subsection 8.3

Purpose: The purpose of this subsection is to outline the end-of-test requirements to terminate a valid Quick Drive-Away Test.

Rationale: Variance in end-of-test criteria can affect the emission results. Therefore, end-of-test criteria are defined in this subsection to ensure that HEVs are not gaining a favorable advantage by using different end-of-test criteria. The end-of-test criteria defined in this section ensures that the emissions measured during the Quick Drive-Away Test are representative of charge-sustaining operation and that hybrid electric vehicles are not using extra battery power to reduce emissions.

Subsection 8.4

Purpose: The purpose of this subsection is to outline the alternative end-of-test criteria may be used, upon approval, to terminate a valid Quick Drive-Away Test.

Rationale: It is necessary to allow alternative end-of-test criteria because there may be valid reasons that the end-of-test criteria in subsection 8.3 cannot be met.

Subsection 8.4.1

Purpose: The purpose of this subsection is to allow alternative end-of-test criteria that has a bigger tolerance than the end-of-test criteria defined in subsection 8.3.

Rationale: The alternative end-of-test criteria defined in this section follows the guidance given in Appendix C of SAE J1711 to allow a bigger end-of-test tolerance to hybrid electric vehicles that do not have precise enough control to consistently meet the end-of-test tolerances required by subsection 8.3.

Subsection 8.4.2

Purpose: The purpose of this subsection is to allow alternative end-of-test criteria to end a test if the battery state-of-charge at the end of a

Quick Drive-Away Test is larger than the battery state-of-charge at the start of a Quick Drive-Away Test.

Rationale: The alternative end-of-test criteria outlined in this subsection is necessary because a higher battery SOC at the end of a Quick Drive-Away Test means that the hybrid electric vehicle used less battery power than required for charge-sustaining operation and the measured exhaust emissions represent a worse-case scenario than charge-sustaining operation. Therefore, these alternative end-of-test criteria is needed to ensure that worse-case emissions are considered as a valid test.

Subsection 8.5

Purpose: The purpose of this subsection is to require hybrid electric vehicles to conduct an Urban Emission Test to determine hot-start emissions.

Rationale: Hot-start emissions are necessary to calculate the composite Quick Drive-Away Test emissions in subsection 8.6.

Subsection 8.6

Purpose: This subsection outlines that the gaseous emission calculations shall be conducted in accordance with 40 CFR § 1066.820 with certain revisions that are outlined in the subsequent subsections.

Rationale: This provision is necessary so that gaseous emission for the Quick Drive-Away Test will be calculated consistently. The calculation follows the standard procedure outlined in 40 CFR § 1066.820 that is used for other urban emission tests. The revisions outlined in the following subsections are necessary to provide precise terminology that specifically applies to the Quick Drive-Away Test.

Subsection 8.6.1

Purpose: This section outlines how to determine the mas of exhaust emissions of each pollutant.

Rationale: The method used to determine mass emissions follows the common method given by 40 CFR § 1066.605 that is also used for other hybrid electric vehicle urban emission tests while specifically

referring to the pollutants for the Quick Drive-Away Emission Test intervals given by the equation in subsection 8.6.2.

Subsection 8.6.2

Purpose: This subsection defines the equation used to calculate Quick Drive-Away Test emissions and the terms in the equation.

Rationale: The Quick Drive-Away Test includes several emission measurement intervals and the equation and terms in this subsection define exactly how to calculate the final composite Quick Drive-Away Test emission value using the emissions measured from each test interval. Determining a final composite emission value is necessary to determine if a hybrid electric vehicle is in compliance with the Quick Drive-Away Emission Standards.

Subsection 8.6.3

Purpose: This subsection states that subparagraph (c) of 40 CFR § 1066.820 does not apply to the Quick Drive-Away Test emission calculation.

Rationale: Subparagraph (c) of 40 CFR § 1066.820 defines the calculation method for particulate matter emissions. This does not apply to the Quick Drive-Away Test because the Quick Drive-Away Test does not measure particulate matter emissions.

List of Changes to Appendix B-3 – "California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles"

Document Title

Purpose: The title of this document has been changed from "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" to "California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles."

This title change has been made throughout this document.

Rationale: This change is necessary to specify the applicable evaporative emission test procedures that will apply to different model years. The current evaporative emission test procedures will only apply to passenger cars, light-duty trucks, medium-duty vehicles, and heavy-duty vehicles through the 2025 model year.

List of Documents to be Used in Conjunction with this Document

Purpose: The purpose of this section is to provide a list of CARB test procedures that contain additional requirements necessary to complete an application for certification. The title of two of these test procedures have been changed. The "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles" has been changed to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles". The "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" has been changed to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: This list is necessary to clearly set forth the testing requirements for completing an application for certification. The changes to the document titles are necessary so that they refer to the most recent exhaust test procedures.

Part I. Subpart A

Section 1

Subsection 1.1

Purpose: The purpose of this subsection is to establish the model year applicability for this test procedure. The applicability of this test procedure is being changed to only apply to all new 2001 through 2025 model gasoline-, liquefied petroleum- and alcohol-fueled passenger cars, light-duty trucks, medium-duty vehicles, heavy-duty vehicles, hybrid electric vehicles (including fuel-flexible, dual fuel and bi-fuel vehicles, and 2012 through 2025 model-year off-vehicle charge capable hybrid electric vehicles), and to all new 2001 and subsequent model motorcycles, as noted.

Rationale: The changes to the model year applicability of this test procedure are necessary, because for the 2026 and subsequent model years, evaporative emission testing requirements for all categories of vehicles other than motorcycles are contained in the new "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles."

Subsection 1.2

Purpose: The purpose of this subsection is to specify that for general certification purposes, and except as otherwise noted, vehicles certifying to this evaporative emission test procedure must also certify to the requirements set forth in a number of additional test procedures. The titles of two of these additional documents are being changed.

Rationale: It is necessary to modify the titles of these referenced test procedures, because the titles of these documents are being changed in this rulemaking.

Part I. Subpart B

Section 1

Purpose: The purpose of this section is set forth the definitions, acronyms, and terminology that apply to this test procedure. This section incorporates the definitions, acronyms, and terminology from a number of referenced test procedures into this test procedure. The titles of two of these referenced documents have been changed.

Rationale: It is necessary to modify the titles of these referenced test procedures, because the titles of these documents are being changed in this rulemaking.

Part I. Subpart C

Section 1

Purpose: The purpose of this subpart is to describe "useful life" as it pertains to emissions compliance. This subsection has been updated to incorporate the most current version of CFR § 86.1805-17 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.1805-17 into this test procedure to allow harmonization with federal regulations.

Part I. Subpart D

Section 1

Subsection 1.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.1810-01 into this test procedure. The title of one of the documents that is referenced in subparagraphs "(a) through (g)" and "(o) through (p)" is being changed from the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: It is necessary to modify the title of this referenced test procedures, because the title of this document is being changed in this rulemaking.

Section 2

Subsection 2.1

Purpose: The purpose of this subpart is to incorporate CFR § 1037.103 subparagraph (c) into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1037.103 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1037.103 into this test procedure to allow harmonization with federal regulations.

Section 3

Subsection 3.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.1813-17 subsection (e) into this test procedure. This subsection has been updated incorporate the most current version of CFR § 86.1813-17 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.1813-17 into this test procedure to allow harmonization with federal regulations.

Subsection 3.2

Purpose: The purpose of this subsection is to specify the model years for which vehicles equipped with an auxiliary engine shall be subject to the requirements in CFR § 86.1813-17. This subsection has been modified to specify that the applicable requirements only apply to “2017 through 2025” model year vehicles rather than “2017 and subsequent” model year vehicles.

Rationale: This change is necessary, because for 2026 and subsequent model years, the requirements set forth in the “California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model

Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Part I. Subpart E

Section 1

Purpose: The title of this section has been changed as noted to only apply through the 2025 model year.

Rationale: This change is necessary, because the evaporative emission standards for 2026 and subsequent model years are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles."

Subsection 1(d)

Subsection 1(d), Footnote (1)(a)

Purpose: The purpose of this footnote is to establish a phase-in schedule for small volume manufacturers certifying to the evaporative emission standards in the table in subsection 1(d). The phase-in for 100% compliance with the standards has been modified to specify that 100% compliance is required in the "2006 through 2025" model years rather than the "2006 and subsequent" model year.

Rationale: This change is necessary, because for 2026 and subsequent model years, small volume manufacturers must comply with the evaporative emission standards set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles."

Subsection 1(e)

Subsection 1(e)(i)

The purpose of this subsection is to set forth two compliance options for demonstrating compliance with applicable evaporative emission standards in subsection 1(e). These two options are "Option 1" set forth in subsection 1(e)(i)(A) and "Option 2" set forth in subsection 1(e)(i)(B).

Subsection 1(e)(i)(A)

Purpose: The purpose of this subsection is to set forth the "Option 1" compliance option for demonstrating compliance with the evaporative emission standards in subsection 1(e). The applicability for Option 1 has changed to specify that it applies "2015 through 2025" model year vehicles rather than "2015 and subsequent" model year vehicles.

Rationale: This change is necessary, because for 2026 and subsequent model years, the evaporative emission standards set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Subsection 1(e)(i)(B)

Purpose: The purpose of this subsection is to set forth the "Option 2" compliance option for demonstrating compliance with the evaporative emission standards in subsection 1(e). The applicability for Option 2 has changed to specify that it applies "2015 through 2025" model year vehicles rather than "2015 and subsequent" model year vehicles.

Rationale: This change is necessary, because for 2026 and subsequent model years, the evaporative emission standards set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Subsection 1(e)(ii)

Purpose: The purpose of this subsection is to establish a phase-in schedule for demonstrating compliance with applicable evaporative emission standards in subsection 1(e)(i). The applicable model years shown in the table in the first cell in the last row and in footnote (2) have been changed from "2022 and subsequent" model years to "2022 through 2025" model years.

Rationale: This change is necessary, because for 2026 and subsequent model years, the evaporative emission standards set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Subsection 1(e)(vi)

Subsection 1(e)(vi)(A)

Purpose: The purpose of this subsection is to establish Effective leak diameter standard and procedures. The applicability has been changed from "2018 and subsequent model vehicles ≤14,000 lbs. GVWR" to 2018 through 2025 model vehicles ≤14,000 lbs. GVWR."

Rationale: This change is necessary, because for 2026 and subsequent model years, the Effective leak diameter standard and procedures set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Part II. Subpart A

Section 2

This section establishes durability demonstration procedures for evaporative emissions from light- and medium-duty vehicles.

Subsection 2.4

Subsection 2.4(a)

Purpose: The purpose of this subsection is to set forth mileage points at which evaporative emission testing shall be performed. The title of one of the referenced documents that sets forth emission mileage points has been changed from the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission

Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 2.4(b)

Purpose: The purpose of this subsection is to set criteria for allowing unscheduled maintenance to be performed for the purpose of demonstrating durability of the emission control system. The title of one of the referenced documents that sets forth criteria for allowing unscheduled maintenance to be performed has been changed from the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Section 5

This section sets forth durability and emission testing requirements for light- and medium-duty vehicles.

Subsection 5.4

Purpose: The purpose of this subsection is to establish applicability requirements for off-vehicle charge capable hybrid electric vehicle. The applicability set forth in this subsection has been changed from "2012 and subsequent" vehicles to "2012 through 2025 model year" vehicles.

Rationale: This change is necessary, because for 2026 and subsequent model years, the durability and emission testing requirements for light- and medium-duty vehicles set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Subsection 5.4.2

Subsection 5.4.2.1

Purpose: The purpose of this subsection is to establish compliance requirements that are specific to off-vehicle charge capable hybrid electric vehicles that are equipped with non-integrated refueling canister-only systems. The applicability set forth in this subsection has been changed from "2012 and subsequent" vehicles to "2012 through 2025 model year" vehicles.

Rationale: This change is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Part II. Subpart B

Section 1

Subsection 1.2

Subsection 1.2(ii)

Purpose: The title of the referenced document has been changed from the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," to the "California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles".

Rationale: The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Part III. Subpart A

Section 2

Subsection 2.1

Subsection 2.1.1

Purpose: The purpose of this subsection is to establish specifications for a running loss test facility. This subsection incorporates the requirements in CFR § 1066.210 into this test procedure. This subsection has been updated to incorporate the most current version of CFR § 1066.210 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.210 into this test procedure to allow harmonization with federal regulations.

Part III. Subpart C

Section 1

Subsection 1.3

Purpose: The purpose of this subsection is to establish a method for determining road load power, test weight, inertia weight class, and running loss fuel tank temperature profiles. Two changes have been made to this subsection. First, the applicability of this subsection has been changed from "2012 and subsequent" model year vehicles to "2012 through 2025" model year vehicles. Second, this subsection has been updated to incorporate the most current version of CFR § 1066.835 into this test procedure.

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply. It is necessary to

incorporate the most recent version of CFR § 1066.835 into this test procedure to allow harmonization with federal regulations.

Part III. Subpart D

Section 1

Subsection 1.3

Subsection 1.3.2

Purpose: The purpose of this subsection is to allow a manufacturer of hybrid electric vehicles to perform the All-Electric Range Test separately from the test sequences specified under this evaporative emission test procedure. Two changes have been made to this subsection. First, the applicability of this subsection has been changed from "2012 and subsequent" model year vehicles to "2012 through 2025" model year vehicles. Second, the title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply. The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 1.6

Purpose: The purpose of this subsection is to establish vehicle preconditioning requirements. The applicability of this subsection has been changed from "2012 and subsequent" model year vehicles to "2012 through 2025" model year vehicles.

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Subsection 1.6.1

Purpose: The purpose of this subsection is to establish vehicle preconditioning requirements for off-vehicle charge capable hybrid electric vehicle. Two changes have been made to this subsection. First, the applicability of this subsection has been changed from "2012 and subsequent" model year vehicles to "2012 through 2025" model year vehicles. Second, the title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply. The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 1.7

Purpose: The purpose of this subsection is to establish vehicle preconditioning requirements for off-vehicle charge capable hybrid electric vehicles that are equipped with non-integrated refueling canister-only systems. The applicability of this subsection has been changed from "2012 and subsequent" model year vehicles to "2012 through 2025" model year vehicles.

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Subsection 1.11

Purpose: The purpose of this subsection is to specify the test procedures to be used for exhaust emission testing. The title of one of the referenced documents is being changed from the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 1.12

Subsection 1.12.1

Purpose: The purpose of this subsection is to allow a manufacturer of hybrid electric vehicles to perform the four-phase exhaust emission test separately from the test sequence specified under these evaporative emission test procedures. The title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 1.12.5

Purpose: The purpose of this subsection is to establish battery state-of-charge requirements for hybrid electric vehicles except off-vehicle charge capable hybrid electric vehicles that apply prior to vehicle testing. Two changes have been made to this subsection. First, the applicability of this subsection has been changed, so it only applies through the 2025 model year. Second, the title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply. The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 1.12.6

Purpose: The purpose of this subsection is to establish battery state-of-charge requirements for off-vehicle charge capable hybrid electric vehicles that apply prior to vehicle testing. Two changes have been made to this subsection. First, the applicability of this subsection has been changed, so it only applies through the 2025 model year. Second, the title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-

Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply. The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 1.18

Subsection 1.18.5

Purpose: The purpose of this subsection is to establish exceptions to the supplemental two-day diurnal sequence that apply to hybrid electric vehicles except off-vehicle charge capable hybrid electric vehicles. Two changes have been made to this subsection. First, the applicability of this subsection has been changed, so it only applies through the 2025 model year. Second, the title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply. The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 1.18.6

Purpose: The purpose of this subsection is to establish exceptions to the supplemental two-day diurnal sequence that apply to off-vehicle charge capable hybrid electric vehicles. Two changes have been made to this subsection. First, the applicability of this subsection has been changed, so it only applies through the 2025 model year. Second, the title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply. The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsection 1.19

Purpose: The purpose of this subsection is to establish certification confirmatory tests and in-use compliance tests requirements for off-vehicle charge capable hybrid electric vehicles using any of the following battery state-of-charge. The applicability of this subsection has been changed, so it only applies through the 2025 model year. Second, the title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Section 3

Subsection 3.1.2 (There is no subsection 3.1 in test procedure)

Purpose: The purpose of this subsection is to establish supplemental vehicle preconditioning requirements for hybrid electric vehicles. Two changes have been made to this subsection. First, the applicability of this subsection has been changed, so it only applies through the 2025 model year. Second, the title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply. The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Subsections 3.2, 3.3, 3.3.2, 3.3.2.1, 3.3.3, 3.3.4

Purpose: The purpose of these subsections is to establish specific vehicle preconditioning requirements. The applicability of these subsections has been changed, so they only apply through the 2025 model year.

Rationale: The change to the applicability of these subsections is necessary, because for 2026 and subsequent model years, the applicable

requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Section 4

Subsection 4.3

Purpose: The purpose of this subsection is to establish the dynamometer procedure for hybrid electric vehicles. Two changes have been made to this subsection. First, the applicability of this subsection has been changed, so it only applies through the 2025 model year. Second, the title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply. The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Section 6

Subsection 6.3

Purpose: The purpose of this subsection is to establish the dynamometer test run, gaseous and particulate emissions requirements for hybrid electric vehicles. Two changes have been made to this subsection. First, the applicability of this subsection has been changed, so it only applies through the 2025 model year. Second, the title of one of the referenced documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-

Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes".

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply. The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Section 7

This section establishes Vehicle Fuel Tank Temperature Stabilization test requirements.

Subsection 7.3

Purpose: The purpose of this subsection is to incorporate CFR § 1066.835 into this test procedure. This subsection has been updated incorporate the most current version of CFR § 1066.835 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.835 into this test procedure to allow harmonization with federal regulations.

Section 8

This section establishes Running Loss Test requirements.

Subsection 8.1

Subsection 8.1.5

Purpose: The purpose of this subsection is to establish specific vehicle running loss test requirements. This subsection has been updated incorporate the most current version of CFR § 1066.835 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.835 into this test procedure to allow harmonization with federal regulations.

Subsection 8.1.10

Purpose: The purpose of this subsection is to establish specific vehicle running loss test requirements. The applicability of this subsection has been changed to only apply through the 2025 model year.

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Subsection 8.2

Subsection 8.2.5

Purpose: The purpose of this subsection is to establish specific vehicle running loss test requirements. The applicability of this subsection has been changed to only apply through the 2025 model year.

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Section 10

This section establishes Diurnal Breathing Loss Test requirements.

Subsection 10.3

Subsection 10.3.14

Purpose: The purpose of this subsection is to establish specific diurnal breathing loss test requirements. The applicability of this subsection has been changed to only apply through the 2025 model year.

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Section 12

This section establishes the Bleed Emission Test Procedure.

Subsection 12.1

Subsections 12.1.1

Purpose: The purpose of this subsection is to establish Carbon Canister System Stabilization procedures when stabilization is conducted on a vehicle. The title of the referenced document is being changed from the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Section 13

This section establishes the Effective Leak Diameter Test.

Subsection 13.1

Purpose: The purpose of this subsection is to incorporate CFR § 1066.985 into this test procedure. This subsection has been updated incorporate the most current version of CFR § 1066.985 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1066.985 into this test procedure to allow harmonization with federal regulations.

Part III. Subpart E

Section 1

Purpose: The purpose of this section is to establish evaporative emission testing requirements for liquefied petroleum gas vehicles. The applicability of this subsection has been changed to only apply through the 2025 model year.

Rationale: The change to the applicability of this subsection is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply.

Part III. Subpart F

This subpart sets forth certification fuel specifications that must be met in order to perform a valid evaporative emissions test.

Sections 2 and 3

Purpose: Two changes have been made to these sections. First, the applicability of these sections has been changed, so they only apply through the 2025 model year. Second, the title of one of the referenced documents is being changed from the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

Rationale: The change to the applicability of these sections is necessary, because for 2026 and subsequent model years, the applicable requirements are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles" shall apply. The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

Part III. Subpart G

This subpart established Alternative Test Procedures that may be used to demonstrate compliance with evaporative emission standards.

Section 1

Purpose: The purpose of this section is to incorporate CFR § 86.113-04 into this test procedure. This section has been updated incorporate the most current version of CFR § 86.113-04 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 86.113-04 into this test procedure to allow harmonization with federal regulations.

Section 2

Purpose: The purpose of this section is to incorporate CFR § 1065.710-15 into this test procedure. This section has been updated incorporate the most current version of CFR § 1065.710-15 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1065.710-15 into this test procedure to allow harmonization with federal regulations.

Subsection 2.1

Purpose: The purpose of this subsection is to incorporate testing requirements that are specific to the Bleed Emission Test Procedure for tests conducted using the fuel specifications in CFR § 1065.710-15. This subsection has been updated incorporate the most current version of CFR § 1065.710-15 into this test procedure.

Rationale: It is necessary to incorporate the most recent version of CFR § 1065.710-15 into this test procedure to allow harmonization with federal regulations.

Section 4

Purpose: The purpose of this section is to specify that a manufacturer that demonstrates compliance with evaporating emission standards using an alternative test procedure is still subject to the confirmatory and in-use compliance testing provisions set forth in this test procedure. The title of this document is being changed from the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" to the "California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles".

Rationale: The change to the name of the referenced document is necessary, because the title of this document is being changed in this rulemaking.

New Appendix B-4 – "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles"

It is necessary to create this new document the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles," because many of the provisions in the current "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" will not be applicable in the 2026 and subsequent model years. Consequently, if the new requirements are simply added to the current ones, the resulting document would be cumbersome and difficult to read.

Nonetheless, many of the provisions set forth in this test procedure are identical to those that would otherwise be applicable to 2026 and subsequent model year passenger cars, light-duty trucks, medium-duty vehicles, and heavy-duty vehicles under the current "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," absent these proposed amendments. For the purpose of this justification document, the only provisions that are explained herein are those that are non-editorial and that differ from those that are currently in effect.

In addition, these test procedures continue the practice of incorporating federal test procedures for California emission standards that are of the same kind but not identical to federal emission standards. It is necessary to incorporate these federal testing provisions because they provide a means of determining compliance with California's standards while minimizing costs and burdens from duplicative or cumulative test procedures.

Part I.

Part I establishes the general certification requirements for evaporative emissions

Part I. Subpart A

Purpose: The purpose of this subpart is to set forth the Applicability for evaporative emission requirements of this test procedure.

Rationale: This subpart is necessary to establish the applicability for evaporative emission requirements of this test procedure.

Section 1

Section 1.1

Purpose: The applicability statement is identical to the already existing test procedure, with the following amendments. The first amendment is to allow deviations from this applicability statement as otherwise indicated. Additionally the applicability statement was modified to remove reference to a type of vehicle which is not on the market.

Rationale: Allowing deviations to the applicability statement sets the stage for an amendment later in this procedure, which expands the alternative fuel system test requirement to encompass diesel and compressed natural gas fueled vehicles, which would otherwise be exempt from evaporative emission testing.

The reason for the second change to the applicability statement is that "hybrid electric vehicles that have sealed fuel systems which can be demonstrated to have no evaporative emissions" are not being manufactured or offered for sale, and therefore do not need to be referred to.

Section 1.2

Purpose: This statement is identical to the already existing test procedure, with the following amendments. The names of the referenced procedures were updated to reflect the most recent revisions.

Rationale: This change is needed to keep the referenced procedures to date.

Part I. Subpart B

Purpose: The purpose of this subpart is to set forth the Definitions, Acronyms, Terminology used in evaporative emission standards and testing. This subpart is carried over from the already existing test procedure.

Rationale: This subpart is necessary in order to demonstrate compliance with evaporative emission standards and is identical to the already existing test procedure.

Part I. Subpart C

Purpose: The purpose of this subpart is to set forth the useful life for evaporative emission testing. This subpart is carried over from the already existing test procedure.

Rationale: This subpart is necessary in order to demonstrate compliance with evaporative emission standards and is identical to the already existing test procedure.

Part I. Subpart D

Purpose: The purpose of this subpart is to set forth the General Standard Requirements for evaporative emissions.

Rationale: This subpart is necessary in order to demonstrate compliance with evaporative emission standards.

Section 1

Subsection 1.1

Purpose: The purpose of this section is to incorporate CFR § 86.1810-17 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.1810-17 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Section 2

Subsection 2.1

Purpose: The purpose of this section is to incorporate CFR § 1037.103 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 1037.103 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Section 3

Subsection 3.1

Purpose: The purpose of this section is to incorporate CFR § 86.1813-17(e) into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of § 86.1813-17(e) into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsection 3.3

Purpose: The purpose of this amendment is to expand the alternative fuel system test requirement to include any type of alternative fuel system other than the fuel system used to propel the vehicle. Clarification was added to include fuel fired heaters.

Rationale: Staff learned of availability of fuel fired heaters (ethanol powered in this case) and realized that our regulation could be improved to make it more clear on how such a system would be evaluated to assure evaporative emissions are controlled.

Subsection 3.4

Purpose: The purpose of this amendment is to expand the alternative fuel system test requirement to encompass diesel and compressed natural gas (CNG) fueled vehicles (i.e. vehicles which use these fuels to move the vehicle), which would otherwise be exempt from evaporative emission testing. The intent is that evaporative emission testing is only required on a vehicle in the case that the vehicle has a non-diesel or non-CNG auxiliary fuel system and/or non-diesel or non-CNG fuel fired heater and/or non-diesel or non-CNG auxiliary engine.

Rationale: This amendment was added to clarify that evaporative emission testing is required on vehicles which would traditionally be exempt, in the case that a non-diesel or non-CNG auxiliary fuel system is used.

Part II.

Part II establishes the durability demonstration for evaporative emissions.

Part II. Subpart A

Section 2

Subsection 2.1

Purpose: The purpose of this section is to incorporate CFR § 86.1824-08 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.1824-08 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsection 2.1.4

Purpose: The purpose of this section is to incorporate CFR § 86.1845-04 and § 86.1846-01 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.1845-04 and § 86.1846-01 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsection 2.4

Subsections 2.4(a) and 2.4(b):

Purpose: This statement is identical to the already existing test procedure, with the following amendments. The names of the referenced procedures were updated to reflect the most recent revisions.

Rationale: This change is needed to keep the referenced procedures to date.

Section 5

Subsection 5.5

Purpose: The purpose of this section is to incorporate CFR § 86.1829-15 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.1829-15 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Part III.

Part III establishes the evaporative emission test procedures for light- and medium-duty vehicles.

Part III. Subpart A

Purpose: The purpose of this subpart is to set forth the Instrumentation requirements for conducting a valid evaporative emission test.

Rationale: This subpart is necessary in order to demonstrate compliance with evaporative emission standards.

Section 1

Subsection 1.1

Purpose: The purpose of this section is to incorporate CFR § 86.107-96 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.107-96 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsections 1.1.1 through 1.1.17

Purpose: The purpose of these subsections is to amend the CFR § 86.107-96 to meet California test requirements.

Rationale: This change is necessary to ensure that California requirements that are more stringent than federal requirements are included in this test procedure.

Subsection 1.2

Purpose: The purpose of this section is to incorporate CFR § 86.107-98(e)(1) into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.107-98(e)(1) into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Part III. Subpart B

Purpose: The purpose of this subpart is to set forth instrument calibration requirements for conducting a valid evaporative emission test.

Rationale: This subpart is necessary in order to demonstrate compliance with evaporative emission standards.

Section 1

Purpose: The purpose of this section is to incorporate CFR § 86.117-96 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.117-96 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsection 1.1

Subsections 1.1.1 through 1.1.20

Purpose: The purpose of these subsections is to amend the CFR § 86.107-96 to meet California test requirements.

Rationale: This change is necessary to ensure that California requirements that are more stringent than federal requirements are included in this test procedure.

Subsection 1.21

Purpose: The purpose of this subsection is to amend the CFR § 86.107-96 by adding an optional calculation for instrument calibration.

Rationale: This change is necessary to allow the option to measure all available test parameters for making calculations to determine compliance with calibration standards.

Part III. Subpart C

Purpose: The purpose of this subpart is to set forth chassis dynamometer and running loss fuel tank temperature profile requirements for conducting a valid evaporative emission test.

Rationale: This subpart is necessary in order to demonstrate compliance with evaporative emission standards.

Section 1

Purpose: The purpose of this section is to incorporate CFR § 86.129-94 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.129-94 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsections 1.1 through 1.13

Purpose: The purpose of these subsections is to amend the CFR § 86.129-94 to meet California test requirements.

Rationale: This change is necessary to ensure that California requirements that are more stringent than federal requirements are included in this test procedure.

Part III. Subpart D

Purpose: The purpose of this section is to incorporate CFR sections § 86.130 through § 86.140 into this test procedure, and to incorporate existing sections of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles."

Rationale: This change is necessary to incorporate CFR sections § 86.130 through § 86.140 into this test procedure to allow harmonization with federal regulations, except as otherwise noted. In addition, this change is necessary to incorporate existing sections of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," except as otherwise noted.

Section 1

Purpose: The purpose of this section is to incorporate the existing Part III., Subpart D, Section 1 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" into this test procedure.

Rationale: This change is necessary to incorporate the existing Part III., Subpart D, Section 1 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," which are

existing California requirements for evaporative emissions testing, except as otherwise noted.

Subsection 1.1

Purpose: The purpose of deleting the Figure 3B subsections is to remove a figure that is outdated and irrelevant.

Rationale: This change is necessary since Figure 3B will not apply to 2026 and subsequent model year vehicles.

Subsection 1.3

Purpose: The purpose of deleting the Figure 3B subsections is to remove a figure that is outdated and irrelevant.

Rationale: This change is necessary since Figure 3B will not apply to 2026 and subsequent model year vehicles.

Subsections 1.3.1, 1.4, 1.5, 1.5.1, 1.12.3, 1.12.4, 1.12.5

Purpose: The purpose of deleting these subsections in the existing Part III., Subpart D, Section 1 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" is to remove sections that are outdated and irrelevant.

Rationale: This change is necessary since these subsections will not apply to 2026 and subsequent model year vehicles.

Subsections 1.4 through 1.18.3

Purpose: The purpose is to renumber subsection 1.4 through to 1.18.3.

Rationale: The requirements of these subsections are identical to the requirements in subsections 1.3.2, 1.6 through 1.12, 1.12.6 through 1.19.3 of these subsections in the existing Part III., Subpart D, Section 1 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles."

Subsection 1.10

Purpose: The names of the referenced procedure was updated to reflect the most recent revision.

Rationale: This change is needed to keep the referenced procedure up to date.

Subsections 1.11.1, 1.11.3, 1.11.4, 1.17.4, 1.17.5

Purpose: Referenced procedures were removed that are outdated.

Rationale: This change is necessary since the removed referenced procedures will not apply to 2026 and subsequent model year vehicles.

Section 2

Subsection 2.1

Purpose: The purpose of this section is to incorporate CFR § 86.131-96 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.131-96 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsection 2.1.2

Purpose: The purpose of these subsections is to amend the CFR § 86.107-96 to meet California test requirements.

Rationale: This change is necessary to ensure that California requirements that are more stringent than federal requirements are included in this test procedure.

Section 3

Purpose: The purpose of this section is to incorporate the existing Part III., Subpart D, Section 3 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" into this test procedure.

Rationale: This change is necessary to incorporate Part III., Subpart D, Section 3 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," which are the existing California requirements for evaporative emissions testing, except as otherwise noted.

Subsection 3.2

Purpose: The purpose of this subsection is to delete existing language in Part III., Subpart D, Section 3 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" regarding outdated model year vehicles.

Rationale: This change is necessary since the requirements will not apply to 2026 and subsequent model year vehicles.

Subsection 3.3

Purpose: The purpose of this subsection is to delete existing language in Part III., Subpart D, Section 3 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" regarding outdated model year vehicles.

Rationale: This change is necessary since the requirements will not apply to 2026 and subsequent model year vehicles.

Subsection 3.3.5

Subsection 3.3.5.2

Subsection 3.3.5.2.1

Purpose: The purpose of this subsection is to amend the CFR § 86.107-96(d)(4) to meet California test requirements regarding a heat source for fuel tank heating for performing valid emission tests.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.107-96(d)(4) into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsection 3.3.6

Subsections 3.3.6.4. and 3.3.6.11.

Purpose: The purpose of this amendment is to make it optional, instead of required, for the manufacturer to isolate the refueling canister, during various steps of the test procedure for vehicles with

a non-integrated refueling canister only system. Currently, it is required to isolate the refueling canister during these steps.

Rationale: The amendment to the canister isolation process is made in response to input from CARB and manufacturer testing personnel. It can be difficult to get to the canister and its associated hoses and connectors on some vehicles, in order to isolate the canister from the fuel tank. In some cases there is concern that staff can get injured doing trying to do so. Some manufacturers prefer to test their vehicles in the worst case scenario and avoid damaging the vehicle or preventing staff injuries. Worst case scenario meaning leaving the canister connected, instead of isolating it, which may result in more vapors being transferred to the canister to some extent and thus more challenging to pass the emissions test.

Section 4

Purpose: The purpose of this section is to incorporate CFR § 86.135-90 into this test procedure.

Rationale: This change is necessary to incorporate CFR § 86.135-90 into this test procedure to allow harmonization with federal regulations.

Section 5

Purpose: The purpose of this section is to incorporate CFR § 86.136-90 into this test procedure.

Rationale: This change is necessary to incorporate CFR § 86.136-90 into this test procedure to allow harmonization with federal regulations.

Section 6

Purpose: The purpose of this section is to incorporate CFR § 86.137-94 into this test procedure.

Rationale: This change is necessary to incorporate CFR § 86.137-94 into this test procedure to allow harmonization with federal regulations.

Section 7

Purpose: The purpose of this section is to incorporate Part III., Subpart D, Section 7 of the “California Evaporative Emission Standards and Test

Procedures for 2001 and Subsequent Model Motor Vehicles" into this test procedure.

Rationale: This change is necessary to incorporate Part III., Subpart D, Section 7 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," which are the existing California requirements for evaporative emissions testing, except as otherwise noted.

Subsection 7.2

Purpose: This section was moved to III.C.1.13. of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" regarding outdated model year vehicles.

Rationale: This change is necessary to harmonize CFR § 86.129-94(d)(7)(v) as amended in Part III. Subpart C, Section 1.

Section 8

Purpose: The purpose of this section is to incorporate Part III., Subpart D, Section 8 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles" into this test procedure.

Rationale: This change is necessary to incorporate Part III., Subpart D, Section 8 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," which are the existing California requirements for evaporative emissions testing, except as otherwise noted.

Subsection 8.1

Subsection 8.1.7

Purpose: This section removed the requirement to measure and hydrocarbon and alcohol measurements for each test phase to only the beginning and end of the test in section III.D.8.1.7 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles."

Rationale: This change is necessary to harmonize with 40 CFR 86.134 96(g)(1)(xii)(A) and 40 CFR 86.134 96(g)(1)(xii)(B).

8.1.10 Allowable tank pressure during the running loss test:

Purpose: The purpose of this amendment is to clarify an existing requirement in the running loss test procedure concerning allowable pressure build up inside the fuel tank during the test, and what a manufacturer needs to demonstrate if allowable pressure is exceeded.

Rationale: The amendment to the running loss procedure is needed to clarify an existing requirement.

Subsection 8.1.11

Purpose: This section removed the requirement to measure and hydrocarbon and alcohol measurements for each test phase to only the beginning and end of the test in section III.D.8.1.11 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles."

Rationale: This change is necessary to harmonize with 40 CFR 86.134 96(g)(1)(xvii).

Subsection 8.1.12

Purpose: This section removed the requirement to measure and hydrocarbon and alcohol measurements for each test phase to only the beginning and end of the test in section III.D.8.1.12 of the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles."

Rationale: This change is necessary to harmonize with 40 CFR 86.134 96(g)(1)(xx)(A) and 40 CFR 86.134 96(g)(1)(xx)(B).

Subsection 8.2

Subsection 8.2.1

Purpose: The purpose of this section is to incorporate CFR § 86.107-96 and § 86.129-94 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.107-96 and § 86.129-94 into this test procedure to allow harmonization with federal regulations.

Subsection 8.2.4

Purpose: The purpose of this section is to incorporate CFR § 86.129-94 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.129-94 into this test procedure to allow harmonization with federal regulations.

Subsection 8.2.5. Allowable tank pressure during the running loss test:

Purpose: The purpose of this amendment is to clarify an existing requirement in the running loss test procedure concerning allowable pressure build up inside the fuel tank during the test, and what a manufacturer needs to demonstrate if allowable pressure is exceeded.

Rationale: The amendment to the running loss procedure is needed to clarify an existing requirement.

Subsection 8.2.7

Purpose: The purpose of this section is to incorporate CFR § 86.107-96 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.107-96 into this test procedure to allow harmonization with federal regulations.

Subsection 8.3

Purpose: The purpose of this section is to incorporate CFR § 86.107-96 into this test procedure. In addition, allows the Executive Officer to perform the running loss test with options.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.107-96 into this test procedure to allow harmonization with federal regulations. Provides the Executive Officer with flexibility in terms of performing the running loss test.

Section 9

Subsection 9.1

Purpose: The purpose of this section is to incorporate CFR § 86.138-96 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.138-96 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsections 9.1.1 through 9.1.11

Purpose: The purpose of these subsections is to amend the CFR § 86.138-96 to meet California test requirements.

Rationale: This change is necessary to ensure that California requirements that are more stringent than federal requirements are included in this test procedure.

Section 10

Subsection 10.1

Purpose: The purpose of this section is to incorporate CFR § 86.133-96 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.133-96 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsections 10.1.1 through 10.1.24

Purpose: The purpose of these subsections is to amend the CFR § 86.133-96 to meet California test requirements.

Rationale: This change is necessary to ensure that California requirements that are more stringent than federal requirements are included in this test procedure.

Section 11

Subsection 11.1

Purpose: The purpose of this section is to incorporate CFR § 86.143-96 into this test procedure.

Rationale: This change is necessary to incorporate the most recent version of CFR § 86.143-96 into this test procedure to allow harmonization with federal regulations, except as otherwise noted.

Subsection 11.1.2

Purpose: The purpose of this subsection is to amend the CFR § 86.143-96 by adding an optional calculation for hydrocarbon mass change.

Rationale: This change is necessary to allow the option to measure all available test parameters for making calculations to determine compliance with emission standards.

Section 12

Subsection 12.1

Subsection 12.1.1

Purpose: The name of the referenced procedure was updated to reflect the most recent revision.

Rationale: This change is needed to keep the referenced procedure up to date.

Subsection 12.7.1

Purpose: The purpose of this section is to incorporate CFR § 86.107-96(d)(3) and § 86.107-98(e)(1) for describing bleed emission test procedure (BETP) process parameters.

Rationale: This change is necessary since the section of the current California procedure which describes these process parameters has been removed and replaced with a reference to the CFR which contains equivalent parameters.

Subsection 12.7.2

Purpose: The purpose of this section is to incorporate CFR § 86.107-96(a)(1) for describing bleed emission test procedure (BETP) equipment parameters.

Rationale: This change is necessary since the section of the current California procedure which describes these equipment parameters has been removed and replaced with a reference to the CFR which contains equivalent parameters.

Subsection 12.8

Subsection 12.8.2

Purpose: The purpose of this section is to incorporate CFR § 86.107-96(a)(1) for describing bleed emission test procedure (BETP) equipment parameters.

Rationale: This change is necessary since the section of the current California procedure which describes these equipment parameters has been removed and replaced with a reference to the CFR which contains equivalent parameters.

Subsection 12.9

Subsections 12.9.1 and 12.9.2

Purpose: A suffix "-94" was added to the referenced CFR section § 86.140.

Rationale: This addition makes the reference more specific and accurate.

Section 14

Purpose: The purpose of this amendment is to specify a minimum canister size in the regulation, for vehicles which have fuel tank pressure exceeding a specified threshold. This would include vehicles with a non-integrated refueling canister only system (NIRCOS) gasoline tanks common on PHEVs (and some HEVs). Manufacturers would demonstrate compliance using a CARB defined calculation in which they would input their vehicle's specific parameters. Appendix H describes how this calculation was developed.

Rationale: This addition involves improving the control of what staff is calling puff emissions, which are routed to the vehicle's carbon canister. This is unique to special sealed NIRCOS gasoline tanks common on PHEVs (and some HEVs). About 6% of vehicles in the California fleet has this type of fuel system and these numbers are expected to grow in the future. And the new requirement affects the size of the vehicle's carbon canister, which is standard hardware on today's vehicles for adsorbing fuel vapors which would otherwise be released to the atmosphere.

On a vehicle with a NIRCOS fuel system, a specific sequence of driving on hot day followed by refueling can overwhelm the canister and create a 'puff' of fuel vapor to the vehicle's carbon canister. The canister ends up getting a double dose of fuel vapors: first tank vapor vents to canister to allow refueling, then more vapor pushes through during refueling.

The problem this amendment is intended to address, is that the current test procedures do not cover this worst case event. And this allows for undersized canisters, that can let vapors breakthrough during refueling. Staff's estimate is that the majority of vehicles with NIRCOS tanks currently do have a large enough canister. That said, a few vehicles which are currently produced do have an undersized canister, and these are some new model PHEVs which recently arrived on the market. With the likelihood of more PHEVs which use this type of fuel system entering the fleet in the future, it is important that canisters on these vehicles are adequately sized to handle puff emissions.

Both Europe and China have provisions which cover puff loss to some extent. This new requirement for California is more representative of the puff loading that would occur when refueling a PHEV vehicle on a hot day, and that's what the equation is based on. China's procedure is based on lower temperatures, and Europe's procedure solely includes puff loading by itself without the addition of refueling.[1]

During the development process, feedback was considered from various stakeholders to refine the compliance equation to be more accurate.

The design-based approach was chosen for this proposal instead of adding a new test procedure. There are already numerous test procedures which

1 Late in the rulemaking process, staff was informed of recent studies evaluating another type of puff emissions which may escape the fill pipe when opening the fuel cap. Staff will evaluate this for future proposals.

manufacturers need to perform to certify that their vehicles meet evaporative emission requirements. Staff wanted to avoid adding more test burden unless necessary and believes that the proposed canister size design requirement will be sufficient to provide protection from puff emissions.

Subsection 14.1

Purpose: The purpose of this subsection is to specify the minimum fuel tank pressure threshold which is used to determine if the new minimum canister size requirement applies to a particular vehicle.

Rationale: The running loss test procedure indicates that the fuel tank pressure shall generally not exceed 10 inches of water, and gives exceptions for vehicles which are designed to not vent vapor to the atmosphere if the fuel fill pipe cap was removed at the end of the test. This requirement is typically met by venting the fuel vapors to the canister immediately prior to refueling. And this running loss test procedure requirement was selected as the basis for the minimum fuel tank pressure threshold which is used to determine if the new minimum canister size requirement.

Subsection 14.2

Purpose: The purpose of this subsection is to specify the new minimum canister nominal working capacity equation. The various inputs of this equation are described. The intention is for the manufacturer to input the specific values that correspond to the vehicle they are certifying.

Rationale: The basis for selecting the various inputs of this equation is described in Appendix H. Also, to reduce compliance burden, default values were provided wherever possible for use in the compliance equation, which represent worst case in most driving situations for typical vehicle designs. Although there is flexibility built in to allow custom inputs for some of the coefficients. For example vapor generation and vapor space pressure could be lower than the default values in the case that a manufacturer uses temperature insulating materials to limit heating of the fuel tank. Alternatively, there are also instructions to use a higher value for the vapor space pressure in the case that a vehicle's design/functionality would yield a value higher than the default value provided.

Part III. Subpart E

Section 2

Purpose: This change is updates a reference so that it refers to the most recent version of the referenced CFR section.

Rationale: This change is needed to keep the test procedure up to date.

Part III. Subpart F

Sections 1 and 2

Purpose: The name of the referenced procedure was updated to reflect the most recent revision. Also, removed any mention of fuel requirements for earlier model gasoline vehicles which were able to use non-ethanol containing test fuel. And removed obsolete requirements referring to vehicles which certified to standards which applied to earlier models.

Rationale: This change is needed to keep the referenced procedure and test fuel requirements up to date.

Part III. Subpart G

Section 1

Purpose: The purpose of this amendment is to remove any mention of fuel requirements for earlier model gasoline vehicles which were able to use non-ethanol containing test fuel.

Rationale: This change is needed to keep the referenced procedure and test fuel requirements up to date.

Part IV.

Part IV contains Figures illustrating the evaporative emission test procedures

Purpose: With the exception of newly added Figure 4, these figures are carried over from the existing test procedure. The purpose of the new language is to clarify that the figures in this Part are intended to be a supplement to the test procedure language, to aid people in understanding the overall flow of the procedure. Also, Figure 4 has been added which outlines the 3-day test procedure steps for off vehicle charge capable (this is how PHEVs are referred to in this test procedure) vehicles with a NIRCOS fuel system. And Figure 3b from

the existing procedure has been deleted since it concerns a test procedure which only applies to previous model years.

Rationale: This amendment adds clarifying language. The new flow chart was added to aid people in understanding the overall flow of the 3-day test procedure for select vehicles.

List of Changes to Appendix B-5 – "California Refueling Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles"

List of Documents to be Used in Conjunction with this Document

Purpose: The purpose of this section is to provide a list of CARB test procedures that are referenced in these test procedures that contain additional requirements necessary to complete an application for certification. These other documents are designed to be used in conjunction with this document. Changes to this list include the following. Note that existing documents numbered 4 and subsequent have been renumbered, because of the addition of new documents 3, 6, and 8.

2. The title of document 2 has been changed from the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" (incorporated by reference in section 1961.2 (d), title 13, CCR).

3. A new document has been added that is titled "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" (incorporated by reference in section 1961.4(f), title 13, CCR).

Newly numbered document 5. The title of newly numbered document 5 has been changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes". (incorporated by reference in section 1962.2, title 13, CCR).

6. A new document has been added that is titled "California Test Procedures for 2026 and Subsequent Model Zero-Emission Vehicles and Plug-in Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" (incorporated by reference in section 1962.4, title 13, CCR).

Newly numbered document 7. The title of newly numbered document 7 has been changed from the “California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles” to the “California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Motorcycles”. (incorporated by reference in section 1976(c), title 13, CCR).

8. A new document has been added that is titled “California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles” (incorporated by reference in section 1976(c), title 13, CCR).

Rationale: It is necessary to modify the list of documents to be used in conjunction with this test procedure to accurately set forth the testing requirements for completing an application for certification.

Subpart S

Section I

Subsection A

Subsection 2

Purpose: The purpose of this subsection is to specify the requirements that must be met for general certification purposes. This subsection identifies a number of documents that contain these requirements. The titles of three of these documents have been changed and three additional documents have been added to this subparagraph.

Rationale: These changes to this subparagraph are necessary to accurately set forth the requirements that must be met for general certification purposes. It is necessary to change the titles of three of these documents to clearly show that the requirements set forth within will only apply through the 2025 model year. Starting with the 2026 model year, the applicable requirements for certification are being moved to the three newly created documents, the titles of which are being added to this list of documents referenced in this subparagraph.

Subsection 8

Purpose: The purpose of this subsection is to specify the specifications for the fuel used in certification or in-use testing. This subsection identifies the document that contain the requirements for a permissible test fuel. The title of the referenced document has been changed and an additional document has been added to this subparagraph.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Subsection B

Subsection 1

Purpose: The purpose of this subsection is to incorporate by reference the definitions set forth in a number of referenced test procedures. The titles of three of these documents have been changed and three additional documents have been added to this subparagraph.

Rationale: It is necessary to change the titles of three of these documents to clearly show that the requirements set forth within will only apply through the 2025 model year. Starting with the 2026 model year, the applicable requirements for certification are being moved to the three newly created documents, the titles of which are being added to this list of documents referenced in this subparagraph.

Subsection 2

Purpose: The purpose of this subsection is to indicate where specifications for E10 certification test gasoline can be found. The title of the currently referenced document that contains these specifications has been changed and a new document has been added to this subsection.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Subsection E

Subsection 1

Purpose: The purpose of this subsection is to incorporate those portions of CFR section 86.1810-01 that pertain to general provisions for refueling emissions into this test procedure. Those subparagraphs of CFR section 86.1810-01 that do not pertain to general provisions for refueling emissions are replaced in the subparagraphs to this subparagraph, as follows.

Rationale: It is necessary to incorporate those portions of CFR section 86.1810-01 that pertain to general provisions for refueling emissions into this test procedure to allow harmonization with federal regulations, where possible.

Subsection 1.1

Purpose: The purpose of this subsection is to clearly indicate that subparagraphs (a) through (j) of CFR section 86.1810-01 do not apply. This subparagraph indicates the California test procedures that must be followed as an alternative to the requirements set forth in the CFR. The titles of two of these documents have been changed and two additional documents have been added to this subparagraph.

Rationale: It is necessary to change the titles of two of these documents to clearly show that the requirements set forth within will only apply through the 2025 model year. Starting with the 2026 model year, the applicable requirements for certification are being moved to the two newly created documents, the titles of which are being added to this list of documents referenced in this subparagraph.

Subsection 1.6

Purpose: The purpose of this subsection is to clearly indicate that subparagraphs (o) and (p) of CFR section 86.1810-01 do not apply. This subparagraph indicates the California test procedures that must be followed as an alternative to the requirements set forth in the CFR. The title of the currently referenced document that

contains these requirements has been changed and a new document has been added to this subsection.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Subsection F

Subsection 2

Subsection 2.3

Purpose: The purpose of this subsection is to specify that vehicles that are certified as incomplete vehicles for the purposes of evaporative emissions testing are not required to demonstrate compliance with the refueling emission standards. This subsection references the document that must be used to determine whether or nor a vehicle is exempt from evaporative emission testing. The title of the currently referenced document that contains these requirements has been changed and a new document has been added to this subsection.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Subsection G

Subsection 2

Purpose: The purpose of this subsection is to incorporate those portions of CFR section 86.1829-15, subparagraph (e) that pertain to durability and emission testing requirements for refueling emissions into this test procedure. Those subparagraphs of CFR section 86.1829-15, subparagraph (e) that do not pertain to durability and emission testing requirements for refueling emissions are replaced in the subparagraphs to this subparagraph, as follows.

Rationale: It is necessary to incorporate those portions of CFR section 86.1829-15, subparagraph (e) that pertain to durability and emission

testing requirements for refueling emissions into this test procedure to allow harmonization with federal regulations, where possible

Subsection 2.4

Purpose: The purpose of this subsection is to clearly indicate that subparagraph (e)(4) of CFR section 86.1829-15 does not apply. This subsection indicates the California test procedures that must be followed as an alternative to the requirements set forth in the CFR. The title of the currently referenced document that contains these requirements has been changed and a new document has been added to this subsection.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Subsection 2.6

Purpose: The purpose of this subsection is to clearly indicate that subparagraph (e)(6) of CFR section 86.1829-15 does not apply. This subsection indicates the California test procedures that must be followed as an alternative to the requirements set forth in the CFR. The title of the currently referenced document that contains these requirements has been changed and a new document has been added to this subsection.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Subpart B

Section II

Subsection 4

Subsection 4.1

Purpose: The purpose of this subsection is to establish preconditioning requirements for vehicles prior to undergoing

evaporative emission testing. This subsection specifies that during the vehicle preconditioning drive for 2012 and later model-year off-vehicle charge capable hybrid electric vehicles, the battery state-of-charge net change tolerance provisions set forth in two documents shall not apply. The title of one of these documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes". An additional document, the "California Test Procedures for 2026 and Subsequent Model Zero-Emission Vehicles and Plug-in Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes," is being added to this exemption.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Subsection 4.1.1

Subsections 4.1.1.1 - 4.1.1.16

Purpose: The purpose of this amendment is to correct the numbering of these subsections 4.1.1.1 - 4.1.1.16 to make them all subsections of subsection 4.1.1.

Rationale: The renumbering of these subsections 4.1.1.1 through 4.1.1.16 is necessary to clarify that these subsections all pertain to the subject of subsection 4.1.1: 2012 and subsequent model-year off-vehicle charge capable hybrid electric vehicles equipped with non-integrated refueling canister-only systems.

Subsections 4.1.1.13

Purpose: The purpose of this amendment is to make it optional, instead of required, for the manufacturer to isolate the refueling canister, during various steps of the test procedure for vehicles

with a non-integrated refueling canister only system. Currently, it is required to isolate the refueling canister during these steps.

Rationale: The amendment to the canister isolation process in response to input from CARB and manufacturer testing personnel. It can be difficult to get to the canister and its associated hoses and connectors on some vehicles, in order to isolate the canister from the fuel tank. In some cases, there is concern that staff can get injured doing trying to do so. Some manufacturers prefer to test their vehicles in the worst-case scenario and avoid damaging the vehicle or preventing staff injuries. Worst case scenario meaning leaving the canister connected, instead of isolating it, which may result in more vapors being transferred to the canister to some extent and thus more challenging to pass the emissions test.

Subsection 4.3

Purpose: The purpose of this subsection is to require that a 2012 and subsequent model-year off-vehicle charge capable hybrid electric vehicle that is tested either for exhaust emissions only or for refueling emissions be processed in accordance with the provisions of two referenced documents, based on the applicable model year. The title of one of these documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes". An additional document, the "California Test Procedures for 2026 and Subsequent Model Zero-Emission Vehicles and Plug-in Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes," is being added to this subparagraph.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Subsection 4.3.2

Purpose: The purpose of this subsection is to state that the battery state-of-charge net change tolerance provisions specified in two referenced documents shall not apply for the purpose of compliance with subsection 4.3. The title of one of these documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes". An additional document, the "California Test Procedures for 2026 and Subsequent Model Zero-Emission Vehicles and Plug-in Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes," is being added to this subparagraph.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Subsection 4.4

Subsection 4.4.1

Purpose: The purpose of this subsection is to is to require that a 2012 and subsequent model-year off-vehicle charge capable hybrid electric vehicle that is tested either for exhaust emissions only or for refueling emissions be processed in accordance with the provisions of two referenced documents, based on the applicable model year. The title of one of these documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes". An

additional document, the "California Test Procedures for 2026 and Subsequent Model Zero-Emission Vehicles and Plug-in Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes," is being added to this subparagraph.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Subsection 4.4.3

Purpose: The purpose of this subsection is to state that the battery state-of-charge net change tolerance provisions specified in two referenced documents shall not apply for the purpose of compliance with subsection 4.4. The title of one of these documents is being changed from the "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes" to the "California Exhaust Emission Standards and Test Procedures for 2018 through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes". An additional document, the "California Test Procedures for 2026 and Subsequent Model Zero-Emission Vehicles and Plug-in Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes," is being added to this subparagraph.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Subsection 4.4.9

Purpose: The purpose of this amendment is to make it optional, instead of required, for the manufacturer to isolate the refueling canister, during various steps of the test procedure for vehicles with

a non-integrated refueling canister only system. Currently, it is required to isolate the refueling canister during these steps.

Rationale: The amendment to the canister isolation process in response to input from CARB and manufacturer testing personnel. It can be difficult to get to the canister and its associated hoses and connectors on some vehicles, in order to isolate the canister from the fuel tank. In some cases there is concern that staff can get injured doing trying to do so. Some manufacturers prefer to test their vehicle's in the worst case scenario and avoid damaging the vehicle or preventing staff injuries. Worst case scenario meaning leaving the canister connected, instead of isolating it, which may result in more vapors being transferred to the canister to some extent and thus more challenging to pass the emissions test.

Subsection 7

Subsection 7.1

Purpose: The purpose of this amendment is to remove the requirement to measure ethanol in a refueling emission test.

Rationale: The auto industry asked that we align with US EPA and remove the requirement to measure ethanol in refueling emission testing. California gasoline contains 10 percent ethanol. But manufacturers have provided data based on testing with ethanol containing (E10) test fuel which uniformly showed very low ethanol fractions for refueling measurements. Therefore, staff believes this amendment will not affect the accuracy of refueling emission testing.

Section III. Figures illustrating the refueling test procedures

Purpose: The purpose of this amendment is to add figures that outline the refueling test procedure steps. Clarifying language has been added to indicating these figures are intended to be a supplement to the test procedure language, to aid people in understanding the overall flow of the procedure.

Rationale: This amendment adds new flow charts and clarifying language. It is necessary to add the new flow charts to aid people in understanding the overall flow of the refueling test procedure.

List of Changes to Appendix B-6 – "California Non-Methane Organic Gas Test Procedures for 2017 and Subsequent Model Motor Vehicles"

Cover Page

Purpose: This subsection identifies the name of the Division responsible for this test procedure. The proposed amendments update the name to Mobile Source Laboratory Division and its new address.

Rationale: The Division name modification is necessary to identify the specific Division responsible for this test procedure. The Mobile Source Laboratory Division is now responsible for these test procedures, and the office location has been moved from El Monte to Riverside.

Part A, General Applicability and Requirements

Section 3

Purpose: The note under the table has been updated to modify the name of a referenced test procedure and to reference a new test procedure. The title of the referenced document is being changed from the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles". A new test procedure, the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," has also been added as a reference document.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

Section 4

Purpose: This section has been updated to modify the name of a referenced test procedure and to reference a new test procedure. The title of the referenced document is being changed from the "California 2015 and

Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles". A new test procedure, the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," has also been added as a reference document.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to certify 2026 and subsequent model year vehicles.

List of Changes to Appendix B-7 – "California Test Procedures for Evaluating Substitute Fuels and New Clean Fuels in 2015 and Subsequent Years"

Section I.

Subsection I.C Definitions

Definition 7

Purpose: The purpose of the definition for "Light-Duty Test Procedures" to is to provide a simple, clear term to indicate the test procedure that must be used to demonstrate compliance with these test procedures. This definition has been updated to modify the name of a referenced test procedure and to reference a new test procedure. The title of the referenced document is being changed from the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles". A new test procedure, the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," has also been added as a reference document.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to demonstrate compliance for 2026 and subsequent model year vehicles.

Definition 8

Purpose: The purpose of the definition is to specify that this test procedure applies to all vehicles certifying to California's LEV standards. The current definition only includes California LEV II and LEV III standards, set forth in sections 1961 and 1961.2, title 13, CCR. It is necessary to modify this definition to specify that this test procedure also applies to all vehicles certifying to the LEV IV standards in new title 13, CCR, section 1961.4.

Rationale: It is necessary to amend the applicability of this definition to include LEV IV vehicles, because it is the clearest way of including these vehicles in this test procedure.

Section VI.

Subsection VI.A The changes to this subsection are needed to update the vehicle categories that must be tested to demonstrate compliance with these test procedures.

Subsection VI.A.1

Purpose: This subsection has been modified to allow LEV IV vehicles to be eligible for testing candidate fuels.

Rationale: Starting with model year 2026, all new light- and medium-duty vehicles must be certified to LEV IV standards. This change to this subsection is necessary to allow LEV IV vehicles, which will be equipped with the latest emission control technology, to be eligible for testing candidate fuels.

Subsection VI.A.3

Purpose: The purpose of this subsection is to require CARB to maintain estimates of the total emissions from, and total annual miles travelled by, LEV vehicles in the state. This subsection has been modified to include LEV IV vehicles in this requirement.

Rationale: Starting with model year 2026, all new light- and medium-duty vehicles must be certified to LEV IV standards. This change to this subsection is necessary to assess the potential overall emissions impact of using a new or substitute clean fuel in LEV IV vehicles.

Section VIII. *Emission Testing Procedures*

Subsection VIII.A

Purpose: The purpose of this subsection is to specify the test procedures that must be used to perform emission tests to demonstrate compliance with this document. This subsection has been updated to modify the name of a referenced test procedure and to reference a new test procedure. The title of the referenced document is being changed from the “California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent

Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles". A new test procedure, the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," has also been added as a reference document.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to perform emission tests for 2026 and subsequent model year vehicles.

Subsection VIII.F

Purpose: The purpose of this subsection is to specify the test procedure to be used to identify and quantify NMOG species a vehicle's emissions. The title of this document, the "California Non-Methane Organic Gas Test Procedures," has been corrected to the "California Non-Methane Organic Test Procedures for 2017 and Subsequent Model Year Vehicles".

Rationale: It necessary to modify the title of the referenced document, because the document title was changed as part of a 2012 rulemaking.

Section X. *Calculations*

Subsection X.B

Subsection X.B.1

Purpose: The purpose of this subsection is to specify the test procedures that must be used to determine emission rates of CO, NOx, and NMOG, and the emission rate of each toxic pollutant. This subsection has been updated to modify the name of a referenced test procedure and to reference a new test procedure. The title of the referenced document is being changed from the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria

Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles". A new test procedure, the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," has also been added as a reference document.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to measure emission rates for 2026 and subsequent model year vehicles.

Section XI. *Demonstration Regarding Durability*

Subsection XI.A

Purpose: The purpose of this subsection is to specify the test procedures that must be used to evaluate the potential effect of candidate fuels on vehicle durability. This subsection has been updated to modify the name of the referenced test procedure and to reference a new test procedure. The title of the referenced document is being changed from the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" to the "California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles". A new test procedure, the "California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," has also been added as a reference document.

Rationale: It is necessary to amend this subsection to reflect the change to the title of the currently referenced document and to reference an additional test procedure that must be used to evaluate the potential effect of candidate fuels on vehicle durability.