## **APPENDIX B1**

State of California AIR RESOURCES BOARD

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

Adopted: XXXX XX, 2024

Note: The entire text of these test procedures set forth below is new language in "normal type" final text to be incorporated by reference in title 13, California Code of Regulations, § 1958. This is a newly adopted test procedure shown without underline or strikeout as permitted by California Code of Regulations, title 1, § 8.

Date of Release: November 28, 2023; 45-day Notice Version

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Date of Release: November 28, 2023; 45-day Notice Version Date of Hearing: January 25, 2024

## **TABLE OF CONTENTS**

CALIF	FORNIA 2028 AND SUBSEQUENT MODEL YEAR EXHAUST EMISSION	
STAN	DARDS AND TEST PROCEDURES FOR ON-ROAD MOTORCYCLES	1
A.	GENERAL APPLICABILITY	2
B.	DEFINITIONS, ACRONYMS, AND ABBREVIATIONS	3
C.	GENERAL REQUIREMENTS FOR CERTIFICATION	6
D.	DEMONSTRATION OF COMPLIANCE WITH EMISSION STANDARDS	9
E.	CALIFORNIA EXHAUST EMISSION STANDARDS	13
F.	ADMINISTRATIVE REQUIREMENTS	13
	TEST PROCEDURES	15
В	TEST FOLIPMENT AND MEASUREMENT FOLIPMENT	18

Date of Release: November 28, 2023; 45-day Notice Version Date of Hearing: January 25, 2024

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

This test procedure shall be used for street-use motorcycles produced for model years 2028 and subsequent, and delivered for sale in California, as specified in California Code of Regulations (CCR), Title 13, section 1958. The procedure combines elements of the following emissions regulations from the European Union (EU) and the United States Environmental Protection Agency (U.S. EPA), to the extent they pertain to street-use motorcycle emission standards and test procedures:

- 1. The provisions of Subparts E and F, Part 86, Title 40, Code of Federal Regulations (CFR), as last amended on the date set forth next to the 40 CFR Part 86 section listed below, which are incorporated by reference.
- 2. "Regulation (EU) No 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles, 02013R0168 EN 14.11.2020," (EU 168/2013) which is incorporated by reference.
- 3. "Commission Delegated Regulation No 134/2014 of 16 December 2013 supplementing Regulation (EU) No 168/2013 of the European Parliament and of the Council with regard to environmental and propulsion unit performance requirements and amending Annex V thereof, 02014R0134 EN 20.03.2018," (EU 134/2014) which is incorporated by reference.
- 4. "Commission Implementing Regulation (EU) No 901/2014 of 18 July 2014 Implementing Regulation (EU) No 168/2013 of the European Parliament and of the Council with regard to the administrative requirements for the approval and market surveillance of two- or three-wheel vehicles and quadricycles, 02014R0901 EN 12.03.2020," (EU 901/2014) which is incorporated by reference.
- 5. "TP-934 Test Procedure for Determining Evaporative Emissions from Model Year 2028 and Subsequent On-Road Motorcycles," adopted [INSERT ADOPTION DATE], State of California, Air Resources Board, which is incorporated by reference.
- 6. "California 2026 and Subsequent Model Year Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," adopted August 25, 2022, California Environmental Protection Agency, Air Resources Board, which is incorporated by reference.

These documents are hereby adopted as the "California 2028 and Subsequent Model Year Exhaust Emission Standards and Test Procedures for On-Road Motorcycles," with the exceptions and additions noted throughout these test procedures.

Date of Release: November 28, 2023; 45-day Notice Version

# Part I: GENERAL PROVISIONS FOR CERTIFICATION AND IN-USE VERIFICATION OF EMISSIONS

#### A. GENERAL APPLICABILITY

- 1. § 86.401-2006 General applicability. January 15, 2004. [No change.]
- 2. § 86.501-78 Applicability. January 5, 1977. [No change.]
- 3. California Provisions.

These test procedures are applicable to all new 2028 and subsequent model year motorcycles, except for zero-emission motorcycles, subject to the phase-in schedule of title 13, CCR, section 1958(h)(5).

## 4. Section Numbering; Construction.

- 4.1 § 86.404-78. January 5, 1977. [No change.]
- 4.2 § 86.504-78. January 5, 1977. [No change.]
- 4.3 The section numbering convention employed in these test procedures, in order of priority, is Part I, section A.1.1.1. in order to distinguish California procedures and requirements from those of the U.S. EPA. References in these test procedures to specific sections of the Code of Federal Regulations (CFR) maintain the same numbering system employed in the CFR.
- 4.4 In cases where the entire CFR section (including all subsections) or a section in an European Union (EU) 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 EU 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 with the numbering convention set forth in Part I, section A.4.3, above. For example, Part I, sections B.1.1 through B.1.5 incorporate all of the definitions in the referenced CFR sections and EU test procedures into these test procedures. Part I, section B.1.6 establishes additional California definitions for terms that are not included in Part I sections B.1.1 through B.1.5, but are applicable to these test procedures. In addition, Part I, section B.1.6 redefines terms that are included in Part I

2

Date of Release: November 28, 2023; 45-day Notice Version

- sections B.1.1 through B.1.5, if needed, to make the definitions more applicable to California's regulatory requirements.
- 4.5 The notation "[n/a]" indicates that the subject matter of the federal or EU regulation does not apply to California on-road motorcycles. In some cases, the subject of the federal or EU regulation may be indicated in the bracket for clarity.
- 4.6 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.
- 4.7 The 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 EU regulation, as noted.

#### B. DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

#### 1. Definitions

- 1.1 § 86.402-78. October 25, 2016. [No change, except as otherwise noted in Part I, section B.1.6.]
- 1.2 § 86.402-98. January 15, 2004. [No change, except as otherwise noted Part I, section B.1.6.]
- 1.3 § 86.502-78. January 5, 1977. [No change.]
- 1.4 EU 168/2013, Chapter I, Article 3.
- 1.5 EU 134/2014, Chapter I, Article 2.

#### 1.6 **California Definitions**.

Unless otherwise specified in these test procedures, the definitions applicable to these rules include those set forth in Health and Safety Code sections 39010 through 39060 and in title 13, CCR, section 1900(b). The following definitions are specifically applicable to these test procedures and take precedence over any contrary definitions.

**"Administrator"** means the Executive Officer of the California Air Resources Board (CARB).

**"Approval authority"** means the California Air Resources Board.

3

Date of Release: November 28, 2023; 45-day Notice Version

"Certificate of Conformity" means Executive Order certifying vehicles for sale in California.

"EPA Enforcement Officer" means CARB Enforcement Division staff.

**"Executive Officer"** means the Executive Officer of the California Air Resources Board or his or her authorized representative.

"Importer" means any person or business that brings a vehicle, system, component, separate technical unit, part or equipment into the United States from abroad for sale.

**"Manufacturer"** means the manufacturer granted certification to sell streetuse motorcycles in the State of California.

"Manufacturer's representative" means any person who is duly appointed by the manufacturer to represent the manufacturer before CARB and to act on the manufacturer's behalf in matters covered by these test procedures.

"Motorcycle" is defined in California Vehicle Code section 400.

**"Motorcycle class"** means a group or set of motorcycles subject to enforcement testing that have been determined by the Executive Officer to share common or similar hardware, software, OBD monitoring strategy, or emission control strategy.

**"Small-volume manufacturer"** means a manufacturer that sells no more than 300 (combined) new Class I, II, and III motorcycles per model year in California.

"Standard Road Cycle for L-Category Vehicles (SRC-LeCV)" means the cycle shown in Annex VI, Appendix 1 of EU 134/2014.

**"Type-approval"** (as used in EU 168/2013, Chapter I, Article 3 and EU 134/2014 Chapter I, Article 2) means the procedure whereby an approval authority certifies that a type of vehicle, system, component, or separate technical unit satisfies the relevant administrative provisions and technical requirement.) For California, "type-approval" means CARB application for certification process, set forth in Part I, section C.12 of these test procedures.

**"Type-approval certificate"** (as used in EU 168/2013 and EU 134/2014 Chapter I, Article 2) means the document whereby the approval authority officially certifies that a type of vehicle, system, component, or separate

technical unit is approved.) For California, "type-approval certificate" means the Executive Order certifying vehicles for sale in California.

"Useful life" is defined in Part I, section C.1 of these test procedures.

**"U.S. EPA Durability Driving Schedule for Motorcycles"** means the Durability Driving Schedule for Motorcycles as set forth in subparagraph (b) of Appendix IV of 40 CFR Part 86 (June 28, 1977).

"World Harmonized Motorcycle Test Cycle (WMTC)" means the chassisdynamometer test cycle in EU 134/2014 Annex II, Appendix 6, section (3).

**"Zero-Emission Motorcycle"** means a street-use motorcycle that produce zero exhaust emissions of any criteria pollutant (or precursor pollutant) or greenhouse gas under any possible operational modes or conditions.

## 2. Acronyms and Abbreviations.

- 2.1 § 86.403-78. Abbreviations. October 30, 2009. [No change.]
- 2.2 § 86.503-78. Abbreviations. January 5, 1977. [No change.]
- 2.3 California Acronyms and Abbreviations.

"EU 168/2013" means "Regulation (EU) No 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles, 02013R0168 - EN - 14.11.2020."

"EU 134/2014" means "Commission Delegated Regulation No 134/2014 of 16 December 2013 supplementing Regulation (EU) No 168/2013 of the European Parliament and of the Council with regard to environmental and propulsion unit performance requirements and amending Annex V thereof, 02014R0134 - EN - 20.03.2018."

"CARB" means California Air Resources Board.

"CCR" means California Code of Regulations.

"CFR" means Code of Federal Regulations.

"E10" means commercial pump fuel containing 10 percent ethanol.

"EU" means European Union.

"ft" means feet.

"HC" means hydrocarbon.

"km/h" means kilometer per hour.

"m" means meter.

"MPH" means miles per hour.

"n/a" means not applicable.

"ONMC" means On-Road Motorcycle.

"TP-934" means test procedure for determining evaporative emissions from on-road motorcycles.

"WMTC" means World Harmonized Motorcycle Test Cycle.

#### C. GENERAL REQUIREMENTS FOR CERTIFICATION

#### 1. Useful Life

Useful life is defined for each class of motorcycle as follows:

- 1.1 Class I-B 5.0 years or 11,000 km (6,835 miles), whichever occurs first.
- 1.2 Class II 5.0 years or 20,000 km (12,427 miles), whichever occurs first.
- 1.3 Class III <800cc 5.0 years or 35,000 km (21,748 miles), whichever occurs first.
- 1.4 Class III ≥800 cc 5.0 years or 50,000 km (31,069 miles), whichever occurs first.

## 2. California On-Board Diagnostic System Requirements

- 2.1 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 model shall be certified unless the Executive Officer finds that the vehicle model complies with the requirements of section 1958.2, title 13, CCR.
- 2.2 There are no on-board diagnostic system requirements for Class I and Class II motorcycles.

### 3. Measurement system

3.1 § 86.405-78. January 5, 1977. [No change.]

## 4. Introduction, structure of subpart, further information

- 4.1 § 86.406-78. March 11, 1998. Amend as follows:
  - 4.1.1 Amend subparagraph (a) as follows: Delete; Replace with the following: This subpart contains general provisions regulating the emission of air pollution from new motorcycles. Test procedures are found in Part II of these test procedures.

6

Date of Release: November 28, 2023; 45-day Notice Version

- 4.1.2 Subparagraph (b). [No change.]
- 4.1.3 Amend subparagraph (c) as follows: Delete; Replace with the following:

New motorcycles produced for sale in California shall demonstrate compliance with all general standards and all specific emission requirements before they can be sold in California. The manufacturer shall submit an application with sales data, product information, required maintenance, testing and service accumulation procedures in accordance with section 4.1.4. The Executive Officer will select vehicle(s) that will represent the manufacturer's product line. The manufacturer is required to construct these vehicles to be representative of actual production. Service is accumulated and emission tests performed with data submitted to the Executive Officer. The Executive Officer may run their own tests to confirm the manufacturer's results. The Executive Officer will review the data and either grant or deny certification. If the manufacturer wishes to make changes to a certified vehicle, or to produce a new vehicle, the Executive Officer must be notified. The Executive Officer may require testing to demonstrate continued compliance with emission standards. Each vehicle must be labeled with tune up specifications and the purchaser must be supplied with maintenance instructions. Also, information on production vehicles must be supplied to the Executive Officer.

- 4.1.4 Amend subparagraph (d) as follows: Delete; Replace with the following: Manufacturers that are considering submitting an application should contact: Chief, Emissions Certification and Compliance Division, California Air Resources Board, 4001 Iowa Avenue, Riverside, California 92507 or by email at: <a href="mailto:onrld@arb.ca.gov">onrld@arb.ca.gov</a>. Manufacturers should state whether the manufacturer plans to certify for total sales of greater than or less than 300 vehicles for the applicable model year. Manufacturers shall submit applications to the California Air Resources Board through the electronic filing system, E-File, available through the website: <a href="https://login.arb.ca.gov/">https://login.arb.ca.gov/</a>.
- 4.2 § 86.505-2004. January 15, 2004. [No change.]
- 5. Certificate of conformity required
  - 5.1 § 86.407-78. January 15, 2004. [No change.]
- 6. General standards; increase in emissions; unsafe conditions
  - 6.1 § 86.408-78. June 29, 2021. [No change.]

#### 7. Prohibition of Defeat Devices

7.1 § 86.409-78. Defeat devices, prohibition. January 5, 1977. Amend as follows:

Replace "Federal" with "State" in subsection (b)(2)(i).

#### 8. Maintenance Instructions

- 8.1 § 86.411-78. Maintenance instructions, vehicle purchaser. January 5, 1977. [No change.]
- 8.2 § 86.412-78. Maintenance instructions, submission to Administrator. January 5, 1977. [No change, except the reference to 10,000 units shall mean 300 units in California.]

## 9. Vehicle Labeling

9.1 § 86.413-2006. July 13, 2005. [No change.]

#### 10. Submission of vehicle identification number

10.1 § 86.414-78. January 5, 1977. [No change.]

#### 11. Production vehicles

- 11.1 § 86.415-78. April 30, 2010. Amend as follows:
  - 11.1.1 Subparagraph (a). [No change.]
  - 11.1.2 Amend subparagraph (b) as follows: Delete; Replace with the following: Any manufacturer obtaining certification shall notify the Executive Officer of the number of vehicles of each engine family-engine displacement-emission control system-fuel system-transmission type-inertial mass category combination produced for sale in California during the preceding year. This report must be submitted every year no later than April 1. Annual reports shall be submitted to the California Air Resources Board through the electronic filing system, E-File, available through the website: <a href="https://login.arb.ca.gov/">https://login.arb.ca.gov/</a>.
  - 11.1.3 Subparagraph (c). [No change.]

## 12. Application for certification

- 12.1 § 86.416-80. August 30, 2006. Amend as follows:
  - 12.1.1 Amend subparagraph (a) as follows: Delete; Replace with the following: New motorcycles produced by a manufacturer whose projected sales in California is 300 or more units (for the model year in which certification if sought) are covered by the following:

8

Date of Release: November 28, 2023; 45-day Notice Version

- 12.1.1.1 Subparagraph (a)(1) through (a)(4). [No change.]
- 12.1.2 Amend subparagraph (b) as follows: Delete; Replace with the following: New motorcycles produced by a small-volume manufacturer or by any other manufacturer whose projected sales in California is less than 300 units (for the model year in which certification is sought) are covered by the following:
  - 12.1.2.1 Subparagraphs (b)(1) and (b)(2). [No change.]
- 12.1.3 Subparagraphs (c) through (f). [No change.]
- 12.2 The manufacturer shall provide with the application for certification all information required to show compliance with applicable exhaust emissions standards in accordance with Chapter IV, Article 27 of EU 168/2013. Unless otherwise approved by the Executive Officer, this information shall be provided as described in EU 901/2014. At minimum, the manufacturer shall provide all the following information specified in EU 901/2014 Annex I, Part B, section 2.8:
  - 12.2.1 Item Numbers 1 through 3.5.4.2;
  - 12.2.2 Item Numbers 4 through 4.4.4; and
  - 12.2.3 Item Numbers 7.5 through 7.5.3.1.

## 13. Approval of application for certification

13.1 § 86.417-78. January 5, 1977. [No change.]

#### D. DEMONSTRATION OF COMPLIANCE WITH EMISSION STANDARDS

#### 1. Test fleet selection

1.1 § 86.418-78. January 5, 1977. [No change, except that the reference to 5,000 annual sales shall mean 300 annual sales in California.]

## 2. Engine displacement, motorcycle classes

2.1 § 86.419-2006. June 29, 2021. [No change.]

## 3. Engine families

3.1 § 86.420-78. August 17, 1979. [No change.]

#### 4. Test fleet

4.1 § 86.421-78. January 5, 1977. [No change.]

#### 5. Administrator's fleet

5.1 § 86.422-78. January 5, 1977. [No change.]

#### 6. Test vehicles

6.1 § 86.423-78. December 10, 1984. [No change.]

## 7. Test procedures.

- 7.1 § 86.425-78. January 5, 1977. Amend as follows:
  - 7.1.1 Delete subparagraph (a). Replace with the following: Motorcycle exhaust emission test procedures are found in Part II of these test procedures. Motorcycle evaporative emission test procedures are found in CARB TP-934: Test Procedure for Determining Evaporative Emissions from Model Year 2028 and Subsequent On-Road Motorcycles, incorporated by reference in title 13, CCR, section 1976.
  - 7.1.2 Delete subparagraph (b). Replace with the following: The Executive Officer may prescribe emission test procedures for any motorcycle which they determine is not susceptible to satisfactory testing by the procedures set forth in Part II of these test procedures or TP-934.
  - 7.1.3 Delete subparagraph (c). Replace with the following: Testing of any type with respect to any test vehicle other than that specified in this test procedure and TP-934 is not allowed except as required to obtain EU Type Approval or U.S. EPA Certificate of Conformity. The manufacturer shall notify the Executive Officer in accordance with section 4, subsection 4.1.4, if the test vehicle was also used for testing associated with EU Type Approval or U.S. EPA Certificate of Conformity.

#### 8. Service accumulation

- 8.1 Service accumulation shall be performed on all test vehicles using one of the options outlined in Part I, section D.8.3, at the manufacturer's discretion.
- 8.2 For model year 2028 and later, the applicable durability distances listed in the following table shall be used regardless of which service accumulation option is selected by the manufacturer.

10 Date of Release: November 28, 2023; 45-day Notice Version

Durability Distance for 2028 and Subsequent Model Years				
Class	Durability Distance			
Class IB	11,000 km			
Class II	20,000 km			
Class III <800cc	35,000 km			
Class III ≥800cc	50,000 km			

## 8.3 Options for service accumulation:

- 8.3.1 **Option 1:** § 86.426-78. October 28, 1977. [No change.]
- 8.3.2 **Option 2:** Actual durability testing with full mileage accumulation, as described in EU 134/2014, Annex VI, section 3.1.
- 8.3.3 **Option 3:** Actual durability testing with partial mileage accumulation, as described in EU 134/2014, Annex VI, section 3.2.
- 8.3.4 **Option 4:** Bench aging durability test, as described in EU 134/2014, Annex VI, section 3.6, Appendix 3 to Annex VI, and Appendix 4 to Annex VI.
- 8.4 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.

#### 9. Emission tests

9.1 When utilizing Option 1 in Part I, section D.8.3.1, conduct emissions testing in accordance with § 86.427-78. (June 29, 2021). Amend as follows: Replace Table 1 to § 86.427-78 with the following:

Table 1 to § 86.427-78 - California Test Specifications by Displacement Class

Displacement Class	Total Test Distance (km)	Minimum Test Distance (km)	Minimum Number of Tests
IB	6,500	2,500	4
	10,000	2,500	4
III (279 – 799cc)	17,500	3,500	4
III (800cc and greater)	25,000	3,500	4

Date of Release: November 28, 2023; 45-day Notice Version

- 9.2 When utilizing Option 2 in Part I, section D.8.3.2, conduct emissions testing in accordance with EU 134/2014, Annex VI, sections 3.1.1 through 3.1.2.
- 9.3 When utilizing Option 3 in Part I, section D.8.3.3, conduct emissions testing in accordance with EU 134/2014, Annex VI, sections 3.2.1 through 3.2.4.5.
- 9.4 When utilizing Option 4 in Part I, section D.8.3.4, conduct emissions testing in accordance with EU 134/2014, Annex VI, sections 3.6 through 3.6.2, Appendix 3 to Annex VI, and Appendix 4 to Annex VI.

#### 10. Test Vehicle Maintenance

- 10.1 § 86.428-80. Maintenance, scheduled; test vehicles. January 5, 1977. Amend as follows:
  - 10.1.1 Subparagraphs (a) through (g). [No change.]
  - 10.1.2 Amend subparagraph (h) as follows: Delete; Replace with the following: Complete emission tests (see EU 134/2014, Type I Test, Annex II) are required, unless waived by the Executive Officer, before and after any vehicle maintenance which may reasonably be expected to affect emissions.
- 10.2 § 86.429-78. Maintenance, unscheduled; test vehicles. January 5, 1977. [No change.]

#### 11. Vehicle failure

11.1 § 86.430-78. December 10, 1984. [No change.]

#### 12. Data submission

- 12.1 § 86.431-78. October 30, 2009. Amend as follows:
  - 12.1.1 Subparagraph (a). Delete; Replace with the following: Data from all tests (including voided tests) performed by a manufacturer shall be included in the application.
  - 12.1.2 Subparagraphs (b) (e). [No change.]

#### 13. Deterioration factor

- 13.1 § 86.432-78. October 25, 2016. Amend as follows:
  - 13.1.1 Subparagraphs (a) (e). [No change.]
  - 13.1.2 Subparagraph (f). Delete; Replace with the following: A manufacturer has the option of applying an outlier test point procedure to completed durability data within its certification testing program for a

## 14. Testing by the Administrator

14.1 § 86.434-78. December 10, 1984. [No change.]

### 15. Extrapolated emission values

15.1 § 86.435-78. June 29, 2021. [No change.]

### 16. Additional service accumulation

16.1 § 86.436-78. June 29, 2021. [No change.]

## 17. California Fuel Specifications

The manufacturer shall perform all emission testing used to demonstrate compliance with the exhaust emission standards in title 13, CCR, section 1958 using the fuel that meets the applicable specifications in Part II, section A of the "California 2026 and Subsequent Model Year 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. The Executive Officer shall accept test data generated using reference fuel "Petrol (E5)" as specified in Appendix 2 to Annex II of 134/2014 when all measured pollutants are at least 10% (ten percent) below the applicable standard.

**18.** Appendix IV to 40 CFR Part 86, subparagraph (b). June 28, 1977. [No change.]

#### E. CALIFORNIA EXHAUST EMISSION STANDARDS

Delete 40 CFR §§ 86.410-90 and 86.410-2006. Replace with the following:

For the 2028 and subsequent model years, the manufacturer shall demonstrate compliance with the exhaust emission standards in title 13, CCR, section 1958(h).

#### F. ADMINISTRATIVE REQUIREMENTS

#### 1. Certification

1.1 § 86.437-78. August 30, 2006. Amend as follows:

- 1.1.1 Amend subparagraph (a) as follows:
  - 1.1.1.1 Delete the first paragraph. Replace with the following: New motorcycles produced by a manufacturer for sale in California are covered by the following:
  - 1.1.1.2 Subparagraphs (a)(1) (a)(3)(iii). [No change]
- 1.1.2 Subparagraph (b). Delete

## 2. Amendments to the application

2.2 § 86.438-78. January 5, 1977. [No change.]

## 3. Alternative procedure for notification of additions and changes

3.1 § 86.439-78. December 10, 1984. [No change.]

#### 4. Maintenance of records

4.1 § 86.440-78. December 10, 1984. [No change.]

## 5. Right of entry

5.1 § 86.441-78. January 5, 1977. [No change.]

## 6. Denial, revocation, or suspension of certification

6.1 § 86.442-78. October 28, 1977. [No change.]

## 7. Request for hearing

7.1 § 86.443-78. October 25, 2016. Delete; Replace with the following: Requests for hearing shall be conducted according to California Code of Regulations, title 17, section 60055.1.

## 8. Hearings on certification

8.1 § 86.444-78. October 25, 2016. Delete; Replace with the following: Requests for hearings on certification shall be conducted according to California Code of Regulations, title 17, section 60055.1.

## 9. What temporary provisions address hardship due to unusual circumstances?

9.1 § 86.445-2006. January 15, 2004. [n/a]

## 10. What are the provisions for extending compliance deadlines for small-volume manufacturers under hardship?

10.1 § 86.446-2006. January 15, 2004. [n/a]

Date of Release: November 28, 2023; 45-day Notice Version

- 11. What provisions apply to motorcycle engines below 50 cc that are certified under the Small SI program or the Recreational-vehicle program?
  - 11.1 § 86.447-2006. July 13, 2005. [n/a]
- 12. What provisions apply to vehicles certified under the Recreational-vehicle program?
  - 12.1 § 86.448-2006. July 13, 2005. [n/a]
- 13. Averaging provisions
  - 13.1 § 86.449. January 15, 2004. [n/a]
- 14. Treatment of confidential information
  - 14.1 § 86.450. January 24, 2023. [n/a]
  - 14.2 California Provisions: Disclosure of Records.
    - 14.2.1 **Public Disclosure**. Unless identified as a trade secret or otherwise confidential under title 17, CCR, section 91011, and supported as such under title 17, CCR, 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.
    - 14.2.2 **Disclosure to the U.S. Environmental Protection Agency**. 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 U.S. 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.

## Part II: Test Procedure for Determining Exhaust Emissions from On-Road Motorcycles

### A. TEST PROCEDURES

1. 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 EU 134/2014 with the changes and additions noted below.

Date of Release: November 28, 2023; 45-day Notice Version

#### 2. EU 134/2014

- 2.1 Chapter I: Subject Matter and Definitions
  - 2.1.1 Article 1. [n/a]
  - 2.1.2 Article 2. [Refer to Part I, section B of this test procedure]
- 2.2 Chapter II: Obligations of the Manufacturer Regarding the Environmental Performance of Vehicles
  - 2.2.1 Articles 3 through 4. [n/a]
  - 2.2.2 Article 5. [n/a] Note that testing need not be witnessed by a "technical service" as would otherwise be required throughout EU 134/2014.
  - 2.2.3 Article 6. [No change.]
  - 2.2.4 Articles 7 through 9. [n/a]
  - 2.2.5 Article 10. [No change.] Note that this article applies only when utilizing durability demonstration Options 2, 3, or 4 of Part I, section D.8.3 of these test procedures.
  - 2.2.6 Articles 11 through 13. [n/a]
- 2.3 Chapter III through Chapter V. [n/a]
- 2.4 Annexes
  - 2.4.1 Annex I. [n/a]
  - 2.4.2 Annex II. Amend as follows:

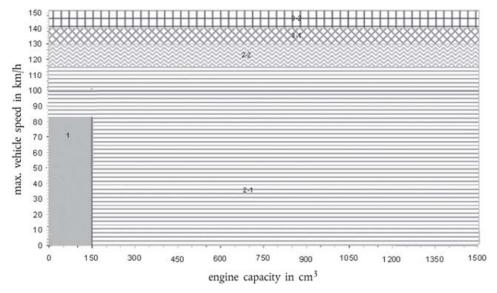
If any discrepancies exist between the requirements in Annex II and the requirements in the Part I of these test procedures, the requirements in Part I of these test procedures shall apply unless otherwise approved by the Executive Officer.

2.4.2.1 Sections 1 through 4.2.5. [No change.] Note that the vehicle runin requirements of EU 134/2014, Annex II, section 4.2.2 do not preclude zero-kilometer emissions testing as described in 40 CFR §86.427-78.

16 Date of Release: November 28, 2023; 45-day Notice Version

2.4.2.2 Section 4.3. Delete Figure 1-1. Replace with the following:

Figure 1-1: California L-category vehicle sub-classification for environmental testing, test types I, VII and VIII



2.4.2.3 Section 4.3.1. Delete Table 1-1. Replace with the following:

Table 1-1: California sub-classification criteria for class 1 L-category vehicles

<b>5 ,</b>	
engine capacity $< 150 \text{ cm}^3 \text{ and } v_{max} < 85 \text{ km/h}$	class 1

2.4.2.4 Section 4.3.2. Delete Table 1-2. Replace with the following:

Table 1-2: California sub-classification criteria for class 2 L-category vehicles

Engine capacity $< 150 \text{ cm}^3$ and $85 \text{ km/h} \le v_{max} < 115 \text{ km/h}$ or engine capacity $\ge 150 \text{ cm}^3$ and $v_{max} < 115 \text{ km/h}$	sub-class 2-1
115 km/h ≤ v max < 130 km/h	sub-class 2-2

- 2.4.2.5 Sections 4.3.3 through 4.3.4. [No change.]
- 2.4.2.6 Section 4.4. Delete; Replace with the following: California Fuel Specifications as described in Part I, section D.17 of these test procedures.
- 2.4.2.7 Sections 4.5 through 7. [No change.]
- 2.4.2.8 Appendix 1. [No change.]
- 2.4.2.9 Appendix 2. [No change.] Note that Appendix II applies only to fuels other than the fuel that meets the applicable specifications

in Part II, section A of the "California 2026 and Subsequent Model Year Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

- 2.4.2.10 Appendix 3 through Appendix 9. [No change.]
- 2.4.2.11 Appendix 10. [n/a]
- 2.4.2.12 Appendix 11 through Appendix 13. [No change.]
- 2.4.3 Annexes III through V. [n/a]
- 2.4.4 Annex VI. No change, except add the follow sentence:

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. 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.

2.4.5 Annexes VII through XII. [n/a]

#### **B. TEST EQUIPMENT AND MEASUREMENT EQUIPMENT**

- 1. A manufacturer shall 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:
  - 1.1 **Option 1**: EU 134/2014.
    - 1.1.1 Test equipment and measurement equipment that complies with all applicable tolerances and specifications Annex II shall apply.
  - 1.2 **Option 2**: 40 CFR Part 86, Subpart F, as follows.
    - 1.2.1 § 86.508-78. Dynamometer. October 28, 1977. Amend as follows:
      - 1.2.1.1 Subparagraphs (a) through (c). [No change.]
      - 1.2.1.2 Delete subparagraph (d); Replace with the following:

A variable speed cooling blower shall direct air to the vehicle. The blower outlet shall be at least  $0.40 \text{ m}^2$  ( $4.31 \text{ ft}^2$ ) and shall be squarely positioned between 0.3 m (0.98 ft) and 0.45 m (1.48 ft) in front of the vehicle's front wheel. The velocity of the air at the blower outlet shall be within the following limits (as a function of roll speed):

Actual roll speed	Allowable cooling air speed
0 km/h to 5 km/h	0 km/h to 10 km/h.
5 km/h to 10 km/h	0 km/h to roll speed + 5 km/h.
10 km/h to 50 km/h	Roll speed ±5 km/h.
Above 50 km/h	Roll speed ±10 percent.

- 1.2.1.3 Subparagraph (e). [No change.]
- 1.2.2 § 86.509-90. Exhaust gas sampling system. June 30, 1995. [No change.]
- 1.2.3 § 86.511-90. Exhaust gas analytical system. April 11, 1989. [No change.]
- 1.2.4 § 86.513. Fuel and engine lubricant specifications. June 29, 2021. Amend as follows:
  - 1.2.4.1 Subparagraphs (a) through (e). [n/a]
  - 1.2.4.2 Subparagraph (f). [No change.]
  - 1.2.4.3 Subparagraphs (g) and (h). [n/a]
- 1.2.5 § 86.514-78. Analytical gases. June 30, 1995. [No change.]
- 1.2.6 § 86.515-78. EPA urban dynamometer driving schedule. April 28, 2014. [n/a] Note: refer to EU 134/2014, Annex II.
- 1.2.7 § 86.516-90. Calibrations, frequency and overview. June 30, 1995. [No change.]
- 1.2.8 § 86.518-78. Dynamometer calibration. March 11, 1998. [No change.]
- 1.2.9 § 86.519-90. Constant volume sampler calibration. June 30, 1995. [No change.]
- 1.2.10 § 86.521-90. Hydrocarbon analyzer calibration. June 30, 1995. [No change.]
- 1.2.11 § 86.522-78. Carbon monoxide analyzer calibration. January 5, 1977. [No change.]
- 1.2.12 § 86.523-78. Oxides of nitrogen analyzer calibration. June 30, 1995. [No change.]
- 1.2.13 § 86.524-78. Carbon dioxide analyzer calibration. January 5, 1977. [No change.]
- 1.2.14 § 86.526-90. Calibration of other equipment. April 11, 1989. [No change.]

- 1.2.15 § 86.527-90. Test procedures, overview. June 30, 1995. [n/a]
- 1.2.16 § 86.528-78. Transmissions. January 5, 1977. [n/a] Note: refer to EU 134/2014, Annex II, Appendix IX for shift schedule.
- 1.2.17 § 86.529-98. Road load force and inertia weight determination. February 19, 2015. [n/a]
  - Note: refer to EU 134/2014, Annex II, Appendix V, VII, or VIII for road load force and inertia weight determination.
- 1.2.18 § 86.530-78. Test sequence, general requirements. January 5, 1977. [No change.]
- 1.2.19 § 86.531-78. Vehicle preparation. June 29, 2021. [No change.]
- 1.2.20 § 86.532-78. Vehicle preconditioning. January 5, 1977. [n/a] Note: refer to EU 134/2014, Annex II.
- 1.2.21 § 86.535-90. Dynamometer procedure. April 11, 1989. [n/a] Note: refer to EU 134/2014, Annex II.
- 1.2.22 § 86.536-78. Engine starting and restarting. January 5, 1977. [No change.]
- 1.2.23 § 86.537-90. Dynamometer test runs. June 30, 1995. [n/a] Note: refer to EU 134/2014, Annex II.
- 1.2.24 § 86.540-90. Exhaust sample analysis. June 30, 1995. [n/a.] Note: refer to EU 134/2014, Annex II.
- 1.2.25 § 86.542-90. Records required. June 30, 1995. [No change.]
- 1.2.26 § 86.544-90. Calculations; exhaust emissions. October 25, 2016. [n/a.]

Note: refer to EU 134/2014, Annex II.