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> Article 2 - Approval of Motor Vehicle Pollution Control Devices (New Vehicles)
> **Cal. Code Regs. Tit. 13, § 1976 - Standards and Test Procedures for Motor Vehicle Fuel Evaporative Emissions**

Cal. Code Regs. Tit. 13, § 1976 - Standards and Test Procedures for Motor Vehicle Fuel Evaporative Emissions

State Regulations Compare

(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 liquefied 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 (unless otherwise indicated) petroleum-fueled diesel vehicles, compressed natural gas-fueled vehicles, 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:

<i>Vehicle Type</i>	<i>Model Year</i>	<i>Hydrocarbons¹ Diurnal + Hot Soak (grams/test) 50K miles</i>
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	

(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:

<i>Hydrocarbons¹</i>			
<i>Vehicle Type</i>	<i>Model Year</i>	<i>Three-Day Diurnal + Hot Soak (grams/test) Useful Life²</i>	<i>Running Loss (grams/mile) Useful Life²</i>

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:

<i>Model Year</i>	<i>Minimum Percentage of Vehicles Certified to Running Loss and Useful Life Standards*</i>
1995	10 percent
1996	30 percent
1997	50 percent
<p>_____</p>	
<p>* 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.</p>	

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:

<i>Vehicle Type</i>	<i>Model Year</i>	<i>Hydrocarbons¹ Two-Day Diurnal + Hot Soak (grams/test) Useful Life²</i>
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:

<i>Vehicle Type</i>		<i>Hydrocarbon¹ Standards^{2 3 4}</i>		
<i>Running Loss (grams per mile)</i>	<i>Three Day Diurnal + Hot Soak (grams per test)</i>	<i>Two-Day Diurnal + Hot Soak (grams per test)</i>		
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 lbs. GVWR	0.05	0.90	1.15	
Medium-duty vehicles (8,501-14,000 lbs. GVWR)				
Heavy-duty vehicles (over 14,000 lbs. GVWR)		0.05	1.00	1.25

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.

<i>Model Year</i>	<i>Minimum Percentage of Vehicles Certified to the Standards in §§ <u>1976(b)(1)(F)</u> and <u>(b)(1)(E)</u></i>
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: $(40\% \times 3 \text{ years}) + (80\% \times 2 \text{ years}) + (100\% \times 1 \text{ year}) = 380$). 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: $(10\% \times 4 \text{ years}) = 40$) 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:

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

<i>Vehicle Type</i>	<i>Hydrocarbon⁽¹⁾ Emission Standards⁽²⁾</i>		
<i>Running Loss (grams per mile)</i>	<i>Highest Whole Vehicle Diurnal + Hot Soak^{(3) (4) (5)} (grams per test)</i>	<i>Canister Bleed⁽⁶⁾ (grams per test)</i>	
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:

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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).

<p><i>Model Years 2015, 2016, and 2017</i></p>	<p><i>Minimum Percentage of Vehicle Fleet^{(1) (2)} Average of vehicles certified to section <u>1976(b)(1)(E)</u> in model years 2012, 2013, and 2014⁽³⁾ (4)</i></p>
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2018 and 2019	60
2020 and 2021	80
2022 and subsequent	100
<p>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: $(60 \times 5 \text{ years}) + (60 \times 4 \text{ years}) + (80 \times 3 \text{ years}) + (80 \times 2 \text{ years}) + (100 \times 1 \text{ year}) = 1040$. 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).</p>	
<p>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.</p>	
<p>³ The percentage of vehicle fleet averaged across the 2015, 2016, and 2017 model years shall be used to determine compliance with this requirement.</p>	

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.

<i>Vehicle Type</i>	<i>Highest Whole Vehicle Diurnal + Hot Soak (grams per test)</i>
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 [LESS THAN EQUAL TO] 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 [LESS THAN EQUAL TO]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 through 2025 Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Year Motorcycles" or the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles," as applicable, incorporated by reference in section 1976(c). These requirements do not apply to 2021 and previous model vehicles certified by a small volume manufacturer. For 2026 and subsequent model year motor vehicles, these requirements apply to any auxiliary fuel system, including a fuel fired heater. These requirements also apply to motor vehicles that are exempt from exhaust emission certification, dedicated petroleum-fueled diesel vehicles, and dedicated compressed natural gas-fueled vehicles.

(b)

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

<i>Motorcycle Class</i>	<i>Model Year</i>	<i>Hydrocarbons (grams per test)</i>
Class I and II (50-279cc)	1983 and 1984	6.0
1985 and subsequent	2.0	
Class III (280cc and larger)	1984 and 1985	6.0
1986 and subsequent	2.0	

Class III (280cc and larger) (Optional Standard for Small-Volume Motorcycle Manufacturers)	1986-1988	6.0
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(H) For 2026 and subsequent model year motor vehicles, the following evaporative emission requirements apply in addition to the requirements in section [1976\(b\)\(1\)\(G\)](#):

1. *Running loss hydrocarbon emission standard.* Running loss emissions shall not exceed 0.01 grams per mile for all vehicle types.

Phase-in schedule for running loss:

For each model year, a manufacturer shall certify, at a minimum, the specified percentage of its vehicle fleet to these standards according to the implementation schedule set forth below. For this calculation, the manufacturer's vehicle fleet is defined as the total vehicles produced and delivered for sale by the manufacturer in California that are subject to this standard.

<i>Model Year</i>	<i>Minimum Percentage of Vehicle Fleet ⁽¹⁾</i>
2026	30
2027	60
2028 and subsequent	100

⁽¹⁾ Small volume manufacturers are not required to comply with the phase-in schedule set forth in this table. Instead, they must certify 100 percent of their 2028 and subsequent model year vehicle fleet to the standards.

2. 2028 and subsequent model year vehicles must meet the minimum canister size requirement for vehicles that have a tank pressure exceeding 10 inches of water during the running loss test.

a Compliance with minimum canister size requirement is demonstrated using the equation in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles," incorporated by reference in section 1976(c).

(c) *Test Procedures.*

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 through 2025 model year vehicles are set forth in the "California Evaporative Emission Standards and Test Procedures for 2001 through 2025 Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles and 2001 and Subsequent Model Year Motorcycles," adopted by the state board on August 5, 1999, and as last amended August 25, 2022, which is incorporated herein by reference. The test procedures for determining compliance with standards applicable to 2026 and subsequent model year vehicles are set forth in the "California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles," adopted by the state board on August 25, 2022, which is incorporated herein by reference.

(d) Motorcycle engine families certified to 0.2 grams per test or more below the applicable standards 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" means a manufacturer which sells less than 5,000 new 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).

Notes

Cal. Code Regs. Tit. 13, § 1976

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.

1. Amendment filed 4-20-83; effective upon filing pursuant to Government Code section 11346.2(d) (Register 83, No. 17).
2. Amendment filed 12-16-85; effective upon filing pursuant to Government Code section 11346.2(d) (Register 85, No. 51).
3. Amendment of subsections (b) and (c) filed 3-3-88; operative 4-2-88 (Register 88, No. 12).
4. Amendment filed 2-21-90; operative 3-23-90 (Register 90, No. 8).
5. Amendment of subsection (c) filed 6-14-90; effective 7-14-90 (Register 90, No. 33).
6. Amendment filed 12-17-91; operative 1-16-92 (Register 92, No. 12).
7. Amendment of subsection (b)(1) and table, and new subsection (b)(5) filed 11-8-93; operative 12-8-93 (Register 93, No. 46).
8. Editorial correction of printing errors in table and designation of subsections (Register 93,

No. 46).

9. Amendment filed 12-15-94; operative 12-15-94 pursuant to Government Code section 11346.2(d) (Register 94, No. 50).

10. Change without regulatory effect amending subsections (b)(1)(B)(4) and (b)(1)(C) filed 3-21-95 pursuant to section 100, title 1, California Code of Regulations (Register 95, No. 12).

11. Amendment of subsection (c) filed 6-19-96; operative 6-19-96 pursuant to Government Code section 11343.4(d) (Register 96, No. 25).

12. New subsection (b)(1)(D) filed 1-3-97; operative 1-3-97 pursuant to Government Code section 11343.4(d) (Register 97, No. 1).

13. Editorial correction restoring inadvertently omitted subsections (b)(1)(D)-(e) (Register 97, No. 7).

14. Editorial correction of subsection (b)(1)(B) note (3) and (b)(1)(C) Table (Register 97, No. 38).

15. Amendment filed 9-16-97; operative 10-16-97 (Register 97, No. 38).

16. Amendment of subsections (b)(1)(B), (b)(1)(C), (c) and (f)(2) and new subsections (b)(1)(E)-(F) filed 10-28-99; operative 11-27-99 (Register 99, No. 44).

17. Amendment of incorporated document California Evaporative Emission Standards and Test Procedures for 1978-2000 Model Motor Vehicles and amendment of subsection (c) filed 1-18-2007; operative 2-17-2007 (Register 2007, No. 3).

18. Amendment of subsection (c) and amendment of Note filed 12-5-2007; operative 1-4-2008 (Register 2007, No. 49).

19. Amendment of subsection (c) filed 1-14-2010; operative 2-13-2010 (Register 2010, No. 3).

20. Amendment of subsection (c) filed 11-8-2010; operative 12-8-2010 (Register 2010, No. 46).

21. Amendment of subsections (b)(1)(E)-(F), new subsections (b)(1)(G)-(b)(1)(G)5., amendment of subsections (c) and (f) and new subsections (f)(3)-(4) filed 8-7-2012; operative 8-7-2012 pursuant to Government Code section 11343.4 (Register 2012, No. 32).

22. Amendment of subsections (b)(1)(G)3. and (c) filed 12-31-2012; operative 12-31-2012 pursuant to Government Code section 11343.4 (Register 2013, No. 1).

23. Amendment of subsections (b)(1)(G)1.b.-(b)(1)(G)3., new subsections (b)(1)(G)6.-7. and amendment of subsection (c) filed 10-8-2015; operative 10/8/2015 pursuant to Government Code section 11343.4(b)(3) (Register 2015, No. 41).

24. Amendment of subsections (b)(1) and (b)(1)(G)7., new subsections (b)(1)(H)-(b)(1)(H)2.a., and amendment of subsection (c) filed 11-30-2022; operative 11/30/2022 pursuant to Government Code section 11343.4(b)(3) (Register 2022, No. 48).