

APPENDIX D1

Purpose and Rationale for Proposed Appendix B1

Appendix B1 - "California 2028 and Subsequent Model Year Exhaust Emission Standards and Test Procedures for On-Road Motorcycles"

California Government Code section 11346.2(b)(1) requires a description of the specific purpose for each proposed adoption, or amendment, the problem the agency intends to address with the proposed regulation, and the rationale for determining that each proposed adoption and amendment is reasonably necessary to both carry out the purposes of the California Air Resources Board (CARB) staff's Proposal and to address the problems for which it is proposed. **Applicable to all sections in this Appendix are the following:**

- It is necessary to create the "California 2028 and Subsequent Model Year Exhaust Emission Standards and Test Procedures for On-Road Motorcycles," in order to clearly identify the applicable requirements for demonstrating compliance with the proposed new exhaust emission standards for 2028 and subsequent model year on-road motorcycles in title 13, section 1958(h) and to identify for the regulated industry important certification and testing requirements.
- The provisions are necessary to ensure California achieves reduced emissions while providing a path for the regulated industry to certify their on-road motorcycles (ONMCs) and to provide clarity to the regulated industry.
- The general summary and rationale and descriptions of necessity in Section V of the Staff Report: Initial Statement of Reason are incorporated into this Appendix and apply to all provisions below.
- The provisions are necessary for CARB to certify motorcycles, as well as implement and enforce the regulatory provisions. The test procedures are necessary to ensure consistency amongst manufacturers, fairness, and to identify any motorcycles that would fail emission standards.
- Where CARB indicates it is necessary to incorporate a provision from the CFR but then indicates that it is [n/a] (not applicable), it is done because manufacturers want consistency with the CFR and when they see provisions missing, there has been confusion in the past on other regulations that have similar structures (light duty/medium duty). The goal being to keep the CFR

structure in place, but let manufacturers know what does not apply. This is necessary for clarity to the manufacturer.

- All timeframes were chosen to achieve consistency with similar provisions in the federal provisions, light duty and medium duty regulations. They were also chosen to provide the regulated industry with sufficient time to submit information or take certain actions while balancing CARB's need to receive information, engage in certification activities, and implement the regulations.
- One of the overarching rationales for all provisions below was to harmonize with federal and EU provisions to the extent allowed, which aimed to make things easier for the regulated industry and also applies to all rationales below. These test procedures continue the practice of incorporating federal test procedures (Title 40, Code of Federal Regulations or "CFR") for California emission standards that are of the same kind, but not identical to federal emission standards. In addition, the regulated industry also complies with the EU standards. It is necessary to incorporate these federal testing provisions along with the EU standards because they provide a means of determining compliance with California's standards while minimizing costs and burdens from duplicative or cumulative test procedures.
- It is also necessary to incorporate the FTP specifically because all of the other CARB vehicles test procedures (light duty and medium duty) incorporate similar provisions, so incorporating these provisions allows CARB to maintain consistency in its regulatory approach in relation to vehicle certifications.
- Last, CFR and EU standards must be incorporated by reference because they are too voluminous to copy and paste.

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.

Introductory Paragraphs

Purpose: The purpose of the introductory paragraphs is to provide an overview of where the requirements set forth in these test procedures come

from – the European Union and U.S. Environmental Protection Agency federal test procedures. Further, documents referenced throughout this test procedure are identified and incorporated by reference here.

Rationale: These paragraphs are necessary to provide notice to regulated industry on the documents that are being incorporated into the Test Procedures and to alert regulated industry of the combined elements from U.S. EPA and the EU’s requirements, which are well known by the regulated industry.

Part I. Subpart A. General Applicability

Sections 1 and 2 and 3

Purpose: The purpose of these sections is to clearly state that the requirements set forth in these test procedures apply to 2028 and subsequent model year on-road motorcycles, except for zero-emission motorcycles, subject to the phase-in schedule of title 13, CCR, section 1958(h)(5).

Rationale: These sections are necessary because on-road motorcycles that are certified in California prior to model year 2028 are not required to comply with the exhaust emission standards and test procedures in title 13, CCR, section 1958(h) or with the requirements contained in these test procedures. The reason the 2028 model year was chosen is identified in section V of the ISOR’s general summary and rational of major provisions.

Sections 4

Subsections 4.1 and 4.2

Purpose: The purpose of these subsections is to incorporate 40 CFR §§ 86.404-78 and 86.504-78 into these test procedures. Both 40 CFR §§ 86.404-78 and 86.504-78 describe the section numbering convention used in the CFR, Subpart E and Subpart F, respectively. These sections of the federal provisions explain the section numbering convention that is used in these test procedures and the construction of these test procedures so as to alert the regulated industry of how to read the provisions.

Rationale: This section is necessary in order for the regulated industry to understand and implement to incorporated CFR sections in Subpart E and Subpart F that are incorporated into these test procedures. This section is intended to provide clarity to the regulated industry so there is no confusion over how to read the provisions.

Subsection 4.3

Purpose: The purpose of this subsection is to explain the section numbering convention employed in these test procedures, in order of priority.

Rationale: This subsection is necessary for the regulated industry to understand and implement these test procedures and to understand where things differ from the incorporated provisions. This section is intended to provide clarity to the regulated industry so there is no confusion over which provisions apply.

Subsection 4.4

Purpose: The purpose of this subsection is to explain that in cases where the entire CFR section (including all subsections) or a section in a European Union test procedure (including all subsections) is incorporated by reference with no modifications, the notation “[No change.]” is used. In cases where there are no changes to the CFR language or to the European Union test procedure language but there are additional California requirements, the notation “[No change.]” is used and the additional California requirements are then noted in a separate subsection.

Rationale: This subsection is necessary for the regulated industry to understand the construction and implement these test procedures. This section is intended to provide clarity to the regulated industry so there is no confusion over how to read the procedures and to understand where California’s test procedures differ from the EU and CFR. This will reduce non-compliance.

Subsection 4.5

Purpose: The purpose of this subsection is to explain that the notation “[n/a]” indicates that the subject matter of the federal or European Union regulation does not apply to California on-road motorcycles.

Rationale: This subsection is necessary for the regulated industry to understand and implement these test procedures.

Subsection 4.6

Purpose: The purpose of this subsection is to explain that the notation “Delete” means that the section (including all subsections) does not apply. The notation “Delete; Replace with the following” means to delete the text of that section (and delete all subsections) and replace with language provided.

Rationale: This subsection is necessary for the regulated industry to understand and implement these test procedures.

Subsection 4.7

Purpose: The purpose of this subsection is to explain that notation “Amend as follows” means that the text set forth in these test procedures has been modified from the text that appears in the incorporated section of the CFR or European Union regulation, as noted.

Rationale: This subsection is necessary to for the regulated industry to understand and implement these test procedures.

Part I. Subpart B. Definitions, Acronyms and Abbreviations

Section 1

Purpose: The purpose of this section is to incorporate the CFR definitions into these test procedures.

Rationale: This section is necessary in order for the regulated industry to understand and implement these test procedures.

Subsections 1.1, 1.2, and 1.3

Purpose: The purpose of these subsections is to incorporate the definitions set forth in CFR sections § 86.402-78, § 86.402-98, and § 86.502-78 into these test procedures.

Rationale: It is necessary to incorporate these CFR sections into these test procedures to harmonize and provide consistency between the definitions used in these test procedures and the definitions used for federal vehicle certification.

Subsections 1.4 and 1.5

Purpose: The purpose of these subsections is to incorporate the most recent definitions set forth in “European Union Regulation No. 168/2013 of the European Parliament and of the Council, consolidated version 14/11/2020 (168/2013), Chapter I, Article 3” and “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014), Chapter I, Article 2” into these test procedures.

Rationale: It is necessary to incorporate the definitions in these European Union documents into these test procedures to harmonize and provide consistency between the definitions used in these test procedures and the definitions used for European vehicle certification so the regulated industry understands what certain provisions mean and can delineate what provisions apply.

Section 1.6

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

Rationale: This section is necessary in order for the regulated industry to understand and implement these test procedures. It is necessary for the regulated industry to understand what certain provisions mean and can delineate what provisions apply, as they apply to the California additional provisions.

Section 2

Purpose: The purpose of this section is to incorporate acronyms and abbreviations into these test procedures.

Rationale: This section is necessary in order to understand and implement these test procedures with an understanding of the acronyms and ease of reading.

Subsection 2.1 and 2.2

Purpose: The purpose of these subsections is to incorporate the most recent acronyms and abbreviations set forth in CFR §§ 86.403-78 and 86.503-78 into these test procedures.

Rationale: These subsections are necessary to provide consistency between the acronyms and abbreviations used in these test procedures and the acronyms and abbreviations used for federal vehicle certification, which is necessary to implement these test procedures.

Subsection 2.3

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

Rationale: This section is necessary in order for the regulated industry to understand and implement these test procedures. This is necessary so the regulated industry understands the provisions and for ease of reading.

Part I. Subpart C. General Requirements for Certification

Section 1

Purpose: The purpose of this section is to define the useful life for the classes of motorcycles that are subject to the requirements of these test procedures.

Rationale: This section is necessary to clearly establish the number of years and accumulated miles over which the requirements set forth in these test procedures will apply. This is necessary for the regulated industry to be able to accurately comply with the test procedures, receive certification, and for enforcement of the test procedures.

Section 2

Purpose: The purpose of this section is to establish on-board diagnostics (OBD) requirements for on-road motorcycles that are subject to these test procedures.

Rationale: This section is necessary to provide notice to the regulated industry that there are OBD system requirements for Class I and Class II motorcycles and that all 2028 and subsequent model year Class III motorcycles shall be subject to the provisions of sections 1958.2 and 1958.3, title 13, CCR. (No vehicle shall be certified unless the Executive Officer finds that the vehicle complies with the requirements of section 1958.2, title 13, CCR, which requires OBD for 2028 and subsequent model years (MY).) This is necessary for the regulated industry to be able to accurately comply with the regulatory and test procedures, receive certification, and for enforcement of the test procedures and regulation.

Section 3

Subsection 3.1

Purpose: The purpose of this section is to incorporate CFR § 86.405-78 into these test procedures with no changes. CFR § 86.405-78 clearly states that the requirements contained in the CFR that are incorporated into these test procedures have been written using System International (SI) units.

Rationale: This section is necessary to understand and implement the incorporated CFR sections and that compliance will be determined using System International (SI) units. This is necessary to ensure consistency and fairness in implementation because different countries utilize different systems of measurement.

Section 4

Subsections 4.1.1, 4.1.2, 4.1.3, and 4.1.4

Purpose: The purpose of this section is to incorporate CFR § 86.406-78 into these test procedures, with amendments that are specific to California vehicle certification. CFR § 86.406-78 sets forth an introduction, structure of the subpart, and further information (such as where to send the information). The additional California specific amendment is intended to add to the general standards relating to the type of information the manufacturer must submit and provides a different address for submitting all the information. The California specific amendment maintains the same provisions of the CFR with small changes, such as that the Executive Officer (not the Administrator) will select vehicles that represent the manufacturer's production line, and run their own tests to confirm results, and the additional labeling

requirements (must include tune up specifications) and the purchaser must be supplied with maintenance instructions. Also, that the Administrator may require testing to demonstrate continued compliance. These are carry overs from the CFR.

Rationale: This section is necessary for the regulated industry to understand and implement the incorporated CFR sections. The California-specific revisions are necessary to provide CARB with necessary information needed to determine compliance with California regulations. Examples of these revisions include the request for California sales numbers instead of federal sales numbers, exchange the Administrator for the Executive Officer, and the addition of a CARB contact and address where certification information must be sent. This information is necessary to expeditiously process the applications.

Section 5

Subsection 5.1

Purpose: The purpose of this section is to incorporate CFR § 86.407-78 into these test procedures. CFR § 86.407-78 clearly state that any new motorcycle that is manufactured for sale, sold, offered for sale, introduced or delivered for introduction into commerce, or imported into the United States must be covered by a certificate of conformity issued by U.S. EPA.

Rationale: In the “Definitions” section of these test procedures, a federal “certificate of conformity” has been defined as CARB certification (which comes in the form of an Executive Order). It is necessary to incorporate CFR § 86.407-78, in addition to the new definition, into these test procedures to require that any new motorcycle sold in California must be certified by CARB. Certification is necessary to ensure CARB achieves emission reductions to reduce air pollution and achieve the health benefits associated with reduced air pollution, which is described in detail in the Staff Report, section VI.

Section 6

Subsection 6.1

Purpose: The purpose of this section is to incorporate CFR § 86.408-78 into these test procedures. CFR § 86.408-78 establishes requirements for “General standards; increase in emissions; unsafe conditions.” These provisions include requirements that prohibit any system installed on or incorporated in a new motorcycle for the purpose of controlling emissions from emitting noxious or toxic substances or from creating unsafe conditions for the rider. They also require manufacturers to ensure that any adjustment to the vehicle to compensate for changing

altitude do not cause the motorcycle's emissions to exceed applicable standards.

Rationale: It is necessary to incorporate CFR section CFR § 86.408-78 into these test procedures to ensure that the protections to riders and the environment that apply to federally-certified motorcycles also apply to California-certified motorcycles as well as to harmonize with the federal requirements.

Section 7

Subsection 7.1

Purpose: The purpose of this section is to incorporate CFR § 86.409-78 into these test procedures. CFR § 86.409-78 prohibits any new motorcycle from being equipped with a defeat device, which is defined in subsection (b) of CFR § 86.409-78. It is amended to replace "Federal" with "State" in subsection (b)(2)(i) in relation to the emission test procedures.

Rationale: It is necessary to incorporate CFR § 86.409-78 into these test procedures to ensure that new motorcycles sold in California are not equipped with a defeat device because they delay or reduce the effectiveness of emission control systems, thereby causing harmful emissions. The change to (b)(2)(i) is necessary to change "Federal" with "State" to ensure the regulated industry understands they are complying with state emission test procedures.

Section 8

Subsection 8.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.411-78 into these test procedures. CFR § 86.411-78 requires a manufacturer to furnish or cause to be furnished to the ultimate purchaser of each new motorcycle the written instructions for the periodic and anticipated maintenance and use of the vehicle by the ultimate purchaser as may be reasonable and necessary to assure the proper functioning of emission control systems for the vehicle's useful life.

Rationale: It is necessary to incorporate CFR § 86.411-78 into these test procedures to ensure that manufacturers provide all of the necessary maintenance instructions and requirements to the motorcycle purchaser to inform the purchaser of what is required of them in order ensure proper functioning of the emission control system for the useful life of the ONMC.

Subsection 8.2

Purpose: The purpose of this subsection is to incorporate CFR § 86.412-78 into these test procedures, with amendments that are specific to California vehicle certification. CFR § 86.412-78 requires a manufacturer to provide to the Administrator, at least 30 days before being supplied to the ultimate purchaser, a copy of the maintenance instructions which the manufacturer proposes to supply to the ultimate purchaser as required by CFR § 86.411-78. It also requires the manufacturer to provide to the Administrator other information, such as sales brochures, instructions, etc.

Rationale: It is necessary to incorporate CFR § 86.412-78 into these test procedures to ensure that manufacturers provide CARB with all of the necessary maintenance instructions and requirements that are provided to the motorcycle purchaser and to U.S. EPA. This provision is necessary to ensure that manufacturers are complying with the language requirements for the instructions. The amendments to this section (300 units as opposed to 10,000 units) is necessary to provide CARB with California-specific sales numbers, which are used to determine if a manufacturer qualifies as a small volume manufacturer.

Section 9

Subsection 9.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.413-2006 into these test procedures. CFR § 86.413-2006 contains the federal labeling requirements for new motorcycles.

Rationale: It is necessary to incorporate CFR § 86.413-2006 into these test procedures to provide vehicle owners with important 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). It is also necessary to provide the parameters of what the label must look like and how it should be affixed, which is important to provide consistency amongst manufacturers, for the ultimate purchaser (or anyone servicing or maintaining the ONMC) to be able to know where to find the label, and for enforcement of the regulations.

Section 10

Subsection 10.1

Purpose: The purpose of this section is to incorporate CFR § 86.414-78 into these test procedures. CFR § 86.414-78 requires that, upon request by the Administrator, the manufacturer of any motorcycle covered by a

certificate of conformity shall identify within 30 days the vehicle(s) covered by the certificate of conformity by vehicle identification number (VIN) as well any VIN number coding systems.

Rationale: It is necessary to incorporate CFR § 86.414-78 into these test procedures to require motorcycle manufacturers to provide CARB with the vehicle(s) covered by an Executive Order by vehicle identification numbers. This information is necessary for keeping track of the number and types of motorcycles sold in California, which goes into emission calculations as well as enforcement of the regulations.

Section 11

Subsections 11.1.1 and 11.1.3

Purpose: The purpose of this section is to incorporate CFR § 86.415-78 (a) and (c) into these test procedures. CFR § 86.415-78 (a) requires any manufacturer obtaining certification to provide production vehicles to the Administrator for compliance testing upon request. This section also requires manufacturers to submit a report every year within 45 days after the end of the model year that shows the number of vehicles of each engine family-engine displacement-emission control system-fuel system-transmission type-inertial mass category combination produced for sale during the preceding year. CFR § 86.415-78(c) requires the manufacturer to adjust the ignition timing specifications detailed in section 86.413 prior to delivery to the ultimate purchaser.

Rationale: It is necessary to incorporate CFR § 86.415-78 into these test procedures to enable CARB to verify manufacturer compliance with applicable certification requirements and to enforce noncompliance. The 45-day timeframe is appropriate to align with the federal requirements, and other CARB regulations.

Subsection 11.1.2

Purpose: The purpose of this subsection is to incorporate CFR § 86.415-78 (b) into these test procedures, with amendments that are specific to California vehicle certification. The California requirements are identical to the federal requirements in all aspects, except: (1) the U.S. EPA contact and address where manufacturers must send information has been changed to a CARB electronic submittal system, and (2) the request for total U.S. sales data has been changed to a request for California-only sales data. The requirement in CFR § 86.415-78 (b) that this report must be submitted every year within 45 days after the end of the model year is changed to April 1 of each calendar year.

Rationale: This subsection is necessary to specify the California-specific requirements that must be met by manufacturers that certify motorcycles for sale in California. The requirement that a report must be submitted every year no later than April 1 of each calendar year is to align with other CARB data submittal requirements for manufacturers, thereby eliminating unnecessary cost and compliance complexity to manufacturers. Sales reports will be submitted electronically to CARB's E-File system, which is already being used for the annual sales report currently required under existing regulations.

Section 12

Subsection 12.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.416-80 into these test procedures. CFR § 86.416-80 describes the information that must be submitted by a manufacturer as part of the application for certification.

Rationale: The section is necessary so manufacturers that want to sell new motorcycles in California know how to submit an application for certification and can demonstrate that the vehicles meet all applicable California regulations. This section is necessary for CARB to ensure that the vehicles meet all applicable California regulations prior to issuance of an Executive Order, which allows the vehicles to be legally sold in California, and ultimately to ensure emission reductions to achieve health benefits. It is also necessary to allow manufacturers to submit the same information that is required for federal vehicle certification, which harmonizes the state and federal regulations and test procedures.

Subsection 12.1.1

Purpose: The purpose of this subsection is to delete the requirements in CFR § 86.416-80 (a) and replace them with requirements that are specific to California vehicle certification. CFR § 86.416-80 (a) states that new motorcycles produced by a manufacturer whose projected sales is 10,000 or more units (for the model year in which certification is sought) are covered by the requirements in subparagraphs (a)(1) through (a)(4). The threshold of 10,000 or more units sales has been changed to 300 or more units.

Rationale: These changes are necessary to reflect the lower volume of motorcycles sold in California than in the United States as a whole.

Subsection 12.1.1.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.416-80 (a)(1) through (a)(4) into these test procedures. CFR §§ 86.416-80 (a)(1) through (a)(4) describes the information that must be submitted by a manufacturer as part of the application for certification.

Rationale: It is necessary to incorporate CFR §§ 86.416-80 (a)(1) through (a)(4) into these test procedures to ensure that CARB receives the necessary information so CARB can confirm a manufacturer's compliance with applicable California regulations as well as act in a timely manner on applications for certification.

Subsection 12.1.2

Purpose: The purpose of this subsection is to delete the requirements in CFR § 86.416-80 (b) and replace them with requirements that are specific to California vehicle certification. CFR § 86.416-80 (b) states that new motorcycles produced by a manufacturer whose projected sales in the United States is 10,000 or more units (for the model year in which certification is sought) are covered by the requirements in subparagraphs (b)(1) and (b)(2). The threshold of 10,000 or more units sold in the United States sales has been changed to 300 or more units sold in California.

Rationale: These changes are necessary to reflect the lower volume of motorcycles sold in California than in the United States.

Subsection 12.1.2.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.416-80 (b)(1) and (b)(2) into these test procedures. CFR §§ 86.416-80 (b)(1) and (b)(2) describes the information that must be submitted by a small volume manufacturer as part of the application for certification.

Rationale: It is necessary to incorporate CFR §§ 86.416-80 (b)(1) and (b)(2) into these test procedures to ensure that CARB receives the necessary information to ensure a small volume manufacturer's compliance with applicable California regulations.

Subsection 12.1.3

Purpose: The purpose of this subsection is to incorporate CFR §§ 86.416-80 (c) through (f) into these test procedures. CFR §§ 86.416-80 (c) through (f) set forth certification procedures that will allow a manufacturer to obtain vehicle certification.

Rationale: It is necessary to incorporate CFR §§ 86.416-80 (c) through (f) into these test procedures to provide the procedures for certification and allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 12.2

Purpose: The purpose of this subsection is to require that manufacturers provide with the application for certification all information required in accordance with Chapter IV, Article 27 of the European Union Regulation No. 168/2013 of the European Parliament and of the Council, consolidated version 14/11/2020 (168/2013) and to specify that, unless otherwise approved by the Executive Officer, this information shall be provided as described in Commission Implementing Regulation (EU) No 901/2014, consolidated version 12/03/2020.

Rationale: It is necessary for manufacturers to provide CARB with the information specified in these documents in order obtain information necessary to make a determination and to ensure compliance with the European test procedures, incorporated into Part II of these test procedures.

Subsections 12.2.1 through 12.2.3

Purpose: The purpose of these subsections is to specify the minimum information that must be submitted to CARB along with the application for certification.

Rationale: These subsections are necessary to ensure that manufacturers know the exact minimum information that must be provided to CARB in order for a certification to be granted. This information is necessary for CARB to be able to make a determination that motorcycles meet the applicable emission requirements.

Section 13

Subsection 13.1

Purpose: The purpose of this section is to incorporate CFR § 86.417-78 into these test procedures. CFR § 86.417-78 identifies deficiencies in an application for certification that may result in denial of certification. These deficiencies include: incompleteness, inaccuracy, inappropriate proposed distance accumulation procedures, maintenance, test equipment, label content or location,

fuel or lubricant, and incorporation of defeat devices in vehicles described by the application.

Rationale: It is necessary to incorporate CFR § 86.417-78 into these test procedures to affirm that the deficiencies in an application that may result in the denial of federal certification may also result in the denial of California certification. This is necessary to ensure that applications are timely approved, manufacturers understand what to do and what not to do, and for enforceability of the regulations.

Part I. Subpart D. Demonstration of Compliance with Emission Standards

Section 1

Subsection 1.1

Purpose: The purpose of this section is to incorporate CFR § 86.418-78 into these test procedures, with amendments that are specific to California. CFR § 86.418-78 describes the process that a manufacturer must use to select its test fleet selection on which to demonstrate compliance with applicable emission standards. CFR § 86.418-78 (a) allows a manufacturer to request that it be allowed to test only one vehicle per engine family for engine families with fewer than 5,000 annual sales for the purpose of certification. For California, the 5,000 annual sales limit is being changed to 300 annual sales in California.

Rationale: It is necessary to incorporate CFR § 86.418-78 into these test procedures to ensure manufacturers understand the process for selecting test fleets. The amendment to the CFR is necessary to change the 5,000 annual sales limit to 300 annual sales in California to reflect the fewer number of vehicles that are sold in California.

Section 2

Subsection 2.1

Purpose: The purpose of this section is to incorporate CFR § 86.419-2006 into these test procedures. CFR § 86.419-2006 describes the method for calculating motorcycle engine displacement. Motorcycles are divided into classes and subclasses based on engine displacement. The class and subclass of a motorcycle determines the emission standards and additional accompanying certification requirements that apply to the vehicle.

Rationale: It is necessary to incorporate CFR § 86.419-2006 into these test procedures to identify the method for calculating motorcycle engine displacement while allowing for harmonization

with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Section 3

Subsection 3.1

Purpose: The purpose of this section is to incorporate CFR § 86.420-78 into these test procedures. CFR § 86.420-78 specifies that the vehicles covered in an application for certification must be divided into groupings whose engines are expected to have similar emission characteristics throughout their useful life. Each group of engines with similar emission characteristics shall be defined as a separate engine family. CFR § 86.420-78 specifies the characteristics of a group of engines that must be identical in order to be classed in the same engine family.

Rationale: It is necessary to incorporate CFR § 86.420-78 into these test procedures to organize certifications by engine groupings to allow for a systematic way to certify motorcycles and allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Section 4

Subsection 4.1

Purpose: The purpose of this section is to incorporate CFR § 86.421-78 into these test procedures. CFR § 86.421-78 establishes the criteria to select test vehicles that a manufacturer must test to demonstrate compliance with applicable emission standards. These vehicles are chosen to represent each engine-displacement-system combination. The configuration (engine calibration, transmission, drive ratio, mass, options, etc.) in the manufacturer's application which has the greatest probability of exceeding the standards will be selected.

Rationale: It is necessary to incorporate CFR § 86.421-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers while also providing testing criteria to ensure emission standards are met.

Section 5

Subsection 5.1

Purpose: The purpose of this section is to incorporate CFR § 86.422-78 into these test procedures. CFR § 86.422-78 allows the

Administrator to test additional vehicles, in addition to those tested by the manufacturer under CFR § 86.421-78 in order to confirm the manufacturer's compliance with applicable emission standards.

Rationale: It is necessary to incorporate CFR § 86.422-78 into these test procedures to allow CARB to also test additional vehicles, in addition to those tested by the manufacturer under CFR § 86.421-78 in order to confirm the manufacturer's compliance with applicable emission standards. It is necessary to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers while also providing confirmatory testing to ensure emission standards are met.

Section 6

Subsection 6.1

Purpose: The purpose of this section is to incorporate CFR § 86.423-78 into these test procedures. A "deterioration factor" is a calculated or assigned number that represents the certification engine's emissions change over the durability period. CFR § 86.423-78 establishes the process for testing vehicles that must be followed by a manufacturer to determine applicable deterioration factors for motorcycle engines.

Rationale: It is necessary to incorporate CFR § 86.423-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers. The deterioration factor is necessary to ensure that motorcycles are durable.

Section 7

Purpose: The purpose of this section is to incorporate CFR § 86.425-78 into these test procedures. CFR § 86.425-78 identifies the test procedures that must be followed by a manufacturer to demonstrate compliance with emission standards.

Rationale: It is necessary to incorporate CFR § 86.425-78 into these test procedures, with amendments that are specific to California vehicle certification, to identify the test procedures that must be followed by a manufacturer to demonstrate compliance with California emission standards. Determining compliance is necessary to ensure CARB achieves the emission benefits as identified in the Staff Report.

Subsection 7.1

Subsection 7.1.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.425-78 (a) into these test procedures, with amendments that are specific to California vehicle certification. CFR § 86.425-78 (a) states where in the CFR motorcycle emission test procedures are found.

Rationale: This subsection is necessary to replace the language in CFR § 86.425-78 (a) that identifies where in the CFR motorcycle emission test procedures are found with language that identifies the motorcycle emission test procedures that must be followed by a manufacturer to demonstrate compliance with California emission standards. This provides clarity to the regulated industry and ensures the test procedures are being followed.

Subsection 7.1.2

Purpose: The purpose of this subsection is to delete CFR § 86.425-78 (b) from these test procedures. CFR § 86.425-78 (b) allows U.S. EPA to prescribe emission test procedures for any motorcycle which it determines is not susceptible to satisfactory testing.

Rationale: This subsection is necessary to delete and replace with California specific references to these test procedures and the evaporative test procedures in TP-934, to allow CARB to also prescribe emission test procedures for any motorcycle which CARB determines is not susceptible to satisfactory testing. This provision is necessary to ensure emission benefits.

Subsection 7.1.3

Purpose: The purpose of this subsection is to delete and replace CFR § 86.425-78 (c) from these test procedures, with amendments that are specific to California vehicle certification. CFR § 86.425-78 (c) prohibits testing of any type with respect to any test vehicle other than that specified in CFR as applicable for vehicle certification, except as specifically authorized by U.S. EPA.

Rationale: This subsection is necessary to replace the prohibitions in CFR § 86.425-78 (c) with language that allows additional testing to be performed if it is required to obtain European Union Type Approval or U.S. EPA Certificate of Conformity. This change is necessary, because for the 2028 and subsequent model years, exhaust emission regulations for California motorcycles will be based on European Union test procedures. The added California-specific language allows a manufacturer to use a single test bike to certify a vehicle model for sale in just the U.S. (i.e., meeting both CARB and U.S. EPA testing requirements) or in just California and the European Union.

Section 8

Purpose: The purpose of this section is to establish the procedure for service accumulation, which is used to demonstrate compliance with applicable emission standards at the full useful life of the vehicle.

Rationale: It is necessary to establish a procedure for service accumulation, to ensure compliance with applicable emission standards at the full useful life of the vehicle.

Subsection 8.1

Purpose: The purpose of this subsection is to clearly state that service accumulation must be performed on all test vehicles using one of the options outlined in Part I, section D.8.3, at the manufacturer's discretion.

Rationale: This subsection is necessary to ensure that manufacturers know that CARB allows the manufacturer to use more than one service accumulation method to effectively predict the deterioration of emissions in actual use over the full useful life of a vehicle.

Subsection 8.2

Purpose: The purpose of this subsection is to establish the applicable durability distances for model year 2028 and later, regardless of which service accumulation option is selected by the manufacturer.

Rationale: This subsection is necessary to ensure that vehicles comply with applicable exhaust emission standards in actual use over the full useful life of a vehicle.

Subsection 8.3

Purpose: The purpose of this subsection is to list the four options that a manufacturer may use for service accumulation.

Rationale: It is necessary to list the four options that a manufacturer may use for service accumulation, to ensure compliance with applicable emission standards at the full useful life of the vehicle while providing manufacturers with flexibility.

Subsection 8.3.1

Purpose: The purpose of this section is to incorporate CFR § 86.426-78 into these test procedures, as Option 1. CFR § 86.426-78 establishes the procedure for service accumulation, which is used to demonstrate compliance with applicable emission standards at the full useful life of the vehicle.

Rationale: It is necessary to incorporate CFR § 86.426-78 into these test procedures as Option 1 to allow harmonization with federal

regulations, except as otherwise noted, thereby eliminating unnecessary cost and compliance complexity to manufacturers while providing flexibility.

Subsection 8.3.2

Purpose: The purpose of this subsection is to establish Option 2 as “Actual durability testing with full mileage accumulation, as described in European Union Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018, Annex VI, section 3.1.”

Rationale: This subsection is necessary to allow an Option 2 that harmonizes with European Union regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers while providing flexibility.

Subsection 8.3.3

Purpose: The purpose of this subsection is to establish Option 3 as “Actual durability testing with partial mileage accumulation, as described in European Union Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018, Annex VI, section 3.2.”

Rationale: This subsection is necessary to allow an Option 3 that harmonizes with European Union regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers while providing flexibility.

Subsection 8.3.4

Purpose: The purpose of this subsection is to establish Option 4 as “Bench aging durability test, as described in European Union Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018, Annex VI, section 3.6, and Appendix III, and Appendix IV.”

Rationale: This subsection is necessary to allow an Option 4 that harmonizes with European Union regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers while providing flexibility.

Subsection 8.4

Purpose: The purpose of this subsection is to state that when using either the full or partial mileage accumulation options, the required mileage shall be accumulated using either the U.S. EPA Durability Driving Schedule for Motorcycles or the Standard Road Cycle for L-Category Vehicles.

Rationale: This subsection is necessary in order to understand and implement these test procedures while providing flexibility.

Section 9

Purpose: The purpose of this section is to establish general requirements for performing a valid certification emission test.

Rationale: It is necessary to establish general requirements for performing a valid certification emission test in order to ensure manufacturers comply with applicable emission regulations.

Subsection 9.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.427-78 into these test procedures, with amendments that are specific to California vehicle certification. CFR § 86.427-78 establishes general requirements for performing a valid certification emission test when a manufacturer uses Option 1 service accumulation. This subsection replaces "Table 1 to § 86.427-78 - Test Specifications by Displacement Class" with a new "Table 1 to § 86.427-78 - California Test Specifications by Displacement Class."

Rationale: It is necessary to incorporate CFR § 86.427-78 into these test procedures, with amendments that are specific to California vehicle certification, in order to establish general requirements for performing a valid California certification emission test when a manufacturer uses Option 1 service accumulation in order to ensure manufacturers comply with applicable emission regulations.

Subsection 9.2

Purpose: The purpose of this subsection is to establish general requirements for performing a valid California certification emission test when a manufacturer uses Option 2 service accumulation.

Rationale: It is necessary to establish general requirements for performing a valid California certification emission test when a manufacturer uses Option 2 service accumulation in order to ensure manufacturers comply with applicable emission regulations.

Subsection 9.3

Purpose: The purpose of this subsection is to establish general requirements for performing a valid California certification emission test when a manufacturer uses Option 3 service accumulation.

Rationale: It is necessary to establish general requirements for performing a valid California certification emission test when a

manufacturer uses Option 3 service accumulation in order to ensure manufacturers comply with applicable emission regulations.

Subsection 9.4

Purpose: The purpose of this subsection is to establish general requirements for performing a valid California certification emission test when a manufacturer uses Option 4 service accumulation.

Rationale: It is necessary to establish general requirements for performing a valid California certification emission test when a manufacturer uses Option 4 service accumulation in order to ensure manufactures comply with applicable emission regulations.

Section 10

Subsection 10.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.428-80 into these test procedures. Periodic maintenance on the engine, emission control system, and fuel system of test vehicles must be scheduled for performance at the same distance intervals that will be specified in the manufacturer's maintenance instructions furnished to the ultimate purchaser. Such maintenance shall be performed only under the provisions set forth in CFR § 86.428-80.

Rationale: It is necessary to incorporate CFR § 86.428-80 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 10.1.1

Purpose: The purpose of this subsection is to incorporate CFR §§ 86.428-80 (a) through (g) into these test procedures. CFR §§ 86.428-80 (a) requires that periodic maintenance on the engine, emission control system, and fuel system of test vehicles be scheduled for performance at the same distance intervals that will be specified in the manufacturer's maintenance instructions furnished to the ultimate purchaser. CFR §§ 86.428-80 (b) through (g) sets forth provisions under which such maintenance shall be performed.

Rationale: It is necessary to incorporate CFR §§ 86.428-80 (a) through (g) into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 10.1.2

Purpose: The purpose of this subsection is to incorporate CFR § 86.428-80 (h) into these test procedures, with amendments that are

specific to California vehicle certification. CFR § 86.428-80 (h) states that complete emission tests are required in accordance with federal CFR requirements, unless waived by U.S. EPA, before and after any vehicle maintenance which may reasonably be expected to affect emissions. For California certification of 2028 and subsequent model year motorcycles, manufacturers will be required to test motorcycles in accordance with a European Union test procedure, which is incorporated by reference into these test procedures. This subsection has been modified to state that complete emission tests are required in accordance with the incorporated European Union test procedure requirements, unless waived by CARB, before and after any vehicle maintenance which may reasonably be expected to affect emissions.

Rationale: This subsection is necessary to reflect California's regulatory requirements for the 2028 and subsequent model years so as to achieve emission benefits.

Subsection 10.2

Purpose: The purpose of this subsection is to incorporate CFR § 86.429-78 into these test procedures. Any unscheduled engine, emission control system, or fuel system adjustment, repair, removal, disassembly, cleaning, or replacement on vehicles shall be performed only with the advance approval of the U.S. EPA. CFR § 86.429-78 sets forth the criteria that will be used by U.S. EPA to evaluate the appropriateness of the unscheduled maintenance and grant approval or disapproval.

Rationale: It is necessary to incorporate CFR § 86.429-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers. It is necessary to describe what maintenance activities are allowed during certification testing so the motorcycles being tested are maintained in the same manner that they would typically be maintained by their owners during normal usage. Limiting maintenance activities during certification testing helps to ensure that the motorcycle being tested is truly representative of production motorcycles of the same make and model as will be sold into California after certification.

Section 11

Purpose: The purpose of this section is to incorporate CFR § 86.430-78 into these test procedures. CFR § 86.430-78 states that "Any test vehicle which incurs major mechanical failure necessitating disassembly of the engine shall not be used as a test vehicle. This prohibition does not apply to

failures occurring after the completion of all required tests at the total test distance.”

Rationale: It is necessary to incorporate CFR § 86.430-78 into these test procedures to prohibit the certification testing of vehicles that do not operate properly and are, therefore, non-representative of new vehicles that will be sold in California.

Section 12

Subsection 12.1

Purpose: The purpose of this section is to incorporate CFR § 86.431-78 into these test procedures. CFR § 86.431-78 specifies the data that must be submitted by a manufacturer to demonstrate compliance with applicable emission standards.

Rationale: It is necessary to incorporate CFR § 86.431-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers while providing the information necessary for CARB to make a determination on compliance with applicable emission standards.

Subsection 12.1.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.431-78 (a) into these test procedures, with amendments that are specific to California vehicle certification. CFR § 86.431-78 (a) requires all manufacturers other than small volume manufacturers to submit data from all tests (including voided tests) performed by that manufacturer in the application for certification. U.S. EPA reviews this data to determine that voiding the test was appropriate. If U.S. EPA does not agree that a test should have been voided, they may require that the data from that test be used in the calculation of the deterioration factor for emissions. This subsection has been modified to remove the waiver of these requirements for small volume manufacturers.

Rationale: This subsection is necessary to allow CARB to verify the appropriateness of the deterioration factors that are calculated by all manufacturers, prior to approving their use by the manufacturer.

Subsection 12.1.2

Purpose: The purpose of this subsection is to incorporate CFR §§ 86.431-78 (b) through (e) into these test procedures. CFR §§ 86.431-78 (b) through (e) establish requirements for certification data that a manufacturer must submit in order to receive certification.

Rationale: It is necessary to incorporate CFR §§ 86.431-78 (b) through (e) into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers while providing CARB with the necessary information to make a determination of compliance with the emission standards.

Section 13

Subsection 13.1

Purpose: The purpose of this section is to incorporate CFR § 86.432-78 into these test procedures. CFR § 86.432-78 describes how deterioration factors must be developed for each test vehicle using the emission test results measured under the provisions of CFR § 86.423-78.

Rationale: It is necessary to incorporate CFR § 86.432-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 13.1.1

Purpose: The purpose of this subsection is to incorporate CFR §§ 86.432-78 (a) through (e) into these test procedures. CFR §§ 86.432-78 (a) through (e) describe the procedure for developing deterioration factors.

Rationale: It is necessary to incorporate CFR §§ 86.431-78 (a) through (e) into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 13.1.2

Purpose: The purpose of this subsection is to clearly state that CFR § 86.432-78 (f) does not apply in California and to replace the language contained therein with a reference to title 13, CCR, section 1958(c)(3). CFR § 86.432-78 (f) establishes a federal requirements for allowing a manufacturer to apply an outlier test point procedure to completed durability data within its certification testing program for a given model year. For California, a manufacturer has the option of applying an outlier test point procedure to completed durability data within its certification testing program for a given model year in accordance with title 13, CCR, section 1958(c)(3)

Rationale: This subsection is necessary to replace the federal requirements with requirements that apply in California.

Section 14

Purpose: The purpose of this section is to incorporate CFR § 86.434-78 into these test procedures. CFR § 86.434-78 allows U.S. EPA to require confirmatory testing at the conclusion of service accumulation, and after emission tests for deterioration. Confirmatory testing is used to confirm the accuracy of emission test data submitted by a manufacturer to demonstrate compliance with applicable emission standards.

Rationale: It is necessary to incorporate CFR § 86.434-78 into these test procedures to allow CARB to also require confirmatory testing at the conclusion of service accumulation, and after emission tests for deterioration.

Section 15

Purpose: The purpose of this section is to incorporate CFR § 86.435-78 into these test procedures. CFR § 86.435-78 specifies how deterioration factors may be used by a manufacturer to demonstrate compliance with applicable emission standards.

Rationale: It is necessary to incorporate CFR § 86.435-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers while ensuring compliance with the emission standards.

Section 16

Purpose: The purpose of this section is to incorporate CFR § 86.436-78 into these test procedures. CFR § 86.436-78 allows a manufacturer to perform additional mileage accumulation on a motorcycle up to the useful life under the same conditions as the initial service accumulation and new deterioration lines to be generated using all applicable test points up to the useful life. The manufacturer must use the same procedures for determining the original deterioration lines.

Rationale: It is necessary to incorporate CFR § 86.436-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers while ensuring compliance with the emission standards.

Section 17

Purpose: The purpose of this section is to specify the fuel that must be used by a manufacturer for certification testing to demonstrate compliance with applicable emission standards meets the applicable specifications in Part II, section A 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,” incorporated by reference in title 13, CCR, section 1961.4.

Rationale: Vehicle emission levels and composition of those emissions are greatly affected by the composition of the fuel used during operation. Consequently, it is necessary to require vehicles to be emission tested for certification using fuel that is representative of California commercial fuel. This ensures that the emission benefits that are expected from California-certified vehicles are achieved in the real world. The fuel specifications 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” are representative of California commercial fuel. It is also necessary to specify that CARB will also accept test data generated using reference fuel “Petrol (E5)” as specified in Appendix 2 of “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018” when all measured pollutants are at least 10% (ten percent) below the applicable standard.

Part I. Subpart E. California Exhaust Emission Standards

Purpose: The purpose of this Subpart is to delete 40 CFR §§ 86.410-90 and 86.410-2006 and to specify that compliance with the standards applicable to the requirements in these test procedures are those set forth in title 13, CCR, section 1958(h).

Rationale: This subsection is necessary to implement title 13, CCR, section 1958(h), which has standards different from 40 CFR §§ 86.410-90 and 86.410-2006.

Part I. Subpart F. Administrative Requirements

Section 1

Subsection 1.1

Purpose: The purpose of this section is to incorporate CFR § 86.437-78 into these test procedures, with amendments that are specific to California vehicle certification. CFR § 86.437-78 establishes the certification process for new motorcycles.

Rationale: It is necessary to incorporate CFR § 86.437-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers. The amendments to CFR § 86.437-78 are necessary to ensure that it applies to California.

Subsection 1.1.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.437-78 (a) into these test procedures, with amendments that are specific to California vehicle certification. CFR § 86.437-78 (a) establishes the certification process for new motorcycles other than those produced by a small volume manufacturer. CFR § 86.437-78 (a) requires manufacturers other than small volume manufacturers to submit all test reports and data to U.S. EPA that are used to demonstrate compliance with applicable emission standards. This subparagraph is being modified to require all manufacturers, including small volume manufacturers, to submit to CARB all test reports and data that are used to demonstrate compliance with applicable California emission standards.

Rationale: This subsection is necessary to ensure that all manufacturers, including small volume manufacturers, comply with applicable California emission standards and to provide the data to CARB.

Subsection 1.1.2

Purpose: The purpose of this subsection is to clearly state that CFR § 86.437-78 (b) does not apply in California. CFR § 86.437-78 (b) says that a small volume manufacturer is not required to submit test reports and data to U.S. EPA that are used to demonstrate compliance with applicable emission standards, unless those test reports and data are specifically requested by U.S. EPA.

Rationale: It is necessary to delete CFR § 86.437-78 (b) from these test procedures to ensure that small volume manufacturers comply with applicable California emission standards and provide data to CARB.

Section 2

Purpose: The purpose of this section is to incorporate CFR § 86.438-78 into these test procedures. CFR § 86.438-78 requires manufacturers to inform U.S. EPA by way of amendment to the certification application of any proposed changes to vehicles in production or additional vehicles to be produced. It also allows U.S. EPA to select a new test vehicle for manufacturer testing to demonstrate that any changes reported by the manufacturer will not adversely affect compliance with applicable federal standards.

Rationale: It is necessary to incorporate CFR § 86.438-78 into these test procedures to ensure that manufacturers inform CARB by way of amendment to the certification application of any proposed changes to

vehicles in production or additional vehicles to be produced. It also allows CARB to select a new test vehicle for manufacturer testing to demonstrate that any changes reported by the manufacturer will not adversely affect compliance with applicable California emission standards.

Section 3

Purpose: The purpose of this section is to incorporate CFR § 86.439-78 into these test procedures. CFR § 86.439-78 allows a manufacturer to notify U.S. EPA concurrently with the addition of a vehicle or the making of a change in a vehicle in lieu of notifying U.S. EPA in advance of an addition of a vehicle or a change in a vehicle under § 86.438-78, if the manufacturer determines that following the change all vehicles affected by the addition or change will still meet the applicable emission standards.

Rationale: It is necessary to incorporate CFR § 86.439-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Section 4

Purpose: The purpose of this section is to incorporate CFR § 86.440-78 into these test procedures. CFR § 86.440-78 requires a manufacturer of any motorcycle that is federally-certified to establish, maintain and retain a prescribed list of records, which are used by the manufacturer to demonstrate compliance with applicable emission standards. The information contained in these records may be reviewed by U.S. EPA to verify compliance with applicable emission standards.

Rationale: It is necessary to incorporate CFR § 86.440-78 into these test procedures to require manufactures to maintain these same records for California and to enable CARB to verify manufacturer compliance with applicable California emission standards.

Section 5

Purpose: The purpose of this section is to incorporate CFR § 86.441-78 into these test procedures. CFR § 86.441-78 requires any manufacturer who has applied for certification of a new motorcycle subject to certification tests under this subpart to admit or cause to be admitted any U.S. EPA Enforcement Officer during operating hours on presentation of any credentials to any manufacturer testing facility and to inspect and monitor any part or aspect of such procedures, activities, and testing facilities. This is necessary to allow U.S. EPA to determine whether or not production motorcycles conform in all material respects to the design specifications that applied to those vehicles described in the application for certification for which a certificate of conformity has been issued.

Rationale: It is necessary to incorporate CFR § 86.441-78 into these test procedures to provide CARB with access to manufacturer testing facilities and to allow CARB to inspect and monitor any part or aspect of such procedures, activities, and testing facilities. This is necessary to allow CARB to determine whether or not production motorcycles conform in all material respects to the design specifications that applied to those vehicles described in the application for certification for which California certification has been granted.

Section 6

Purpose: The purpose of this section is to incorporate CFR § 86.442-78 into these test procedures. CFR § 86.442-78 establishes criteria that will be used by U.S. EPA to withhold or deny the issuance of a certificate of conformity (or suspend or revoke any such certificate which has been issued) with respect to any such vehicle(s).

Rationale: It is necessary to incorporate CFR § 86.442-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers and provide the regulated industry with notice on what criteria will be used to withhold or deny issuance of the certificate of conformity.

Section 7

Purpose: The purpose of this section is to delete CFR § 86.443-78 and to replace the request for hearings with California specific hearing provisions. CFR § 86.443-78 allows a manufacturer to request a hearing on U.S. EPA's certification process.

Rationale: It is necessary to incorporate CFR § 86.443-78 into these test procedures to clearly indicate that the provisions contained therein do not apply in California. CARB has its own hearing regulations that apply (Cal. Code of Regs., tit. 17, 60055.1 et seq.) so creating a separate hearing process that does not comply with the already adopted hearing regulations would create confusion and potentially conflict with the hearing regulations already in place.

Section 8

Purpose: The purpose of this section is to delete CFR § 86.444-78 and to replace the request for hearings on certification with California specific hearing regulations provisions. . CFR § 86.444-78 specifies the U.S. EPA hearing procedures if a manufacturer's request for a hearing (under CFR § 86.443-78) is approved.

Rationale: It is necessary to incorporate CFR § 86.444-78 into these test procedures to clearly indicate that the provisions contained therein do not

apply in California. CARB has its own hearing regulations that apply (Cal. Code of Regs., tit. 17, 60055.1 et seq.) so creating a separate hearing process that does not comply with the already adopted hearing regulations would create confusion and potentially conflict with the hearing regulations already in place.

Section 9

Purpose: The purpose of this section is to incorporate CFR § 86.445-2006 into these test procedures and to indicate it's not applicable in California. CFR § 86.445-2006 allows a manufacturer to apply for and receive a temporary exemption from compliance with applicable emission standards if the manufacturer demonstrates "hardship due to unusual circumstances." CFR § 86.445-2006 lists criteria U.S. EPA will consider when it approves or disapproves a manufacturer's claim of "hardship due to unusual circumstances."

Rationale: It is necessary to incorporate CFR § 86.445-2006 into these test procedures and to clearly indicate it's not applicable in California. Exemptions from compliance with California emission standards cannot be issued.

Section 10

Purpose: The purpose of this section is to incorporate CFR § 86.446-2006 into these test procedures and to indicate it's not applicable in California. CFR § 86.446-2006 allows U.S. EPA to extend the compliance deadlines for small-volume manufacturers under "hardship." CFR § 86.446-2006 lists criteria U.S. EPA will consider when it approves or disapproves a small-volume manufacturer's claim of "hardship."

Rationale: It is necessary to incorporate CFR § 86.446-2006 into these test procedures and to clearly indicate it's not applicable in California. The extension of compliance deadlines in California must be done as part of a rulemaking process rather than an administrative change.

Section 11

Purpose: The purpose of this section is to incorporate CFR § 86.447-2006 into these test procedures and to indicate it's not applicable in California. CFR § 86.447-2006 establishes provisions that apply to motorcycle engines below 50 cc that are certified under the federal Small SI program or the federal Recreational-vehicle program.

Rationale: It is necessary to incorporate CFR § 86.447-2006 into these test procedures and to clearly indicate it's not applicable in California, because the federal Small SI program and the federal Recreational-vehicle program do not apply to California-certified motorcycles.

Section 12

Purpose: The purpose of this section is to incorporate CFR § 86.448-2006 into these test procedures and to indicate it's not applicable in California. CFR § 86.448-2006 establishes provisions that apply to vehicles that are certified under the federal Recreational-vehicle program.

Rationale: It is necessary to incorporate CFR § 86.448-2006 into these test procedures and to clearly indicate it's not applicable in California, because the federal Recreational-vehicle program does not apply to California-certified motorcycles.

Section 13

Purpose: The purpose of this section is to incorporate CFR § 86.449 into these test procedures and to indicate it's not applicable in California. CFR § 86.449 describes how and when averaging may be used to show compliance with applicable federal HC + NOx emission standards.

Rationale: It is necessary to incorporate CFR § 86.449 into these test procedures and to clearly indicate it's not applicable in California. Instead, California-certified motorcycles must comply with the requirements in title 13, CCR, section 1958.

Section 14

Purpose: The purpose of this section is to identify the regulations that dictate how confidential information that is submitted to CARB's will be treated by CARB.

Rationale: It is necessary to identify these governing regulations to provide manufacturers with a clear understanding of how CARB will handle information they consider to be confidential and the steps they need to take to receive confidential treatment.

Subsection 14.1

Purpose: The purpose of this section is to incorporate CFR § 86.450 into these test procedures and to indicate it's not applicable in California. CFR § 86.450 describes U.S. EPA's practices for handling confidential business information.

Rationale: It is necessary to incorporate CFR § 86.450 into these test procedures with the designation "n/a", meaning "not applicable" to make clear to manufacturers that CARB's treatment of confidential information is dictated by California regulations rather than federal regulations. CARB has its own regulations that apply to confidential information (Cal. Code of Regs., tit. 17, 91000 et seq.) so creating a separate process that does not comply with the already adopted

regulations and would create confusion and potentially conflict with the regulations already in place.

Subsection 14.2

Subsection 14.2.1

Purpose: The purpose of this subsections is to specify that “Unless identified as a trade secret or otherwise confidential under CCR, title 17, section 91011, and supported as such under CCR, title 17, section 91022, records in the Board's possession for the vehicles subject to the requirements of title 13, CCR, sections 1958 through 1958.6 and section 1976, are subject to disclosure as public records.”

Rationale: This subsection is necessary to clearly state the requirements that CARB must follow to determine when information is subject to disclosure as a public record. This ensures CARB complies with the requirements of the California Public Records Act (Gov. Code § 7920.000 et seq.) and the California Constitution, Article 1, section 3, subsection (b)(1).

Subsection 14.2.2

Purpose: The purpose of this subsection is to specify that “Records in the Board's possession for the vehicles subject to the requirements of sections 1958 through 1958.6 and section 1976 shall be subject to disclosure to the federal Environmental Protection Agency, which protects trade secrets as provided in Section 114(c) of the Clean Air Act and amendments thereto (42 U.S.C. 7401 et seq.) and in federal regulations.”

Rationale: This subsection is necessary to clearly state the requirements that CARB must follow to determine when information is subject to disclosure to U.S. EPA. It is necessary to provide notice to manufacturers on what information will be shared with U.S. EPA.

Part II. Subpart A

Purpose: The purpose of this subpart is to identify the test procedures for determining compliance with the exhaust emission standards in title 13, CCR, section 1958 for 2028 and subsequent model years.

Rationale: This subpart is necessary to instruct manufacturers on how to test and certify their vehicles in order to sell them in California to ensure compliance with the emission standards and achieve emission benefits.

Section 1

Purpose: The purpose of this section is to clearly state that compliance with the exhaust emission standards in title 13, CCR, section 1958 for model years 2028 and subsequent shall be determined using Test Type I (Tailpipe Emissions After Cold Start) as set forth in Annex II of Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018 (134/2014), with the changes and additions that are specific to California vehicle certification as noted in the following sections.

Rationale: This section is necessary to clearly identify the test procedure that must be followed by a manufacturer for a valid certification emission test and to ensure motorcycles sold into California meet emission standards.

Section 2

Purpose: The purpose of this section is to show the applicability of individual portions of "Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)" into these test procedures.

Rationale: This section is necessary to clearly identify the test procedures requirements for determining compliance with the motorcycle exhaust emission standards in title 13, CCR, section 1958 for 2028 and subsequent model year vehicles.

Subsection 2.1

Purpose: The purpose of this subsection is to incorporate Chapter I of the "Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)" into these test procedures, with amendments that are specific to California vehicle certification clearly identified.

Rationale: This subsection is necessary to clearly identify the Articles contained in Chapter I of 134/2014 that apply to California motorcycle certifications.

Subsection 2.1.1

Purpose: The purpose of this subsection is to incorporate Chapter I, Article 1 of the "Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)" into these test procedures and to indicate it's not applicable in California. Chapter I, Article 1 describes the subject matter of this European Union regulation.

Rationale: It is necessary to clearly state that Chapter I, Article 1 does not apply in California, because the provisions contained therein are already set forth in Part I, sections A.1 and A.2 of these test procedures so it is necessary to not duplicate provisions already contained herein.

Subsection 2.1.2

Purpose: The purpose of this subsection is to incorporate Chapter I, Article 2 of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures. Chapter I, Article 2 contains the definitions used in this European Union regulation.

Rationale: This subsection is necessary to clearly state that the definitions used in this European Union regulation are incorporated in Part I, section B of these test procedures. These definitions are necessary to ensure manufacturers understand what terms mean.

Subsection 2.2

Purpose: The purpose of this subsection is to incorporate Chapter II of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, with amendments that are specific to California vehicle certification clearly identified.

Rationale: This subsection is necessary to clearly identify the Articles contained in Chapter II that apply to California motorcycle certifications. EU 134/2014 is a regulatory document that contains detailed technical requirements and test procedures pertaining to the control of emissions from motorcycles in the European Union. CARB is aligning with the “Euro 5” emissions standards and test procedures contained in EU 134/2014, so the document must be incorporated into the CARB test procedure. CARB staff’s rationale for aligning with Euro 5 standards are detailed in section IV, A of the Staff Report.

Subsections 2.2.1, 2.2.2, 2.2.4, and 2.2.6

Purpose: The purpose of these subsections is to incorporate Chapter II, Articles 3 through 5, 7 through 9, and 11 through 13 of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, and to clearly state these Articles are not applicable in California.

Rationale: These subsections are necessary to clearly state that these Articles are not applicable in California.

Subsections 2.2.3 and 2.2.5

Purpose: The purpose of these subsections is to incorporate Chapter II, Articles 6 and 10 of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures. Chapter II, Article 6 contains

“test type I requirements: tailpipe emissions after cold start” for on-road motorcycles. Chapter II, Article 10 contains “Test type V requirements: durability of pollution-control devices.”

Rationale: These subsections are necessary to incorporate these Articles into these test procedures to allow harmonization with European Union regulations. EU 134/2014 is a regulatory document that contains detailed technical requirements and test procedures pertaining to the control of emissions from motorcycles in the European Union. CARB is aligning with the “Euro 5” emissions standards and test procedures contained in EU 134/2014, so the document must be incorporated into the CARB test procedure. CARB staff’s rationale for aligning with Euro 5 standards are detailed in section IV, A of the Staff Report.

Subsection 2.3

Purpose: The purpose of this subsection is to incorporate Chapters III through V of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, and to clearly state these Chapters are not applicable in California.

Rationale: This subsection is necessary to clearly state that Chapters III through V do not apply in California to avoid causing confusion to manufacturers.

Subsection 2.4

Purpose: The purpose of this subsection is to incorporate Annexes of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, and to clearly state the applicability of each of these Annexes in California.

Rationale: This subsection is necessary to clearly identify the applicability of each Annex in California. EU 134/2014 is a regulatory document that contains detailed technical requirements and test procedures pertaining to the control of emissions from motorcycles in the European Union. CARB is aligning with the “Euro 5” emissions standards and test procedures contained in EU 134/2014, so the document must be incorporated into the CARB test procedure. CARB staff’s rationale for aligning with Euro 5 standards are detailed in section IV, A of the Staff Report.

Subsection 2.4.1

Purpose: The purpose of this subsection is to incorporate Annex I of the “Commission Delegated Regulation No. 134/2014, consolidated

version 20/03/2018. (134/2014)” into these test procedures, and to clearly state that this Annex is not applicable in California.

Rationale: This subsection is necessary to clearly state that Annex I is not applicable in California.

Subsection 2.4.2

Purpose: The purpose of this subsection is to incorporate Annex II of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, with amendments that are specific to California vehicle certification clearly identified.

Rationale: This subsection is necessary to clearly identify the requirements contained in Annex II that apply to California motorcycle certification. This subsection is also necessary to clearly state that if any discrepancies exist between the requirements in Annex II and the requirements in the Part I of these test procedures, the requirements in Part I of these test procedures shall apply.

Subsection 2.4.2.1

Purpose: The purpose of this subsection is to incorporate sections 1 through 4.2.5 of Annex II of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures.

Rationale: This subsection is necessary to clearly state that the requirements contained in sections 1 through 4.2.5 of Annex II apply to California motorcycle certification with no changes. EU 134/2014 is a regulatory document that contains detailed technical requirements and test procedures pertaining to the control of emissions from motorcycles in the European Union. CARB is aligning with the “Euro 5” emissions standards and test procedures contained in EU 134/2014, so the document must be incorporated into the CARB test procedure. CARB staff’s rationale for aligning with Euro 5 standards are detailed in section IV, A of the Staff Report.

Subsection 2.4.2.2

Purpose: The purpose of this subsection is to incorporate section 4.3 of Annex II of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, except that Figure 1-1, which specifies vehicle sub-classifications for emission testing, does not apply in California. This Figure is being replaced with a new Figure that

specifies the sub-classifications for emission testing that must be used to demonstrate compliance with applicable California emission standards.

Rationale: It is necessary to replace the European Union requirements with California requirements to ensure compliance with applicable California emission standards.

Subsection 2.4.2.3

Purpose: The purpose of this subsection is to incorporate section 4.3.1 of Annex II of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, except that Table 1-1, which specifies the vehicle sub-classification criteria for class 1 on-road motorcycles, does not apply in California. This Table is being replaced with a new Table that specifies the vehicle sub-classification criteria for class 1 on-road motorcycles that must be used to demonstrate compliance with applicable California emission standards.

Rationale: It is necessary to replace the European Union requirements with California requirements to ensure compliance with applicable California emission standards and the structure California has specified.

Subsection 2.4.2.4

Purpose: The purpose of this subsection is to incorporate sections 4.3.2 of Annex II of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, except that Table 1-2, which specifies the vehicle sub-classification criteria for class 2 on-road motorcycles, does not apply in California. This Table is being replaced with a new Table that specifies the vehicle sub-classification criteria for class 2 on-road motorcycles that must be used to demonstrate compliance with applicable California emission standards.

Rationale: It is necessary to replace the European Union requirements with California requirements to ensure compliance with applicable California emission standards.

Subsection 2.4.2.5

Purpose: The purpose of this subsection is to incorporate sections 4.3.3 and 4.3.4 of Annex II of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures.

Rationale: This subsection is necessary to clearly state that the requirements contained in sections 4.3.3 through Appendix 13 section 3.4.1.2 of Annex II apply to California motorcycle certification with no changes. EU 134/2014 is a regulatory document that contains detailed technical requirements and test procedures pertaining to the control of emissions from motorcycles in the European Union. CARB is aligning with the “Euro 5” emissions standards and test procedures contained in EU 134/2014, so the document must be incorporated into the CARB test procedure. CARB staff’s rationale for aligning with Euro 5 standards are detailed in section IV, A of the Staff Report.

Subsection 2.4.2.6

Purpose: The purpose of this subsection is to incorporate section 4.4 of Annex II of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, and to delete the fuel specifications contained therein. The European Union fuel specifications have been replaced with a reference to California Fuel Specifications as described in Part I, section D.17 of these test procedures.

Rationale: This subsection is necessary to clearly identify the certification fuel specifications for vehicles tested to demonstrate compliance with California emission standards. California has its own specifications for the type of fuel that must be used for testing. This provision is needed to ensure that all aspects of testing is California compliant, and that emission levels measured during certification testing are representative of on-road emissions from motorcycle ridden in California using California specification fuels.

Subsections 2.4.2.7 through 2.4.2.10, and 2.4.2.12

Purpose: The purpose of these subsections is to incorporate section 4.5 through Appendix 9 and Appendices 11 through 13 of Annex II of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures.

Rationale: This subsection is necessary to clearly state that the requirements contained in section 4.5 through Appendix 9 and Appendices 11 through 13 of Annex II apply to California motorcycle certification with no changes. EU 134/2014 is a regulatory document that contains detailed technical requirements and test procedures pertaining to the control of

emissions from motorcycles in the European Union. CARB is aligning with the “Euro 5” emissions standards and test procedures contained in EU 134/2014, so the document must be incorporated into the CARB test procedure. CARB staff’s rationale for aligning with Euro 5 standards are detailed in section IV, A of the Staff Report.

Subsection 2.4.2.11

Purpose: The purpose of this subsection is to incorporate Appendix 10 of Annex II of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures and to clearly state that it does not apply to vehicles certifying in California.

Rationale: This subsection is necessary to clearly state that the requirements contained in Appendix 10 of Annex II do not apply to vehicles certifying in California to avoid potential confusion by manufacturers.

Subsection 2.4.3

Purpose: The purpose of this subsection is to incorporate Annexes III through V of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, and to clearly state that these Annexes are not applicable in California.

Rationale: This subsection is necessary to clearly state that Annexes III through V are not applicable in California to avoid potential confusion by manufacturers.

Subsection 2.4.4

Purpose: The purpose of this subsection is to incorporate Annex VI of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, with the addition of one California-specific provision.

Rationale: This subsection is necessary to clearly state that Annex VI is applicable in California, except that if any discrepancies exist between the requirements in Annex VI and the requirements in the Part I of these test procedures, the requirements in Part I of these test procedures shall apply. It’s also necessary to note that this Annex applies only when utilizing durability demonstration Options 2, 3, or 4 of Part I, section D.8.3 of these test procedures.

Subsection 2.4.5

Purpose: The purpose of this subsection is to incorporate Annexes VII through XII of the “Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)” into these test procedures, and to clearly state that these Annexes are not applicable in California.

Rationale: This subsection is necessary to clearly identify that Annexes VII through XII are not applicable in California to avoid potential confusion by manufacturers.

Part II. Subpart B

Purpose: The purpose of this subpart is to establish specifications for the test equipment and measurement equipment that must be used to perform certification emission tests.

Rationale: This subpart is necessary to ensure the performance and accuracy of the equipment used to demonstrate compliance with applicable emission standards. To do this, the equipment must operate accurately and within defined tolerances.

Section 1

Purpose: The purpose of this section is to allow a manufacturer to perform emission testing to demonstrate compliance with applicable exhaust emission standards using test equipment and measurement equipment that complies with the applicable tolerances and specifications laid out in one of two options.

Rationale: This section is necessary to ensure consistency and enforceability while providing manufacturers with flexibility in demonstrating compliance with applicable emission standards.

Subsection 1.1

Purpose: The purpose of this subsection is to specify that the first option (Option 1) that a manufacturer may use to perform emission testing to demonstrate compliance with applicable exhaust emission standards is to use test equipment and measurement equipment that complies with the applicable tolerances and specifications in Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018.

Rationale: This subsection is necessary to establish the first option that a manufacturer may use to perform emission testing to demonstrate compliance with applicable exhaust emission standards. Aligning with European specifications for test and measurement equipment allows manufacturers to use the same laboratory facilities for CARB certification

testing as they use for European type approval testing, thereby reducing overall testing costs.

Subsection 1.1.1

Purpose: The purpose of this subsection is to specify that the applicable Option 1 tolerances and specifications for test equipment and measurement equipment are contained in Annex II of the Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018.

Rationale: This subsection is necessary to clearly identify the applicable Option 1 requirements.

Subsection 1.2

Purpose: The purpose of this subsection is to specify that the second option (Option 2) that a manufacturer may use to perform emission testing to demonstrate compliance with applicable exhaust emission standards is to use test equipment and measurement equipment that complies with the applicable tolerances and specifications in CFR Part 86, Subpart F. The applicable dates for each CFR section that is included in CFR Part 86, Subpart F is shown in subsections 1.2.1 through 1.2.26.

Rationale: This subsection is necessary to establish the second option that a manufacturer may use to perform emission testing to demonstrate compliance with applicable exhaust emission standards. Aligning with U.S. EPA specifications for test and measurement equipment allows manufacturers to use the same laboratory facilities for CARB certification testing as they use for U.S. EPA emissions testing, thereby reducing overall testing costs.

Subsection 1.2.1

Purpose: The purpose of this subsection is to incorporate CFR § 86.508-78 into these test procedures, with amendments that are specific to California vehicle certification. CFR § 86.508-78 establishes specifications for dynamometers used for certification testing.

Rationale: This subsection is necessary to allow harmonization with federal regulations, except as otherwise noted. It is necessary to ensure the dynamometers operate accurately.

Subsection 1.2.1.1

Purpose: The purpose of this subsection is to incorporate CFR §§ 86.508-78 (a) through (c) into these test procedures. CFR §§ 86.508-78 (a) through (c) establish dynamometer specifications that must be met for a valid certification emission test.

Rationale: It is necessary to incorporate CFR §§ 86.508-78 (a) through (c) into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 1.2.1.2

Purpose: The purpose of this subsection is to incorporate CFR § 86.508-78 (d) into these test procedures, with amendments that are specific to California vehicle certification. CFR § 86.508-78 (d) establishes specifications for the variable speed cooling fan that must be met for a valid certification emission test.

Rationale: It is necessary to incorporate CFR §§ 86.508-78 (d) into these test procedures to allow harmonization with federal regulations, where possible. However, it is necessary to modify these specifications to require that the variable speed cooling fan that must be used for a valid California certification emission test is capable of achieving higher top speeds than those shown in the CFR. This is because the engine cooling capability of a fan that only meets current CFR specifications will not provide adequate cooling for a motorcycle that is tested under the currently proposed regulations.

Subsection 1.2.1.3

Purpose: The purpose of this subsection is to incorporate CFR § 86.508-78 (e) into these test procedures. CFR § 86.508-78 (e) establish tolerances for the dynamometer that must be met for a valid certification emission test.

Rationale: It is necessary to incorporate CFR § 86.508-78 (e) into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 1.2.2

Purpose: The purpose of this subsection is to incorporate CFR § 86.509-90 into these test procedures. CFR § 86.509-90 establishes

specifications for exhaust gas sampling systems used for certification testing.

Rationale: It is necessary to incorporate CFR § 86.509-90 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 1.2.3

Purpose: The purpose of this subsection is to incorporate CFR § 86.511-90 into these test procedures. CFR § 86.511-90 establishes specifications for exhaust gas analytical systems used for certification testing.

Rationale: It is necessary to incorporate CFR § 86.511-90 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 1.2.4

Purpose: The purpose of this subsection is to incorporate CFR § 86.513 into these test procedures, with amendments that are specific to California vehicle certification. CFR § 86.513 establishes specifications for test fuels and engine lubricants used for certification testing.

Rationale: It is necessary to incorporate CFR § 86.513 into these test procedures, with amendments that are specific to California vehicle certification to clearly establish requirements for a valid California certification test. Fuel specifications are addressed in Part I, D, 17 of this test procedure, so the fuel specifications contained in CFR § 86.513 are not applicable.

Subsections 1.2.4.1 and 1.2.4.3

Purpose: The purpose of this subsection is to incorporate CFR §§ 86.513 (a) through (e), (g), and (h) into these test procedures and to clearly state that these do not apply to vehicles certifying in California. CFR §§ 86.513 (a) through (e), (g), and (h) establish specifications for test fuels used for certification testing.

Rationale: It is necessary to incorporate CFR §§ 86.513 (a) through (e), (g), and (h) into these test procedures and to clearly state that it does not apply to vehicles certifying in California to avoid potential confusion by manufacturer regarding whether federal test fuel will be allowed as an alternative to California test fuel.

Subsections 1.2.4.2

Purpose: The purpose of this subsection is to incorporate CFR § 86.513 (f) into these test procedures. CFR § 86.513 (f) establishes specifications for lubricants to be used by the ultimate purchaser and to be used during service accumulation used for certification testing.

Rationale: It is necessary to incorporate CFR § 86.513 (f) into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 1.2.5

Purpose: The purpose of this subsection is to incorporate CFR § 86.514-78 into these test procedures. CFR § 86.514-78 establishes specifications for analytical gases used for certification testing.

Rationale: It is necessary to incorporate CFR § 86.514-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 1.2.6

Purpose: The purpose of this subsection is to incorporate CFR § 86.515-78 into these test procedures and to clearly state that it does not apply to vehicles certifying in California. CFR § 86.515-78 establishes the U.S. EPA urban dynamometer driving schedule used for certification testing. This urban dynamometer driving schedule that is required to certify 2028 and subsequent model year motorcycles is shown in Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. This European Union test procedure has been noted in the California amendments to CFR § 86.515-78.

Rationale: It is necessary to incorporate CFR § 86.515-78 into these test procedures, with amendments that are specific to California vehicle certification in order to clearly state how to demonstrate compliance with applicable emission regulations.

Subsection 1.2.7

Purpose: The purpose of this subsection is to incorporate CFR § 86.516-90 into these test procedures. CFR § 86.516-90 establishes requirements for test equipment calibrations, including types of calibrations required and frequency of calibrations required.

Rationale: It is necessary to incorporate CFR § 86.516-90 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 1.2.8

Purpose: The purpose of this subsection is to incorporate CFR § 86.518-78 into these test procedures. CFR § 86.518-78 establishes requirements for dynamometer calibrations, including types of calibrations required and frequency of calibrations required.

Rationale: It is necessary to incorporate CFR § 86.518-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 1.2.9

Purpose: The purpose of this subsection is to incorporate CFR § 86.519-90 into these test procedures. CFR § 86.519-90 establishes requirements for calibration of the constant volume sampler, including types of calibrations required and frequency of calibrations required.

Rationale: It is necessary to incorporate CFR § 86.519-90 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers and to ensure equipment produces accurate results.

Subsection 1.2.10

Purpose: The purpose of this subsection is to incorporate CFR § 86.521-90 into these test procedures. CFR § 86.521-90 establishes requirements for Flame Ionization Detector (FID) hydrocarbon analyzer calibration, including types of calibrations required and frequency of calibrations required.

Rationale: It is necessary to incorporate CFR § 86.521-90 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 1.2.11

Purpose: The purpose of this subsection is to incorporate CFR § 86.522-78 into these test procedures. CFR § 86.522-78 establishes requirements for carbon monoxide analyzer calibration, including types of calibrations required and frequency of calibrations required.

Rationale: It is necessary to incorporate CFR § 86.522-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers and to ensure equipment results are accurate.

Subsection 1.2.12

Purpose: The purpose of this subsection is to incorporate CFR § 86.523-78 into these test procedures. CFR § 86.523-78 establishes requirements for oxides of nitrogen analyzer calibration, including types of calibrations required and frequency of calibrations required.

Rationale: It is necessary to incorporate CFR § 86.523-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers and to ensure equipment results are accurate.

Subsection 1.2.13

Purpose: The purpose of this subsection is to incorporate CFR § 86.524-78 into these test procedures. CFR § 86.524-78 establishes requirements for carbon dioxide analyzer calibration, including types of calibrations required and frequency of calibrations required.

Rationale: It is necessary to incorporate CFR § 86.524-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers and to ensure equipment results are accurate.

Subsection 1.2.14

Purpose: The purpose of this subsection is to incorporate CFR § 86.526-90 into these test procedures. CFR § 86.526-90 states that "Other test equipment used for testing shall be calibrated as often as required by the manufacturer or as necessary according to good practice. Specific equipment requiring calibration is the gas chromatograph and flame ionization detector used in measuring methanol and the high-pressure liquid chromatograph (HPLC) and ultraviolet detector for measuring formaldehyde."

Rationale: It is necessary to incorporate CFR § 86.526-90 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers and to ensure equipment results are accurate.

Subsection 1.2.15

Purpose: The purpose of this subsection is to incorporate CFR § 86.527-90 into these test procedures and to clearly state that it

does not apply to vehicles certifying in California. CFR § 86.527-90 provides an overview of the test procedures used determine the compliance of motorcycles with the applicable emission, including prescribed sequences of fueling, parking, and operating conditions. **Rationale:** This subsection is necessary to clearly state that CFR § 86.527-90 does not apply in California, because the test procedures that must be used to comply with 2028 and subsequent model year motorcycle emission standards are contained in Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018.

Subsection 1.2.16

Purpose: The purpose of this subsection is to incorporate CFR § 86.528-78 into these test procedures and to clearly state that it does not apply to vehicles certifying in California. CFR § 86.528-78 specifies requirements for motorcycle transmission operation during certification emission testing. These include: the motorcycle configurations (e.g., the manufacturer's recommended configuration for street or highway use), transmission gear setting (e.g., the "drive" gear for automatic transmissions), throttle movement (e.g., minimum throttle movement to maintain the desired speed with no simultaneous use of brake and throttle), acceleration modes (e.g., acceleration modes shall be driven smoothly), and deceleration modes (e.g., deceleration modes shall be run in gear using brakes or throttle as necessary to maintain the desired speed).

Rationale: It is necessary to incorporate CFR § 86.528-78 into these test procedures and to clearly state that it does not apply in California, because the requirements for motorcycle transmission operation during certification emission testing are contained in Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018.

Subsection 1.2.17

Purpose: The purpose of this subsection is to incorporate CFR § 86.529-98 into these test procedures and to clearly state that it does not apply to vehicles certifying in California. CFR § 86.529-98 specifies the method for determining road load force and inertia weight for the purpose of conducting motorcycle certification emission testing. (Vehicle testing on a chassis dynamometer involves simulating the road-load force, which is the sum of forces acting on a vehicle from aerodynamic drag, tire rolling resistance, driveline

losses, and other effects of friction. Inertia weight class is the class into which a vehicle is grouped for testing purposes.)

Rationale: It is necessary to incorporate CFR § 86.529-98 into these test procedures and to clearly state that it does not apply in California, because the road load force and inertia weight determination during certification emission testing are contained in Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018.

Subsection 1.2.18

Purpose: The purpose of this subsection is to incorporate CFR § 86.530-78 into these test procedures. CFR § 86.530-78 specifies the ambient temperature range required for a valid certification emission test and requires that vehicle to be approximately level during the emission test to prevent abnormal fuel distribution.

Rationale: It is necessary to incorporate CFR § 86.530-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers and to ensure test results are generated in a standardized and repeatable manner.

Subsection 1.2.19

Purpose: The purpose of this subsection is to incorporate CFR § 86.531-78 into these test procedures. CFR § 86.531-78 contains requirements for vehicle preparation prior to conducting a certification emission test.

Rationale: It is necessary to incorporate CFR § 86.531-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers.

Subsection 1.2.20

Purpose: The purpose of this subsection is to incorporate CFR § 86.532-78 into these test procedures, and to clearly state it is not applicable in California. CFR § 86.532-78 contains requirements for vehicle preconditioning prior to conducting a certification emission test.

Rationale: It is necessary to incorporate CFR § 86.532-78 into these test procedures and to clearly state that it does not apply in California, because the vehicle preconditioning procedures that are required for certification emission testing are contained in

Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018.

Subsection 1.2.21

Purpose: The purpose of this subsection is to incorporate CFR § 86.535-90 into these test procedures, and to clearly state it is not applicable in California. CFR § 86.535-90 contains the dynamometer procedure that must be followed for a valid certification emission test.

Rationale: It is necessary to incorporate CFR § 86.535-90 into these test procedures and to clearly state that it does not apply in California, because the dynamometer procedure that must be followed for a valid certification emission test are contained in Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018.

Subsection 1.2.22

Purpose: The purpose of this subsection is to incorporate CFR § 86.536-78 into these test procedures. CFR § 86.536-78 contains requirements for starting and restarting of a motorcycle engine during emission testing in order for the test to be a valid certification emission test.

Rationale: It is necessary to incorporate CFR § 86.536-78 into these test procedures to allow harmonization with federal regulations, thereby eliminating unnecessary cost and compliance complexity to manufacturers and to ensure test results are generated in a standardized and repeatable manner.

Subsection 1.2.23

Purpose: The purpose of this subsection is to incorporate CFR § 86.537-90 into these test procedures and to clearly state that it does not apply to vehicles certifying in California. CFR § 86.537-90 describes the dynamometer test runs for a valid certification emission test.

Rationale: It is necessary to incorporate CFR § 86.537-90 into these test procedures and to clearly state that it does not apply in California, because the dynamometer test runs for a valid certification emission test are contained in Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018.

Subsection 1.2.24

Purpose: The purpose of this subsection is to incorporate CFR § 86.540-90 into these test procedures, and to clearly state it does not apply in California. CFR § 86.540-90 shows the sequence of operations that must be performed in conjunction with each series of measurements during the exhaust sample analysis in order for a certification emission test to be valid.

Rationale: It is necessary to incorporate CFR § 86.540-90 into these test procedures and to clearly state that it does not apply in California, because the sequence of operations that must be performed in conjunction with each series of measurements during the exhaust sample analysis in order for a certification emission test to be valid is contained in Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018.

Subsection 1.2.25

Purpose: The purpose of this subsection is to incorporate CFR § 86.542-90 into these test procedures. CFR § 86.542-90 lists the information that must be recorded with respect to each certification emission test in order for that test to be valid.

Rationale: It is necessary to incorporate CFR § 86.542-90 into these test procedures to provide CARB with the data needed to ensure compliance with applicable emission standards.

Subsection 1.2.26

Purpose: The purpose of this section is to incorporate CFR § 86.544-90 into these test procedures, and to clearly state it does not apply in California. CFR § 86.544-90 describes how to calculate exhaust emissions for the purpose of comparing them with applicable emission standards to demonstrate compliance with these standards.

Rationale: It is necessary to incorporate CFR § 86.544-90 into these test procedures and to clearly state that it does not apply in California, because the description of how to calculate exhaust emissions for the purpose of comparing them with applicable California emission standards to demonstrate compliance with these standards is contained in Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018.