Proposed Regulation Order

Preliminary DRAFT for Public Review and Comment

Published on May 10, 2023

Amendments to On-Road Motorcycle (ONMC) Emission Standards and Test Procedures

Note: This version of CARB Staff's DRAFT Proposed Regulation Order is being distributed for informal public comment prior to the formal 45-day public comment period required under Government Code section 11346.2 subdivision (a)(3). The proposed amendments are shown in underline to indicate additions and ~~strikethrough~~ to indicate deletions from the existing regulatory text. Brackets indicate placeholder text to be updated upon adoption of the proposed amendments (such as [Insert date of amendment])

A Table of Contents and page numbers are included in this draft to assist reviewers with navigating the document. These items are not part of the proposed regulation and will not be included in the final Proposed Regulation Order.

CARB staff requests that any written comments on this draft regulation be submitted by 5:00 pm on Friday, June 2, 2023. You can submit electronic comments via e-mail to Jason McPhee at jason.mcphee@arb.ca.gov. Alternatively, you can mail your written comments to:

California Air Resources Board
Attention: Jason McPhee
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Title 13 California Code of Regulations

Amend Sections 1958, 1976, 2036, and 2904, and Adopt Sections 1958.1, 1958.2, 1958.3, 1958.4, 1958.5, and 1958.6, of title 13, California Code of Regulations, to read as follows:

13 CCR § 1958

§ 1958. Exhaust Emission Standards and Test Procedures - Motorcycles and Motorcycle Engines Manufactured on or After January 1, 1978.

(a) This section shall be applicable to motorcycles, motorcycle engines, and the manufacturers of either motorcycles or motorcycle engines produced on or after January 1, 1978. Motorcycles and motorcycle engines are excluded from the requirements of this section if:

(1) The engine displacement is less than 50 cubic centimeters, or

(2) The motorcycle is a Zero Emissions Motorcycle as described in section 1958.3(b), or

(3) An 80 kilogram (176 pound) driver cannot

(A) start from a dead stop using only the engine, or

(B) exceed a maximum speed of 40 kilometers per hour (24.9 miles per hour) on a level paved surface.

(b) Exhaust emissions from new street-use motorcycles and motorcycle engines manufactured for model years 1978 through 2025, subject to registration and sold and registered in this state, shall not exceed:

Table of Standards for Model Years 1978 Through 2025, and for Small Volume Manufacturers

	Engine	Exhaust Emission Standards (grams per kilometer)	
Model-Year	Displacement	Hydrocarbon (HC)	Carbon
	(in cubic centimeters)	+ Oxides of Nitrogen (NOx)	Monoxide
1978 to 1979	50 to less than 170	5.0 (HC only)	17
	170 to less than 750	5.0+0.0155(D-170) [FNa1] (HC only)	17
	750 or greater	14 (HC only)	17
1980 to 1981	All (50 cc or larger)	5.0 (HC only)	17

1982 ~~and subsequent~~ through 2025, and Small Volume Manufacturers 2008 and subsequent	50 cc to 279 cc	1.0 (HC only)	12
1982 through 1985			
(manufactured prior			
to March 1, 1985)	280 cc or greater	2.5 (HC only)	12
1985 (manufactured			
after February 28,			
1985) through 1987	280 cc or greater	1.4 (HC only), applied as a corporate average, [FNa2] provided that each engine family shall have only one applicable standard	12
1988 through 2003	280 cc to 699 cc	1.0 (HC only), applied as a corporate average, [FNa2] provided that each engine family shall have only one applicable standard	12
1988 through 2003	700 cc or greater	1.4 (HC only), applied as a corporate average, [FNa2] provided that each engine family shall have only one applicable standard	12
2004 through 2007	280 cc or greater	1.4 (HC + NOx), applied as a corporate average, [FNa2] provided that each engine family shall have only one applicable standard	12
2008 ~~and subsequent~~ through 2025,	280 cc or greater	0.8 (HC + NOx), applied as a corporate average, [FNa2] provided that each engine family shall have only one applicable standard	12

[FNa1]
D = engine displacement of motorcycles in cubic centimeters.

[FNa2]
Compliance with a standard to be applied as a “corporate average” shall be determined as follows:

$$\frac{\sum_{j=1}^{n} (PROD_{jx})\ (STD_{jx})}{\sum_{j=1}^{n} (PROD_{jx})} = STD_{ca}$$

where,

n = Class III motorcycle engine families (engines with displacement of 280 cc or greater manufactured after February 28, 1985).

PRODjx = Number of units of Class III engine family j produced for sale in California in model year x
STDjx = The manufacturer designated HC or HC + NOx emission standard, whichever applies, for engine family j in model year x, which shall be determined by the manufacturer subject to the following conditions:

(1) for Model Year 1988 through 2003 motorcycle engines and motorcycles with engine displacement of 280 cc or greater, no individual engine family exhaust emission standard shall exceed 2.5 g/km HC, and

(2) for Model Year 2004 ~~and subsequent~~ through 2025 motorcycle engines and motorcycles with engine displacement of 280 cc or greater, no individual engine family exhaust emission standard shall exceed 2.5 g/km HC+NOx, and

(3) no engine family designation or engine family exhaust emission standard shall be amended in a model year after the engine family is certified for the model year, and

(4) prior to sale or offering for sale in California, each engine family shall be certified in accordance with Section 1958(c) and shall be required to meet the manufacturer's designated HC or HC + NOx standard, whichever applies, as a condition of the certification Executive Order. Prior to certification the manufacturer shall also submit estimated production volumes for each engine family to be offered for sale in California.

STDCa = A manufacturer's corporate average HC or HC + NOx exhaust emissions, whichever applies, from those California motorcycles or motorcycle engines subject to the California corporate average HC or HC + NOx exhaust emission standard, as established by an Executive Order certifying the California production for the model year. This order must be obtained prior to the issuance of certification Executive Orders for individual engine families for the model year and shall include but not be limited to the following requirements:

(1) During the manufacturer's production year, for each engine family, the manufacturer shall provide the following information to the Executive Officer within 30 days after the last day in each calendar quarter:

(A) vehicle identification numbers and an explanation of the identification code;

(B) the total number of vehicles or motorcycle engines produced for sale in California and their applicable designated emissions standards.

(2) The manufacturer's average HC or HC + NOx exhaust emissions, whichever applies, shall meet the applicable corporate average standard at the end of the manufacturer's production for the model year.

(3) Production and sale of vehicles which result in non-compliance with the California standard for the model year shall cause a manufacturer to be subject to civil penalties, per vehicle, pursuant to Health and Safety Code Section 43154. All excess emissions resulting from final non-compliance with the California standard shall be made up in the following model year.

(4) For a period of up to one year following the end of the model year, for each model the manufacturer shall submit California sales and registration data as it becomes available.

(c) The test procedures for determining compliance with these standards are set forth in Subparts E and F, Part 86, Title 40, Code of Federal Regulations, as they existed on April 15,1978, for 1978 through 1987 model years, and they existed on July 7, 1986, for 1988 ~~and subsequent~~ through 2025 model years.

(1) When the word “Administrator” is used in these federal regulations, it shall mean the executive officer of the state board.

(2) When a California service accumulation vehicle is used, the California standards for Class I and II motorcycles for the manufacturer designated standards (STDjx) for Class III motorcycles as defined above shall supersede corresponding federal standards in Subpart E of the federal regulations.

(3) Pursuant to the federal certification protocol under 40 CFR Section 86.432-78, a manufacturer has the option of applying an outlier test point procedure. Where the manufacturer chooses to apply the optional procedure, the California statistical outlier procedure entitled “Calculation of t-Statistic for Deterioration Data Outlier Test,” dated December 17, 1976, shall be used to test for irregular data from a durability-data set. If any data point is identified by the manufacturer as a statistical outlier, the executive officer shall determine, on the basis of an engineering analysis of the cause of the outlier submitted by the manufacturer, whether the outlier is to be rejected. The outlier shall be rejected only if the executive officer determines that the outlier does not reflect representative characteristics of the emission control system anomaly, test procedure error, or an extraordinary circumstance not expected to recur. Only the identified outlier shall be eliminated; other data at that test point (i.e., data for other pollutants) shall not be eliminated unless the executive officer determines, based on the engineering analysis, that they also do not reflect representative characteristics of the emission control system. All durability test data, including any outliers and the manufacturer's engineering analysis shall be submitted with the final application.

(4) When a federal service accumulation vehicle does not meet the applicable California engine family standards, a stabilized “worst case” California configuration vehicle may be utilized to demonstrate compliance with the California standards.

Before an emission test is conducted, the vehicle shall accumulate the following applicable minimum test distance:

Class	Distance (Kilometers)
I	2500
II	2500
III	3500

The test shall be conducted at an accumulated distance within 250 kilometers (155 miles) of the nominal test distance.

A deterioration factor (DF) defined as the extrapolated useful life distance emissions divided by the interpolated minimum test distance emissions shall be computed using emissions data from the federal service accumulation vehicle. The DF shall be applied to the stabilized vehicle test data to obtain useful life emissions. The useful life emissions shall be equal to or less than the applicable California standards in order to obtain California Certification.

(d) The state board will accept the Environmental Protection Agency's Certificate of Conformity as equivalent to California Certification for model-years 1978 through 1981.

(e) Motorcycle manufacturers shall submit to the executive officer a complete copy of the application for certification submitted to the Environmental Protection Agency together with a copy of the Certificate of Conformity.
The above information shall be submitted for each engine family prior to sale or offering for sale of 1978 through 1981 model-year motorcycles.

The motorcycle manufacturers shall submit directly to the executive officer a complete copy of the application for certification for 1982 and subsequent model years.

(f) (1) Small Volume Manufacturers: Exhaust emission standards for Class III motorcycles and motorcycle engines produced by small volume manufacturers are as follows:

(A) For Model Years through 2007, Class III motorcycles and motorcycle engines shall meet the applicable HC-only and CO emission limits specified in the Table of Standards in subsection 1958(b).

(B) For Model Year 2008 and subsequent, Class III motorcycles and motorcycle engines shall emit no more than 12 grams of CO per kilometer and 1.4 grams per kilometer HC + NOx, applied as a corporate average, provided that no engine family shall emit greater than 2.5 grams per kilometer HC + NOx.

(2) To obtain certification as a small volume manufacturer pursuant to this subsection, the manufacturer shall submit product information and estimated sales data with the certification application for each engine family sold in California. As a condition of obtaining certification as a small volume manufacturer, the manufacturer shall submit annually to the Executive Officer a summary of its efforts and progress toward meeting more stringent HC + NOx exhaust emission standards. The summary shall include a description of the manufacturer's current HC + NOx emission control

development status, along with supporting test data, and future planned development work.

(3) For purposes of subsection 1958(f)(1), the following provisions apply:

For Model Years (MY)	Small Volume Manufacturer (SVM) definition is not applicable	Applicable Exhaust Emissions Requirements For all manufacturers, Section 1958(f)(1)(A) and 1958(b) apply.
1984 through 1987	one which sells less than 5,000 new Class I, II, and III motorcycles per model year in California	For SVMs, 2.5 grams per kilometer HC-only and 12 grams per kilometer CO apply only to Class III motorcycles. For all other manufacturers and Class I and II motorcycles, Section 1958(f)(1)(A) and 1958(b) apply.
1988 through 2007	not applicable	For all manufacturers, Section 1958(f)(1)(A) and 1958(b) apply.
2008 ~~and subsequent~~ through 2025	one which sells no more than 300 (combined) new Class I, II, and III motorcycles per model year in California, starting with the 2004 MY.	For SVMs, Section 1958(f)(1)(B) applies only to Class III motorcycles.
		For all other manufacturers and Class I and II motorcycles, Section 1958(b) applies.
2026 and subsequent	one which sells no more than 100 (combined) new Class I, II, and III motorcycles per model year in California.	For SVMs, Section 1958(f)(1)(B) applies only to Class III motorcycles. For SVMs, Section 1958(b) applies for Class I and Class II motorcycles.

(g) Early-Compliance Credits

(1) Manufacturers which sell Class III motorcycles or motorcycle engines in California certified as meeting either a 0.8 g/km or 0.4 g/km HC+NOx level prior to Model Year 2008 can receive credits for use in the Model Year 2008 corporate average upon written approval by the Executive Officer. Each unit of Class III motorcycle or motorcycle engine sold between Model Years 1999 and 2008 and which meets the requirements of this subsection shall be multiplied by whichever X multiplier applies, as shown in the following table:

Table of Multipliers to Encourage Early Compliance with the

0.8 g/km HC + NOx Standard and Beyond

	Multiplier (X) for Use in MY 2008 Corporate Averaging	
Model Year	Certified at 0.8 g/km	Certified at 0.4 g/km
Sold	HC + NOx or below	HC+NOx or below
1999 through 2004	1.5	3.0
2005	1.375	2.5
2006	1.250	2.0
2007	1.125	1.5
2008 ~~and subsequent~~ through 2025	1.0	1.0

Note:

(1) Each unit of an early compliant certified motorcycle and motorcycle engine is counted cumulatively toward the MY 2008 corporate average.
(2) Applications for early compliance credits pursuant to this subsection shall include in writing all emissions data, test protocols, equipment specifications, operating conditions, and any other technical information requested by the Executive Officer.
(3) The Executive Order approving early compliance credits under this subsection shall specify the exact amount of credits granted, the date of expiration for the credits, and all enforcement provisions applicable to the use of early compliance credits. Each motorcycle and each motorcycle that incorporates an engine for which early compliance credits have been granted pursuant to this subsection shall specify on its "California Motor Vehicle Emission Control And Smog Index Label" (Section 1965, Title 13, California Code of Regulations), in addition to all other existing requirements, the actual HC + NOx engine family exhaust emissions level for which the vehicle or engine has been granted early compliance credit.

~~(h) Sunset Review~~
~~Within five years from the effective date of adoption or date of implementation, which ever comes later, the Air Resources Board, in consultation with the Secretary for Environmental Protection, shall review the provisions of this section to determine whether it should be retained, revised, or repealed.~~

(h) This subsection shall be applicable to motorcycles, motorcycle engines, and the manufacturers of either motorcycles or motorcycle engines produced for model years 2026 and subsequent, excepting those that are excluded pursuant to subsections 1958(a)(1)-(3).

(1) Exhaust emissions from new street-use motorcycles and motorcycle engines manufactured in model years 2026 and subsequent, subject to registration and sold and registered in this state, shall not exceed the limits listed in the following table. Corporate averaging pursuant to subsection 1958(b) cannot be used to satisfy this requirement.

Standards for Model Year 2026 and Subsequent Motorcycles

Model Year	Engine Type	Exhaust Emission Standards (grams per kilometer)				
		CO	THC	NMHC	NOx	PM

2026 and subsequent	Positive Ignition (50 cc or larger)	1.00	0.10	0.068	0.060	0.0045*
	Compression Ignition (50cc or larger)	0.50	0.10	0.068	0.060	0.0045

* Applicable to gasoline direct injection engines only

(2) The engine shall be constructed to prevent any fuel, lubrication oil, or crankcase gases from escaping to the atmosphere from the crankcase gas ventilation system.

(3) Carbon dioxide emissions shall be measured and reported to the Executive Officer along with the complete copy of the application for certification.

(4) Test procedures for determining compliance with these standards for model years 2026 and subsequent are set forth in the following documents, which are incorporated by reference herein.

- *European Union Regulation No. 168/2013 of the European Parliament and of the Council, consolidated version 14/11/2020 (168/2013)*
- *Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018. (134/2014)*

(5) Test Type I (tailpipe emissions) and Test Type VI (durability of pollution control devices) shall be completed as described in the aforementioned documents, with the following exceptions:

(A) Testing need not be witnessed by a technical service.

(B) All test equipment and measurement equipment used during testing shall comply with the applicable tolerances and specifications laid out in either 1*34/2014* or *Subparts E and F, Part 86, Title 40, Code of Federal Regulations,* at the discretion of the manufacturer.

(C) Compliance with exhaust emissions standards shall be determined using California certification gasoline as specified in "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" section II.A.100.3.1.2, adopted March 22, 2012, as last amended December 6, 2012, which is incorporated by reference herein. The Executive Officer shall accept test data generated using reference fuel "Petrol (E5)" as specified in Appendix 2 of 134/2014 when all measured pollutants are at least 10% (ten percent) below the applicable standard.

(D) For model year 2028 and later, the durability distances listed in the following table shall be used in lieu of those listed in Annex VII of EU Regulation No. 168/2013. When using either the full or partial mileage accumulation options, the required

mileage shall be accumulated using either the Standard Road Cycle for L-Category Vehicles (SRC-LeCV) or the US EPA Approved Mileage Accumulation (AMA) cycle.

Durability Distance for Model Year 2028 and Later

Class	**Durability Distance**
Class IB	15,000 km
Class II	25,000 km
Class III	50,000 km

(E) Notwithstanding the requirements in Annex II of EU Delegated Regulation 134/2014, motorcycles model year 2028 and later that are equipped with engines displacing less than 150 cc and having a top speed greater than 100 kph, shall conduct all exhaust emissions testing using the drive cycle prescribed for L-category sub-class 2-2.

(F) Unless otherwise stated, manufacturers shall comply with all administrative and general provisions of Subpart E, Part 86, Title 40, Code of Federal Regulations, as they existed on July 7, 1986.

(G) In addition to the information required to be submitted pursuant to subsection 1958(e), for model years 2026 and subsequent, manufacturers shall submit to the Executive Officer the relevant emissions-related information required by Article 27 of *European Union Regulation No. 168/2013 of the European Parliament and of the Council, consolidated version 14/11/2020*. 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,* which is hereby incorporated by reference. At minimum, the manufacturer shall provide all the following information specified in EU 901/2014, consolidated version 12/03/2020, Annex I, Part B, section 2.8:

(i) Item Numbers 1. through 3.5.4.2
(ii) Item Numbers 4. through 4.4.4
(iii) Item Numbers 7.5 through 7.5.3.1

(i) No new motorcycles with internal combustion engines less than 50cc displacement manufactured for model year 2028 or later shall be sold or offered for sale in California.

Note: Authority cited: Sections 39600, 39601, 43013, 43101, 43104, and 43107, Health and Safety Code.
Reference: Sections 39002, 39003, 39024, 43000, 43013, 43100, 43101, 43104, and 43107, Health and Safety Code; and Cal. Stats. 83, Ch. 103.

§ 1958.1. Reporting of Annual Street-Use Motorcycle Sales

(a) All manufacturers shall report to the Executive Officer annually the number of street-use motorcycles sold or offered for sale in California. This report of annual street use motorcycle sales shall be submitted every year within 45 days after the end of the model year.

(b) A manufacturer's California sales shall consist of all street-use motorcycles or motorcycle engines produced by the manufacturer and delivered for sale in California, except that street-use motorcycles or motorcycle engines produced by the manufacturer and marketed in California by another manufacturer under the other manufacturer's nameplate shall be treated as California sales of the marketing manufacturer.

(c) The annual sales report shall include all information required pursuant to subsection 86.415-78(b), Subpart E, Part 86, Title 40, Code of Federal Regulations, as it existed on July 7, 1986.

(d) In addition to the requirements of subsection 1958.1(c), the annual sales report shall include the following information:

a. The number of Class I and Class II (50 – 279cc displacement) internal combustion engine street motorcycles sold.
b. The number of Class III (280 cc displacement and larger) internal combustion engine street motorcycles sold.
c. The total number of internal combustion engine street use motorcycles sold.
d. The number of Tier I zero emissions motorcycles sold, as defined in subsection 1958.4(d).
e. The number of Tier II zero emissions motorcycles sold, as defined in subsection 1958.4(d).
f. The number of Tier III zero emissions motorcycles sold, as defined in subsection 1958.4(d).

(e) The annual sales from different firms shall be aggregated in the following situations:

(1) vehicles produced by two or more firms, one of which is 10% or greater part owned by another; or

(2) vehicles produced by any two or more firms if a third party has equity ownership of 10% or more in each of the firms; or

(3) vehicles produced by two or more firms having a common corporate officer(s) who is (are) responsible for the overall direction of the companies; or

(4) vehicles imported or distributed by any firms where the vehicles are manufactured by the same entity and the importer or distributor is an authorized agent of the entity.

Note: Authority cited: Sections 39600, 39601, 43013, 43101, 43104, and 43107, Health and Safety Code.
Reference: Sections 39002, 39003, 43000, 43013, 43100, 43101, 43104, and 43107, Health and Safety Code; and Cal. Stats. 83, Ch. 103.

§ 1958.2. Malfunction and Diagnostic System Requirements--2026 and Subsequent Model-Year Motorcycles

(a) Functional OBD Requirements for Model Year 2026 and subsequent Class III Motorcycles

(1) Model year 2026 and subsequent Class III motorcycles shall be equipped with an OBD stage II system as specified in EU 168/2013, consolidated version 14/11/2020, pursuant to *Commission Implementing Regulation (EU) No* 44/2014, consolidated version 20/03/2018, Annex XII (Requirements for functional On-Board Diagnostics).

(2) *Eligibility for Exemption from OBD Requirements.* Eligibility as determined in this subsection (a)(2) shall be based on annual street-use motorcycle sales of class III motorcycles as reported pursuant to section 1958.1. To be eligible for exemption from the OBD requirements specified in sections 1958.2 and 1958.3, the manufacturer's average sales for the three most recent consecutive model years must remain below 100. If a manufacturer's average sales for the three most recent consecutive model years exceeds 99, the manufacturer will no longer be eligible for exemption and must meet applicable OBD requirements as follows:

(A) If a manufacturer's average sales for three consecutive model years exceeds 99, and if the increase in sales is the result of corporate acquisitions, mergers, or purchase by another manufacturer, the manufacturer shall comply with the OBD requirements described in subsections (a)(1), (b), (c), (d), (e), (f), (g), and (h), as applicable, beginning with the first model year after the last year of the three consecutive model years.

(B) If a manufacturer's average sales for three consecutive model years exceeds 99 and is less than 250, and if the increase in sales is solely the result of the manufacturer's expansion in vehicle production (not the result of corporate acquisitions, mergers, or purchase by another manufacturer), the manufacturer shall comply with the OBD requirements described in subsections (a)(1), (b), (c), (d), (e), (f), (g), and (h), as applicable, beginning with the second model year after the last year of the three consecutive model years.

(C) If a manufacturer's average sales for three consecutive model years exceeds 250, and if the increase in sales is solely the result of the manufacturer's expansion in vehicle production (not the result of corporate acquisitions, mergers, or purchase by another manufacturer), the manufacturer shall comply with the OBD requirements described in subsections (a)(1), (b), (c), (d), (e), (f), (g), and (h), as applicable, beginning with the first model year after the last year of the three consecutive model years.

(3) For manufacturers seeking certification for the first time in California, exemption from OBD requirements shall be based on projected California sales. Manufacturers with projected California sales of Class III motorcycles exceeding 99 per year are not eligible for exemption. If actual reported sales numbers are available, projected production of California sales cannot be used. Manufacturers with at least one year of California sales but less than

three years of California sales shall use the average of previous years' sales and projected sales for the current year.

(b) Additional Functional OBD Requirements for Model Year 2028 and Subsequent Class III Motorcycles

(1) FUEL SYSTEM MONITORING.

For Model Year 2028 and Subsequent Class III Motorcycles, fuel system monitoring that meets the following specifications shall be included in OBD Stage II functions, in addition to the OBD Stage II functions listed in EU 44/2014, consolidated version 20/03/2018, Annex XII, Table 12-1.

(A) Requirement:

1. The OBD system shall monitor the fuel delivery system to determine its ability to provide compliance with emission standards specified in 1958(h).

(B) Malfunction Criteria:

1. The OBD system shall detect a malfunction of the fuel delivery system when:

a. The fuel delivery system is unable to maintain a motorcycle's emissions at or below 3.0 times any of the applicable emissions standards specified in 1958(h); or

b. If equipped, the feedback control based on a secondary oxygen or exhaust gas sensor is unable to maintain a motorcycle's emissions at or below 3.0 times any of the applicable emissions standards specified in 1958(h); or

c. An air-fuel ratio cylinder imbalance (e.g., the air-fuel ratio in one or more cylinders is different than the other cylinders due to a cylinder specific malfunction such as an intake manifold leak at a particular cylinder, fuel injector problem, an individual cylinder EGR runner flow delivery problem, an individual variable cam lift malfunction such that an individual cylinder is operating on the wrong cam lift profile, or other similar problems) occurs in one or more cylinders such that the fuel delivery system is unable to maintain a motorcycle's emissions at or below 3.0 times the applicable emissions standards specified in 1958(h).

2. Except as provided for in subsection (b)(1)(B)3. below, if the motorcycle is equipped with adaptive feedback control, the OBD system shall detect a malfunction when the adaptive feedback control has used up all of the adjustment allowed by the manufacturer.

3. If the motorcycle is equipped with feedback control that is based on a secondary oxygen (or equivalent) sensor, the OBD system is not required to detect a malfunction of the fuel system solely when the feedback control based on a secondary oxygen sensor has used up all of the adjustment allowed by the manufacturer. However, if a failure or deterioration results in motorcycle emissions that exceed the malfunction criteria in subsection (b)(1)(B)1., the OBD system is required to detect a malfunction.

4. The OBD system shall detect a malfunction whenever the fuel control system fails to enter closed-loop operation (if employed) within a manufacturer specified time interval.

5. Manufacturers may adjust the criteria and/or limit(s) to compensate for changes in altitude, for temporary introduction of large amounts of purge vapor, or for other similar identifiable operating conditions when they occur.

(C) Monitoring Conditions:

1. Except as provided in subsection (b)(1)(C)2. below, the fuel system shall be monitored continuously for the presence of a malfunction.

2. Manufacturers shall define monitoring conditions for malfunctions identified in subsection (b)(1)(B)1.c. (i.e., air-fuel ratio cylinder imbalance malfunctions) as described below:

a. As specifically provided for in subsection (b), manufacturers shall define monitoring conditions, subject to Executive Officer approval, for detecting malfunctions identified in subsection (b). The Executive Officer shall approve manufacturer defined monitoring conditions that are determined (based on manufacturer submitted data and/or other engineering documentation) to be: technically necessary to ensure robust detection of malfunctions (e.g., avoid false passes and false indications of malfunctions), designed to ensure monitoring will occur under conditions which may reasonably be expected to be encountered in normal urban motorcycle operation and use, and designed to ensure monitoring will occur during the WMTC.

b. Monitoring shall occur at least once per driving cycle in which the monitoring conditions are met.

c. Manufacturers may request Executive Officer approval to define monitoring conditions that are not encountered during the WMTC cycle as required in subsection (b)(1)(C)2.a.. In evaluating the manufacturer's request, the Executive Officer shall consider the degree to which the requirement to run during the WMTC restricts in-use monitoring, the technical necessity for defining monitoring conditions that are not encountered during the WMTC, data and/or an engineering evaluation submitted by the manufacturer which demonstrate that the component/system does

not normally function, or monitoring is otherwise not feasible, during the WMTC, and, the ability of the manufacturer to demonstrate the monitoring conditions will satisfy the minimum acceptable in-use monitor performance ratio requirement as defined in subsection (e)(1)(B) (e.g., data which show in-use operation meets the minimum requirements). meets the minimum requirements).

(D) MIL Illumination and Fault Code Storage: For malfunctions described under subsection (b)(1)(B)1.c. (i.e., air-fuel ratio cylinder imbalance malfunctions), general requirements for MIL illumination and fault code storage are set forth in EU 44/2014, consolidated version 20/03/2018, Annex XII, section 3.5. For all other fuel system malfunctions, the MIL illumination and fault code storage requirements are set forth in subsections (c)(1.4.1) through (1.4.6) below.

1. A pending fault code shall be stored immediately upon the fuel system exceeding the malfunction criteria established pursuant to subsection (b)(1)(B).

2. Except as provided below, if a pending fault code is stored, the OBD system shall immediately illuminate the MIL and store a confirmed fault code if a malfunction is again detected during either of the following two events:

a. the driving cycle immediately following the storage of the pending fault code, regardless of the conditions encountered during the driving cycle; or

b. on the next driving cycle in which similar conditions (engine speed within 375 rpm, load conditions within 20 percent, and the same warm-up status (i.e., cold or hot)) to those that occurred when the pending fault code was stored are encountered.

3. The pending fault code may be erased at the end of the next driving cycle in which similar conditions have been encountered without an exceedance of the specified fuel system malfunction criteria. The pending code may also be erased if similar conditions are not encountered during the 80 driving cycles immediately after the initial detection of a malfunction for which the pending code was set.

4. Storage of freeze frame conditions.

a. The OBD system shall store and erase freeze frame conditions either in conjunction with storing and erasing a pending fault code or in conjunction with storing and erasing a confirmed fault code.

b. If freeze frame conditions are stored for a malfunction other than misfire or fuel system malfunction when a fault code is stored as specified in subsection (b)(1)(D) above, the stored freeze frame information shall be replaced with freeze frame information regarding the fuel system malfunction.

5. Storage of fuel system conditions for determining similar conditions of operation.

a. Upon detection of a fuel system malfunction under subsection (b)(1)(B), the OBD system shall store the engine speed, load, and warm-up status of the first fuel system malfunction that resulted in the storage of the pending fault code.

b. For fuel system faults detected using feedback control that is based on a secondary oxygen (or equivalent) sensor, the manufacturer may request Executive Officer approval to use an alternate definition of similar conditions in lieu of the definition specified in section 1968.2(c). The Executive Officer shall approve the alternate definition upon the manufacturer providing data or analysis demonstrating that the alternate definition provides for equivalent robustness in detection of fuel system faults that vary in severity depending on engine speed, load, and/or warm-up status.

6. Extinguishing the MIL. The MIL may be extinguished after three sequential driving cycles in which similar conditions have been encountered without a malfunction of the fuel system

(2) Required Emission Related Functions:
The following standardized functions shall be implemented in accordance with the specifications in Society of Automotive Engineers (SAE) J1979 "E/E Diagnostic Test Modes", May 2007 (SAE J1979), incorporated by reference, or SAE J1979-2 “E/E Diagnostic Test Modes:OBDonUDS,” incorporated by reference, to allow for access to the required information by a scan tool meeting SAE J1978 Specifications:

(A) Readiness Status: In accordance with SAE J1979 or J1979-2 specifications, the OBD system shall indicate “complete” or “not complete” since the fault memory was last cleared for each of the installed monitored components and systems identified in sections 1958.2 (a) and (b)(1). All components or systems that are monitored continuously shall always indicate “complete”. Those components or systems that are not subject to continuous monitoring shall immediately indicate “complete” upon the respective diagnostic(s) being fully executed and determining that the component or system is not malfunctioning. A component or system shall also indicate “complete” if after the requisite number of decisions necessary for determining MIL status have been fully executed, the monitor indicates a malfunction for the component or system. The status for each of the monitored components or systems shall indicate “not complete” whenever fault memory has been cleared or erased by a means other than that allowed in EU 44/2014, Annex XII, Section 3.8. Normal vehicle shut down (i.e., key off, engine off) may not cause the status to indicate “not complete”.

1. Subject to Executive Officer approval, if monitoring is disabled for a multiple number of driving cycles due to the continued presence of extreme operating conditions (e.g, cold ambient temperatures, high altitudes, etc.), readiness status for the subject monitoring system disablement and the number of driving cycles specified without completion of monitoring before readiness is indicated as “complete”.

2. If the manufacturer elects to additionally indicate readiness status through the MIL in the key on, engine off position, the readiness status shall be indicated in the following manner: If the readiness status for all monitored components or systems is “complete”, the MIL shall remain continuously illuminated in the key on, engine off position for at least 15-20 seconds. If the readiness status for one or more of the monitored components or systems is “not complete”, after 15-20 seconds of operation in the key on, engine off position with the MIL illuminated continuously, the MIL shall blink once per second for 5-10 seconds.

(c) Certification Requirements

(1) Testing Requirements

(A.) For 2026 and subsequent model year ONMCs, manufacturers must test their OBD systems according to the type VIII test specified in EU 134/2014, consolidated version 20/03/2018 Annex VIII, sections 1, 2, 3, 4, 5.1, 5.2, 6, 7, and 8.

1. The test fuel used for all parts of this procedure, unless otherwise specified, shall be California certification gasoline as specified in “California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles” section II.A.100.3.1.2, adopted March 22, 2012, as last amended December 19, 2018, which is incorporated by reference herein.

2. The test fuel specified in EU 134/2014, consolidated version 20/03/2018, Annex VIII, section 5.3 may be used at the manufacturer’s discretion as an alternative test fuel to meet the requirements of subsection (c)(1)(A)1. of this regulation.

(B.) For 2028 and subsequent model year ONMCs, manufacturers must meet the requirements of (c)(1)(A). above, and in addition to testing the failure modes specified in EU 134/2014, Annex VIII, section 8.3, the following failure mode must also be tested to demonstrate compliance with the Fuel System Monitoring requirements of subsection (b)(1).

1. Required Testing for Fuel System Monitor:

When performing the Fuel System Monitor test as specified below, the requirements of EU 134/2014, consolidated version 20/03/2018, Annex VIII, Sections 1, 3, 4, 5.1, 5.2, 6, 7, 8.1, 8.2, and 8.4 must be followed.

In addition to the requirements of EU 134/2014, consolidated version 20/03/2018, Annex VIII, Section 3.2, the OBD system shall indicate the failure of the Fuel System when that failure results in emissions exceeding the OBD thresholds specified in subsection (b)(1)(B)1.a. (3.0 times the applicable standards). Testing of the Fuel System Monitor shall be conducted using California certification gasoline.

a. For motorcycles with adaptive feedback based on the primary fuel control sensor(s), the manufacturer shall perform a test with the adaptive feedback based on the primary fuel control sensor(s) at the rich limit(s) and a test at the lean limit(s) established by the manufacturer in subsection (b)(1)(B)1. to detect a malfunction before emissions exceed the malfunction threshold (e.g., 3.0 times the applicable standards).

b. For motorcycles with feedback based on a secondary fuel control sensor(s) and subject to the malfunction criteria in subsection (b)(1)(B)1., the manufacturer shall perform a test with the feedback based on the secondary fuel control sensor(s) at the rich limit(s) and a test at the lean limit(s) established by the manufacturer in subsection (b)(1)(B)1. to detect a malfunction before emissions exceed the malfunction threshold (e.g., 3.0 times the applicable standards).

c. For other fuel metering or control systems, the manufacturer shall perform a test at the criteria limit(s).

d. For purposes of fuel system testing, the fault(s) induced may result in a uniform distribution of fuel and air among the cylinders. Non-uniform distribution of fuel and air used to induce a fault may not cause misfire. In conducting the fuel system demonstration tests, the manufacturer may use computer modifications to cause the fuel system to operate at the malfunction limit if the manufacturer can demonstrate that the computer modifications produce test results equivalent to an induced hardware malfunction.

(2) Confirmatory Testing:

(A) CARB may perform confirmatory testing to verify the emission test data submitted by the manufacturer under the requirements of section (c) comply with the requirements of section (c) and the malfunction criteria identified in subsection (b). This confirmatory testing is limited to the motorcycle configuration represented by the demonstration motorcycle(s).

(B) CARB or its designee may install appropriately deteriorated or malfunctioning components in an otherwise properly functioning test motorcycle of an OBD family represented by the demonstration test motorcycle(s) (or simulate a deteriorated or malfunctioning component) in order to test any of the components or systems required to be tested in subsection (c). Upon request by the Executive Officer, the manufacturer shall make available a motorcycle and all test equipment (e.g., malfunction simulators, deteriorated components, etc.) necessary to duplicate the manufacturer's testing. The Executive Officer shall make the request within six months of reviewing and approving the demonstration test motorcycle data submitted by the manufacturer for the specific OBD family.

(C) Motorcycles with OBD systems which fail to meet the requirements of subsection (c) may be recalled for corrective action pursuant to section 1958.3.

(d) Certification Documentation

(1) For 2026 and subsequent model year ONMCs, manufacturers must submit documentation which provides details of their OBD system as specified in EU 901/2014, consolidated version 12/03/2020, appendix 3, section 7.6.

(A) For the required documentation not standardized across all engine families, the manufacturer may propose to the Executive Officer that documentation covering a specified combination of engine families be used. These combinations shall be known as "OBD families". Executive Officer approval shall be granted for those groupings that meet the criteria specified in EU 44/2014, consolidated version 20/03/2018, Annex XII, Appendix 5. If approved by the Executive Officer, the manufacturer may submit one set of documentation from one or more representative engine family(ies) that are a part of the OBD family. The Executive Officer shall determine whether a selected engine family(ies) is representative of the OBD family as a whole. To be approved as representative, the engine family(ies) must possess the most stringent OBD monitoring requirements and cover all of the emission control devices within the OBD family.

(B) With Executive Officer approval, one or more of the documentation requirements of subsection (d) may be waived or modified if the information required would be redundant or unnecessarily burdensome to generate.

(2) For 2028 and subsequent model year ONMCs, manufacturers must meet the requirements of section (1) above, and must also provide a written description of the general working principles of their Fuel System Monitor. Additionally, all reporting requirements specified in 901/2014, consolidated version 12/03/2020, Annex I, section 7.6 shall also apply to the Fuel System Monitor and all of its components.

(A) For the fuel system monitor testing required per subsection (c)(1)(B): emission test data, a description of the testing sequence (e.g., the number and types of preconditioning

cycles), approximate time (in seconds) of MIL illumination during the test, fault code(s) and freeze frame information stored at the time of detection, corresponding SAE J1979 or J1979-2 test results (e.g. Mode/Service $06) stored during the test, and a description of the modified or deteriorated components used for fault simulation with respect to the demonstration tests specified in subsection (c). The Executive Officer may approve conditional certification of an OBD family prior to the submittal of this data for CARB review and approval. Factors to be considered by the Executive Officer in approving the late submission of information identified in subsection (d)(2)(A) shall include the reason for the delay in the data collection, the length of time until data will be available, and the demonstrated previous success of the manufacturer in submitting the data prior to certification.

(e) In-Use Performance

(1) Functional In-Use Performance Monitoring Requirements

(A) Model year 2026 and subsequent Class III motorcycles shall meet the In-Use Performance requirements of EU 44/2014, consolidated version 20/03/2018, Annex XII, Appendix 1, section 4 applicable to motorcycles produced prior to December 31, 2023. Such requirements include tracking, storing, and reporting in-use monitoring performance data accessible in a standardized format.

(B) In addition to the requirements of subsection (e)(1)(A), Model Year 2028 and subsequent Class III motorcycles shall track, store, and report in-use performance data in a standardized format for fuel system monitors required by subsection (b)(1) and be designed to ensure that they meet a minimum in-use performance ratio of 0.100 for all monitors.

(2) Verification and Reporting of In-Use Monitoring Performance (IUMPR)

(A) Manufacturers are required to collect and report in-use monitoring performance data representative of every OBD family certified by the manufacturer and equipped with in-use monitoring performance tracking software in accordance with subsection (e)(1) to CARB within twelve months from either the time motorcycles in the engine family were first introduced into commerce or the start of normal production for such motorcycles, whichever is later.

(B) For each OBD family, the data must include all of the in-use performance tracking data reported through SAE J1979 or SAE J1979-2, the date the data was collected, the odometer reading, the motorcycle VIN, and the ECM software calibration identification number.

(C) Manufacturers shall submit a plan to the Executive Officer for review and approval of the sampling method, number of motorcycles to be sampled, timeline to collect the data, and reporting format. The Executive Officer shall approve the plan upon determining that it provides for effective collection of data from a representative sample of motorcycles that, at a minimum, meets the criteria outlined in the table below, includes as many engine families from the OBD family as possible, will likely result in the collection and submittal of data within the required twelve month time frame, will generate data that are representative of California motorcycle usage patterns and ambient temperatures, and does not, by design, exclude or include specific motorcycles in an attempt to collect data only from motorcycles with the highest in-use performance ratios.

Minimum Sample Size for IUMPR

Total Annual Sales*	**Minimum IUMPR Sample Size**
<100	No IUMPR Data Submittal Required
100-199	2 motorcycles
200-299	4 motorcycles
300-399	6 motorcycles
400-499	8 motorcycles
500+	10 motorcycles

*For this requirement, total annual sales means the total number of street-use motorcycles offered for sale in California in a given model year that are part of the same certified OBD family as defined in subsection 1958.2(d)(1.1).

(D) Upon request of the manufacturer, the Executive Officer may reduce the minimum sample size set forth in the table above for test groups where the manufacturer is unable to collect the minimum number of motorcycles required. In granting approval of a sampling plan with a reduced minimum sample size, the Executive Officer shall consider, among other things, information submitted by the manufacturer to justify the smaller sample size, sales volume of the test group(s), the sampling mechanism utilized by the manufacturer to procure motorcycles, and the availability of additional data from other jurisdictions.

(f) Deficiencies

(1) For 2026-2027 model year motorcycles, deficiency requirements are set forth in EU 44/2014, consolidated version 20/03/2018, section 4 (Requirements relating to the type approval of on-board diagnostic systems).

(2) For 2028 and subsequent model year motorcycles, the Executive Officer, upon receipt of an application from the manufacturer, may certify motorcycles even though said motorcycles may not comply with one or more of the requirements of section 1958.2. In granting the certification, the Executive Officer shall consider the following factors: the extent to which the requirements of section 1958.2 are satisfied overall based on a review of the motorcycle applications in question, the relative performance of the resultant OBD system compared to

systems fully compliant with the requirements of section 1958.2, and a demonstrated good-faith effort on the part of the manufacturer to: (1) meet the requirements in full by evaluating and considering the best available monitoring technology; and (2) come into compliance as expeditiously as possible. The Executive Officer may not grant certification to a motorcycle in which the reported noncompliance for which a deficiency is sought would be subject to ordered recall pursuant to section 1958.3 (c)(3)(A).

(3) Manufacturers of non-complying systems are subject to fines pursuant to section 43016 of the California Health and Safety Code. The specified fines apply to the third and subsequently identified deficiencies, with the exception that fines shall apply to all monitoring system deficiencies wherein a required monitoring strategy is completely absent from the OBD system.

(4) The fines are in the amount of $30 per deficiency per motorcycle for non-compliance with the requirements for Catalytic converter monitoring, EGR efficiency/flow monitoring, Misfire detection, NOx aftertreatment system monitoring, Particulate filter monitoring, or Particulate matter (PM) emission monitoring, as specified in Annex XII, Table 12-1 of EU 44/2014, consolidated version 20/03/2018 or the Fuel system monitoring requirement specified in subsection (b)(1), and $15 per deficiency per motorcycle for non-compliance with any other requirement of section 1958.2. In determining the identified order of deficiencies, deficiencies subject to a $30 fine are identified first. Total fines per motorcycle under subsection (f) may not exceed $300 per motorcycle and are payable to the State Treasurer for deposit in the Air Pollution Control Fund.

(5) Manufacturers must re-apply for Executive Officer approval of a deficiency each model year. In considering the request to carry-over a deficiency, the Executive Officer shall consider the factors identified in subsection (f)(2) including the manufacturer's progress towards correcting the deficiency. The Executive Officer may not allow manufacturers to carry over monitoring system deficiencies for more than two model years unless it can be demonstrated that substantial motorcycle hardware modifications and additional lead time beyond two years would be necessary to correct the deficiency, in which case the Executive Officer shall allow the deficiency to be carried over for three model years.

(6) Except as allowed in subsection (f)(7), deficiencies may not be retroactively granted after certification.

(7) Request for retroactive deficiencies

(A) Manufacturers may request that the Executive Officer grant a deficiency and amend a motorcycle's certification to conform to the granting of the deficiencies during the first 6 months after commencement of normal production for each aspect of the monitoring system: (a) identified by the manufacturer (during testing required by subsection (g)(1) or any other testing) to be functioning different than the certified system or otherwise not

meeting the requirements of any aspect of section 1958.2; and (b) reported to the Executive Officer. If the Executive Officer grants the deficiencies and amended certification, their approval would be retroactive to the start of production.

(B) Executive Officer approval of the request for a retroactive deficiency shall be granted provided that the conditions necessary for a pre-certification deficiency determination are satisfied (see subsection (f)(2)) and the manufacturer could not have reasonably anticipated the identified problem before commencement of production.

(C) In granting the amended certification, the Executive Officer shall include any approved post-production deficiencies together with all previously approved deficiencies in computing fines in accordance with subsection (f)(3).

(8) Any OBD system installed on a production motorcycle that fails to conform with the certified OBD system for that motorcycle or otherwise fails to meet the requirements of section 1958.2 and has not been granted a deficiency pursuant to the provisions of subsections (f)(1) through (f)(7) is considered non-compliant. The motorcycles are subject to enforcement pursuant to applicable provisions of the Health and Safety Code and title 13, CCR section 1958.3.

(g) Production Motorcycle Evaluation Testing

(1) Verification of Monitoring Requirements.

(A) For 2028 and subsequent model year motorcycles, within the first six months after normal production begins, manufacturers shall conduct a complete evaluation of the OBD system of one or more production motorcycles (test motorcycles) and submit the results of the evaluation to the Executive Officer.

(B) Selection of test motorcycles:

1. Prior to submitting any applications for certification for a model year, a manufacturer shall notify the Executive Officer of the OBD families planned for that model year. The Executive Officer will then select the engine family(ies), in accordance with subsections (g)(1)(B)2. and (g)(1)(B)3. below, that the manufacturer shall use as test motorcycles to provide evaluation test results. This selection process may take place during durability demonstration test motorcycle selection specified in EU 168/2013, consolidated version 14/11/2020, Article 23, Section 3.

2. A manufacturer shall conduct the monitoring system evaluation as described in subsection (g)(1)(C) on one production motorcycle per engine family selected.

3. The Executive Officer may waive the requirements for submittal of evaluation results from one or more of the OBD families if data has been previously submitted for all of the engine families within that OBD family.

(C) Evaluation requirements:

1. The evaluation shall demonstrate the ability of the OBD system on the selected production motorcycle to detect a malfunction, illuminate the MIL, and store a confirmed fault code when a malfunction is present and the monitoring conditions have been satisfied for each individual diagnostic required by section 1958.2.

2. The evaluation shall verify that malfunctions detected by non-MIL illuminating diagnostics of components used to enable any other OBD system diagnostic (e.g., fuel level sensor) will not inhibit the ability of other OBD system diagnostics to properly detect malfunctions.

3. On motorcycles so equipped, the evaluation shall verify that the software used to track the numerator and denominator for purposes of determining in-use monitoring frequency correctly increments as required in EU 44/2014, consolidated version 20/03/2018, Annex XII, Appendix 1, section 4.

4. Malfunctions may be mechanically implanted or electronically simulated but internal on-board computer hardware or software changes may not be used to simulate malfunctions. Emission testing to confirm that the malfunction is detected before the appropriate emission standards are exceeded is not required.

5. Manufacturers shall submit a proposed test plan for Executive Officer approval prior to evaluation testing being performed. The test plan shall identify the method used to induce a malfunction in each diagnostic. If the Executive Officer determines that the requirements of subsection (g)(1) are satisfied, the proposed test plan shall be approved.

6. Subject to Executive Officer approval, manufacturers may omit demonstration of specific diagnostics. The Executive Officer shall approve a manufacturer's request if the demonstration cannot be reasonably performed without causing physical damage to the motorcycle (e.g., on-board computer internal circuit faults) or jeopardizing the safety of personnel performing the demonstration.

7. Where feasible, manufacturers should conduct required verification testing on-road under normal driving conditions. If the manufacturer cannot conduct the required testing on-road, the manufacturer shall provide the Executive Officer with justification for conducting testing on a chassis dynamometer in lieu of on-road testing.

(D) Manufacturers shall submit a report of the results of all testing conducted pursuant to subsection (g)(1) to the Executive Officer for review. This report shall identify the method used to induce a malfunction in each diagnostic, the MIL illumination status, and the confirmed fault code(s) stored.

(E) In accordance with subsection (f)(7), manufacturers may request Executive Officer approval for a retroactive deficiency to be granted for items identified during this testing.

(h) Communications to a Scan Tool

(1) For 2026-2027 model year motorcycles, manufacturers may use any of the communications protocols specified in EU 44/2014, consolidated version 20/03/2018, Annex XII, section 3.8.

(2) For 2028 and subsequent model year motorcycles, manufacturers shall use one of the following standardized protocols for communication of all required emission related messages from on-board to off-board network communications to a scan tool meeting SAE J1978 specifications:

(A) ISO 14229-3:2012: 'Road vehicles — Unified diagnostic services (UDS) — Part 3: Unified diagnostic services on CAN implementation.'

(B) ISO 15765-4:2011: 'Road vehicles — Diagnostics on Controller Area Network (CAN) — Part 4: Requirements for emission-related systems', dated 1 November 2001.'

NOTE: Authority cited: Sections 39600, 39601, 43000.5, 43013, 43018, 43100, 43101, 43104, 43105, 43105.5, 43106, and 43107 Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39018, 39021.5, 39027, 39027.3, 39028, 39029, 39032, 39038, 39039, 39040, 39041, 39042, 39042.5, 39047, 39053, 39059, 39060,, 39515, 39600, 39601, 43000, 43000.5, 43004, 43006, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105,43105.5, 43106, 43107, 43150, 43151, 43152, 43153, 43154, 43155, 43156, 43204, 43211, and 43212, Health and Safety Code.

§ 1958.3. Enforcement of Malfunction and Diagnostic System Requirements for 2026 and Subsequent Model-Year Motorcycles.

(a) *General.*

(1) *Applicability*.

These procedures shall be used to assure compliance with the requirements of California Code of Regulations (Cal. Code Regs.), title 13, section 1958.2 for all 2026 and subsequent model year class III motorcycles equipped with OBD systems that have been certified for sale in California.

(2) *Purpose.*

The purpose of this section is to establish the enforcement protocol that shall be used by the California Air Resources Board (CARB) to assure that motorcycles certified for sale in California are equipped with OBD systems that properly function and meet the purposes and requirements of Cal. Code Regs., title 13, section 1958.2.

(3) *Definitions.*

Unless otherwise specified in section 1958.3, the definitions applicable to these rules include those set forth in Health and Safety Code section 39010 et seq. and in Cal. Code Regs., title 13, section 1900(b) and section 1958.2, which are incorporated by reference herein. The following definitions are specifically applicable to section 1958.3 and take precedence over any contrary definitions.

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

"Deficient Emission Threshold Monitor" means a component/system monitor certified with a deficiency (in accordance with Cal. Code Regs., title 13, section 1958.2(f)) for not detecting a malfunction before emissions exceeded the malfunction criteria defined in Cal. Code Regs., title 13, sections 1958.2(a) and (b) that are based on a multiple of, or an additive to, a tailpipe emission standard or an absolute measurement from an applicable emission test cycle (e.g., 3.0 times the applicable WMTC emission standards).

"Deficient In-Use Performance Monitor" means a component/system monitor certified with a deficiency (in accordance with Cal. Code Regs., title 13, section 1958.2(f)) for not meeting the minimum acceptable in-use monitor performance ratio specified under Cal. Code Regs., title 13, section 1958.2(c)(1).

"Executive Officer" means the Executive Officer of CARB or his or her authorized representative.

"Influenced OBD-Related Recall" means an inspection, repair, adjustment, or modification program initiated and conducted by a manufacturer as a result of enforcement testing

conducted by CARB or any other information for the purpose of correcting any nonconforming OBD system for which direct notification of motorcycle owners is necessary.

"Major Monitor" means Catalytic converter monitoring, EGR efficiency/flow monitoring, Misfire detection, NOx aftertreatment system monitoring, Particulate filter monitoring, or Particulate matter (PM) emission monitoring, as specified in Annex XII, Table 12-1 of EU 44/2014, and Fuel system monitoring as specified in 1958.2, section (b)(1)

"Manufacturer" means the manufacturer granted certification to sell street-use motorcycles in the State of California.

"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.

"Nonconforming OBD System" means an OBD system on a production motorcycle that has been determined not to comply with the requirements of Cal. Code Regs., title 13, section 1958.2. For purposes of section 1958.3, a motorcycle class shall be considered nonconforming irrespective of whether motorcycles in the motorcycle class, on average, meet applicable emission standards.

"OBD Emission Testing" refers to testing conducted to determine compliance with the malfunction criteria referenced in Cal. Code Regs., title 13, section 1958.2(a) and specified in 1958.2(b) that are based on a multiple of, or an additive to, a tailpipe emission standard or an absolute measurement from an applicable emission test cycle (e.g., 3.0 times the applicable WMTC emission standards).

"OBD Ratio Testing" refers to testing conducted to determine compliance with the required in-use monitor performance ratio in Cal. Code Regs., title 13, section 1958.2(e)(1).

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

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

"Test Sample Group" means a group of production motorcycles in a designated motorcycle class that are equipped with OBD systems and are selected and tested as part of the enforcement testing program set forth in subsections (b) and (c).

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

"World Harmonized Motorcycle Test Cycle (WMTC)" refers to the chassis-dynamometer test cycle referred to in EU 134/2014, Annex II, Appendix 6, section (3).

(b) *Testing Procedures for CARB-Conducted Testing.*

(1) *Purpose.*

To assure that OBD systems on production motorcycles comply with the requirements of Cal. Code Regs., title 13, section 1958.2, CARB may periodically evaluate motorcycles from a motorcycle class. For OBD systems that fail to meet requirements of Cal. Code Regs., title 13, section 1958.2 and for which the noncompliance has been granted a deficiency pursuant to the provisions of Cal. Code Regs., title 13, section 1958.2(f), CARB may evaluate motorcycles with such OBD systems to confirm that the details of the noncompliance are the same as those disclosed by the manufacturer at the time the deficiency was granted.

(2) *Preliminary Testing and Evaluation.*

(A) As part of his or her evaluation of motorcycles to determine compliance with the requirements of Cal. Code Regs., title 13, section 1958.2, the Executive Officer may routinely conduct testing on any production motorcycles that have been certified for sale in California.

(B) Based upon such testing or any other information, including data from warranty information reports and field information reports, the Executive Officer may conduct enforcement testing pursuant to subsections (b)(3) through (5) below.

(3) *Motorcycle Selection for CARB-Conducted Enforcement Testing.*

(A) Determining the Motorcycle class.

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

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

(iii) Similarly, upon concluding that motorcycles from several engine families or OBD families (which may include engine families or OBD families from different model years) share such common characteristics that a reasonable basis exists to believe that results of enforcement testing may be applicable to a motorcycle class larger than a specific engine family or OBD family, the Executive Officer may determine that the appropriate motorcycle class includes more than one engine family or OBD family.

(B) Size of Test Sample Group.

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

(i) For OBD emission and OBD ratio testing, the Executive Officer shall follow the provisions of Cal. Code Regs., title 13, section 2137 regarding test sample size. In accordance with section 2137, the Executive Officer shall test 10 motorcycles that have been procured following the protocol of subsection (b)(3)(C) below and meet the selection criteria of subsection (b)(3)(D)(i) below to determine the emissions characteristics of the motorcycle class being tested.

(ii) In determining compliance with any other requirements of Cal. Code Regs., title 13, section 1958.2 (e.g., diagnostic connector location, communication protocol standards, MIL illumination protocol, etc.), the Executive Officer shall determine, on a case by case basis, the number of motorcycles meeting the selection criteria of subsection (b)(3)(D)(iii) needed to assure that the results of such testing may be reasonably inferred to the motorcycle class. The Executive Officer's determination shall be based upon the nature of the nonconformance and the scope of the motorcycle class. The test sample group could be as few as two test motorcycles.

(C) Protocol for Procuring Motorcycles for Test Sample Group.

(i) For OBD emission and ratio testing, the Executive Officer shall determine the appropriate manner for procuring motorcycles. In making his or her determination, the Executive Officer shall consider the nature of the nonconformance and the scope of the motorcycle class. The method used shall ensure that motorcycles are recruited from more than one source. Methods used may include obtaining lists of motorcycle owners from specific sources (e.g., manufacturers, motor motorcycle registration records) and soliciting participation from owners, or discussing with fleet or rental operations to locate motorcycles in the motorcycle class. In selecting motorcycles for OBD emission testing and OBD ratio testing, the Executive Officer shall include only motorcycles meeting the criteria set forth in subsection (b)(3)(D)(i) below.

(ii) For all other testing, the Executive Officer shall, on a case-by-case basis, determine the appropriate manner for procuring motorcycles. In making his or her

determination, the Executive Officer shall consider the nature of the nonconformance and the scope of the motorcycle class. The Executive Officer may procure motorcycle(s) by any means that assures effective collection and testing of motorcycles (e.g., rental car agencies, fleet motorcycles, etc.), but shall not include any motorcycle for which a reasonable basis exists that a motorcycle operator's driving or maintenance habits would substantially impact test results to determine nonconformance. In all cases, however, the selection process must ensure proper selection of motorcycles in accord with subsection (b)(3)(D)(iii) below.

(D) Motorcycles to be included in a Test Sample Group.

(i) In selecting motorcycles to be included in a test sample group for enforcement OBD emission testing and OBD ratio testing, the Executive Officer shall include only motorcycles that:

a. Are certified to the requirements of Cal. Code Regs., title 13, section 1958.2 and California exhaust emission standards.

b. Are registered for operation in California.

c. Have mileage that is less than 75 percent of the certified full useful life mileage and have an age of less than the certified full useful life age for the subject motorcycles.

d. Have not been tampered with or equipped with add-on or modified parts that would cause the OBD system not to comply with the requirements of Cal. Code Regs., title 13, section 1958.2 or would have a permanent effect on exhaust emission performance.

e. Have not been subjected to abuse (e.g., racing, overloading, misfueling), neglect, improper maintenance, or other factors that would cause the OBD system not to comply with the requirements of Cal. Code Regs., title 13, section 1958.2 or would have a permanent effect on exhaust emission performance.

f. Have no detected or known malfunction(s) unrelated to the monitor or system being evaluated that would affect the performance of the OBD system. At its discretion, CARB may elect to repair a motorcycle with a detected or known malfunction and then include the motorcycle in the test sample group.

g. Have had no major repair to the motorcycle resulting from a collision.

h. Have no problem that might jeopardize the safety of laboratory personnel.

(ii) In selecting motorcycles to be included in a test sample group for enforcement testing of any other requirement of Cal. Code Regs., title 13, section 1958.2 (not covered by subsection (b)(3)(D)(i)), the Executive Officer shall include only motorcycles that:

a. Are certified to the requirements of Cal. Code Regs., title 13, section 1958.2.

b. Have not been tampered with or equipped with add-on or modified parts that would cause the OBD system not to comply with the requirements of Cal. Code Regs., title 13, section 1958.2.

c. Have no detected or known malfunction(s) unrelated to the monitor or system being evaluated that would affect the performance of the OBD system. At its discretion, CARB may elect to repair a motorcycle with a detected or known malfunction and then include the motorcycle in the test sample group.

d. Have mileage and age that are less than or equal to the certified full useful life mileage and age for the subject motorcycles.

(iii) If the Executive Officer discovers, by either evidence presented by the manufacturer as provided in subsection (b)(7) or on his or her own, that a motorcycle fails to meet one or more of the applicable criteria of subsections (b)(3)(D)(i) through (iii), the Executive Officer shall remove the motorcycle from the test sample group. The Executive Officer may replace any motorcycle removed with an additional motorcycle selected in accordance with subsections (b)(3)(C) and (D) above. Test results relying on data from the removed motorcycle shall be recalculated without using the data from the removed motorcycle.

(4) *Enforcement Testing Procedures.*

(A) Prior to conducting any testing under subsection (b)(4), the Executive Officer may replace components monitored by the OBD system with components that are sufficiently deteriorated or simulated to cause malfunctions that exceed the malfunction criteria established pursuant to Cal. Code Regs., title 13, section 1958.2(a) and (b) in a properly operating system. The Executive Officer may not use components deteriorated or simulated to represent failure modes that could not have been foreseen to occur by the manufacturer (e.g., the use of leaded gasoline in an unleaded gasoline engine, etc.). Upon request by the Executive Officer, the manufacturer shall make available any of the following:

(i) All test equipment used by the manufacturer in development, calibration, or demonstration testing (e.g., malfunction simulators, deteriorated “threshold” components, etc.) necessary to duplicate testing done by the manufacturer to determine the malfunction criteria used for major monitors(Catalytic converter monitoring, EGR efficiency/flow monitoring, Misfire detection, NOx aftertreatment system monitoring, Particulate filter monitoring, or Particulate matter (PM) emission monitoring, as specified in Annex XII, Table 12-1 of EU 44/2014, and Fuel system monitoring as specified in 1958.2, section (b)(1)) subject to OBD emission testing.

(ii) Complete software design description documentation, specifications, and source code of the engine control unit and any other on-board electronic powertrain control unit. The manufacturer shall provide the descriptions and specifications in English.

(iii) A complete list and description of all control unit variables available for real-time display and data logging, as well as all calibration maps, curves, and constants used in the software.

(iv) A data acquisition device with real-time display and data logging capability of any and all control unit variables used in calibration. These variables shall be provided in the same engineering units used during calibration. The data acquisition device shall include, but may not be limited to, an engineering and calibration tool used during control unit software development and calibration.

(v) A method to unlock any production or prototype control unit to allow real-time display and data logging of any and all variables used during calibration.

(B) OBD Emission Testing. After the test sample group has been selected and procured, the Executive Officer may perform one or more of the following tests:

(i) Emission testing with the test procedures used by the Executive Officer for in-use testing of compliance with exhaust emission standards in accordance with title 13, CCR sections 2138 and 2139.

(ii) Chassis dynamometer testing with the motorcycle being operated in a manner that reasonably ensures that all of the monitoring conditions disclosed in the manufacturer's certification application for the tested monitor are encountered.

(C) OBD Ratio Testing.

(i) For OBD ratio testing of monitors required to meet the in-use monitor performance ratio and track and report ratio data pursuant to Cal. Code Regs., title 13, section 1958.2(e), after the test sample group has been selected and procured, the Executive Officer shall download the data from monitors required to track and report such data.

(D) Testing for compliance with any other requirement of Cal. Code Regs., title 13, section 1958.2. After the test sample group has been selected and procured, the Executive Officer may perform one or more of the following tests:

(i) Emission testing on the WMTC

(ii) Chassis dynamometer testing with the motorcycle being operated in a manner that reasonably ensures that all of the monitoring conditions disclosed in the manufacturer's certification application for the tested monitor are encountered; or

(iii) Any other testing determined to be necessary by the Executive Officer. This may include, but is not limited to, the use of special test equipment to verify compliance with standardization requirements.

(5) *Additional Testing.*

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

(i) A subgroup of tested motorcycles differs sufficiently enough from other motorcycles in the tested motorcycle class, and

(ii) A reasonable basis exists to believe that the identified differences may indicate that the subgroup may be nonconforming whereas the tested motorcycle class as a whole is not.

(B) Hereinafter, all references to motorcycle class shall be applicable to the subgroup meeting the conditions of subsection (b)(5)(A) above.

(C) In any testing of a subgroup of motorcycles under subsection (b)(5), the Executive Officer shall follow the motorcycle selection and testing procedures set forth in subsections (b)(3) and (4) above.

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

After conducting enforcement testing pursuant to subsection (b)(4) above, the Executive Officer shall make a finding of nonconformance of the OBD system in the identified motorcycle class under the respective tests for the applicable model year(s) as follows:

(A) OBD Emission Testing.

(i) For 2026 through 2027 model year motorcycles:

a. Motorcycles certified under the requirements of Cal. Code Regs., title 13, section 1958.2(a), shall be considered nonconforming if the emission test results indicate that 50 percent or more of the motorcycles in the test sample group do not properly illuminate the MIL when emissions exceed the OBD emissions thresholds referenced in 1958.2(a).

b. In determining a motorcycle to be nonconforming, the Executive Officer shall use the test cycle and standard specified for certification in 1958(h) and 1958.2.

(ii) For 2028 and subsequent model year motorcycles:

a. Motorcycles certified under the requirements of Cal. Code Regs., title 13, section 1958.2(a) and (b), shall be considered nonconforming if the emission test results indicate that 50 percent or more of the motorcycles in the test sample group do not properly illuminate the MIL when emissions exceed the OBD emissions thresholds referenced in 1958.2(a) and specified in 1958.2(b) (fuel system monitor threshold).

b. In determining a motorcycle to be nonconforming, the Executive Officer shall use the test cycle and standard specified for certification in 1958(h) and 1958.2.

(iii) The Executive Officer may not consider an OBD system nonconforming solely due to a failure or deterioration mode of a monitored component or system that could not have been reasonably foreseen to occur by the manufacturer.

(B) OBD Ratio Testing.

2028 and subsequent model year motorcycles certified to a ratio of 0.100 in accordance with Cal. Code Regs., title 13, section 1958.2(a) and (b) (Fuel System Monitor) shall be considered nonconforming if the data collected from the motorcycles in the test sample group indicate either that the average in-use monitor performance ratio for one or more of the monitors in the test sample group is less than 0.088 or that 66.0 percent or more of the motorcycles in the test sample group have an in-use monitor performance ratio of less than 0.100 for the same monitor.

(C) All Other OBD Testing.

(i) Motorcycles shall be considered nonconforming if the results of the testing indicate that at least 30 percent of the motorcycles in the test sample group do not comply with one or more of the requirements of Cal. Code Regs., title 13, section 1958.2.

(ii) Motorcycles shall be considered nonconforming if the results of the testing indicate that at least 30 percent of the motorcycles in the test sample group do not comply with one or more of the requirements of Cal. Code Regs., title 13, section 1958.2 while the motorcycle is running and while in the key on, engine off position such that off-board equipment designed to access the following parameters via the standards referenced in Cal. Code Regs., title 13, section 1958.2 for 2028 and subsequent model year motorcycles cannot obtain valid and correct data for the following parameters:

a. The current readiness status from all on-board computers required to support readiness status in accordance with SAE International (SAE) J1979 (SAE J1979) as incorporated by reference in Cal. Code Regs., title 13, section 1958.2, or SAE International (SAE) J1979-2 (SAE J1979-2) as incorporated by reference in Cal. Code Regs., title 13, section 1958.2;

c. The current fault code(s) in accordance with EU 44/2014 Annex XII, Appendix 1, Section 3.11;

d. All other applicable OBD parameters required by Cal. Code Regs., title 13, section 1958.2 and EU 44/2014, which is incorporated by reference therein.

(iii) If the finding of nonconformance under subsection (b)(6)(C)(i) above concerns motorcycles that do not comply with the requirements of Cal. Code Regs., title 13, section 1958.2(e) (e.g., numerators or denominators are not properly being incremented), it shall be presumed that the nonconformance would result in an OBD ratio enforcement test result that would be subject to an ordered OBD-related recall

in accordance with the criterion in subsection (d)(3)(A)(i). The manufacturer may rebut such a presumption by presenting evidence in accordance with subsection (b)(7)(C)(iii) below that demonstrates to the satisfaction of the Executive Officer that the identified nonconformance would not result in an ordered OBD- related recall under subsection (d)(3)(A)(i).

(7) *Executive Officer Notification to the Manufacturer Regarding Determination of Nonconformance.*

(A) Upon making the determination of nonconformance in section (b)(6) above, the Executive Officer shall notify the manufacturer in writing.

(B) The Executive Officer shall include in the notice:

(i) a description of each group or set of motorcycles in the motorcycle class covered by the determination;

(ii) the factual basis for the determination, including a summary of the test results relied upon for the determination;

(iii) a statement that the Executive Officer shall provide to the manufacturer, upon request and consistent with the California Public Records Act, Government Code section 6250 et seq., all records material to the Executive Officer's determination;

(iv) a provision allowing the manufacturer no less than 90 days from the date of issuance of the notice to provide the Executive Officer with any information contesting the findings set forth in the notice; and

(v) a statement that if a final determination is made that the motorcycle class is equipped with a nonconforming OBD system, the manufacturer may be subject to appropriate remedial action, including recall and monetary penalties.

(C) Within the time period set by the Executive Officer in subsection (b)(7)(B)(iv) and any extensions of time granted under subsection (b)(7)(H), the manufacturer shall provide the Executive Officer, consistent with subsections (b)(7)(C)(i) through (iii) below, with any test results, data, or other information derived from motorcycle testing that may rebut or mitigate the results of CARB testing, including any evidence that a motorcycle class, if determined to be nonconforming, should be exempted from mandatory recall. (See subsection (d)(3)(B) below.).

(i) For OBD emission testing and OBD ratio testing:

a. The manufacturer may submit evidence to demonstrate that motorcycles in the test sample group used by the Executive Officer were inappropriately selected, procured, or tested in support of a request to have motorcycles excluded from the test sample group in accordance with subsection (b)(3)(D)(iv).

b. If the manufacturer elects to conduct additional testing of motorcycles in the motorcycle class and submit the results of such testing to the Executive Officer, the manufacturer shall:

1. Present evidence that it has followed the procurement and test procedures set forth in subsections (b)(3) and (4) above, or

2. If the manufacturer elects to use different procurement and testing procedures, submit a detailed description of the procedures used and evidence that such procedures provide an equivalent level of assurance that the results are representative of the motorcycle class.

(ii) If the manufacturer objects to the size of the test sample group or the method used to procure motorcycles in the test sample group used by the Executive Officer pursuant to subsection (b)(3)(B)(iii) or (b)(3)(C)(ii), the manufacturer shall set forth what it considers to be the appropriate size and procurement method, the reasons therefore, and test data from motorcycles that confirm the manufacturer's position.

(iii) If the manufacturer elects to present evidence to overcome the presumption of nonconformance in subsection (b)(6)(C)(iii) above, the manufacturer shall demonstrate that the motorcycles in the motorcycle class comply with in-use monitor performance ratio requirements of Cal. Code Regs., title 13, section 1958.2(e) by presenting:

a. Evidence in accord with the procurement and testing requirements of subsections (b)(3) and (4).

b. Any other evidence that provides an equivalent level of proof that motorcycles operated in California comply with the in-use monitor performance ratio requirements.

(D) The Executive Officer may accept any information submitted by a manufacturer pursuant to subsection (b)(7)(C) above after the time established for submission of such information has passed if the manufacturer could not have reasonably foreseen the need for providing the information within the time period provided. Otherwise, the Executive Officer is not required to accept late information. In determining whether to accept late information, the Executive Officer will consider the lateness of the submission, the manufacturer's reasons for why such information was not timely presented, the materiality of the information to the Executive Officer's final determination, and what effect any delay may have on effective enforcement and the health and welfare of the State.

(E) The requirements of subsection (b)(7) shall not be construed to abridge the manufacturer's right to assert any privilege or right provided under California law.

(F) After receipt of any information submitted by the manufacturer pursuant to subsection (b)(7)(C) above, the Executive Officer shall consider all information

submitted by the manufacturer and may conduct any additional testing that he or she believes is necessary.

(G) Final Determination.

(i) Within 60 days after completing any additional testing that the Executive Officer deemed necessary under subsection (b)(7)(F) above, the Executive Officer shall notify the manufacturer of his or her final determination regarding the finding of nonconformity of the OBD system in the motorcycle class. The determination shall be made after considering all of the information collected and received, including all information that has been received from the manufacturer.

(ii) The notice must include a description of each motorcycle class, OBD family(ies), engine family(ies) or subgroups thereof, that has been determined to have a nonconforming OBD system and set forth the factual bases for the determination.

(H) Extensions. The Executive Officer may for good cause extend the time requirements set forth in subsection (b)(7). In granting additional time to a manufacturer, the Executive Officer shall consider, among other things, any documentation submitted by the manufacturer regarding the time that it reasonably believes is necessary to conduct its own testing, why such information could not have been more expeditiously presented, and what effect any delay caused by granting the extension may have on effective enforcement and the health and welfare of the State. The Executive Officer shall grant a manufacturer a reasonable extension of time upon the manufacturer demonstrating that despite the exercise of reasonable diligence, the manufacturer has been unable to produce relevant evidence in the time initially provided.

(c) *Remedial Action*

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

(2) *Influenced OBD-Related Recalls*.

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

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

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

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

(i) For monitors on 2028 and subsequent model year motorcycles certified to the ratios in title 13, CCR sections 1958.2(e)(1)(A) and (B), the average in-use monitor performance ratio for one or more of the major monitors (Catalytic converter monitoring, EGR efficiency/flow monitoring, Misfire detection, NOx aftertreatment system monitoring, Particulate filter monitoring, or Particulate matter (PM) emission monitoring, as specified in Annex XII, Table 12-1 of EU 44/2014, and Fuel system monitoring as specified in 1958.2, section (b)(1)) in the test sample group is less than 0.088 or 66.0 percent or more of the motorcycles in the test sample group have an in-use monitor performance ratio of less than or equal to 0.100, the Executive Officer shall determine the remedial action for nonconformances regarding the in-use monitor performance ratio in accordance with subsection (c)(4) below.

(ii) Except as provided in subsection (c)(3)(A)(ii)a. below, when the motorcycle is tested on-road, and driven so as to reasonably encounter all monitoring conditions disclosed in the manufacturer's certification application, the OBD system is unable to detect and illuminate the MIL for a malfunction of a component/system monitored by a major monitor prior to emissions exceeding the malfunction criteria referenced in 1958.2 (a) and specified for the fuel system monitor in 1958.2(b), recall would be required. CARB staff may opt to perform this testing on chassis-dynamometer as an alternative to on-road, if on-road testing cannot be performed safely.

a. For purposes of the emission exceedance determination, carbon monoxide (CO) emissions are not considered.

(iii) When the motorcycle is tested on-road and driven so as to reasonably encounter all monitoring conditions disclosed in the manufacturer's certification application, the OBD system cannot detect and illuminate the MIL for a malfunction of a component that effectively disables a major monitor and the major monitor, by being disabled, meets the criteria for recall identified in subsections (c)(3)(A)(ii) above (e.g. is unable to detect and illuminate the MIL for malfunctions that cause WMTC emissions to exceed two times the malfunction criteria). CARB staff may opt to perform this testing on chassis-dynamometer as an alternative to on-road, if on-road testing cannot be performed safely.

(iv) The motorcycle class cannot be tested so as to obtain valid test results in accordance with the criteria identified in subsection (b)(6)(C)(ii) due to the nonconforming OBD system.

(B) A motorcycle class shall not be subject to mandatory recall if the Executive Officer determines that any of the following conditions are met, even though a monitor meets a criterion set forth in subsection (c)(3)(A)(i)-(iv) for mandatory recall:

(i) The OBD system can still detect and illuminate the MIL for all malfunctions monitored by the nonconforming monitor (e.g., monitor "A" is non-functional but monitor "B" is able to detect all malfunctions of the component(s) monitored by monitor "A".

(ii) The monitor meets the criterion solely due to a failure or deterioration mode of a monitored component or system that could not have been reasonably foreseen to occur by the manufacturer.

(iii) The failure or deterioration of the monitored component or system that cannot be properly detected causes the motorcycle to be undriveable (e.g., motorcycle stalls continuously or the transmission will not shift out of first gear, etc.) or causes an overt indication such that the driver is certain to respond and have the problem corrected (e.g., illumination of an over-temperature warning light or charging system light that uncorrected will result in an undriveable motorcycle, etc.).

(C) A motorcycle class that is not subject to mandatory recall pursuant to paragraph (B) above may still be subject to remedial action pursuant to subsection (c)(4) below.

(4) *Other Ordered Remedial Action*.

(A) If the Executive Officer has determined based upon enforcement testing conducted pursuant to section (b) above or information received from the manufacturer that a motorcycle class is equipped with a nonconforming OBD system and the nonconformance does not fall within the provisions of subsection (c)(3)(A) above, he or she may require the manufacturer to undertake remedial action up to and including recall of the affected motorcycle class.

(B) In making his or her findings regarding remedial action, the Executive Officer shall consider the capability of the OBD system to properly function. This determination shall be based upon consideration of all relevant circumstances including, but not limited to, those set forth below.

(i) Whether the manufacturer identified and informed CARB about the nonconformance(s) or whether CARB identified the nonconformance(s) prior to being informed by the manufacturer.

(ii) The number of nonconformances.

(iii) If the identified nonconformance(s) is with a major monitor(s), the nature and extent of the nonconformance(s), including:

a. the degree to which the in-use monitor performance ratio(s) is below the required ratio(s) specified in title 13, CCR section 1958.2(e)(1), and

b. the amount of the emission exceedance(s) over the established malfunction criteria set forth in title 13, CCR sections 1958.2(a) and (b) before a malfunction is detected and the MIL is illuminated.

(iv) If the identified nonconformance(s) is with a non-major monitor the nature and extent of the nonconformance(s), including:

a. the degree to which the in-use monitor performance ratio(s) (where applicable) is below the required ratio(s) specified in title 13, CCR section 1958.2(e)(1),

b. the degree to which the monitored component must be malfunctioning or exceed the established malfunction criteria set forth in title 13, CCR sections 1958.2(a) and (b) before a malfunction is detected and the MIL is illuminated, and

c. the effect that the nonconformance(s) has on the operation of a major monitor(s).

(v) The impact of the nonconformance on motorcycle owners (e.g., cost of future repairs, driveability, etc.) and the ability of the service and repair industry to make effective repairs (e.g., difficulty in accessing fault information, diagnosing the root cause of a failure, etc.).

(vi) The failure of the data link connector of the motorcycle class to meet the requirements of title 13, CCR section 1958.2(a).

(vii) The estimated frequency that a monitor detects a malfunction and illuminates the MIL when no component malfunction is present (i.e., false MILs).

(viii) The estimated frequency that a monitor fails to detect a malfunction and illuminate the MIL when the monitoring conditions, as set forth in the manufacturer's approved certification application, have been satisfied and a faulty or deteriorated monitored component is present (i.e., false passes).

(ix) Whether the manufacturer submitted false, inaccurate, or incomplete documentation regarding the identified nonconformance at the time of certification pursuant to title 13, CCR section 1958.2(d) and the extent to which the false, inaccurate, or incomplete documentation was material to the granting of certification.

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

(5) *Assessment of Monetary Penalties*. The Executive Officer may seek penalties pursuant to the applicable provisions of the Health and Safety Code for violations of the requirements of title 13, CCR section 1958.2 or for production motorcycles otherwise failing to be equipped with OBD systems that have been certified by CARB. In determining the penalty amounts that CARB may seek, the Executive Officer shall consider all relevant circumstances including the factors set forth below:

(A) Whether the manufacturer self-reported the nonconformity or CARB discovered the nonconformity independent of the manufacturer.

(B) The nature and degree of the nonconformity and whether the manufacturer should reasonably have discovered the nonconformity and taken corrective action by voluntary OBD-related recall or running changes during the production year.

(C) The economic benefits, if any, gained by the manufacturer from not complying with the provisions of title 13, CCR section 1958.2.

(D) The manufacturer's history of compliance with the OBD requirements.

(E) The preventative efforts taken by the manufacturer to avoid noncompliance, including any programs followed by the manufacturer to ensure compliance.

(F) The manufacturer's efforts to correct the nonconformity once it was identified.

(G) The innovative nature and magnitude of effort, including the cost of any other proposed remedial action, necessary to correct the nonconformity.

(H) The deterrent effect of the penalty.

(I) Whether the manufacturer has failed to provide complete and accurate information required to be submitted at the time of certification pursuant to title 13, CCR section 1958.2(d).

(J) The nature and degree that OBD systems on production motorcycles differ from the systems that have been certified by CARB.

(6) *Notice to Manufacturer for an Ordered Remedial Action*.

(A) The Executive Officer shall immediately notify the manufacturer upon the Executive Officer determining the type of remedial action to be taken.

(B) For remedial actions other than the assessment of monetary penalties, the notice must:

(i) specifically set forth the remedial action that is being ordered,

(ii) include a description of the motorcycle class(es), OBD family(ies), engine family(ies) or subgroup(s) thereof, that has been determined to have a nonconforming OBD system,

(iii) set forth the factual bases for the determination, and

(iv) designate a date at least 45 days from the date of receipt of such notice by which the manufacturer shall submit a plan, pursuant to subsection (d)(1) below, outlining the remedial action to be undertaken consistent with the Executive Officer's order. Except as provided in subsection (c)(7)(C) below, all plans shall be submitted to the Chief, Emissions Certification and Compliance Division, 4001 Iowa Avenue, Riverside, California 92507, within the time limit specified in the notice. The Executive Officer may grant the manufacturer an extension of time for good cause.

(C) For cases in which CARB elects to seek monetary penalties pursuant to authority granted under the Health and Safety Code, the Executive Officer shall issue a notice to the manufacturer that he or she will be filing a complaint in the appropriate administrative or civil court forum seeking penalties against the manufacturer for violations of title 13, CCR section 1958.2. The notice must include a description of the motorcycle class(es), OBD family(ies), engine family(ies) or subgroup(s) thereof, that have been determined to have a nonconforming OBD system and set forth the factual bases for the determination.

(7) *Availability of Public Hearing to Contest Remedial Actions Other than Determination to Seek Monetary Penalties*.

(A) Within 45 days from the date of receipt of the notice that is required under section (c)(6) above, the manufacturer may request a public hearing pursuant to the procedures set forth in title 17, CCR section 60055.1, et seq., to contest the findings of nonconformity, the necessity for, or the scope of any ordered remedial action. Pursuant to those procedures, the Executive Officer has the initial burden of presenting evidence that those parts of the Executive Officer's determination specifically challenged are supported by the facts and applicable law. (Title 17, CCR section 60055.32(d)(1).) Each issue of controversy shall be decided based upon the preponderance of the evidence presented at the hearing. (Title 17, CCR section 60055.32(h).)

(B) Notwithstanding the provisions of title 17, CCR section 60055.17(a)(1), administrative hearings conducted pursuant to a request filed under subsection (c)(7)(A) above shall be referred to the Office of Administrative Hearings, which shall otherwise follow the procedures established in title 17, CCR section 60055.1 et seq.

(C) If a manufacturer requests a public hearing pursuant to subsection (c)(7)(A) above and if the Executive Officer's determination of nonconformity is confirmed at the hearing, the manufacturer shall submit the required remedial action plan in accordance with subsection (d)(1) below within 30 days after receipt of the Board's decision.

(d) *Requirements for Implementing Remedial Actions*

(1) *Remedial Action Plans*.

(A) A manufacturer initiating a remedial action (voluntary, influenced, or ordered), other than payment of monetary penalties, shall develop a remedial action plan that contains the following information, unless otherwise specified:

(i) A description of each test group, OBD family, or subgroup thereof covered by the remedial action, including the number of motorcycles, the engine families, test groups, or subgroups within the identified class(es), the make(s), model(s), and model years of the covered motorcycles, and such other information as may be required to identify the covered motorcycles.

(ii) A description of the nonconforming OBD system and, in the case of a recall (whether voluntary, influenced, or ordered), the specific modifications, alterations, repairs, adjustments, or other changes to correct the nonconforming OBD system, including data and/or engineering evaluation supporting the specific corrections.

(iii) A description of the method that the manufacturer will use to determine the names and addresses of motorcycle owners and the manufacturer's method and schedule for notifying the service facilities and motorcycle owners of the remedial action.

(iv) A copy of all instructions that the manufacturer will use to notify service facilities about the required remedial action and the specific corrections, if any, that will be required to be made to the nonconforming OBD systems.

(v) A description of the procedure to be followed by motorcycle owners to obtain remedial action for the nonconforming OBD system. This must include the date, on or after which the owner can have required remedial action performed, the time reasonably necessary to perform the labor to remedy the nonconformity, and the designation of facilities at which the nonconformity can be remedied.

(vi) If some or all of the nonconforming OBD systems are to be remedied by persons other than dealers or authorized warranty agents of the manufacturer, a description of such class of service agents and what steps, including a copy of all instructions mailed to such service agents, the manufacturer will take to assure that such agents are prepared and equipped to perform the proposed remedial action.

(vii) A copy of the letter of notification to be sent to motorcycle owners.

(viii) A proposed schedule for implementing the remedial action, including identified increments of progress towards full implementation.

(ix) A description of the method that the manufacturer will use to assure that an adequate supply of parts, if applicable, will be available to initiate the remedial action campaign on the date set by the manufacturer and that an adequate supply of parts will continue to be available throughout the campaign.

(x) A description and test data of the emission impact, if any, that the proposed remedial action may cause to a representative motorcycle from the motorcycle class to be remedied.

(xi) A description of the impact, if any, and supporting data and/or engineering evaluation, that the proposed remedial action will have on fuel economy, driveability, performance, and safety of the motorcycle class covered by the remedial action.

(xii) Any other information, reports, or data which the Executive Officer may reasonably determine to be necessary to evaluate the remedial action plan.

(B) *Approval and Implementation of Remedial Action Plans.*

(i) If the Executive Officer finds that the remedial action plan is designed effectively to address the required remedial action and complies with the provisions in subsection (d)(1)(A) above, he or she shall notify the manufacturer in writing within 30 days of receipt of the plan that the plan has been approved.

(ii) The Executive Officer shall approve a voluntary, influenced, or ordered remedial action plan if the plan contains the information specified in subsection (d)(1)(A) above and is designed to notify the motorcycle owner and implement the remedial action in an expeditious manner.

(iii) In disapproving an ordered remedial action plan, the Executive Officer shall notify the manufacturer in writing of the disapproval and the reasons for the determination. The manufacturer shall resubmit a revised remedial action plan that fully addresses the reasons for the Executive Officer's disapproval within 10 days of receipt of the disapproval notice.

(iv) Upon receipt of the approval notice of the ordered remedial action plan from the Executive Officer, the manufacturer shall, within 45 days of receipt of the notice, begin to notify motorcycle owners and implement the remedial action campaign.

(v) If the Executive Officer disapproves a voluntary or influenced remedial action plan, the manufacturer shall either accept the proposed modifications to the plan as suggested by the Executive Officer, resubmit a revised remedial action plan that fully addresses the reasons for the Executive Officer's disapproval within 30 days, or be subject to an Executive Officer order that the manufacturer undertake appropriate remedial action pursuant to subsection (c)(2)(B) above.

(vi) Upon receipt of the voluntary or influenced remedial action approval notice from the Executive Officer, the manufacturer shall begin to notify motorcycle owners and implement the remedial action campaign according to the schedule indicated in the remedial action plan.

(2) *Eligibility for Remedial Action.*

(A) The manufacturer may not condition a motorcycle owner's eligibility for remedial action required under section 1958.3 on the proper maintenance or use of the motorcycle.

(B) The manufacturer shall not be obligated to repair a component which has been modified or altered such that the remedial action cannot be performed without additional cost.

(3) *Notice to Owners.*

(A) The manufacturer shall notify owners of motorcycles in the motorcycle class covered by the remedial order. The notice must be made by first-class mail or by such other means as approved by the Executive Officer. When necessary, the Executive Officer may require the use of certified mail for ordered remedial actions to assure effective notification.

(B) The manufacturer shall use all reasonable means necessary to locate motorcycle owners, including motor motorcycle registration lists available from the California Department of Motor Vehicles and commercial sources such as R.L. Polk & Co.

(C) The notice must contain the following:

(i) For ordered remedial actions, a statement: "The California Air Resources Board has determined that your (motorcycle or engine) (is or may be) equipped with an improperly functioning on-board emission-related diagnostic system that violates established standards and regulations that were adopted to protect your health and welfare from the dangers of air pollution."

(ii) For voluntary and influenced remedial actions, a statement: "Your (motorcycle or engine) (is or may be) equipped with an improperly functioning on-board emission-related diagnostic system that violates (California or California and Federal) standards and regulations" if applicable as determined by the Executive Officer.

(iii) A statement that the nonconformity of any such motorcycles will be remedied at the expense of the manufacturer.

(iv) A statement that eligibility for remedial action may not be denied solely on the basis that the motorcycle owner used parts not manufactured by the original equipment motorcycle manufacturer, or had repairs performed by outlets other than the motorcycle manufacturer's franchised dealers.

(v) Instructions to the motorcycle owners on how to obtain remedial action, including instructions on whom to contact (i.e., a description of the facilities where the motorcycles should be taken for the remedial action), the first date that a motorcycle may be brought in for remedial action, and the time that it will reasonably take to correct the nonconformity.

(vi) The statement: "In order to assure your full protection under the emission warranty provisions, it is recommended that you have your (motorcycle or engine) serviced as soon as possible. Failure to do so could be determined as lack of proper maintenance of your (motorcycle or engine)."

(vii) A telephone number for motorcycle owners to call to report difficulty in obtaining remedial action.

(viii) A card to be used by a motorcycle owner in the event the motorcycle to be recalled has been sold. Such card should be addressed to the manufacturer, have postage paid, and shall provide a space in which the owner may indicate the name and address of the person to whom the motorcycle was sold or transferred.

(ix) If the remedial action involves recall, the notice must also provide:

a. A clear description of the components that will be affected by the remedial action and a general statement of the measures to be taken to correct the nonconformity.

b. A statement describing the adverse effects, if any, of an uncorrected nonconforming OBD system on the performance, fuel economy, or durability of the motorcycle.

c. A statement that after remedial action has been taken, the manufacturer will have the service facility issue a certificate showing that a motorcycle has been corrected under the recall program, and that such a certificate will be required to be provided to the Department of Motor Vehicles as a condition for motorcycle registration.

(D) A notice sent pursuant to this section or any other communication sent to motorcycle owners or dealers may not contain any statement, expressed or implied, that the OBD system is compliant or that the OBD system will not degrade air quality.

(E) The Executive Officer shall inform the manufacturer of any other requirements pertaining to the notification under subsection (d)(3) which the Executive Officer has determined as reasonable and necessary to assure the effectiveness of the recall campaign.

(4) *Label Indicating that Recall Repairs Have Been Performed*.

(A) If the required remedial action involves recall of a motorcycle class(es), OBD family(ies), engine family(ies) or subgroup(s) thereof, the manufacturer shall require those who perform inspections and/or recall repairs to affix a label to each motorcycle that has been inspected and/or repaired.

(B) The label must be placed in a location approved by the Executive Officer and must be fabricated of a material suitable for such location in which it is installed and which is not readily removable.

(C) The label must contain the remedial action campaign number and a code designating the facility at which the remedial action or inspection to determine the need for remedial action was performed.

(5) *Proof of Performance of Remedial Action Certificate.* If the required remedial action involves a recall, the manufacturer shall provide, through its service agents, to owners of motorcycles that have had the remedial action performed a certificate that confirms that the motorcycle has been recalled and that required inspection and/or repairs have been performed. The certificate must be in a format prescribed by the Executive Officer, however, the Executive Officer may not require a format different in any way from the format of the certificate required in title 13, CCR sections 2117 and 2129.

(6) *Record Keeping and Reporting Requirements.*

(A) The manufacturer shall maintain sufficient records to enable the Executive Officer to conduct an analysis of the adequacy of the remedial action.

(B) Unless otherwise specified by the Executive Officer, the manufacturer shall report on the progress of the remedial action campaign by submitting reports for eight consecutive quarters commencing with the quarter immediately after the recall campaign begins. The reports shall be submitted no later than 25 days after the close of each calendar quarter to: Chief, Emissions Certification and Compliance Division, 4001 Iowa Avenue, Riverside, California 92507. For each recall campaign, the quarterly report must contain the following:

(i) The test group and the remedial action campaign number designated by the manufacturer and a brief description of the nature of the campaign.

(ii) The date owner notifications began and date completed.

(iii) The number of motorcycles involved in the remedial action campaign.

(iv) The number of motorcycles known or estimated to be equipped with the nonconforming OBD system and an explanation of the means by which this number was determined.

(v) The number of motorcycles inspected during the campaign since its inception.

(vi) The number of motorcycles found to be affected by the nonconformity during the campaign since its inception.

(vii) The number of motorcycles receiving remedial action during the campaign since its inception.

(viii) The number of motorcycles determined to be unavailable for inspection or remedial action, during the campaign since its inception, due to exportation, theft, scrapping, or other reasons (specify).

(ix) The number of motorcycles, during the campaign since its inception, determined to be ineligible for remedial action under subsection (d)(2)(B).

(x) An initial list, using the following data elements and designated positions, indicating all motorcycles subject to recall that the manufacturer has not been invoiced for, or a subsequent list indicating all motorcycles subject to the recall that the manufacturer has been invoiced for since the previous report. The list must be supplied in a standardized computer format to be specified by the Executive Officer. The data elements must be written in "ASCII" code without a comma separating each element. For example: XTY32A71234E-9456123408-25-91A. The add flag (see below) should reflect the motorcycles for which the manufacturer has not been invoiced and the delete flag should reflect changes since the previous report. The Executive Officer may change the frequency of this submittal depending on the needs of enforcement. The Executive Officer may not, however, require a frequency or format for this submittal that is different in any way from the frequency or format determined by the Executive Officer as required for reporting of data in title 13, CCR sections 2119(a)(10) and 2133(a)(10).

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

(xi) A copy of any service bulletins issued during the reporting period by the manufacturer to franchised dealerships or other service agents that relate to the nonconforming OBD system and the remedial action and have not previously been reported to the Executive Officer.

(xii) A copy of all communications transmitted to motorcycle owners that relate to the nonconforming OBD systems and the required remedial action and have not been previously reported to the Executive Officer.

(C) If the manufacturer determines that any of the information submitted to the Executive Officer pursuant to subsection (d) has changed or is incorrect, the manufacturer shall submit the revised information, with an explanation.

(D) The manufacturer shall maintain in a form suitable for inspection, such as computer information, storage devices, or card files, and shall make available to the Executive Officer or his or her authorized representative upon request, the names and addresses of motorcycle owners:

(i) To whom notification was sent;

(ii) Whose motorcycles were repaired or inspected under the recall campaign;

(iii) Whose motorcycles were determined not to be eligible for remedial action because the motorcycles were modified, altered, or unavailable due to exportation, theft, scrapping, or other reason specified in the answer to subsections (d)(6)(B)(viii) and (ix).

(E) The information gathered by the manufacturer to compile the reports required by these procedures must be retained for no less than one year beyond the useful life of the motorcycles and must be made available to authorized personnel of CARB upon request.

(F) The filing of any report under the provisions of these procedures must not affect the manufacturer's responsibility to file reports or applications, obtain approval, or give notice under any other provisions of law.

(7) *Extension of Time.*

Upon request of the manufacturer, the Executive Officer may extend any deadline set forth in section 1958.3(d) upon finding that the manufacturer has demonstrated good cause for the requested extension.

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

(1) In addition to the penalties that may be assessed by the Executive Officer pursuant to subsection (c) because of a manufacturer's failure to comply with the requirements of title 13, CCR section 1958.2, a manufacturer may be subject to penalties pursuant to section 43016, Health and Safety Code for failing to comply with the requirements of subsection (d).

(2) If a manufacturer fails to comply with a voluntary or influenced remedial action plan, the Executive Officer may order remedial action pursuant to subsection (c) above.

Notes

Cal. Code Regs. Tit. 13, § 1958.3

NOTE: Authority cited: Sections 39600, 39601, 43000.5, 43013, 43018, 43100, 43101, 43104, 43105, 43105.5, 43106, and 43107 Health and Safety Code. Reference: Sections

39002, 39003, 39010, 39018, 39021.5, 39027, 39027.3, 39028, 39029, 39032, 39038, 39039, 39040, 39041, 39042, 39042.5, 39047, 39053, 39059, 39060,, 39515, 39600, 39601, 43000, 43000.5, 43004, 43006, 43013, 43016, 43018, 43100, 43101, 43102, 43104, 43105,43105.5, 43106, 43107, 43150, 43151, 43152, 43153, 43154, 43155, 43156, 43204, 43211, and 43212, Health and Safety Code.

§ 1958.4. Zero-Emissions Motorcycle Standards and Certification Procedures for 2028 and Subsequent Model Years

(a) This section shall apply to manufacturers that produce and deliver for sale street-use motorcycles in California in 2028 and subsequent model years.

(b) The Executive Officer shall certify as zero-emission motorcycles (ZEM) under this regulation new 2028 and subsequent model year street-use motorcycles that produce zero exhaust emissions of any criteria pollutant (or precursor pollutant) or greenhouse gas under any possible operational modes or conditions.

(c) All certified ZEMs must be capable of maintaining a speed of at least 25 miles per hour for at least 10 minutes and must have a riding range of at least 25 miles when tested according to subsection 1958.4(e)

(d) ZEMs shall be certified in one of the following three Tiers:

1. Tier I ZEMs are capable maintaining a speed of at least 25 miles per hour for at least 10 minutes and have a certified riding range of at least 25 miles but are not capable of maintaining a speed of 55 miles per hour for 10 minutes.
2. Tier II ZEMs are capable maintaining a speed of at least 55 miles per hour for at least 10 minutes and have a certified riding range of at least 25 miles but are not capable of meeting the minimum speed and/or range criteria of a Tier III ZEM.
3. Tier III ZEMs are capable maintaining a speed of at least 70 miles per hour for at least 10 minutes and have a certified riding range of at least 50 miles.

(e) Certified riding range shall be determined using the following test procedures:

1. For battery electric motorcycles: *SAE J2982_202210 - Riding Range Test Procedure for On-Highway Electric Motorcycles, revised 10-13-2022, (SAE J2982)* which is hereby incorporated by reference.
    i. For Tier I ZEMs, range shall be determined using the UDDS drive cycle
    ii. For Tier II ZEMs, range shall be determined using an average of UDDS and 55 mph drive cycles
    iii. For Tier III ZEMs, range shall be determined using one of the following methods, at the manufacturer's discretion:
        A) an average of UDDS and 70 mph drive cycles, or
        B) WMTC for sub-class 3-2, chassis-dynamometer test cycle as described in EU 134/2014, consolidated version 14/11/2020, Annex II, Appendix 6, section (3).
    iv. When utilizing the UDDS drive cycle for range testing, the dynamometer coefficients and inertial mass shall be as prescribed in Subparts E and F,

Part 86, Title 40, Code of Federal Regulations. The average of UDDS and constant speed range results shall be calculated in accordance with SAE J2982, section 9.3.

v. When utilizing the WMTC drive cycle for range testing, the dynamometer coefficients and inertial mass shall be as prescribed in EU 134/2014, consolidated version 14/11/2020, Annex II

2. For hydrogen fuel cell motorcycles: *SAE J2572_201410 - Recommended Practice for Measuring Fuel Consumption and Range of Fuel Cell and Hybrid Fuel Cell Vehicles Fueled by Compressed Gaseous Hydrogen, revised 10-16-2014,* which is hereby incorporated by reference.
   i. For Tier I and Tier II ZEMs, range shall be determined using the UDDS drive cycle
   ii. For Tier III ZEMs, range shall be determined using an average of UDDS and HFEDS drive cycles.
3. For all other ZEM technologies: The manufacturer shall use one of the test procedures listed above, or comparable test procedure, with modifications necessary to accommodate the specific technology used on the vehicle being tested, as approved by the Executive Officer or his/her authorized designee. The Executive Officer shall approve test procedures that accurately quantify ZEM range under operating conditions that are representative of typical motorcycle usage in California.

(f) Requirements for ZEM traction batteries:

1. All ZEMs with a traction battery shall comply with the battery labeling requirements of section 1962.6. For the purposes of this section, “traction battery” means any electrical energy storage device consisting of any number of individual battery modules or cells that is used to supply power to propel the vehicle. Notwithstanding the “label location” requirements in subsection 1962.6(b)(2)(B), the battery label may be located in any area where it is visible and can be read without removing or disassembling any portion of the motorcycle.

2. All ZEMs with a traction battery must monitor and report the battery state of health. For the purpose of this requirement, the battery state of health is defined as the maximum amount of usable energy currently able to be stored in the battery and available to supply power to propel the motorcycle, divided by the maximum amount of usable energy initially able to be stored in the battery and available to supply power to propel the motorcycle. Battery state of health shall be expressed as a percentage as shown below:

$$\text{State of Health /\%} = \frac{\text{Current Maximum Available Capacity}}{\text{Initial Maximum Available Capacity}}$$

3. For ZEMs designed to initially hold some battery capacity or energy in reserve and open up access as the vehicle or battery ages (e.g., to widen the minimum and maximum allowed state of charge as the battery degrades to counteract or diminish reduction in battery usable energy), the reported battery SOH parameter shall be normalized such that 100 percent reflects the usable battery energy as if the user was allowed to initially access the maximum the system is designed to ever allow (e.g., a ZEM with a new battery but with the reserve in the system artificially opened up to its maximum range of authority). In this case, battery state of health shall be expressed as a percentage as shown below:

$$\text{State of Health /\%} = \frac{\text{Current Maximum Available Capacity (including reserve)}}{\text{Initial Maximum Available Capacity (including reserve)}}$$

4. Manufacturers shall use good engineering judgement when monitoring battery state of health to ensure that the state of health reported to the user accurately represents degradation of the battery from its initial condition. CARB staff may evaluate the battery state of health monitor at any time to assess its accuracy. Within 10 days upon request by the Executive Officer, the manufacturer shall provide software or other means for CARB to assess the accuracy of the battery state of health monitor. The manufacturer shall provide any physical items to CARB at the following address: Chief, Emissions Certification and Compliance Division, CARB, 4001 Iowa Ave, Riverside, California 92507, and may provide information or code electronically upon mutual agreement as provided under sections 1633.7 and 1633.8 of the Civil Code.

5. The manufacturer may limit calculation of an updated battery state of health to certain usage conditions of the motorcycle (e.g., only when a sequence of sufficient depth of discharge and subsequent charge event occurs) if necessary to maintain the accuracy of the data parameter. However, a manufacturer may only use conditions which are technically necessary to ensure robust calculation of the battery state of health, designed to ensure calculation of an updated value will occur under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, and designed to ensure calculation of an updated value will occur regularly, consistent with good engineering judgement.

6. Each ZEM shall be able to display the battery state of health percentage in subsection (f)(2) to the user without the use of any tools. This information shall be displayed on the motorcycle dashboard if so equipped. The state of health shall be displayed as a percentage, to at least the nearest whole percentage point, in alphanumeric format percentage value, and shall be readable by the user with no

more than 5 selectable screens or submenu selections needed to access the parameter from the home or default display/screen. If the motorcycle is not equipped with a dashboard, the state of health information shall be accessible to the user in real time via a cellular phone, tablet, or personal computer, using software provided by the manufacturer at no cost to the user.

7. The manufacturer of each ZEM shall warrant to the ultimate purchaser and each subsequent purchaser that the vehicle's traction battery is free from defects in materials and workmanship which cause deterioration such that the battery state of health falls below 70% for, at minimum, the distance and time (whichever occurs first) shown in the following table.

Minimum Required ZEM Battery Warranty Distance and Duration

ZEM Tier	Distance	Duration
Tier I	20,000 km	2 Years
Tier II	30,000 km	3 Years
Tier III	50,000 km	5 Years

8. The warranty requirements in subsection (f)(4) do not apply to ZEMs that are sold exclusively for use with exchangeable batteries that are not owned or leased by the ultimate purchaser of the vehicle.

(g) Manufacturers must submit an application to CARB to obtain certification for all new ZEMs sold or offered for sale in California.

1. ZEM models shall be certified in ZEM test groups that include ZEM models having the same: battery or fuel cell configuration, motor configuration, and expected degradation in usable battery energy
2. Range testing in accordance with subsection 1958.4(e) shall be conducted on the ZEM model and configuration within the ZEM test group that, based on engineering judgement, will have the lowest certified range. This "worst case" range shall be applied to all models and configurations within the ZEM test group unless additional range testing is conducted to establish a higher certified range for those models. Manufacturers shall use good engineering judgment to combine vehicles into ZEM test groups.

(h) Application for Certification. Except as noted below, the certification application shall include all information required by the code of Federal regulations, Title 40, Part 86, subpart E, section 86.416-80, and shall also include the following:

1. Correspondence and communication information, consisting of names, mailing addresses, phone and fax numbers, and e-mail addresses of all manufacturer representatives authorized to be in contact with CARB compliance staff. At least one contact must be provided.
2. Identification and description of the test group covered by the application.
3. Identification and description of all vehicles within the test group to be produced and delivered for sale to California. The description must be sufficiently detailed to determine for each vehicle all appropriate test parameters and any special test procedures necessary to conduct the applicable certified riding range tests. The description shall include:
    a. Identification of the vehicle curb weight and GVWR,
    b. Projected number of vehicles to be produced and delivered for sale in California.
    c. Identification and description of the propulsion system for the vehicle.
    d. Identification and description of the energy storage system for the vehicle.
    e. For off-board charge capable vehicles, identification and description of the charging system for the vehicle including the onboard charger capability, maximum allowable direct current fast charge capability and vehicle connector specification, and the charging cord included with the vehicle.
4. Results of all certified riding range testing demonstrating compliance with subsection (d).
5. Calculated ZEM credit value for each vehicle within the test group.
6. Identification of the length and terms of the propulsion-related parts warranty and traction battery warranty.
7. Information provided to the vehicle owner for proper and safe operation of the vehicle, including information on the safe handling of the battery system and emergency procedures to follow in the event of battery leakage or other malfunctions that may affect the safety of the vehicle operator or vehicle testing laboratory personnel.
8. Information provided to the vehicle owner for proper and safe operation of the vehicle, including information on the safe handling of the fuel cell system and hydrogen storage system and emergency procedures to follow in the event of hydrogen or battery leakage or other malfunctions that may affect the safety of the vehicle operator or vehicle testing laboratory personnel.
9. An attestation that all vehicles in the test group covered by the application comply with the requirements of CCR, title 13, section 1958.4.
10. A description of how the current usable storage capacity in the traction battery is monitored, and how the battery state of health is calculated as required by subsection (f)(2). This shall include a description of the usage conditions under which battery state of health calculations are limited to ensure accuracy pursuant to subsection (f)(5).
11. A copy of instructions provided to vehicle owners on how to access the battery state of health parameter as required by subsection (f)(4).

12. A sample label(s) pursuant to subsection (f)(1), including label format, size, and location.

(i) If the Executive Officer finds that the vehicle manufacturer is not in compliance with any requirements of this regulation, the Executive Officer shall issue a determination in the form of a notice to comply to the vehicle manufacturer. Within 30 days from the date of issuance of a notice to comply, the vehicle manufacturer shall remedy the noncompliance.

(j) In addition to suspension or revocation of an Executive Order of Certification as provided in this Article, the Executive Officer may seek civil or criminal penalties as provided for by law and/or such equitable relief deemed appropriate by the Executive Officer for any violation of these regulations. Each day in which there is a violation shall be a separate violation.

Note: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43104 and 43105, Health and Safety Code. Reference: Sections 38562, 39002, 39003, 39667, 43000, 43013, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43107, and 43205.5, Health and Safety Code.

§ 1958.5. Zero-Emissions Motorcycle (ZEM) Credit Generation, Transfer, and Expiration.

a) For model years 2024-2027, each ZEM sold or offered for sale in California that has been issued a Certificate of Conformity by the United States Environmental Protection Agency in accordance with the Federal Code of Regulations, Title 40, Part 86, subpart E, shall be awarded ZEM credits as described in this section. For model year 2028 and subsequent, each ZEM sold or offered for sale in California that has been certified in accordance with section 1958.4 shall be awarded ZEM credits as described in this section. These credits can be used to comply with the ZEM credit obligations described in section 1958.6.

b) For model years 2024-2035, ZEM credits will be awarded for each of the three ZEM tiers defined in subsection 1958.4(d), as follows:
   1. Tier I ZEMs shall earn 0.25 credits per vehicle
   2. Tier II ZEMs shall earn credits in the sum of the following:
      i. Base credits: 0.01 x certified riding range in miles (up to 100 miles max.)
      ii. Fast charge credit, if applicable: 0.25
   3. Tier III ZEMs shall earn credits in the sum of the following:

i. Base credits: 0.5 + [0.01 x certified riding range in miles (up to 200 miles max.)]
ii. Fast charge credit, if applicable: 0.5

4. For purposes of calculating ZEM credits, the certified riding range shall be determined in accordance with subsection 1958.4(e), rounded to the nearest whole mile, and the amount of ZEM credits awarded per vehicle shall be rounded to two significant digits.

c) To qualify for the fast charge credit in the subsections 1958.5(b)(2)(ii) and 1958.5(b)(3)(ii), the ZEM must meet one of the following criteria:
1. Equipped with a conductive charger inlet and charging system that:
i. Meets AC Level 1 and Level 2 SAE Surface Vehicle Recommended Practice SAE J1772 REV OCT 2017, SAE Electric Vehicle and Plug in Hybrid Electric Vehicle Conductive Charger Coupler, which is incorporated herein by reference; and
ii. For Tier III ZEMs, is equipped with an on-board charger with a minimum output of 3.3 kilowatts, or, capable of providing sufficient power to enable charging from a state of discharge to a full charge in less than 4 hours.
2. Sold exclusively for use with exchangeable batteries that are not owned or leased by the ultimate purchaser of the vehicle; or
3. Powered by compressed gaseous hydrogen; or
4. Equipped with another technology that has been determined by the Executive Officer or their designee to be compatible with widely available public fueling or charging infrastructure and offers charging/refueling speeds that are comparable to or greater the requirements of subsection (c)(1).

d) Additional base credits will be awarded for model years 2024-2030 Tier II and Tier III ZEMs as follows:
1. For model years 2024-2027: Tier II ZEM base credits shall be multiplied by 3x, Tier III ZEM base credits shall be multiplied by 6x.
2. For model years 2028-2030: Tier II ZEM base credits shall be multiplied by 1.5x, Tier III ZEM base credits shall be multiplied by 3x.
3. The multipliers described in this subsection apply only to base credits, and do not affect fast charge credits.

e) For model years 2036 and subsequent, ZEM credits will be awarded for each of the three ZEM tiers defined in subsection 1958.4(d), as described below. No additional credits or multipliers apply.
1. Tier I ZEMs shall earn 0.25 credits per vehicle
2. Tier II ZEMs shall earn 0.5 credits

3. Tier III ZEMs shall earn 1.0 credits.

f) In order to determine the total number of ZEM credits generated in a given model year, each manufacturer shall submit a report to the Executive Officer annually, prior to May 1 of the calendar year following the close of the model year. The end-of-model-year report must contain the following information:
   1. Total number of street-use motorcycles produced and delivered for sale in California for the model year and each of the three prior model years. This number shall include both ZEMs and internal combustion engine motorcycles.
   2. Data for each California certified ZEM that was produced and delivered for sale in California for that model year including: vehicle identification number (VIN), model year, Executive Order or EPA Certificate of Conformity number, make, model, test group, certified riding range, and fast charge equipment (if applicable).
   3. Calculation of the manufacturer's total ZEM credits earned for the model year.

g) A manufacturer shall maintain the documents and information gathered to compile each report required under subsections (f) in a form suitable for inspection, such as computer files, for five years after submission of the report. The manufacturer shall make such records available to the Executive Officer within 30 days upon request to verify the accuracy of the reported information.

h) ZEM credits may be used to satisfy credit obligations pursuant to section 1958.6 for up to five model years after the model year in which the ZEM credit was generated. Beyond this time period, the ZEM credit expires and shall be deducted from the manufacturer's ZEM credit balance. For the purposes of this requirement, all ZEM credits generated prior to 2028 are considered to have been generated in model year 2028 and may be used to satisfy ZEM credit obligations through model year 2033.

i) Manufacturers may transfer ZEM credits in excess of the amount required for compliance with the ZEM credit obligations described in section 1958.6. All ZEM credit transfers must be reported to the Executive Officer by an authorized representative of the manufacturers that are both transferring and receiving the credits. Manufacturers that are not in compliance with the ZEM credit obligations in section 1958.6 may not transfer ZEM credits away to another manufacturer until all current and previous credit obligations have been satisfied.

j) No entity other than a manufacturer may earn, hold, submit reports for compliance demonstrations, or transfer ZEM credits.

k) 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 section 1962.4, such as the following, are subject to disclosure as public records:
    1. Each manufacturer's annual ZEM production data and the corresponding value of ZEM credits earned;
    2. ZEM credits acquired from, or transferred to another manufacturer, and the identity of the parties involved in each transfer; and
    3. Each manufacturer's annual ZEM credit balance for each model year.

l) Records in the Board's possession for the vehicles subject to the requirements of section 1962.4 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 USC 7401 et seq.) and in federal regulations.

m) Submitting incorrect information, or failing to submit required information, is a violation of this section for which violators are subject to penalty. Each incorrect or omitted statement in a submission to the Executive Officer is a separate violation of this section. If the Executive Officer finds that any ZEM credit was obtained based on incorrect information, the credit will be deemed invalid. The Executive Officer shall notify a manufacturer in writing of an initial finding and shall specify the information initially found to be incorrect. The manufacturer may, within 20 days, provide to the Executive Officer information or records to correct or validate the originally submitted information. Within 50 days after making an initial finding, the Executive Officer shall make a final finding based on available information whether a ZEM credit was obtained based on incorrect information and shall notify the manufacturer in writing of this final finding.

§ 1958.6. Zero-Emissions Motorcycle Credit Obligations

(a) General Requirement. This section describes the ZEM credit obligations that apply to manufacturers of street-use motorcycles sold or offered for sale in California for model years 2028 and subsequent. The percentage requirement for each manufacturer is listed in the table below as the percentage of the ONMC produced by the manufacturer and delivered for sale in California that must be ZEMs. The ZEM credit obligation will be based on annual production reported to CARB by the manufacturer pursuant to section 1958.1. Starting with MY 2028 all large manufacturers as defined in subsection (e) are required to meet the ZEM credit obligation listed in the following table. This obligation

can be met by submitting ZEM credits that are earned by producing ZEMs for sale in California or obtained from another ZEM manufacturer.

Model Year	Annual ZEM Credit Obligation
2028	10%
2029	15%
2030	20%
2031	25%
2032	31%
2033	37%
2034	43%
2035 and subsequent	50%

(b) Calculating the Number of ONMC to Which the Percentage ZEM Requirement is Applied. For MY2024 and subsequent model years, a manufacturer's production volume for the given model year will be based on the previous year's three-year rolling average of the manufacturer's volume of street-use motorcycles produced and delivered for sale in California, as reported pursuant to section 1958.1. For example, 2028 model year ZEM credit obligations will be based on the 2027 model year's 3-year rolling average (MY 2024-2026) of annual California street-use motorcycle sales.

For manufacturers seeking certification for the first time in California, model-year production volume shall be based on projected California sales. If actual reported sales numbers are available, projected production of California sales cannot be used. Manufacturers with at least one year of California sales but less than three years of California sales shall use the average of previous years' sales and projected sales for the current year.

(d) Calculating sales volume by motorcycle type. When calculating a manufacturer's sales volume, the values in the following table shall be applied to the total number of vehicles sold in each motorcycle class, as reported pursuant to section 1958.1.

Motorcycle Type	Sales Volume Value
Class I ZEM	0.25
Class II ZEM	0.5
Class III ZEM	1.0
All internal combustion street-use motorcycles	1.0

Sample calculation: the table below shows an example of annual calculated sales for a manufacturer that sells 100 of each motorcycle type:

Motorcycle Type	Number Sold	Sales Volume Value	Calculated Sales
Class I ZEM	100	0.25	25
Class II ZEM	100	0.5	50
Class III ZEM	100	1.0	100
All internal combustion street-use motorcycles	100	1.0	100
Total	400	NA	275

(e) “Large Manufacturer” definition.

(1) For all zero emissions motorcycle program requirements for model year 2028 through 2035, a large manufacturer is defined as a manufacturer with two consecutive years of a 3-year rolling average California annual street-use motorcycle sales equal to or greater than 750 per year.

For all zero emissions motorcycle program requirements for model year 2036 and beyond, a large manufacturer is defined as a manufacturer with two consecutive years of a 3-year rolling average California annual street-use motorcycle sales equal to or greater than 100 per year.

(2) The terms “sales” and “sold” as used in this subsection (e) shall mean street-use motorcycles produced and delivered for sale (or sold) in California. For the purpose of determining eligibility, the sales of related companies shall be aggregated according to the provisions of section 1958.1. To be eligible for exemption from the ZEM credit obligations specified in subsection (a), the manufacturer's average sales for the three most recent consecutive model years must remain below "large manufacturer” limit in subsection (e)(1). If a manufacturer's average sales for the three most recent consecutive model years exceeds the "large manufacturer” limit, the manufacturer will no longer be eligible for exemption and must meet applicable ZEM credit obligations in subsection (a).

(f) Manufacturers that do not fall under the large manufacturer category in subsection (e) do not have to meet the annual ZEM credit obligations, but may earn, bank, and trade ZEM credits generated from ZEMs sold or offered for sale in California.

(g) Changes in “Large Manufacturer” status.

(1) Increases in California Production Volume. For 2028 and subsequent model years, if a manufacturer not meeting the definition of “Large Manufacturer” experiences an increase in average California production volume such that the average number of vehicles produced and delivered for sale for the three previous consecutive model years for two consecutive averages is newly above the limit for “Large Manufacturer,” the

manufacturer must comply with the applicable ZEM credit obligation for large manufacturers.

(2) Decreases in California Production Volume. If a manufacturer's average California production volume falls below the limit for "Large Manufacturer" based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years, for three consecutive averages. The manufacturer shall no longer be subject to the required ZEM credit obligation until they once again meet "Large Manufacturer" criteria pursuant to subsection (g)(1).

(h) Calculating California Production Volume in Change of Ownership Situations. Where a manufacturer experiences a change in ownership in a particular model year, the change will affect the manufacturer starting with the next model year. When a manufacturer is simultaneously producing two model years of vehicles at the time of a change of ownership, the basis of determining next model year must be the earlier model year. Determining whether the manufacturer meets the definition of 'Large Manufacturer" for the next model year shall be based on the average California production volume in the three previous consecutive model years of those manufacturers whose production volumes must be aggregated for that next model year. For example, where a change of ownership during the 2029 calendar year occurs and the manufacturer is producing both 2029 and 2030 model year vehicles resulting in a requirement that the production volume of Manufacturer A be aggregated with the production volume of Manufacturer B, Manufacturer A's status for the 2030 model year will be based on the production volumes of Manufacturers A and B in the 2027-2029 model years. Where the production volume of Manufacturer A must be aggregated with the production volumes of Manufacturers B and C for the 2029 model year, and during that model year a change in ownership eliminates the requirement that Manufacturer B's production volume be aggregated with Manufacturer A's, Manufacturer A's status for the 2030 model year will be based on the production volumes of Manufacturers A and C in the 2027-2029 model years. In either case, the lead time provisions in subdivisions (g)(1) and (2) will apply.

(i) Requirements to make up ZEM credit deficit. A manufacturer that fails to submit the full amount of ZEM credits required to meet its ZEM credit obligation in a given model year must make up the deficit by the end of the next model year by submitting a commensurate amount of ZEM credits to the Executive Officer.

(j) Penalty for Failure to Meet ZEM Requirements. Any manufacturer that fails to submit an appropriate number of credits and does not make up their ZEM credit deficits within the specified time allowed by subsection (i), above, shall be subject to the Health and Safety Code section 43211 civil penalty applicable to a manufacturer that sells a new motor vehicle that does not meet the applicable emission standards adopted by the state board. The cause of action shall be deemed to accrue when the ZEM credit deficit is not balanced by the end of the specified time allowed by subdivision (i). For the purposes of this

requirement, the number of vehicles not meeting the state board's standards shall be equal to the manufacturer's credit deficit, rounded to the nearest whole credit

k) To verify the status of each manufacturer's compliance with the ZEM requirements for a given calendar year, each manufacturer shall submit a report to the Executive Officer at least annually, by May 1 of the calendar year following the close of the model year, that identifies the annual calculated sales, ZEM credit obligations, and ZEM credits submitted to meet those obligations. This report may be combined with the ZEM credit generation report required pursuant to subsection 1968.5(f). The manufacturer may update the report by September 1 to cover activities occurring between April 1 and June 30.

Note: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43104, 43105, and 43107, Health and Safety Code. Reference: Sections 38562, 39002, 39003, 39667, 43000, 43013, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43107, 43205.5, and 43211, Health and Safety Code.

13 CCR § 1976

§ 1976. Standards and Test Procedures for Motor Vehicle Fuel Evaporative Emissions.

(a) Fuel evaporative emissions from 1970 through 1977 model passenger cars and light-duty trucks are set forth in Title 40, Code of Federal Regulations, Part 86, Subparts A and C, as it existed on June 20, 1973. These standards are enforced in California pursuant to section 43008 of the Health and Safety Code.

(b)(1) Evaporative emissions for 1978 and subsequent model gasoline-fueled, 1983 and subsequent model liquified petroleum gas-fueled, and 1993 and subsequent model alcohol-fueled motor vehicles and hybrid electric vehicles subject to exhaust emission standards under this article, except petroleum-fueled diesel vehicles, compressed natural gas-fueled vehicles, hybrid electric vehicles that have sealed fuel systems which can be demonstrated to have no evaporative emissions, and motorcycles, shall not exceed the following standards.

(A) For vehicles identified below, tested in accordance with the test procedure based on the Sealed Housing for Evaporative Determination as set forth in Title 40, Code of Federal Regulations, sections 86.130-78 through 86.143-90 as they existed July 1, 1989, the evaporative emission standards are:

		Hydrocarbons[1]
		Diurnal + Hot Soak (grams/test)
Vehicle Type	Model Year	50K miles
Passenger cars	1978 and 1979	6.0
Light-duty trucks		6.0
Medium-duty vehicles		6.0
Heavy-duty vehicles		6.0
Passenger cars	1980-1994[2]	2.0
Light-duty trucks		2.0
Medium-duty vehicles		2.0
Heavy-duty vehicles		2.0

[1] Organic Material Hydrocarbon Equivalent, for alcohol-fueled vehicles.
[2] Other than hybrid electric vehicles.

(B) For the vehicles identified below, tested in accordance with the test procedure which includes the running loss test, the hot soak test, and the 72 hour diurnal test, the evaporative emission standards are:

		Hydrocarbons[1]	
		Three-Day Diurnal +	Running Loss
		Hot Soak (grams/test)	(grams/mile)
Vehicle Type	Model Year	Useful Life[2]	Useful Life[2]
Passenger cars	1995 through 2005[3]	2.0	0.05
Light-duty trucks		2.0	0.05

Medium-duty vehicles			
(6,001-8,500 lbs. GVWR)			
with fuel tanks < 30 gallons		2.0	0.05
with fuel tanks ≥ 30 gallons		2.5	0.05
(8,501-14,000 lbs. GVWR)[4]		3.0	0.05
Heavy-duty vehicles		2.0	0.05
(over 14,000 lbs. GVWR)			
Hybrid electric passenger cars	1993 through 2005[5]	2.0	0.05
Hybrid electric light-duty trucks		2.0	0.05
Hybrid electric medium-duty vehicles		2.0	0.05

[1] Organic Material Hydrocarbon Equivalent, for alcohol-fueled vehicles.
[2] For purposes of this paragraph, “useful life” shall have the same meaning as provided in section 2112, Title 13, California Code of Regulations. Approval of vehicles which are not exhaust emission tested using a chassis dynamometer pursuant to section 1960.1 or 1961, Title 13, California Code of Regulations shall be based on an engineering evaluation of the system and data submitted by the applicant.
[3] The running loss and useful life three-day diurnal plus hot soak evaporative emission standards (hereinafter “running loss and useful life standards”) shall be phased in beginning with the 1995 model year. Each manufacturer, except ultra-small volume and small volume manufacturers, shall certify the specified percent (a) of passenger cars and (b) of light-duty trucks, medium-duty vehicles and heavy-duty vehicles to the running loss and useful life standards according to the following schedule:

Model Year	*Minimum Percentage of Vehicles Certified to Running Loss and Useful Life Standards**
1995	10 percent
1996	30 percent
1997	50 percent

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*The minimum percentage of motor vehicles of each vehicle type required to be certified to the running loss and useful life standards shall be based on the manufacturer's projected California model-year sales (a) of passenger cars and (b) of light-duty trucks, medium-duty vehicles and heavy-duty vehicles. Optionally, the percentage of motor vehicles can also be based on the manufacturer's projected California model-year sales (a) of passenger cars and light-duty trucks and (b) of medium-duty vehicles and heavy-duty vehicles.

Beginning with the 1998 model year, all motor vehicles subject to the running loss and useful life standards, except those produced by ultra-small volume manufacturers, shall be certified to the specified standards. In the 1999 through 2005

model years, all motor vehicles subject to the running loss and useful life standards, including those produced by ultra-small volume manufacturers, shall be certified to the specified standards.

All 1995 through 1998 model-year motor vehicles which are not subject to running loss and useful life standards pursuant to the phase-in schedule shall comply with the 50,000-mile standards in effect for 1980 through 1994 model-year vehicles.

[4] For the 1995 model year only, the evaporative emission standards for complete vehicles in this weight range shall be 2.0 grams/test and compliance with the evaporative emission standards shall be based on the SHED conducted in accordance with the procedures set forth in Title 40, Code of Federal Regulations, sections 86.130-78 through 86.143-90 as they existed July 1, 1989. For the 1995 through 2005 model years, the evaporative emission standards for incomplete vehicles in this weight range shall be 2.0 grams/test and compliance with the evaporative emission standards shall be based on the test procedures specified in paragraph 4.g. of the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles."

[5] The running loss and useful life standards for all hybrid electric vehicles shall be effective beginning in the 1993 model year.

(C) For vehicles identified below, tested in accordance with the test procedure which includes the hot soak test and the 48 hour diurnal test, the evaporative emission standards are:

		Hydrocarbons[1]
		Two-Day Diurnal + Hot Soak
		(grams/test)
Vehicle Type	Model Year	Useful Life[2]
Passenger cars	1996 through	2.5
Light-duty trucks	2005[3]	2.5
Medium-duty vehicles		
(6.001 - 8,500 lbs. GVWR)		
with fuel tanks < 30 gallons		2.5
with fuel tanks ≥ 30 gallons		3.0
(8,501 - 14,000 lbs. GVWR)		3.5
Heavy-duty vehicles		4.5
(over 14,000 lbs. GVWR)		
Hybrid electric passenger cars	1996 through	2.5
Hybrid electric light-duty trucks	2005[3]	2.5
Hybrid electric medium-duty vehicles		2.5

[1] Organic Material Hydrocarbon Equivalent for alcohol-fueled vehicles.

[2] For purposes of this paragraph, “useful life” shall have the same meaning as provided in section 2112, Title 13, California Code of Regulations. Approval of vehicles which are not exhaust emission tested using a chassis dynamometer pursuant to section 1960.1 or 1961, Title 13, California Code of Regulations shall be based on an engineering evaluation of the system and data submitted by the applicant.

[3] The two-day diurnal plus hot soak evaporative emission standards (hereinafter “supplemental standards”) shall be phased-in beginning with the 1996 model year. Those vehicles certified under the running loss and useful life standards for the 1996 through 2005 model years must also be certified under the supplemental standards.

(D) Zero-emission vehicles shall produce zero fuel evaporative emissions under any and all possible operational modes and conditions.

(E) For 2001 through 2014 model year vehicles, the optional zero-fuel evaporative emission standards for the three-day and two-day diurnal-plus-hot-soak tests are 0.35 grams per test for passenger cars, 0.50 grams per test for light-duty trucks 6,000 lbs. GVWR and under, and 0.75 grams per test for light-duty trucks from 6,001 to 8,500 lbs. GVWR, to account for vehicle non-fuel evaporative emissions (resulting from paints, upholstery, tires, and other vehicle sources). Vehicles demonstrating compliance with these evaporative emission standards shall also have zero (0.0) grams of fuel evaporative emissions per test for the three-day and two-day diurnal-plus-hot-soak tests. The “useful life” shall be 15 years or 150,000 miles, whichever occurs first. In lieu of demonstrating compliance with the zero (0.0) grams of fuel evaporative emissions per test over the three-day and two-day diurnal-plus-hot-soak tests, the manufacturer may submit for advance Executive Officer approval a test plan to demonstrate that the vehicle has zero (0.0) grams of fuel evaporative emissions throughout its useful life.

Additionally, in the case of a SULEV vehicle for which a manufacturer is seeking a partial ZEV credit, the manufacturer may prior to certification elect to have measured fuel evaporative emissions reduced by a specified value in all certification and in-use testing of the vehicle as long as measured mass exhaust emissions of NMOG for the vehicle are increased in all certification and in-use testing. The measured fuel evaporative emissions shall be reduced in increments of 0.1 gram per test, and the measured mass exhaust emissions of NMOG from the vehicle shall be increased by a gram per mile factor, to be determined by the Executive Officer, for every 0.1 gram per test by which the measured fuel evaporative emissions are reduced. For the purpose of this calculation, the evaporative emissions shall be measured, in grams per test, to a minimum of three significant figures.

(F) For the 2004 through 2014 model motor vehicles identified below, tested in accordance with the test procedures described in Title 40, Code of Federal Regulations, sections 86.130-78 through 86.143-90 as they existed July 1, 1989 and as modified by the “California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles”

incorporated by reference in section 1976(c), the evaporative emission standards are:

Vehicle Type		*Hydrocarbon[1] Standards[2 3 4]*	
	Running Loss	*Three Day Diurnal*	*Two-Day Diurnal*
	(grams per	*+ Hot Soak*	*+ Hot Soak*
	mile)	*(grams per test)*	*(grams per test)*
Passenger cars	0.05	0.50	0.65
Light-duty trucks (under 8,501 lbs. GVWR)			
6,000 lbs. GVWR	0.05	0.65	0.85
and under			
6,001 - 8,500	0.05	0.90	1.15
lbs. GVWR			
Medium-duty vehicles	0.05	1.00	1.25
(8,501 - 14,000 lbs.			
GVWR)			
Heavy-duty vehicles	0.05	1.00	1.25
(over 14,000 lbs.			
GVWR)			

[1] Organic Material Hydrocarbon Equivalent for alcohol-fueled vehicles.

[2] For all vehicles certified to these standards, the “useful life” shall be 15 years or 150,000 miles, whichever first occurs. Approval of vehicles which are not exhaust emission tested using a chassis dynamometer pursuant to section 1960.1 or 1961, title 13, California Code of Regulations shall be based on an engineering evaluation of the system and data submitted by the applicant.

[3] (a) These evaporative emission standards shall be phased-in beginning with the 2004 model year. Each manufacturer, except small volume manufacturers, shall certify at a minimum the specified percentage of its vehicle fleet to the evaporative emission standards in this table or the optional zero-evaporative emission standards in section 1976(b)(1)(E) according to the schedule set forth below. For purposes of this paragraph (a), each manufacturer's vehicle fleet consists of the total projected California sales of the manufacturer's gasoline-fueled, liquefied petroleum-fueled and alcohol-fueled passenger cars, light-duty trucks, medium-duty vehicles, and heavy-duty vehicles.

	Minimum Percentage of Vehicles
	Certified to the Standards in
Model Year	*§§1976(b)(1)(F) and (b)(1)(E)*
2004	40
2005	80
2006 and subsequent	100

A small volume manufacturer shall certify 100 percent of its 2006 and subsequent model vehicle fleet to the evaporative emission standards in the table or the optional zero-evaporative emission standards in section 1976(b)(1)(E).

All 2004 through 2005 model-year motor vehicles which are not subject to these standards or the standards in section 1976(b)(1)(E) pursuant to the phase-in schedule shall comply with the requirements of sections 1976(b)(1)(B) and (C).
(b) A manufacturer may use an “Alternative or Equivalent Phase-in Schedule” to comply with the phase-in requirements. An “Alternative Phase-in” is one that achieves at least equivalent emission reductions by the end of the last model year of the scheduled phase-in. Model-year emission reductions shall be calculated by multiplying the percent of vehicles (based on the manufacturer's projected California sales volume of the applicable vehicle fleet) meeting the new requirements per model year by the number of model years implemented prior to and including the last model year of the scheduled phase-in. The “cumulative total” is the summation of the model-year emission reductions (e.g., the three model-year 40/80/100 percent phase-in schedule would be calculated as: (40%*3 years) + (80%*2 years) + (100%*1 year) =380). The required cumulative total for the phase-in of these standards is 380 emission reductions. Any alternative phase-in that results in an equal or larger cumulative total than the required cumulative total by the end of the last model year of the scheduled phase-in shall be considered acceptable by the Executive Officer only if all vehicles subject to the phase-in comply with the respective requirements in the last model year of the required phase-in schedule. A manufacturer shall be allowed to include vehicles introduced before the first model year of the scheduled phase-in (e.g., in the previous example, 10 percent introduced one year before the scheduled phase-in begins would be calculated as: (10%*4 years)=40) and added to the cumulative total.

(c) These evaporative emission standards do not apply to zero-emission vehicles.
[4] In-use compliance whole vehicle testing shall not begin until the motor vehicle is at least one year from the production date and has accumulated a minimum of 10,000 miles. For vehicles introduced prior to the 2007 model year, in-use compliance standards of 1.75 times the “Three-Day Diurnal + Hot-Soak” and “Two-Day Diurnal + Hot-Soak” gram per test standards shall apply for only the first three model years of an evaporative family certified to a new standard.

(G) For 2015 and subsequent model motor vehicles, the following evaporative emission requirements apply:

1. A manufacturer must certify all vehicles subject to this section to the emission standards specified in either Option 1 or Option 2 below.

a Option 1. The evaporative emissions from 2015 and subsequent model motor vehicles, tested in accordance with the test procedure sequence described in the “California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles,” incorporated by reference in section 1976(c), shall not exceed:

Vehicle Type	*Hydrocarbon[1] Emission Standards[2]*		
	Running Loss (grams per mile)	*Three-Day Diurnal + Hot Soak and Two-Day Diurnal + Hot Soak*	
		Whole Vehicle (grams per test)	*Fuel Only[3] (grams per test)*
Passenger cars	0.05	0.350	0.0
Light-duty trucks 6,000 lbs. GVWR and under	0.05	0.500	0.0
Light-duty trucks 6,001 - 8,500 lbs. GVWR	0.05	0.750	0.0
Medium-duty passenger vehicles	0.05	0.750	0.0
Medium-duty vehicles (8,501 - 14,000 lbs. GVWR)	0.05	0.750	0.0
Heavy-duty vehicles (over 14,000 lbs. GVWR)	0.05	0.750	0.0

[1] Organic Material Hydrocarbon Equivalent for alcohol-fueled vehicles.
[2] For all vehicles certified to these standards, the “useful life” shall be 15 years or 150,000 miles, whichever occurs first. Approval of vehicles that are not exhaust emission tested using a chassis dynamometer pursuant to section 1961, title 13, California Code of Regulations shall be based on an engineering evaluation of the system and data submitted by the applicant.
[3] In lieu of demonstrating compliance with the fuel-only emission standard (0.0 grams per test) over the three-day and two-day diurnal plus hot soak tests, a manufacturer may, with advance Executive Officer approval, demonstrate compliance through an alternate test plan.

b Option 2. The evaporative emissions from 2015 and subsequent model motor vehicles, tested in accordance with the test procedure sequence described in the “California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles,” incorporated by reference in section 1976(c), shall not exceed:

Vehicle Type	*Hydrocarbon[1] Emission Standards[2]*		
	Running Loss (grams per mile)	*Highest Whole Vehicle Diurnal + Hot Soak [3][4][5] (grams per test)*	*Canister Bleed [6] (grams per test)*

Passenger cars; and	0.05	0.300	0.020
Light-duty trucks 6,000 lbs.			
GVWR and under, and			
0 - 3,750 lbs. LVW			
Light-duty trucks 6,000 lbs.	0.05	0.400	0.020
GVWR and under, and			
3,751 - 5,750 lbs. LVW			
Light-duty trucks	0.05	0.500	0.020
6,001 - 8,500 lbs. GVWR;			
and Medium-duty passenger			
vehicles			
Medium-duty vehicles	0.05	0.600	0.030
(8,501 - 14,000 lbs. GVWR);			
and Heavy-duty vehicles			
(over 14,000 lbs. GVWR)			

[1] Organic Material Hydrocarbon Equivalent for alcohol-fueled vehicles.

[2] Except as provided below, for all vehicles certified to these standards, the “useful life” shall be 15 years or 150,000 miles, whichever occurs first. For 2016 and previous model vehicles, 2017 and previous model vehicles >6,000 lbs. GVWR, and 2021 and previous model vehicles certified by a small volume manufacturer, the canister bleed standards are certification standards only. Manufacturers are not required to establish deterioration factors for canister bleed emissions. Approval of vehicles that are not exhaust emission tested using a chassis dynamometer pursuant to section 1961, title 13, California Code of Regulations shall be based on an engineering evaluation of the system and data submitted by the applicant.

[3] The manufacturer shall determine compliance by selecting the highest whole vehicle diurnal plus hot soak emission value of the Three-Day Diurnal Plus Hot Soak Test and of the Two-Day Diurnal Plus Hot Soak Test.

[4] Fleet-Average Option for the Highest Whole Vehicle Diurnal Plus Hot Soak Emission Standard Within Each Emission Standard Category.A manufacturer may optionally comply with the highest whole vehicle diurnal plus hot soak emission standards by using fleet-average hydrocarbon emission values. To participate, a manufacturer must utilize the fleet-average option for all of its emission standard categories and calculate a separate fleet-average hydrocarbon emission value for each emission standard category. The emission standard categories are as follows: (1) passenger cars and light-duty trucks 6,000 pounds GVWR and under, and 0 - 3,750 pounds LVW; (2) light-duty trucks 6,000 pounds GVWR and under, and 3,751 - 5,750 pounds LVW; (3) light-duty trucks 6,001 - 8,500 pounds GVWR and medium-duty passenger vehicles; and (4) medium-duty and heavy-duty vehicles. The fleet-average hydrocarbon emission value for each emission standard category shall be calculated as follows:

$$\frac{\sum_{i=1}^{n}[(\text{number of vehicles in the evaporative family})_i \times (\text{family emission limit})_i] +}{\sum_{i=1}^{n}(\text{number of vehicles in the evaporative family})_i}$$

where “n” = a manufacturer's total number of Option 2 certification evaporative families within an emission standard category for a given model year;

“number of vehicles in the evaporative family” = the number of vehicles produced and delivered for sale in California in the evaporative family;

“family emission limit” = the numerical value selected by the manufacturer for the evaporative family that serves as the emission standard for the evaporative family with respect to all testing, instead of the emission standard specified in this section 1976 (b)(1)(G)1.b. The family emission limit shall not exceed 0.500 grams per test for passenger cars; 0.650 grams per test for light duty trucks 6,000 pounds GVWR and under; 0.900 grams per test for light-duty trucks 6,001 - 8,500 pounds GVWR; and 1.000 grams for medium-duty passenger vehicles, medium-duty vehicles, and heavy-duty vehicles. In addition, the family emission limit shall be set in increments of 0.025 grams per test.

[5] Calculation of Hydrocarbon Credits or Debits for the Fleet-Average Option.

(1) Calculation of Hydrocarbon Credits or Debits. For each emission standard category in the model year, a manufacturer shall calculate the hydrocarbon credits or debits, as follows:

[(Applicable Hydrocarbon Emission Standard for the Emission Standard Category) - (Manufacturer's Fleet-Average Hydrocarbon Emission Value for the Emission Standard Category)] X (Total Number of Affected Vehicles)

where “Total Number of Affected Vehicles” = the total number of vehicles in the evaporative families participating in the fleet-average option, which are produced and delivered for sale in California, for the emission standard category of the given model year.

A negative number constitutes hydrocarbon debits, and a positive number constitutes hydrocarbon credits accrued by the manufacturer for the given model year. Hydrocarbon credits earned in a given model year shall retain full value through the fifth model year after they are earned. At the beginning of the sixth model year, the hydrocarbon credits will have no value.

(2) Procedure for Offsetting Hydrocarbon Debits.A manufacturer shall offset hydrocarbon debits with hydrocarbon credits for each emission standard category within three model years after the debits have been incurred. If total hydrocarbon debits are not equalized within three model years after they have been incurred, the manufacturer shall be subject to the Health and Safety Code section 43211 civil penalties applicable to a manufacturer which sells a new motor vehicle that does not meet the applicable emission standards adopted by the state board. The cause of action shall be deemed to accrue when the hydrocarbon debits are not equalized by the end of the specified time period. For the purposes of Health and Safety Code section 43211, the

number of vehicles not meeting the state board's emission standards shall be determined by dividing the total amount of hydrocarbon debits for the model year in the emission standard category by the applicable hydrocarbon emission standard for the model year in which the debits were first incurred.

Additionally, to equalize the hydrocarbon debits that remain at the end of the three model year offset period: (1) hydrocarbon credits may be exchanged between passenger cars and light-duty trucks 6,000 pounds GVWR and under and 0-3,750 pounds LVW, and light-duty trucks 6,000 pounds GVWR and under and 3,751-5,750 pounds LVW and (2) hydrocarbon credits may be exchanged between light-duty trucks 6,001-8,500 pounds GVWR and medium-duty passenger vehicles, and medium-duty vehicles and heavy-duty vehicles.

[6] Vehicle Canister Bleed Emission. Compliance with the canister bleed emission standard shall be determined based on the Bleed Emission Test Procedure described in the “California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles,” incorporated by reference in section 1976(c), and demonstrated on a stabilized canister system. Vehicles with a non-integrated refueling canister-only system are exempt from the canister bleed emission standard.

2. *Phase-In Schedule*. For each model year, a manufacturer shall certify, at a minimum, the specified percentage of its vehicle fleet to the evaporative emission standards set forth in section 1976(b)(1)(G)1.a. or section 1976(b)(1)(G)1.b., according to the schedule set forth below. For the purpose of this section 1976(b)(1)(G)2., the manufacturer's vehicle fleet consists of the vehicles produced and delivered for sale by the manufacturer in California that are subject to the emission standards in section 1976(b)(1)(G)1. All 2015 through 2022 model motor vehicles that are not subject to these standards pursuant to the phase-in schedule shall comply with the requirements for 2004 through 2014 model motor vehicles, as described in section 1976(b)(1)(F), or the optional zero-fuel evaporative emission standards for 2001 through 2014 model motor vehicles, as described in section 1976(b)(1)(E).

Model Years	*Minimum Percentage of Vehicle Fleet*[(1)(2)]
2015, 2016, and 2017	Average of vehicles certified to section 1976(b)(1)(E)
	in model years 2012, 2013, and 2014[(3)(4)]
2018 and 2019	60
2020 and 2021	80
2022 and subsequent	100

[1] For the 2018 through 2022 model years only, a manufacturer may use an alternate phase-in schedule to comply with the phase-in requirements. An alternate phase-in schedule must achieve equivalent compliance volume by the end of the last model year of the scheduled phase-in (2022). The compliance volume is the number calculated by multiplying the percent of vehicles (based on the vehicles produced and delivered for sale by the manufacturer in California) meeting the new requirements in each model year by the number of years implemented prior to and including the last

model year of the scheduled phase-in, then summing these yearly results to determine a cumulative total. The cumulative total of the five year (60/60/80/80/100) scheduled phase-in set forth above is calculated as follows: (60*5 years) + (60*4 years) + (80*3 years) + (80*2 years) + (100*1 year) = 1040. Accordingly, the required cumulative total for any alternate phase-in schedule of these emission standards is 1040. The Executive Officer shall consider acceptable any alternate phase-in schedule that results in an equal or larger cumulative total by the end of the last model year of the scheduled phase-in (2022).

[2] Small volume manufacturers are not required to comply with the phase-in schedule set forth in this table. Instead, they shall certify 100 percent of their 2022 and subsequent model year vehicle fleet to the evaporative emission standards set forth in section 1976(b)(1)(G)1.a. or section 1976(b)(1)(G)1.b.

[3] The percentage of vehicle fleet averaged across the 2015, 2016, and 2017 model years shall be used to determine compliance with this requirement.

[4] The minimum percentage required in the 2015, 2016, and 2017 model years is determined by averaging the percentage of vehicles certified to the emission standards in section 1976(b)(1)(E) in each of the manufacturer's 2012, 2013, and 2014 model year vehicle fleets. For the purpose of calculating this average, a manufacturer shall use the percentage of vehicles produced and delivered for sale in California for the 2012, 2013, and 2014 model years. A manufacturer may calculate this average percentage using the projected sales for these model years in lieu of actual sales.

3. *Carry-Over of 2014 Model-Year Evaporative Families Certified to the Zero-Fuel Evaporative Emission Standards*. A manufacturer may carry over 2014 model motor vehicles certified to the zero-fuel (0.0 grams per test) evaporative emission standards set forth in section 1976(b)(1)(E) through the 2019 model year and be considered compliant with the requirements of section 1976(b)(1)(G)1. For all motor vehicles that are certified via this carry-over provision, the emission standards set forth in section 1976(b)(1)(E) shall apply when determining in-use compliance throughout the vehicle's useful life. If the manufacturer chooses to participate in the fleet-average option for the highest whole vehicle diurnal plus hot soak emission standard, the following family emission limits are assigned to these evaporative families for the calculation of the manufacturer's fleet-average hydrocarbon emission value.

	Highest Whole Vehicle
	Diurnal + Hot Soak
Vehicle Type	*(grams per test)*
Passenger cars	0.300
Light-duty trucks	0.300
6,000 lbs. GVWR and under,	
and 0 - 3,750 lbs. LVW	

Light-duty trucks	0.400
6,000 lbs. GVWR and under,	
and 3,751 - 5,750 lbs. LVW	
Light-duty trucks	0.500
6,001 - 8,500 lbs. GVWR	

4. Pooling Provision. The following pooling provision applies to the fleet-average option for the Highest Whole Vehicle Diurnal Plus Hot Soak Emission Standard in section 1976(b)(1)(G)1.b. and to the phase-in requirements in section 1976(b)(1)(G)2.

a. For the fleet-average option set forth in section 1976(b)(1)(G)1.b., a manufacturer must demonstrate compliance, for each model year, based on one of two options applicable throughout the model year, either:

Pooling Option 1: the total number of passenger cars, light-duty trucks, medium-duty passenger vehicles, medium-duty vehicles, and heavy-duty vehicles that are certified to the California evaporative emission standards in section 1976(b)(1)(G)1.b., and are produced and delivered for sale in California; or

Pooling Option 2: the total number of passenger cars, light-duty trucks, medium-duty passenger vehicles, medium-duty vehicles, and heavy-duty vehicles that are certified to the California evaporative emission standards in section 1976(b)(1)(G)1.b., and are produced and delivered for sale in California, the District of Columbia, and all states that have adopted California's evaporative emission standards set forth in section 1976(b)(1)(G)1. for that model year pursuant to section 177 of the federal Clean Air Act (42 U.S.C. § 7507).

b. For the phase-in requirements in section 1976(b)(1)(G)2., a manufacturer must demonstrate compliance, for each model year, based on one of two options applicable throughout the model year, either:

Pooling Option 1: the total number of passenger cars, light-duty trucks, medium-duty passenger vehicles, medium-duty vehicles, and heavy-duty vehicles that are certified to the California evaporative emission standards in section 1976(b)(1)(G)1., and are produced and delivered for sale in California; or

Pooling Option 2: the total number of passenger cars, light-duty trucks, medium-duty passenger vehicles, medium-duty vehicles, and heavy-duty vehicles that are certified to the California evaporative emission standards in section 1976(b)(1)(G)1., and are produced and delivered for sale in California, the District of Columbia, and all states that have adopted California's evaporative emission standards set forth in section 1976(b)(1)(G)1. for that model year pursuant to section 177 of the federal Clean Air Act (42 U.S.C. § 7507).

c. A manufacturer that selects Pooling Option 2 must notify the Executive Officer of that selection in writing before the start of the applicable model year or must comply with Pooling Option 1. Once a manufacturer has selected Pooling Option 2, that selection applies unless the manufacturer selects Option 1 and notifies the Executive

Officer of that selection in writing before the start of the applicable model year.

d. When a manufacturer is demonstrating compliance using Pooling Option 2 for a given model year, the term “in California” as used in section 1976(b)(1)(G) means California, the District of Columbia, and all states that have adopted California's evaporative emission standards for that model year pursuant to Section 177 of the federal Clean Air Act (42 U.S.C. § 7507).

e. A manufacturer that selects Pooling Option 2 must provide to the Executive Officer separate values for the number of vehicles in each evaporative family produced and delivered for sale in the District of Columbia and for each individual state within the average.

5. Optional Certification for 2014 Model Motor Vehicles. A manufacturer may optionally certify its 2014 model motor vehicles to the evaporative emission standards set forth in section 1976(b)(1)(G)1.

6. *Effective leak diameter standard and procedure*. Manufacturers shall demonstrate that for 2018 and subsequent model vehicles ≤ 14,000 lbs. GVWR certifying to the evaporative emission standards set forth in 1976(b)(1)(G), fuel systems do not exceed an effective leak diameter of 0.02 inches when tested in accordance with the test procedure sequence described in the “California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles,” incorporated by reference in section 1976(c). This requirement does not apply to 2021 and previous model vehicles certified by a small volume manufacturer. For vehicles with fuel tanks exceeding 25 gallons nominal fuel tank capacity, manufacturers may request approval from the Executive Officer for a leak standard greater than 0.020 inches, up to a maximum value of 0.040 inches.

7. *Auxiliary engines and fuel systems*. For 2017 and subsequent model vehicles ≤ 6,000 lbs. GVWR equipped with an auxiliary engine and 2018 and subsequent model vehicles >6,000 lbs. GVWR equipped with an auxiliary engine, manufacturers shall demonstrate compliance in accordance with the provisions set forth in the “California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles,” incorporated by reference in section 1976(c). These requirements do not apply to 2021 and previous model vehicles certified by a small volume manufacturer.

(b)(2) Evaporative emissions for gasoline-fueled motorcycles subject to exhaust emission standards under this article shall not exceed:

		Hydrocarbons
Motor Vehicle Class	*Model Year*	~~*(grams per test)*~~
Class I and II (50-279cc)	1983 and 1984	6.0 *(grams per test)*
	1985 ~~and subsequent~~ through 2027	2.0 *(grams per test)*
Class III (280cc and larger)	1984 and 1985	6.0 *(grams per test)*
	1986 ~~and subsequent~~ through 2027	2.0 *(grams per test)*
Class III (280cc and larger) (Optional Standard for Small-Volume Motorcycle Manufacturers)	1986-1988	6.0 *(grams per test)*
Class I, II, and III (50cc and larger)	2028 and subsequent	Diurnal: 1.0 grams per day[1] Hot soak: 0.2 grams per test
Small-Volume Motorcycle Manufacturers	2028 and subsequent	2.0 *(grams per test)*

[1] Highest 24-hour diurnal test result over three consecutive 24-hour diurnal test periods.

(c) The test procedures for determining compliance with the standards in subsection (b) above applicable to 1978 through 2000 model year vehicles are set forth in "California Evaporative Emission Standards and Test Procedures for 1978-2000 Model Motor Vehicles," adopted by the state board on April 16, 1975, as last amended August 5, 1999, which is incorporated herein by reference. The test procedures for determining compliance with standards applicable to 2001 ~~and subsequent~~ through 2027 model year vehicles are set forth in the "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," adopted by the state board on August 5, 1999, and as last amended September 2, 2015, which is incorporated herein by reference. The test procedures for determining compliance with standards applicable to 2028 and subsequent model year vehicles are set forth in TP-934, "Test Procedure for Determining Evaporative Emissions from On-Road Motorcycles", adopted by the state board on INSERT ADOPTION DATE, which is incorporated herein by reference.

(1) For model years 2026-2027, compliance with the standards in subsection (b) above may be determined using Test Type IV, Annex V, *Commission Delegated Regulation No. 134/2014, consolidated version 20/03/2018*. This test procedure is an optional alternative that may be used at the discretion of the motorcycle manufacturer in lieu of the "*California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles*", last amended 2015.

(2) For model years 2028 and subsequent, Small-Volume Motorcycle Manufacturers may use "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," adopted by the state board on August 5, 1999, and as last amended September 2, 2015, in lieu of TP-934, "Test Procedure for

Determining Evaporative Emissions from On-Road Motorcycles", with the addition of fuel cap durability cycling according to section 4.4 of TP-934 before conducting the diurnal portion of the SHED test (40 CFR §86.133-78).

(d) For model years 1983 through 2027, Motorcycle engine families certified to 0.2 grams per test or more below the applicable standards, and those certified to meet the diurnal and hot soak standards for model year 2028 and subsequent, shall be exempted from the state board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" pursuant to section 2235, Title 13, California Code of Regulations.

(e) Small volume motorcycle manufacturers electing to certify 1986, 1987, or 1988 model-year Class III motorcycles in accordance with the optional 6.0 grams per test evaporative emission standard shall submit, with the certification application, a list of the motorcycle models for which it intends to seek California certification and estimated sales data for such models. In addition, each such manufacturer shall, on or before July 1 of each year in which it certifies motorcycles under the optional standard, submit a report describing its efforts and progress toward meeting the more stringent evaporative emission standards. The report shall also contain a description of the manufacturer's current hydrocarbon evaporative emission control development status, along with supporting test data, and shall summarize future planned development work.

(f) Definitions Specific to this Section.

(1) For purposes of this section, "small volume motorcycle manufacturer" for model years 2027 and prior means a manufacturer which sells less than 5,000 new motorcycles per year in California. "Small volume motorcycle manufacturer" for model years 2028 and subsequent means a manufacturer which sells less than 300 new street-use motorcycles per year in California.

(2) For the purposes of this section, "ultra-small volume manufacturer" means any vehicle manufacturer with California sales less than or equal to 300 new vehicles per model year based on the average number of vehicles sold by the manufacturer in the previous three consecutive model years, and "small volume manufacturer" means, for 1978 through 2000 model years, any vehicle manufacturer with California sales less than or equal to 3000 new vehicles per model year based on the average number of vehicles sold by the manufacturer in the previous three consecutive model years. For 2001 and subsequent model motor vehicles, "small volume manufacturer" has the meaning set forth in section 1900(a).

(3) "Non-integrated refueling emission control system" is defined in 40 Code of Federal Regulations §86.1803-01.

(4) "Non-integrated refueling canister-only system" means a subclass of a non-integrated refueling emission control system, where other non-refueling related evaporative emissions from the vehicle are stored in the fuel tank, instead of in a vapor storage unit(s).

Note: Authority cited: Sections 39500, 39600, 39601, 39667, 43013, 43018, 43101, 43104, 43105, 43106 and 43107, Health and Safety Code.
Reference: Sections 39002, 39003, 39500, 39667, 43000, 43009.5, 43013, 43018, 43100, 43101, 43101.5, 43102, 43104, 43105, 43106, 43107, 43204 and 43205, Health and Safety Code.

§ 2036. Defects Warranty Requirements for 1979 Through 1989 Model Passenger Cars, Light--Duty Trucks, and Medium--Duty Vehicles; 1979 and Subsequent Model Motorcycles and Heavy--Duty Vehicles; and Motor Vehicle Engines Used in Such Vehicles; and 2020 and Subsequent Model Year Trailers.

(a) Applicability.

This section shall apply to 1979 through 1989 model passenger cars, light-duty trucks, and medium-duty vehicles; 1979 and subsequent model motorcycles and heavy-duty vehicles; motor vehicle engines used in such vehicles; 2020 and subsequent model year trailers certified to the GHG emission standards of section 95663(c), title 17, CCR; and 2022 and subsequent model year heavy-duty hybrid vehicles, or 2022 and subsequent model year incomplete hybrid vehicles from 10,001 to 14,000 pounds GVWRs, equipped with 2022 and subsequent model year hybrid powertrains optionally certified pursuant to 13 CCR § 1956.8, and hybrid powertrains used in such vehicles. The warranty period shall begin on the date the vehicle or trailer is delivered to an ultimate purchaser, or if the vehicle or trailer is first placed in service as a “demonstrator” or “company” car prior to delivery, on the date it is first placed in service.

(b) General Emissions Warranty Coverage.

The manufacturer of each motor vehicle, motor vehicle engine, or trailer shall warrant to the ultimate purchaser and each subsequent purchaser that the vehicle, engine, or trailer is:

(1) Designed, built, and equipped so as to conform, at the time of sale, with all applicable regulations adopted by the Air Resources Board pursuant to its authority in chapters 1 and 2, part 5, division 26 of the Health and Safety Code and part 1, division 25.5 of the Health and Safety Code; and

(2) Free from defects in materials and workmanship which cause the failure of a warranted part to be identical in all material respects to that part as described in the vehicle, engine, or trailer manufacturer's application for certification. In addition, for the vehicles specified below in subparagraphs (A) through ~~(C)~~ (D), the manufacturer shall warrant such vehicles are free from defects in materials and workmanship which cause the vehicle's on-board diagnostic malfunction indicator light to illuminate.

(A) for 2022 through 2027 model year diesel-powered heavy-duty vehicles greater than 14,000 pounds GVWR which are equipped with 2022 through 2026 model year heavy-duty diesel engines certified on only diesel fuel, and 2022 through 2026 model year heavy-duty diesel engines certified on only diesel fuel used in such vehicles.

(B) for 2027 and subsequent model year heavy-duty vehicles greater than 14,000 pounds GVWR which are equipped with 2027 and subsequent model year heavy-duty engines, and 2027 and subsequent model year heavy-duty engines used in such vehicles; ~~and~~

(C) for 2022 and subsequent model year heavy-duty hybrid vehicles greater than 14,000 pounds GVWR, or 2022 and subsequent model year incomplete hybrid vehicles from 10,001 to 14,000 pounds GVWR, which are equipped with 2022 and subsequent model year hybrid powertrains optionally certified pursuant to 13 CCR § 1956.8, and; ~~any defects in materials or workmanship which cause the vehicle's on-board diagnostic malfunction indicator light to illuminate.~~

(D) for 2026 and subsequent model year Class III street-use motorcycles which are equipped with on-board diagnostic systems certified pursuant to 13 CCR § 1958.2.(c) Warranty Period.

The warranty period applicable to this section shall be:

(1) In the case of Class I motorcycles and motorcycle engines (50 to 169 cc or 3.1 to 10.4 cu. in.), a period of use of five years or 12,000 kilometers (7,456 miles), whichever first occurs.

(2) In the case of Class II motorcycles and motorcycle engines (170 to 279 cc or 10.4 to 17.1 cu. in.), a period of use of five years or 18,000 kilometers (11,185 miles), whichever first occurs.

(3) In the case of Class III motorcycles and motorcycle engines (280 cc and larger or 17.1 cu. in. and larger), a period of use of five years or 30,000 kilometers (18,641 miles), whichever first occurs.

(4)(A) In the case of diesel-powered heavy-duty vehicles greater than 14,000 pounds GVWR which are equipped with 2021 and prior model year motor vehicle engines, and motor vehicle engines used in such vehicles, a period of use of five years, 100,000 miles, or 3000 hours of operations, whichever first occurs. However, in no case may this period be less than the basic mechanical warranty that the manufacturer provides (with or without additional charge) to the purchaser of the engine. Extended warranties on select parts do not extend the emissions warranty requirements for the entire engine but only for those parts. In cases where responsibility for an extended warranty is shared between the owner and the manufacturer, the emissions warranty shall also be shared in the same manner as specified in the warranty agreement.

(B) In the case of 2022 through 2027 model year diesel-powered heavy-duty vehicles greater than 14,000 pounds GVWR which are equipped with 2022 through 2026 model year motor vehicle heavy-duty diesel engines, and the 2022 through 2026 model year vehicle heavy-duty diesel engines used in such vehicles, the first occurring of either a period of use of five years, or:

110,000 miles for heavy-duty vehicles with engines certified as light-heavy-duty engines;

150,000 miles for heavy-duty vehicles with engines certified as medium-heavy-duty engines;

350,000 miles for heavy-duty vehicles with engines certified as heavy-heavy-duty engines.

However, in no case may these periods be less than the basic mechanical warranty that the manufacturer provides (with or without additional charge) to the purchaser of the engine. Extended warranties on select parts do not extend the emissions warranty requirements for the entire engine but only for those parts. In cases where responsibility for an extended warranty is shared between the owner and the manufacturer, the portion of the emissions warranty extending beyond the minimum mileages listed above shall also be shared in the same manner as specified in the warranty agreement.

The warranty periods in this subparagraph (c)(4)(B) apply only to:

1. warranted parts that affect the regulated emissions of criteria pollutants, as defined in section 2035(c)(2)(D), title 13, CCR, and

2. heavy-duty vehicles with engines certified on only diesel fuel, including engines that have concurrent applications in both dedicated diesel-fueled vehicles and hybrid vehicles.

The warranty periods in subparagraph (c)(4)(A) of this section continue to apply to 2022 through 2027 model year heavy-duty vehicles equipped with 2022 through 2026 model year engines certified to the diesel standards of section 1956.8, title 13, CCR, using alternative fuels (e.g., liquefied or compressed natural gas) with engines certified for use in hybrid vehicles exclusively; and with engines certified for use in dual fuel vehicles; and to heavy-duty vehicles powered with fuel cells.

(C) In the case of 2027 through 2031 model year diesel-powered heavy-duty vehicles greater than 14,000 pounds GVWR which are equipped with 2027 through 2030 model year motor vehicle heavy-duty diesel engines, and the 2027 through 2030 model year heavy-duty diesel engines used in such vehicles, the first occurring of a period of use of seven years, or:

150,000 miles or 7,000 hours for heavy-duty vehicles with engines certified as light heavy-duty engines;

220,000 miles or 11,000 hours for heavy-duty vehicles with engines certified as medium heavy-duty engines;

450,000 miles or 22,000 hours for heavy-duty vehicles with engines certified as heavy heavy-duty engines.

However, in no case may these periods be less than the basic mechanical warranty that the manufacturer provides (with or without additional charge) to the purchaser of the engine. Extended warranties on select parts do not extend the emissions warranty requirements for the entire engine but only for those parts. In cases where responsibility for an extended warranty is shared between the owner and the

manufacturer, the portion of the emissions warranty extending beyond the minimum mileages listed above shall also be shared in the same manner as specified in the warranty agreement.

The hour periods are effective as limits to warranty only when an accurate hours meter is provided by the engine manufacturer and is reasonably expected to operate properly over the useful life of the engine. The hours meter shall not count standby-idle time (key-on, engine off) as engine operating time for purposes of identifying the end of the warranty period, such as on a vehicle equipped with stop-start technology.

The warranty periods in this subparagraph (c)(4)(C) apply only to:

1. warranted parts that affect the regulated emissions of criteria pollutants, as defined in section 2035(c)(2)(D), title 13, CCR, and

2. heavy-duty vehicles with engines certified to the diesel-cycle standards of section 1956.8, title 13, CCR, including engines that have concurrent applications in both dedicated internal-combustion vehicles and hybrid vehicles.

(D) In the case of 2031 and subsequent model year diesel-powered heavy-duty vehicles greater than 14,000 pounds GVWR that are equipped with 2031 and subsequent model year motor vehicle heavy-duty diesel engines, and the 2031 and subsequent model year heavy-duty diesel engines used in such vehicles, the first occurring of a period of use of 10 years, or:

210,000 miles or 10,000 hours for heavy-duty vehicles with engines certified as light heavy-duty engines;

280,000 miles or 14,000 hours for heavy-duty vehicles with engines certified as medium heavy-duty engines;

600,000 miles or 30,000 hours for heavy-duty vehicles with engines certified as heavy heavy-duty engines.

However, in no case may these periods be less than the basic mechanical warranty that the manufacturer provides (with or without additional charge) to the purchaser of the engine. Extended warranties on select parts do not extend the emissions warranty requirements for the entire engine but only for those parts. In cases where responsibility for an extended warranty is shared between the owner and the manufacturer, the portion of the emissions warranty extending beyond the minimum mileages listed above shall also be shared in the same manner as specified in the warranty agreement.

The hour periods are effective as limits to warranty only when an accurate hours meter is provided by the engine manufacturer and is reasonably expected to operate properly over the useful life of the engine. The hours meter shall not count standby-idle time (key-on, engine off) as engine operating time for purposes of identifying the end of the warranty period, such as on a vehicle equipped with stop-start technology.

The warranty periods in this subparagraph (c)(4)(D) apply only to;

1. warranted parts that affect the regulated emissions of criteria pollutants, as defined in section 2035(c)(2)(D), title 13, CCR, and

2. heavy-duty vehicles with engines certified to the diesel-cycle standards of section 1956.8, title 13, CCR, including engines that have concurrent applications in both dedicated internal-combustion vehicles and hybrid vehicles.

(4.1) In the case of diesel-powered heavy-duty vehicles from 14,001 to 19,500 pound GVWR certified to the GHG emission standards of section 95663, title 17, a period of use of five years or 50,000 miles, whichever first occurs, for GHG emission control components (except tires), as set forth in 40 CFR 1037.120, as amended October 25, 2016. The warranty period shall be a period of use of two years or 24,000 miles, whichever first occurs, in the case of tires used in such vehicles. In the case of motor vehicle engines used in such vehicles, the warranty period shall be a period of use of five years or 50,000 miles, whichever first occurs, for GHG emissions.

(4.2) In the case of diesel-powered heavy-duty vehicles above 19,500 pound GVWR certified to the GHG emission standards of section 95663, title 17, a period of use of five years or 100,000 miles, whichever first occurs, for GHG emission control components (except tires), as set forth in 40 CFR 1037.120, as amended October 25, 2016. The warranty period shall be a period of use of two years or 24,000 miles, whichever first occurs, in the case of tires used in such vehicles. In the case of motor vehicle engines used in such vehicles, the warranty period shall be a period of use of five years or 100,000 miles, whichever first occurs, for GHG emissions.

(5) In the case of passenger cars, light-duty trucks, and medium-duty vehicles certified under the optional 100,000-mile certification procedure, and motor vehicle engines used in such vehicles, a period of use of ten years or 100,000 miles, whichever first occurs, except as otherwise provided in this paragraph. In the case of diesel particulate control system components on the 1985 and subsequent model passenger cars, light-duty trucks, and medium-duty vehicles certified under the optional 100,000-mile certification procedure, the warranty period means five years or 50,000 miles, whichever first occurs, for failures of such components which do not result in the failure of any other warranted part to perform as designed during the warranty period of the vehicle, and ten years or 100,000 miles, whichever first occurs, for all other failures.

(6) In the case of vehicles certified to the optional emission standards pursuant to Health and Safety Code section 43101.5(a), which are sold on or after January 1, 1983, for fuel metering and ignition components contained in the state board's “Emissions Warranty Parts List”, dated December 14, 1978, as amended February 22, 1985, a period of use of two years or 24,000 miles, whichever first occurs, and for all other warranted parts, a period of use of five years or 50,000 miles, whichever first occurs.

(7) In the case of all other passenger cars, light-duty trucks, and medium-duty vehicles, a period of use of five years or 50,000 miles, whichever first occurs.

(8)(A) In the case of heavy-duty vehicles greater than 14,000 pounds GVWR which are equipped with 2026 and prior model year motor ~~behicle~~ vehicle engines, and motor vehicle engines used in such vehicles, (except for diesel-powered heavy-duty vehicles, and motor vehicle engines used in such vehicles), a period of use of five years or 50,000 miles, whichever first occurs. However, in no case may this period be less than the basic mechanical warranty period that the manufacturer provides (with or without additional charge) to the purchaser of the engine. Extended warranties on select parts do not extend the emissions warranty requirements for the entire engine but only for those parts. In cases where responsibility for an extended warranty is shared between the owner and the manufacturer, the emissions warranty shall also be shared in the same manner as specified in the warranty agreement.

(B) Reserved.

(C) In the case of 2027 through 2031 model year heavy-duty vehicles greater than 14,000 pounds GVWR which are equipped with 2027 through 2030 model year motor vehicle heavy-duty engines, and the 2027 through 2030 model year heavy-duty engines used in such vehicles, (except for diesel-powered heavy-duty vehicles, and motor vehicle engines used in such vehicles), a period of use of seven years, 110,000 miles, or 6,000 hours, whichever first occurs.

However, in no case may these periods be less than the basic mechanical warranty that the manufacturer provides (with or without additional charge) to the purchaser of the engine. Extended warranties on select parts do not extend the emissions warranty requirements for the entire engine but only for those parts. In cases where responsibility for an extended warranty is shared between the owner and the manufacturer, the portion of the emissions warranty extending beyond the minimum mileages listed above shall also be shared in the same manner as specified in the warranty agreement.

The hour period is effective as a limit to warranty only when an accurate hours meter is provided by the engine manufacturer and is reasonably expected to operate properly over the useful life of the engine. The hours meter shall not count standby-idle time (key-on, engine off) as engine operating time for purposes of identifying the end of the warranty period, such as on a vehicle equipped with stop-start technology.

The warranty period in this subparagraph (c)(8)(C) applies only to:

1. warranted parts that affect the regulated emissions of criteria pollutants, as defined in section 2035(c)(2)(E), title 13, CCR, and

2. heavy-duty vehicles with engines certified to the Otto-cycle standards of section 1956.8, title 13, CCR, including engines that have concurrent applications in both dedicated internal-combustion vehicles and hybrid vehicles.

(D) In the case of 2031 and subsequent model year heavy-duty vehicles greater than 14,000 pounds GVWR which are equipped with 2031 and subsequent model year motor vehicle heavy-duty engines, and the 2031 and subsequent model year heavy-duty engines used in such vehicles, (except for diesel-powered heavy-duty vehicles, and motor vehicle engines used in such vehicles), a period of use of 10 years, 160,000 miles, or 8,000 hours, whichever first occurs.

However, in no case may these periods be less than the basic mechanical warranty that the manufacturer provides (with or without additional charge) to the purchaser of the engine. Extended warranties on select parts do not extend the emissions warranty requirements for the entire engine but only for those parts. In cases where responsibility for an extended warranty is shared between the owner and the manufacturer, the portion of the emissions warranty extending beyond the minimum mileages listed above shall also be shared in the same manner as specified in the warranty agreement.

The hour period is effective as a limit to warranty only when an accurate hours meter is provided by the engine manufacturer and is reasonably expected to operate properly over the useful life of the engine. The hours meter shall not count standby-idle time (key-on, engine off) as engine operating time for purposes of identifying the end of the warranty period, such as on a vehicle equipped with stop-start technology.

The warranty period in this subparagraph (c)(8)(D) applies only to:

1. warranted parts that affect the regulated emissions of criteria pollutants, as defined in section 2035(c)(2)(E), title 13, CCR, and

2. heavy-duty vehicles with engines certified to the Otto-cycle standards of section 1956.8, title 13, CCR, including engines that have concurrent applications in both dedicated internal-combustion vehicles and hybrid vehicles.

(8.1) In the case of heavy-duty vehicles at or above 14,001 pound GVWR certified to the GHG emission standards of section 95663, title 17, (except for diesel-powered heavy-duty vehicles), a period of use of five years or 50,000 miles, whichever first occurs, for GHG emission control components (except tires), as set forth in 40 CFR 1037.120, as amended October 25, 2016. The warranty period shall be a period of use of two years or 24,000 miles, whichever first occurs, in the case of tires used in such vehicles. In the case of motor vehicle engines used in such vehicles, the warranty period shall be a period of use of five years or 50,000 miles, whichever first occurs, for GHG emissions.

(9) In the case of trailers, a period of use of five years (except tires) for GHG emission components, and a period of use of one year for tires, as set forth in 40 CFR 1037.120, as amended October 25, 2016, incorporated by reference herein.

(10) In the case of 2022 and subsequent model year hybrid powertrains optionally certified pursuant to 13 CCR § 1956.8, the warranty period shall be as specified below:

(A) In the case of diesel hybrid powertrains, primarily used in vehicles with a GVWR from 14,001 to 19,500 pounds, the warranty period and model year implementation schedules for light heavy-duty diesel engines of this section shall apply to the hybrid powertrains.

(B) In the case of diesel hybrid powertrains primarily used in vehicles with a GVWR from 19,501 to 33,000 pounds, the warranty period and model year implementation schedules for medium heavy-duty diesel engines of this section shall apply to the hybrid powertrains.

(C) In the case of diesel hybrid powertrains primarily used in vehicles with a GVWR greater than 33,000 pounds, the warranty period and model year implementation schedules for heavy heavy-duty diesel engines of this section shall apply to the hybrid powertrains.

(D) In the case of Otto-cycle hybrid powertrains used in vehicles with a GVWR greater than 14,000 pounds, the warranty period and model year implementation schedules for heavy-duty engines, of this section, shall apply to the hybrid powertrains.

(E) In the case of diesel hybrid powertrains used in incomplete vehicles with a GVWR from 10,001 to 14,000 pounds, the warranty period and model year implementation schedules are identical to the warranty period and model year implementation schedules specified for light heavy-duty diesel engines in this section, or for medium duty diesel engines used in such powertrains the warranty period and model year implementation schedules are as specified in 13 CCR § 2037(b).

(F) In the case of Otto-cycle hybrid powertrains used in incomplete vehicles with a GVWR from 10,001 to 14,000 pounds, the warranty period and model year implementation schedules are identical to the warranty period and model year implementation schedules specified for heavy-duty engines (except for diesel-powered heavy-duty vehicles, and motor vehicle engines used in such vehicles) in this section, or for medium duty engines used in such powertrains the warranty period and model year implementation schedules are as specified in 13 CCR § 2037(b).

(d) Subject to the conditions and exclusions of subsection (j), the warranty on emissions-related parts shall function as follows:

(1) Any warranted part which is not scheduled for replacement as required maintenance in the written instructions required by subsection (e) shall be warranted for the warranty period defined in subsection (c). If any such part fails during the warranty period, it shall be repaired or replaced by the vehicle, engine, or trailer manufacturer according to subsection (4) below. Any such part repaired or replaced under warranty shall be warranted for the remaining warranty period.

(2)(A) Any warranted part which is scheduled only for regular inspection in the written instructions required by subsection (e) shall be warranted for the warranty period defined in subsection (c). A statement in such written instructions to the effect of “repair or

replace as necessary" shall not reduce the period of warranty coverage. Any such part repaired or replaced under warranty shall be warranted for the remaining warranty period.

(B) In the case of 2022 through 2027 model year diesel-powered heavy-duty vehicles greater than 14,000 pounds GVWR in which 2022 through 2026 model year heavy-duty diesel engines are installed, and the 2022 through 2026 model year heavy-duty diesel engines used in such vehicles, any warranted part which is scheduled only for regular inspection in the written instructions required by subsection (e) shall be warranted for the warranty period defined in subsection (c). A statement in such written instructions to the effect of "repair or replace as necessary" shall not reduce the period of warranty coverage. If the regular inspection indicates that a part has failed and needs to be repaired or replaced, any such part shall be repaired or replaced during the applicable warranty period by the vehicle or engine manufacturer according to subsection (4) below. Any such part repaired or replaced under warranty shall be warranted for the remaining warranty period defined in subsection (c).

(C) In the case of all 2027 and subsequent model year heavy-duty vehicles greater than 14,000 pounds GVWR in which 2027 and subsequent model year heavy-duty engines are installed, and the 2027 and subsequent model year heavy-duty engines used in such vehicles, any warranted part which is scheduled only for regular inspection in the written instructions required by subsection (e) shall be warranted for the warranty period defined in subsection (c). A statement in such written instructions to the effect of "repair or replace as necessary" shall not reduce the period of warranty coverage. If the regular inspection indicates that a part has failed and needs to be repaired or replaced, any such part shall be repaired or replaced during the applicable warranty period by the vehicle or engine manufacturer according to subsection (4) below. Any such part repaired or replaced under warranty shall be warranted for the remaining warranty period defined in subsection (c).

(D) In the case of 2022 and subsequent model year heavy-duty hybrid vehicles greater than 14,000 pound GVWR, or 2022 and subsequent model year incomplete hybrid vehicles from 10,001 to 14,000 pounds GVWR, which are equipped with 2022 and subsequent model year hybrid powertrains optionally certified pursuant to 13 CCR § 1956.8, and the 2022 and subsequent model year hybrid powertrains used in such vehicles, any warranted part that is scheduled only for regular inspection in the written instructions required by subsection (e) shall be warranted for the warranty period defined in subsection (c). A statement in such written instructions to the effect of "repair or replace as necessary" shall not reduce the period of warranty coverage. If the regular inspection indicates that a part has failed and needs to be repaired or replaced, any such part shall be repaired or replaced during the applicable warranty period by the vehicle or engine manufacturer according to subsection (4) below. Any such part repaired or replaced under warranty shall be warranted for the remaining warranty period defined in subsection (c).

(3)(A) Any warranted part which is scheduled for replacement as required maintenance in the written instructions required by subsection (e) shall be warranted for the period of time or mileage, whichever first occurs, prior to the first scheduled replacement point for that part. If the part fails before the first scheduled replacement point, the part shall be repaired or replaced by the vehicle, engine, or trailer manufacturer according to subsection (4) below. Any such part repaired or replaced under warranty shall be warranted for the remainder of the period prior to the first scheduled replacement point for the part.

(B) In the case of 2022 through 2027 model year diesel-powered heavy-duty vehicles greater than 14,000 pounds GVWR in which 2022 through 2026 model year heavy-duty diesel engines are installed, and the 2022 through 2026 model year heavy-duty diesel engines used in such vehicles, any warranted part which is scheduled for replacement as required maintenance in the written instructions required by subsection (e) shall be replaced by the owner as scheduled according to section 2040, title 13, CCR. However, if the repaired or replaced part fails before a scheduled replacement during the applicable warranty period, the part shall be repaired or replaced by the vehicle or engine manufacturer according to subsection (4) below. Any such part repaired or replaced under warranty shall be warranted for the remaining warranty period defined in subsection (c).

(C) In the case of all 2027 and subsequent model year heavy-duty vehicles greater than 14,000 pounds GVWR in which 2027 and subsequent model year heavy-duty engines are installed, and the 2027 and subsequent model year heavy-duty engines used in such vehicles, any warranted part which is scheduled for replacement as required maintenance in the written instructions required by subsection (e) shall be replaced by the owner as scheduled according to section 2040, title 13, CCR. However, if the repaired or replaced part fails before a scheduled replacement during the applicable warranty period, the part shall be repaired or replaced by the vehicle or engine manufacturer according to subsection (4) below. Any such part repaired or replaced under warranty shall be warranted for the remaining warranty period defined in subsection (c).

(D) In the case of 2022 and subsequent model year heavy-duty hybrid vehicles greater than 14,000 pound GVWR, or 2022 and subsequent model year incomplete hybrid vehicles from 10,001 to 14,000 pounds GVWR, which are equipped with 2022 and subsequent model year hybrid powertrains optionally certified pursuant to 13 CCR § 1956.8, and the 2022 and subsequent model year hybrid powertrains used in such vehicles, any warranted part that is scheduled for replacement as required maintenance in the written instructions required by subsection (e) shall be replaced by the owner as scheduled according to section 2040, title 13, CCR. However, if the repaired or replaced part fails before a scheduled replacement during the applicable warranty period, the part shall be repaired or replaced by the vehicle or engine manufacturer according to subsection (4) below. Any such part repaired or replaced

under warranty shall be warranted for the remaining warranty period defined in subsection (c). The applicable warranty period for the hybrid vehicles and hybrid powertrains shall be determined as specified in subsection (c)(10) of this section.

(4) Repair or replacement of any warranted part under the warranty provisions of this article shall be performed at no charge to the vehicle, engine, or trailer owner, at a warranty station, except in the case of an emergency when a warranted part or a warranty station is not reasonably available to the vehicle, engine, or trailer owner. In an emergency, repairs may be performed at any available service establishment, or by the owner, using any replacement part. The manufacturer shall reimburse the owner for his or her expenses including diagnostic charges for such emergency repair or replacement, not to exceed the manufacturer's suggested retail price for all warranted parts replaced and labor charges based on the manufacturer's recommended time allowance for the warranty repair and the geographically appropriate hourly labor rate. Heavy-duty vehicle, engine, and trailer manufacturers shall establish reasonable emergency repair procedures which may differ from those specified in this subsection. A vehicle, engine, or trailer owner may reasonably be required to keep receipts and failed parts in order to receive compensation for warranted repairs reimbursable due to an emergency, provided the manufacturer's written instructions advise the owner of his obligation.

(5) Notwithstanding the provisions of subsection (4), warranty services or repairs shall be provided at all of a manufacturer's dealership which are franchised to service the subject vehicles, engines, or trailers.

(6) The vehicle, engine, or trailer owner shall not be charged for diagnostic labor which leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a warranty station.

(7) The vehicle, engine, or trailer manufacturer shall be liable for damages to other vehicle components proximately caused by a failure under warranty any warranted part.

(8) Throughout the vehicle's, engine's, or trailer's warranty period defined in subsection (b), the vehicle, engine, or trailer manufacturer shall maintain a supply of warranted parts sufficient to meet the expected demand for such parts. The lack of availability of such parts or the incompleteness of repairs within a reasonable time period, not to exceed 30 days from the time the vehicle, engine, or trailer is initially p resented to the warranty station for repair, shall constitute an emergency for purposes of subsection (4).

(9) Any replacement part may be used in the performance of any maintenance or repairs. Any replacement part designated by a manufacturer may be used in warranty repairs provided without charge to the vehicle or trailer owner. Such use shall not reduce the warranty obligations of the vehicle, engine, or trailer manufacturer, except that the vehicle, engine, or trailer manufacturer shall not be liable under this article for repair or replacement of any replacement part which is not a warranted part (except as provided under subsection (7)).

(10) Any add-on or modified part exempted by the Air Resources Board from the prohibitions of Vehicle Code section 27156 may be used on a vehicle, engine, or trailer. Such use, in and of itself, shall not be grounds for disallowing a warranty claim made in accordance with this article. The vehicle, engine, or trailer manufacturer shall not be liable under this article to warrant failures of warranted parts caused by the use of an add-on or modified part.

(11) The Executive Officer may request and, in such case, the vehicle, engine, or trailer manufacturer shall provide, any documents which describe that manufacturer's warranty procedures or policies.

(e) Commencing with 1980 models sold on or after September 1, 1979, each manufacturer shall furnish with each new vehicle or engine written instructions for the maintenance and use of the vehicle or engine by the owner, which instructions shall be consistent with this article and applicable regulations in article 2 of this subchapter.

(f)(1) Commencing with 1980 models sold on or after September 1, 1979, each manufacturer shall furnish with each new vehicle or engine a list of the warranted parts installed on that vehicle or engine. The list shall include those parts included on the Air Resources Board “Emissions Warranty Parts List,” dated December 14, 1978, as amended on February 22, 1985, and incorporated herein by reference.

(A) In the case of heavy-duty vehicles certified to the GHG emission standards of section 95663, title 17, each manufacturer shall furnish with each new vehicle or engine a list of the warranted parts which includes any part specified in 40 CFR 1037.120, as amended October 25, 2016, incorporated by reference in section 2035(c)(2)(C).

(B) In the case of 2022 through 2027 model year diesel-powered heavy-duty vehicles greater than 14,000 pounds GVWR which are equipped with 2022 through 2026 model year heavy-duty diesel engines certified on only diesel fuel, and the 2022 through 2026 model year heavy-duty diesel engines certified on only diesel fuel used in such vehicles, each manufacturer shall furnish a list that includes any emission-related part that can cause the vehicle's on-board diagnostic malfunction indicator light to illuminate.

(C) In the case of 2027 and subsequent model year heavy-duty vehicles greater than 14,000 pounds GVWR that are equipped with 2027 and subsequent model year heavy-duty engines, and the 2027 and subsequent model year heavy-duty engines used in such vehicles, each manufacturer shall furnish a list that includes any emission-related part that can cause the vehicle's on-board diagnostic malfunction indicator light to illuminate.

(D) In the case of 2022 and subsequent model year heavy-duty hybrid vehicles greater than 14,000 pound GVWR, or 2022 and subsequent model year incomplete hybrid vehicles from 10,001 to 14,000 pounds GVWR, which are equipped with 2022 and

subsequent model year hybrid powertrains optionally certified pursuant to title 13, CCR, § 1956.8, and the 2022 and subsequent model year hybrid powertrains used in such vehicles, each manufacturer shall furnish a list that includes any emission-related part that can cause the vehicle's on-board diagnostic malfunction indicator light to illuminate.

(E) In the case of trailers certified to the GHG emission standards of section 95663(c), title 17, CCR, each manufacturer shall furnish with each new trailer a list of the warranted parts which includes any part specified in 40 CFR 1037.120, as amended October 25, 2016, which is incorporated by reference herein.

(F) In the case of 2026 and subsequent model year Class III street-use motorcycles which are equipped with on-board diagnostic systems certified pursuant to 13 CCR § 1958.2, each manufacturer shall furnish a list that includes any part that can cause the vehicle's on-board diagnostic malfunction indicator light to illuminate.

(g) Except for 1980 and 1981 model motorcycles, each manufacturer shall submit the documents required by sections (e) and (f), with the manufacturer's preliminary application for new vehicle, engine, or trailer certification for approval by the Executive Officer. The Executive Officer may reject or require modification of the manufacturer's list of warranted parts to ensure that each such list is of proper scope and also may reject or require modification of any of the documents required by subsection (e). Approval by the Executive Officer of the documents required by subsections (e) and (f), shall be a condition of certification. The Executive Officer shall approve or disapprove the documents required by subsections (e) and (f), within 90 days of the date such documents are received from the manufacturer. Any disapproval shall be accompanied by a statement of the reasons therefore. In the event of disapproval, the manufacturer may petition the Board to review the decision of the Executive Officer.

(h) Notwithstanding subsection (f), the Executive Officer may delete any part from a manufacturer's list of warranted parts provided in the manufacturer demonstrates to the Executive Officer's satisfaction that:

(1) Failure of such part will not increase the emissions of any vehicle, engine, or trailer on which it is installed, and

(2) Any deterioration of driveability or performance which results from failure of the part could not be corrected by adjustments or modifications to other vehicle or trailer components.

(i) Vehicle Inspection Program.

This subsection shall apply to passenger cars, light-duty trucks, medium-duty and heavy-duty vehicles and motorcycles required to be inspected pursuant to any California statutorily authorized motor vehicle emissions inspection and maintenance program. The provisions of this section shall be contained in the warranty statement required pursuant to section 2039.

(1) The owner of a vehicle which fails the inspection during its warranty period may choose to have the vehicle repaired at a warranty station.

(A) If the warranty station identifies that the inspection failure was caused by the failure or malfunction of a warranted part, than the vehicle manufacturer shall be liable for expenses involved in detecting and correcting the part failure or malfunction, unless the warranty station demonstrates that the part failure or malfunction was caused by abuse, neglect, or improper maintenance as specified in subsection (j)(1), or was caused by an adjustment not covered by warranty as specified in subsection (j)(2).

(B) If the warranty station demonstrates that the inspection failure was caused by one or more conditions executed from warranty coverage pursuant to subsection (j), the vehicle owner shall be liable for all diagnostic and repair expenses. Such expenses shall not exceed the maximum repair costs permissible under the inspection program.

(C) If the warranty station identifies that the inspection failure was caused by one or more defects covered under warranty pursuant to these regulations and in combination with one or more conditions excluded from warranty coverage pursuant to subsection (j), than the vehicle owner shall not be charged for the diagnostic and repair costs related to detecting and repairing the warrantable defects.

(2) In the alternative, the owner of a vehicle which fails an inspection may choose to have the vehicle repaired at other than a warranty station. If a warrantable defect is found, the vehicle owner may deliver the vehicle to a warranty station and have the defect corrected free of charge. The vehicle manufacturer shall not be liable for any expenses incurred at a service establishment not authorized to perform warranty repairs, except in the case of an emergency as specified in subsection (d)(4). If the vehicle owner chooses to have the warrantable defect repaired at other than a warranty station, the upper cost limit pursuant to Health and Safety Code section 44017 shall not apply to the repair.

(j) Exclusions.

(1) The repair or replacement of any warranted part otherwise eligible for warranty coverage under subsection (d) or (i), shall be excluded for such warranty coverage if the vehicle, engine, or trailer manufacturer demonstrates that the vehicle, engine, or trailer has been abused, neglected, or improperly maintained, and that such abuse, neglect, or improper maintenance was the direct cause of the need for the repair or replacement of the part.

(2) The following adjustments to warranted parts are excluded from warranty coverage under subsection (d) or (i); the idle air/fuel mixture ratio (for 1979 model passenger cars, and 1979 and 1980 model light-duty trucks and medium-duty vehicles), curb or high idle speed, ignition timing, valve lash, injection timing for diesel-powered vehicles, or any combination thereof.

(3) Except as provided in subsection (1) above, any adjustment of a component which as a factory installed, and properly operating, adjustment limiting device (such as an idle limiter cap) is eligible for warranty coverage under subsection (d) or (i).

Credits

NOTE: Authority cited: Sections 38501, 38505, 38510, 38560, 39600 and 39601, Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38560, 43106, 43204, 43205.5, 44004, 44010, 44011, 44012, 44015 and 44017, Health and Safety Code.

§ 2904. Certification Fees for On-Road Mobile Sources.

***** NO CHANGES ARE PROPOSED OTHER THAN SUBSECTION (C) *****

(c) Certification Fees for Street-use Motorcycle Families and Motorcycle Engine Families.

(1) For model year 2023, the certification fees for street-use motorcycle families and motorcycle engine families shall be set as follows.

	Fee Type				
Category	**Base Fee**	**Low California Production Manufacturer**	**Partial Carry-Over**	**Carry-Over**	**Low California Production for Sale Engine Family**
Street-use motorcycle family and motorcycle engine family	$8,724	$6,543	$4,362	$4,362	$872

(2) For model year 2024, the certification fees for street-use motorcycle families and motorcycle engine families shall be set as follows.

	Fee Type				
Category	**Base Fee**	**Low California Production Manufacturer**	**Partial Carry-Over**	**Carry-Over**	**Low California Production for Sale Engine Family**
Street-use motorcycle family and motorcycle engine family	$13,085	$9,814	$6,543	$4,362	$872

(3) For model year 2025, the certification fees for street-use motorcycle families and motorcycle engine families shall be set as follows.

	Fee Type					
Category	**Base Fee**	**Low California Production Manufacturer**	**Partial Carry-Over**	**Carry-Over**	**<u>Zero-Emission*</u>**	**Low California Production for Sale Engine Family**
Street-use motorcycle family and motorcycle engine family	$17,447	$13,085	$8,724	$4,362	<u>$4,362</u>	$872

<u>*Certification of zero emissions motorcycles begins with model year 2028.</u>

(4) For the 2026 and subsequent model years, the certification fees shall be calculated in accordance with subsection (f).