

## APPENDIX C

California Environmental Protection Agency  
AIR RESOURCES BOARD

### PROPOSED

#### **CALIFORNIA 2001 THROUGH 2014 MODEL CRITERIA POLLUTANT EXHAUST EMISSION STANDARDS AND TEST PROCEDURES AND 2009 THROUGH 2016 MODEL GREENHOUSE GAS EXHAUST EMISSION STANDARDS AND TEST PROCEDURES FOR PASSENGER CARS, LIGHT-DUTY TRUCKS, AND MEDIUM-DUTY VEHICLES**

Adopted: August 5, 1999  
Amended: December 27, 2000  
Amended: July 30, 2002  
Amended: September 5, 2003 (corrected February 20, 2004)  
Amended: May 28, 2004  
Amended: August 4, 2005  
Amended: June 22, 2006  
Amended: October 17, 2007  
Amended: May 2, 2008  
Amended: December 2, 2009  
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Amended: March 29, 2010  
Amended: September 27, 2010  
Amended: March 22, 2012  
Amended: [INSERT DATE OF AMENDMENT]

Note: The proposed amendments to this document are shown in underline to indicate additions and ~~strikeout~~ to indicate deletions compared to the test procedures as adopted March 22, 2012. [No change] indicates proposed federal provisions that are also proposed for incorporation herein without change. Existing intervening text that is not amended in this rulemaking is indicated by “\* \* \* \*”.

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**CALIFORNIA 2001 THROUGH 2014 MODEL CRITERIA POLLUTANT EXHAUST EMISSION STANDARDS AND TEST PROCEDURES AND 2009 THROUGH 2016 MODEL GREENHOUSE GAS EXHAUST EMISSION STANDARDS AND TEST PROCEDURES FOR PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES**

The provisions of Subparts B, C, and S, Part 86, Title 40, Code of Federal Regulations, as adopted or amended on May 4, 1999 or as last amended on such other date set forth next to the 40 CFR Part 86 section title listed below, and to the extent they pertain to exhaust emission standards and test procedures, are hereby adopted as the “California 2001 through 2014 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2009 through 2016 Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles,” with the following exceptions and additions.

**PART I: GENERAL PROVISIONS FOR CERTIFICATION AND IN-USE VERIFICATION OF EMISSIONS**

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**B. Definitions, Acronyms and Abbreviations**

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**2. California Definitions.**

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“**Small volume manufacturer**” means any manufacturer that meets the “small volume manufacturer” definition as set forth in section 1900, title 13, CCR. ~~whose projected or combined California sales of passenger cars, light duty trucks, medium duty vehicles, heavy-duty vehicles and heavy duty engines in its product line are fewer than 4,500 units based on the average number of vehicles sold for the three previous consecutive model years for which a manufacturer seeks certification. A manufacturer's California sales shall consist of all vehicles or engines produced by the manufacturer and delivered for sale in California, except that vehicles or 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. For the 2009 through 2016 model years, 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 all firms where the vehicles are manufactured by the same entity and the importer or distributor is an authorized agent of the entity.~~

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**E. California Exhaust Emission Standards.**

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**2. Emission Standards Phase-In Requirements for Manufacturers**

**2.1 Fleet Average NMOG Requirements for Passenger Cars and Light-Duty Trucks.**

2.1.1 The fleet average non-methane organic gas exhaust mass emission values from the passenger cars and light-duty trucks produced and delivered for sale in California each model year by a manufacturer other than a small volume manufacturer or an independent low volume manufacturer shall not exceed:

<b>FLEET AVERAGE NON-METHANE ORGANIC GAS EXHAUST MASS EMISSION REQUIREMENTS FOR LIGHT-DUTY VEHICLE WEIGHT CLASSES</b> (50,000 mile Durability Vehicle Basis)		
Model Year	Fleet Average NMOG (g/mi)	
	All PCs; LDTs 0-3750 lbs. LVW	LDTs 3751 lbs. LVW - 8500 lbs. GVW
2001	0.070	0.098
2002	0.068	0.095
2003	0.062	0.093
2004	0.053	0.085
2005	0.049	0.076
2006	0.046	0.062
2007	0.043	0.055
2008	0.040	0.050
2009	0.038	0.047
2010-2014 <sup>1</sup>	0.035	0.043

<sup>1</sup> For the 2014 model year only, a manufacturer may comply with the fleet average NMOG+NOx values in the "California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," in lieu of complying with the NMOG fleet average values in this table. A manufacturer must either comply with the NMOG+NOx fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet or comply with the NMOG fleet average requirements for both its

PC/LDT1 fleet and its LDT2/MDPV fleet. A manufacturer must calculate its fleet average NMOG+NOx values using the applicable full useful life standards.

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**F. Requirements and Procedures for Durability Demonstration**

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**4. §86.1823 Durability demonstration procedures for exhaust emissions.**

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4.2 §86.1823-08. ~~September 15, 2011~~ [as adopted by EPA on August 28, 2012, 77 Fed. Reg. [insert page], August [insert date]]. [No change, except that subparagraph (m) applies only to vehicles certifying to the 2012 through 2016 MY National greenhouse gas program.]

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**G. Procedures for Demonstration of Compliance with Emission Standards**

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**3. §86.1829 Durability data and emission data testing requirements; waivers.**

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3.1 §86.1829-01. ~~May 7, 2010~~ [as adopted by EPA on August 28, 2012, 77 Fed. Reg. [insert page], August [insert date]]. Amend as follows:

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**H. Certification, Information and Reporting Requirements.**

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**3. §86.1843 General information requirements**

3.1 §86.1843-01 [No change.]

**3.2 Alternative Fuel Information.**

For passenger cars, light-duty trucks, and medium-duty vehicles ~~not certified exclusively on gasoline or diesel, except for vehicles that use hydrogen fuel, the manufacturer shall submit projected California sales and fuel economy data nineteen months prior to January 1 of the model year for which the vehicles are certified. For vehicles that use hydrogen fuel, the manufacturer shall submit projected California sales and leases, fuel economy data, vehicle fuel pressure rating, name of air basin(s) where vehicles will be delivered for sale or lease, and~~

number of vehicles projected to be delivered to each air basin, thirty-three months prior to January 1 of the model year for which the vehicles are certified. For calendar year 2012 only, the manufacturer of vehicles that use hydrogen fuel shall submit projected California sales and leases, fuel economy data, vehicle fuel pressure rating, name of air basin(s) where vehicles will be delivered for sale or lease, and number of vehicles projected to be delivered to each air basin, twenty-nine months prior to January 1 of the model year for which the vehicles are certified.

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**I. In-Use Compliance Requirements and Procedures**

**1. §86.1845 Manufacturer in-use verification testing requirements.**

1.1 §86.1845-01. December 8, 2005. Amend as follows:

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1.1.3 **High Mileage Testing.** Amend subparagraph (c)(2) of 40 CFR §86.1845-01 to read: All test vehicles must have a minimum odometer mileage of 50,000 miles. At least one vehicle of each test group certified to the emission standards in Section E.1.1.1 must have a minimum age and odometer mileage of 75,000 for light-duty vehicles and 90,000 miles for medium-duty vehicles. At least one vehicle of each test group certified to the 120,000-mile and 150,000-mile emission standards in Section E.1.1.2 must have a minimum age and odometer mileage of 90,000 miles and ~~112,500~~ 105,000 miles, respectively. See §86.1838-01(c)(2) for small volume manufacturer mileage requirements.

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**J. Procedural Requirements**

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3. §86.1848-10 Certification. ~~July 6, 2011~~ [as adopted by EPA on August 28, 2012, 77 Fed. Reg. [insert page], August [insert date], 2012]. [No change, except that this version of §86.1848-10 shall only apply to vehicles certifying under the 2012 through 2016 MY National greenhouse gas program.]

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- 15. §86.1865-12 How to comply with the fleet average CO<sub>2</sub> standards. ~~September 15, 2011~~ [as adopted by EPA on August 28, 2012, 77 Fed. Reg. [insert page], August [insert date], 2012]. [No change, except that this section shall only apply to vehicles certifying under the 2012 through 2016 MY National greenhouse gas program.]
- 16. §86.1866-12 CO<sub>2</sub> ~~fleet average~~ credits for advanced technology vehicles ~~programs~~. ~~July 6, 2011~~ [as adopted by EPA on August 28, 2012, 77 Fed. Reg. [insert page], August [insert date], 2012]. [No change, except that for the 2012 through 2016 model years this section shall only apply to vehicles certifying under the 2012 through 2016 MY National greenhouse gas program.]
- 17. §86.1867-12 Optional early CO<sub>2</sub> credit programs. ~~July 6, 2011~~[as adopted by EPA on August 28, 2012, 77 Fed. Reg. [insert page], August [insert date], 2012]. [No change, except that this section shall only apply to vehicles certifying under the 2012 through 2016 MY National greenhouse gas program.]

**PART II: CALIFORNIA EXHAUST AND PARTICULATE EMISSION TEST PROCEDURES FOR PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES**

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**A. 40 CFR Part 86, Subpart B - Emission Regulations for 1977 and Later Model Year New Light-Duty Vehicles and New Light-Duty Trucks and New Otto-Cycle Complete Heavy-Duty Vehicles; Test Procedures.**

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**100.2 Equipment and Facility Requirements.**

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86.111-94 Exhaust gas analytical-system. ~~May 7, 2010~~ [as adopted by EPA on August 28, 2012, 77 Fed. Reg. [insert page], August [insert date]]. [No change.]

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**100.5 Test Procedures and Data Requirements.**

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86.135-12 Dynamometer procedure. ~~May 7, 2010~~ [as adopted by EPA on August 28, 2012, 77 Fed. Reg. [insert page], August [insert date]]. [No change.]

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- 86.165-12 Air Conditioning idle test procedure. July 6, 2011 [as adopted by EPA on August 28, 2012, 77 Fed. Reg. [insert page], August [insert date], 2012]. [No change, except that this section shall only apply to vehicles certifying under the 2012 through 2016 MY National greenhouse gas program.]
- ~~86.166-12 Method for calculating emissions due to air conditioning leakage. [Insert Federal Register for the 2017 and subsequent MY National Greenhouse Gas Final Rule as proposed at 76 Fed. Reg. 74854, 75357 (December 1, 2011)]. [No change, except that this section shall only apply to vehicles certifying under the 2012 through 2016 MY National greenhouse gas program.]~~
- 86.167-17 AC17 Air Conditioning Emissions Test Procedure. [as adopted by EPA on August 28, 2012, 77 Fed. Reg. [insert page], August [insert date], 2012] [No change, except that this section shall only apply to vehicles certifying under the 2012 through 2016 MY National greenhouse gas program.]

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