APPENDICES

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APPENDIX A - PROPOSED REGULATION ORDER
TITLE 13, California Code of Regulations (CCR)

1. Title 13, CCR, Section 1900

§1900. Definitions.

Amend Title 13, CCR, Section 1900 to read as follows:

[Subsections (a)(1) through (7) -- No change]

(a)(8) "Light-duty truck" means any motor vehicle certified to the standards in Sections 1960.1(f)(2) and (g)(1) rated at 6,000 pounds gross vehicle weight or less, or any 2004 and subsequent model motor vehicle certified to the standards in Section 1961(a)(1) rated at 8,500 pounds gross vehicle weight or less, which is designed primarily for purposes of transportation of persons, property or is a derivative of such a vehicle, or is available with special features enabling off-street or off-highway operation and use.

(a)(9) "Medium-duty vehicle" means any pre-1995 model year heavy-duty vehicle having a manufacturer's gross vehicle weight rating of 8,500 pounds or less; any 1992 through 2006 ~~and subsequent~~ model-year heavy-duty low-emission vehicle or ultra-low-emission, or zero-emission vehicle certified to the standards in Section 1960.1(h)(2) having a manufacturer's gross vehicle weight rating of 14,000 pounds or less; or any 1995 through 2002 ~~and subsequent~~ model year heavy-duty vehicle certified to the standards in Section 1960.1(h)(1) having a manufacturer's gross vehicle weight rating of 14,000 pounds or less; or any 2004 and subsequent model heavy-duty low-emission, ultra-low-emission, super-ultra-low-emission or zero-emission vehicle certified to the standards in Section 1961(a)(1) or 1962 having a manufacturer's gross vehicle weight rating between 8,501 and 14,000 pounds.

[Subsections (a)(9) through (16) -- No change]

Note: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, and 43104 Health and Safety Code. Reference: Sections 39002, 39003, 39010, 39500, 40000, 43000, 43013, 43100, 43101, 43101.5, 43102, 43104, 43106, and 43204, Health and Safety Code.

Summary Explanation of Proposed Modifications

These modifications are being proposed as a result of the new standards being promulgated in LEV II. The new standards are based on a restructuring of the light-duty truck and medium-duty vehicle categories from the current 6,000 pound gross vehicle weight (GVW) cutpoint to 8,500 pounds GVW.

2. Title 13, CCR, Section 1960.1

§1960.1. Exhaust Emission Standards and Test Procedures - 1981 through 2006 ~~and Subsequent~~ Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.

Amend Title 13, CCR, Section 1960.1 to read as follows:

[Subsections (a) through (e)(1) -- No change]

(e)(2) The exhaust emissions from new 1993 through 2006 ~~and subsequent~~ model methanol-fueled vehicles, including fuel-flexible vehicles, shall meet all the requirements in (e)(1), (f)(1) and (f)(2) with the following modifications and additions: [No change to remainder of section.]

(e)(3) The exhaust emissions from new 1992 through 2006 ~~and subsequent~~ model-year transitional low-emission vehicles, low-emission vehicles, ultra-low emission vehicles, and super ultra-low-emission vehicles, including fuel-flexible and dual-fuel vehicles, shall meet all the requirements in (g)(1), and (h)(2) with the following additions: [No change to remainder of section.]

[Subsection (f)(1) -- No change.]

(f)(2) The exhaust emissions from new 1995 through 2003 ~~and subsequent~~ model passenger cars and light-duty trucks shall not exceed: [No change to remainder of section.]

(g)(1) The exhaust emissions from new 1992 through 2006 ~~and subsequent~~ model-year light-duty transitional low-emission vehicles, low-emission vehicles, and ultra-low-emission vehicles, and ~~new~~ pre-2003 and subsequent model-year light-duty zero-emission vehicles, in the passenger and light-duty truck classes shall not exceed: [No change to remainder of section.]

(g)(2) The fleet average non-methane organic gas exhaust emission values from passenger cars and light-duty trucks produced and delivered for sale in California by a manufacturer each model year from 1994 through 2000 shall not exceed:

FLEET AVERAGE NON-METHANE ORGANIC GAS EXHAUST MASS EMISSION REQUIREMENTS FOR LIGHT-DUTY VEHICLE WEIGHT CLASSES

[grams per mile" (or "g/mi")]

Vehicle Type	Loaded Vehicle Weight (lbs.)	Durability Vehicle Basis (mi)	Model Year	Fleet Average Non-Methane Organic Gases
PC and LDT	All 0-3750	50,000	1994	0.250
			1995	0.231
			1996	0.225

			1997	0.202
			1998	0.157
			1999	0.113
			2000	0.073
			~~2001~~	~~0.070~~
			~~2002~~	~~0.068~~
			~~2003 and subsequent~~	~~0.062~~
LDT	3751-5750	50,000	1994	0.320
			1995	0.295
			1996	0.287
			1997	0.260
			1998	0.205
			1999	0.150
			2000	0.099
			~~2001~~	~~0.098~~
			~~2002~~	~~0.095~~
			~~2003 and subsequent~~	~~0.093~~

Footnotes (1) through (8) -- No change.]

(9) Prior to the 2003 model year, the following requirements shall apply. [No change to the remainder of this section. [Beginning with the 2003 model year, the ZEV requirements are set forth in a new CCR §1962.]

(h)(1) The exhaust emission from new 1995 through 2002 ~~and subsequent~~ model medium-duty vehicles shall not exceed: [No change to remainder of section.]

(h)(2) The exhaust emissions from new 1992 through 2006 ~~and subsequent~~ model-year medium-duty low-emission vehicles, ultra-low-emission vehicles and super ultra-low-emission vehicles, and ~~new~~ pre-2003 and subsequent model-year medium-duty zero-emission vehicles shall not exceed: [No change to the remainder of this section.]

[Subsections (i) and (j) -- No change.]

(k) The test procedures for determining compliance with these standards are set forth in "California Exhaust Emission Standards and Test Procedures for 1981 through 1987 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," adopted by the state board on November 23, 1976, as last amended May 20, 1987, and in "California Exhaust Emission Standards and Test Procedures for 1988 through 2000 ~~and Subsequent~~ Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," adopted by the state board on May 20, 1987 as last amended _____ , and "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," adopted by the state board on _____, all ~~both~~ of which are incorporated herein by reference.

[Subsections (*l*) through (m) -- No change.]

(n) For purposes of this section and section 1960.1.5, "small volume manufacturer" is any vehicle manufacturer which was subject to "in lieu" standards pursuant to section 202(b091)(B) of the Federal Clean Air Act (42 U.S.C. section 7521(b)(1)(B), as amended November 16, 1977) or a vehicle manufacturer with pre-2001 model year California sales not exceeding 3,000 new motor vehicles per model year based on previous model-year sales; however, for manufacturers certifying for the first time in California model year sales shall be based on projected California sales.

(o) For the purposes of this section, an "intermediate volume manufacturer" is any pre-2001 model year manufacturer with California sales between 3,001 and 35,000 new light- and medium-duty vehicles per model year based on the average number of vehicles sold by the manufacturer each model year from 1989 to 1993; and any 2001 through 2002 model year manufacturer with California sales between 4,501 and 35,000 new light- and medium-duty vehicles per model year based on the average number of vehicles sold by the manufacturer each model year from 1989 to 1993; however, for manufacturers certifying for the first time in California, model-year sales shall be based on projected California sales.

(p) The cold temperature exhaust carbon monoxide emission levels from new 1996 through 2000 and subsequent model-year passenger cars, light-duty trucks and medium-duty vehicles shall not exceed: [No change to remainder of section.]

[Subsection (q) -- no change.]

(r) The Supplemental Federal Test Procedure (SFTP) standards in the Section represent the maximum SFTP exhaust emission at 4,000 miles ± 250 miles or at the mileage determined by the manufacturer for emission-data vehicles, according to 40 CFR 86.090-26 or 40 CFR 86.1826-01, as modified by the "California Exhaust Emission Standards and Test Procedures for 1988 through 2000 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," adopted by the state board on May 20, 1987 as last amended _____ , and "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," adopted by the state board on _____, both of which are incorporated herein by reference. The SFTP exhaust emission levels from new 2001 and subsequent model low-emission vehicles, ~~and~~ ultra-low-emission vehicles and super ultra-low-emission vehicles in the passenger car and light-duty truck class, and new 2003 and subsequent low-emission vehicles, ultra-low-emission vehicles, and super-ultra-low-emission vehicles in the medium-duty class, shall not exceed: [No change to remainder of section]

Note: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43104 and 43105, Health and Safety Code. Reference: Sections 39002, 39003, 39667, 43000, 43009.5, 43013, 43018, 43100, 43101, 43101.5, 43102, 43103, 43104, 43105, 43106, 43107, 43204, and 43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

Section 1960.1 contains the emission standards and test procedures for low-emission vehicles that were promulgated by the Board in 1990. Under the proposed LEV II modifications, manufacturers will begin to implement the new standards beginning in the 2004 model year (or earlier in order to earn NMOG emission credits). During the first three years of the proposed LEV II standards (set forth in §1961), manufacturers will be able to certify to the LEV I standards in order to provide manufacturers flexibility in implementing the new standards. Beginning in the 2007 model year, however, manufacturers will only be able to certify to the LEV II standards (Tier 1 standards will be sunset in the 2003 model year for light-duty vehicles and in the 2002 model year for medium-duty vehicles.) Thus, all of the standards in Section 1960.1 will be sunset by 2006. A new section, 1961, is being created not only for the new LEV II standards but also because of changes being made as a result of CAP 2000 (see Appendix B for a discussion of the CAP 2000 amendments) that will be effective beginning with the 2001 model year. The fleet average standards in 1960.1(g)(2) for the 2001 through 2003 model years have been moved to 1961 because beginning in 2001 manufacturers will be able to certify to both LEV I and LEV II standards. The ZEV requirements contained in 1960.1(g)(2) footnote (9) remain effective through the 2000 model year. Beginning with the 2001 model year, the ZEV requirements will be found in §1962.

3. Title 13, CCR Section 1961

§1961. Exhaust Emission Standards and Test Procedures - 2004 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.

Add new Title 13, CCR Section 1961 to read as follows:

The following section contains the exhaust emission standards, phase-in requirements and reactivity adjustment factors applicable to passenger cars, light-duty trucks and medium-duty vehicles produced and delivered for sale in California. Manufacturers shall demonstrate compliance with the exhaust standards in subparagraph (a) applicable to specific test groups as well as with the composite phase-in requirements in subparagraph (b) applicable to their entire fleet. Manufacturers have the option of certifying engines used in incomplete and diesel MDVs with a gross vehicle weight rating of greater than 8,500 lbs. to the heavy-duty engine standards and test procedures set forth in Title 13, CCR, Sections 1956.8(g) and (h).

(a) *Exhaust Emission Standards.*

(1) *LEV II Exhaust Standards*. The following standards represent the maximum exhaust emissions for the intermediate and full useful life from new 2004 and subsequent model-year TLEVs, LEVs, ULEVs, and SULEVs, including fuel-flexible, bi-fuel and dual fuel vehicles when operating on the gaseous or alcohol fuel they are designed to use:

Exhaust Mass Emission Standards for New 2004[i] and Subsequent Model TLEVs, LEVs, ULEVs, and SULEVs in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes

Vehicle Type	Durability Vehicle Basis (mi)	Vehicle Emission Category	NMOG (g/mi)	Carbon Monoxide (g/mi)	Oxides of Nitrogen (g/mi)	Formaldehyde (mg/mi)	Diesel Particulate[i] (g/mi)
All PCs; LDTs <8,500 lbs. GVW	50,000	TLEV	0.125	3.4	0.4	15	n/a
		LEV	0.075	3.4	0.05	15	n/a
		ULEV	0.040	1.7	0.05	8	n/a
Vehicles in this category are tested at their loaded vehicle weight.	120,000	TLEV	0.156	4.2	0.6	18	0.04
		LEV	0.090	4.2	0.07	18	0.01
		ULEV	0.055	2.1	0.07	11	0.01
		SULEV	0.010	1.0	0.02	4	0.01

Vehicle Type	Durability Vehicle Basis (mi)	Vehicle Emission Category	NMOG (g/mi)	Carbon Monoxide (g/mi)	Oxides of Nitrogen (g/mi)	Formaldehyde (mg/mi)	Diesel Particulate[i] (g/mi)
	150,000 (Optional see subpara-graphs iii and iv below)	TLEV	0.156	4.2	0.6	18	0.04
		LEV	0.090	4.2	0.07	18	0.01
		ULEV	0.055	2.1	0.07	11	0.01
		SULEV	0.010	1.0	0.02	4	0.01
MDVs 8501-10,000 lbs. GVWR Vehicles in this category are tested at their adjusted loaded vehicle weight.	50,000	LEV	~~0.195~~ 0.160	~~5.0~~ 4.4	~~0.6~~ 0.1	22	n/a
		ULEV	~~0.117~~ 0.100	~~5.0~~ 4.4	~~0.6~~ 0.1	11	n/a
		SULEV	~~0.059~~ 0.050	~~2.5~~ 2.2	~~0.3~~ 0.05	6	n/a
	120,000	LEV	~~0.280~~ 0.230	~~7.3~~ 6.4	~~0.9~~ 0.2	32	0.12
		ULEV	~~0.167~~ 0.143	~~7.3~~ 6.4	~~0.9~~ 0.2	16	0.06
		SULEV	~~0.084~~ 0.072	~~3.7~~ 3.2	~~0.45~~ 0.07	8	0.06
	150,000 (Optional; see subpara-graphs iii and iv below)	LEV	~~0.280~~ 0.230	~~7.3~~ 6.4	~~0.9~~ 0.2	32	0.12
		ULEV	~~0.167~~ 0.143	~~7.3~~ 6.4	~~0.9~~ 0.2	16	0.06
		SULEV	~~0.084~~ 0.072	~~3.7~~ 3.2	~~0.45~~ 0.07	8	0.06
MDVs 10,001-14,000 lbs. GVWR Vehicles in this category are tested at their adjusted loaded vehicle weight.	50,000	LEV	~~0.230~~ 0.195	~~5.5~~ 5.0	~~0.7~~ 0.3	28	n/a
		ULEV	~~0.138~~ 0.117	~~5.5~~ 5.0	~~0.7~~ 0.3	14	n/a
		SULEV	~~0.069~~ 0.059	~~2.8~~ 2.5	~~0.35~~ 0.2	7	n/a
	120,000	LEV	~~0.330~~ 0.280	~~8.1~~ 7.3	~~1.0~~ 0.5	40	0.12
		ULEV	~~0.197~~ 0.167	~~8.1~~ 7.3	~~1.0~~ 0.5	21	0.06
		SULEV	~~0.100~~ 0.084	~~4.1~~ 3.7	~~0.5~~ 0.2	10	0.06

(i) Prior to the 2004 model year a manufacturer that voluntarily produces vehicles that meet these standards may certify those vehicles for purposes of calculating fleet average NMOG exhaust emission values under Title 13, CCR, §1961(b) and NMOG credits under Title 13, CCR, §1961(c) of these test procedures.

(ii) Particulate standards are only applicable to diesel vehicles and shall be determined on a 120,000 mile basis.

(iii) **Optional 150,000 Mile Standards.** A manufacturer that certifies to the 150,000 mile standards shall be eligible to receive additional NMOG fleet average credit as set forth in subparagraph (b)(1) or additional vehicle equivalent credits as set forth in subparagraph (b)(2) of this section provided that the manufacturer extends the warranty on high cost parts to 8 years or 100,000 miles, whichever occurs first, and agrees to extend the limit on high mileage in-use testing to 105,000 miles.

(iv) **Partial ZEV Allocation for SULEVs**. A manufacturer that certifies to the optional 150,000 mile SULEV standards may also be eligible to receive a partial ZEV allocation according to the criteria set forth in Title 13, CCR §1962.

(2) *NMOG Standards for Bi-Fuel, Fuel-Flexible and Dual-Fuel Vehicles Operating on Gasoline*. For fuel-flexible and dual-fuel PCs, LDTs and MDVs, compliance with the NMOG exhaust mass emission standards shall be based on exhaust emission tests both when the vehicle is operated on the gaseous or alcohol fuel it is designed to use, and when the vehicle is operated on gasoline. Manufacturers shall demonstrate compliance with the applicable exhaust mass emission standards for NMOG, CO, NOx and formaldehyde set forth in the table in §1961(a)(1) when certifying the vehicle for operation on the gaseous or alcohol fuel.

The following standards represent the maximum NMOG emissions when the vehicle is operating on gasoline. A manufacturer shall not apply a reactivity adjustment factor to the exhaust NMOG mass emission result when operating on gasoline. Testing at 50°F shall not be required for fuel-flexible, bi-fuel and dual-fuel vehicles when operating on gasoline. The applicable CO, NOx and formaldehyde standards are set forth in §1961(a)(1) above.

NMOG Standards for Bi-Fuel, Fuel-Flexible and Dual-Fuel Vehicles Operating on Gasoline (g/mi)

Vehicle Type (LVW/ALVW)	Vehicle Emission Category	Durability Vehicle Basis	
		50,000 mi	120,000 mi
All PCs; LDTs, 0-8500 lbs. GVW	TLEV	0.25	0.31
	LEV	0.125	0.156
	ULEV	0.075	0.090
	SULEV	0.010	0.040
MDVs, 8501-10,000 lbs. GVW	LEV	0.195	0.280
	ULEV	0.117	0.167
	SULEV	0.059	0.084
MDVs, 10,000-14,000 lbs. GVW	LEV	0.230	0.330
	ULEV	0.143	0.197
	SULEV	0.072	0.100

(3) 50°F Exhaust Emission Standards. All light- and medium-duty TLEVs, LEVs, ULEVs and SULEVs certified to the standards in §1961(a)(1) shall demonstrate compliance with the following exhaust emission standards for NMOG measured on the FTP (40 CFR, Part 86, Subpart B) conducted at a nominal test temperature of 50°F, as modified by Part II, Section C of the "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles" incorporated herein by reference. The NMOG mass emission result shall be multiplied by the applicable reactivity

adjustment factor, if any, prior to comparing to the applicable adjusted 50,000 mile certification standards set forth below. Emissions of CO, NOx and formaldehyde measured at 50°F shall not exceed the standards set forth in §1961(a)(1) applicable to vehicles of the same emission category and vehicle type subject to a cold soak and emission test at 68º to 86°F. Natural gas and diesel-fueled vehicles are exempt from the 50º F test requirements.

LEV II 50ºF NMOG Exhaust Emission Standards (g/mi)				
Vehicle Weight Class	Vehicle Emission Category			
	TLEV	LEV	ULEV	SULEV
PCs; LDTs 0-8500 lbs. GVW	0.25	0.150	0.080	0.02
MDVs 8501-10,000 lbs. GVW	n/a	0.320	0.200	0.100
MDVs 10,001-14,000 lbs. GVW	n/a	0.390	0.234	0.118

(4) Cold CO Standard. The following standards represent the 50,000 mile cold temperature exhaust carbon monoxide emission levels from new 2001 and subsequent model-year passenger cars, light-duty trucks, and medium-duty vehicles certified to the standards in §1961(a)(1):

2001 AND SUBSEQUENT MODEL-YEAR COLD TEMPERATURE CARBON MONOXIDE EXHAUST EMISSIONS STANDARDS FOR PASSENGER CARS, LIGHT-DUTY TRUCKS, AND MEDIUM-DUTY VEHICLES
(grams per mile)

Vehicle Type	Carbon Monoxide
All PCs, LDTs 0-3750 lbs. LVW	10.0
LDTs, 3751lbs. LVW - 8500 lbs. GVW	12.5

(1) These standards are applicable to vehicles tested at a nominal temperature of 20ºF (-7ºC) in accordance with 40 CFR Part 86 Subpart C, as amended by the "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles" incorporated herein by reference.

(2) Natural gas, diesel-fueled and zero-emission vehicles are exempt from these standards.

(6) Highway NOx Standard. The maximum emissions of oxides of nitrogen measured on the federal Highway Fuel Economy Test (HWFET; 40 CFR 600 Subpart B, which is incorporated herein by reference) shall not be greater than 1.33 times the applicable PC and LDT standards or 2.0 times the applicable MDV standards set forth in §1961(a)(1). Both the projected emissions and the HWFET standard shall be rounded in accordance with ASTM E29-67 to the nearest 0.1

g/mi (or 0.01 g/mi for vehicles certified to the 0.05 or 0.02 g/mi NOx standards) before being compared.

(b) Manufacturer Phase-In Requirements for Emission Standards.

(1) *Fleet Average NMOG Requirements for Passenger Cars and Light-Duty Trucks.* The fleet average non-methane organic gas exhaust mass emission values from the passenger cars and light-duty trucks certified to the standards in §1960.1(g)(1) and §1961(a)(1) that are produced and delivered for sale in California by a manufacturer each model year shall not exceed:

FLEET AVERAGE NON-METHANE ORGANIC GAS EXHAUST MASS EMISSION REQUIREMENTS FOR LIGHT-DUTY VEHICLE WEIGHT CLASSES (50,000 mile Durability Vehicle Basis)		
Model Year	Fleet Average NMOG (grams per mile)	
	All PCs; LDTs 0-3750 lbs. LVW	LDTs 3751lbs. 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+	0.035	0.043

(i) **Calculation of Fleet Average NMOG Value**. Each manufacturer's fleet average NMOG value for the total number of PCs and LDTs produced and delivered for sale in California shall be calculated as follows:

$$\frac{\sum [\text{Number of vehicles in a test group} \times \text{applicable emission standard}] + \sum [\text{Number of hybrid electric vehicles in a test group} \times \text{HEV NMOG factor}]}{\text{Total Number of Vehicles Produced, Including ZEVs}^{1} \text{ and HEVs}}$$

[1] ZEVs classified as LDTs (>3750 lbs. LVW) that have been counted toward the ZEV requirement for PCs and LDTs (0-3750 lbs. LVW) as specified in §1962 shall be included in this equation.

The applicable emission standards to be used in the above equation are as follows:

Model Year	Emission Category	Emission Standard Value	
		All PCs; LDTs 0-3750 lbs. LVW	**LDTs 3751-5750 lbs. LVW**
2001 and subsequent	Tier 1 (AB 965 vehicles only)	0.25	0.31
2001 - 2003 (§1960.1(f)(2))	Tier 1	0.25	0.31
2001 - 2006 model year vehicles certified to the "LEV I" standards in §1960.1(g)(1)	TLEVs	0.125	0.160
	LEVs	0.075	0.100
	ULEVs	0.040	0.050
Model Year	**Emission Category**	**All PCs; LDTs 0-3750 lbs. LVW**	**LDTs 3751-7300 lbs. LVW**
2004 and subsequent model year vehicles certified to the "LEV II" standards in §1961(a)(1)	TLEVs	0.125	0.125
	LEVs	0.075	0.075
	ULEVs	0.040	0.040
	SULEVs	0.01	0.01
2004 and subsequent model year vehicles certified to the optional 150,000 mile "LEV II" standards for PCs and LDTs in 1961(a)(1)	TLEVs	0.11	0.11
	LEVs	0.06	0.06
	ULEVs	0.03	0.03

(ii) *HEV NMOG Factor*. The HEV NMOG factor for light-duty vehicles is calculated as follows:

LEV HEV Contribution Factor = 0.075 - [(Zero-emission VMT Factor) x 0.035]
ULEV HEV Contribution Factor = 0.040 - [(Zero-emission VMT Factor) x 0.030]

where Zero-emission VMT Factor for HEVs is determined in accordance with §1962.

(iii) *Requirements for Small Volume Manufacturers*. In 2001 through 2003 model years, a small volume manufacturer shall not exceed a fleet average NMOG value of 0.075 g/mi for PCs and LDTs from 0-3750 lbs. LVW or 0.100 g/mi for LDTs from 3751-5750 lbs. LVW calculated in accordance with subparagraph (b)(1)(i). In 2004 and subsequent model years, a

small volume manufacturer shall not exceed a fleet average NMOG value of 0.075 for PCs and LDTs from 0-3750 lbs. LVW or 0.075 for LDTs from 3751 lbs. LVW - 8500 lbs. GVW calculated in accordance with subparagraph (i).

(2) *Medium-Duty Vehicle Phase-In Requirements*. A manufacturer of MDVs shall certify an equivalent percentage of its MDV fleet according to the following phase-in schedule:

Model Year	Vehicles Certified to §1960.1(h)(1), (h)(2), and §1961(a)(1) (%)		Vehicles Certified to Title 13 CCR Section 1956.8(g) or (h) (%)		
	LEV	ULEV	Tier 1	LEV	ULEV
2001	80	20	100	0	0
2002	70	30	0	100	0
2003	60	40	0	100	0
2004 +	~~60~~40	60~~40~~	0	0	100

(i) For the 2001 and subsequent model years, each manufacturer's MDV fleet shall be defined as the total number of California-certified MDVs from 3751-14,000 lbs. ALVW produced and delivered for sale in California. The percentages shall be applied to the manufacturers' total production of California-certified medium-duty vehicles delivered for sale in California.

(ii) *Requirements for Small Volume Manufacturers*. In 2001 and subsequent model years, a small volume manufacturer shall certify, produce, and deliver for sale in California LEVs in a quantity equivalent to 100% of their MDV fleet.

(c) Calculation of NMOG Credits/Debits

(1) *Calculation of NMOG Credits for Passenger Cars and Light-Duty Trucks*.

(i) In 2001 and subsequent model years, a manufacturer that achieves fleet average NMOG values lower than the fleet average NMOG requirement for the corresponding model year shall receive credits in units of g/mi NMOG determined as:

[(Fleet Average NMOG Requirement) - (Manufacturer's Fleet Average NMOG Value)] x (Total No. of Vehicles Produced and Delivered for Sale in California, Including ZEVs and HEVs).

A manufacturer with 2001 and subsequent model year fleet average NMOG values greater than the fleet average requirement for the corresponding model year shall receive debits in units of g/mi NMOG equal to the amount of negative credits determined by the aforementioned equation. For the 2001 and subsequent model years, the total g/mi NMOG credits or debits earned for PCs and LDTs 0-3750 lbs. LVW, for LDTs

3751-5750 lbs. LVW and for LDTs 3751 lbs. LVW - 8500 lbs. GVW shall be summed together. The resulting amount shall constitute the g/mi NMOG credits or debits accrued by the manufacturer for the model year.

(ii) For 2004 through 2006 model years, a manufacturer shall equalize emission debits within three model years and prior to the end of the 2007 model year by earning g/mi NMOG emission credits in an amount equal to the g/mi NMOG debits, or by submitting a commensurate amount of g/mi NMOG credits to the Executive Officer that were earned previously or acquired from another manufacturer. For 2007 and subsequent model years, manufacturers shall equalize emission debits by the end of the following model year.

(2) *Calculation of Vehicle Equivalent NMOG Credits for Medium-Duty Vehicles*. In 2001 and subsequent model years, a manufacturer that produces and delivers for sale in California MDVs in excess of the equivalent requirements for LEVs, ULEVs and/or SULEVs certified to the exhaust emission standards set forth in subparagraph (a)(1) of this section or to the exhaust emission standards set forth in Title 13, CCR, Section 1956.8(h) shall receive "Vehicle-Equivalent Credits" (or "VECs") calculated in accordance with the following equation, where the term "produced" means produced and delivered for sale in California:

{[(No. of LEVs Produced excluding HEVs) +
(No. of LEV HEVs x HEV VEC factor for LEVs)] +
(1.20 x No. of LEVs certified to the 150,000 mile standards)} -
(Equivalent No. of LEVs Required to be Produced)} +

{[(1.4) x (No. of ULEVs Produced excluding HEVs) +
(No. of ULEV HEVs x HEV VEC factor for ULEVs)] +
(1.50 x No. of ULEVs certified to the 150,000 mile standards)} -
[(1.4) x (Equivalent No. of ULEVs Required to be Produced)]} +

{[(1.7) x (No. of SULEVs Produced excluding HEVs) +
(No. of SULEV HEVs x HEV VEC factor for SULEVs)] +
(1.75 x No. of SULEVs certified to the 150,000 mile standards)} -
[(1.7) x [(Equivalent No. of SULEVs Required to be Produced)]} +

[(2.0) x (No. of ZEVs Certified and Produced as MDVs)].

(i) The MDV HEV VEC factor is calculated as follows:

1 + [(LEV standard - ULEV standard) x (Zero-emission VMT Factor) ÷ LEV standard] for LEVs;
1 + [(ULEV standard - SULEV standard) x (Zero-emission VMT Factor) ÷ ULEV standard] for ULEVs;
1 + [(SULEV standard - ZEV standard) x (Zero-emission VMT Factor) ÷ SULEV standard] for SULEVs;

where “Zero-emission VMT Factor” for an HEV is determined in accordance with §1962.

(ii) A manufacturer that fails to produce and deliver for sale in California the equivalent quantity of MDVs certified to LEV, ULEV and/or SULEV exhaust emission standards, shall receive "Vehicle-Equivalent Debits" (or "VEDs") equal to the amount of negative VECs determined by the aforementioned equation.

(iii) Only ZEVs certified as MDVs and not used to meet the ZEV requirement shall be included in the calculation of VECs.

(3) *Procedure for Offsetting Debits.*

(i) For 2001 through 2003 and for 2007 and subsequent model years, manufacturers shall equalize emission debits by the end of the following model year. If emission debits are not equalized within the specified time period, the manufacturer shall be subject to the Health and Safety Code section 43211 civil penalty 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 emission debits are not equalized by the end of the specified time period. For the purposes of Health and Safety Code §43211, the number of passenger cars and light-duty trucks not meeting the state board's emission standards shall be determined by dividing the total amount of g/mi NMOG emission debits for the model year by the g/mi NMOG fleet average requirement for PCs and LDTs 0-3750 lbs. LVW applicable for the model year in which the debits were first incurred and the number of medium-duty vehicles not meeting the state board's emission standards shall be equal to the amount of VEDs incurred.

(ii) The emission credits earned in any given model year shall retain full value through the subsequent model year. The value of any credits not used to equalize the previous model-year's debit shall be discounted by 50% at the beginning of second model year after being earned, shall be discounted to 25% of its original value if not used by the beginning of the third model year after being earned, and will have no value if not used by the beginning of the fourth model year after being earned.

(d) *Reactivity Adjustment Factors*. The following reactivity adjustment factors apply through the 2003 model year:

	Light-Duty Vehicles 0-5750 lbs. LVW			**Medium-Duty Vehicles** 3750-8,500 lbs. ALVW	
	TLEV	LEV	ULEV	LEV	ULEV
Fuel*	**Baseline Specific Reactivity** (grams ozone / gram NMOG)				
Conventional Gasoline	3.42	3.13	3.13	3.13	3.13
	Reactivity Adjustment Factors				
Phase 2 RFG	0.98	0.94	0.94	0.94	0.94

M85	0.41	0.41	0.41	0.41	0.41
Natural Gas	1.0	0.43	0.43	0.43	0.43
LPG	1.0	0.50	0.50	0.50	0.50
	Methane Reactivity Adjustment Factors				
Natural Gas	0.0043	0.0047	0.0047	0.0047	0.0047

(1) The procedure for determining compliance with the standard is set forth in Section H.1.2 of "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles" incorporated herein by reference.

(2) *Methanol and LPG Requirements*. For a candidate vehicle/fuel system powered by methanol or liquefied petroleum gas, the reactivity adjustment factor determined by the manufacturer shall be multiplied by 1.1. The resulting value shall constitute the "reactivity adjustment factor" for the methanol or liquefied petroleum gas-powered vehicle/fuel system.

(e) (1) "*Small volume manufacturer*" means any 2003 and subsequent model year manufacturer with California production volumes less than 4,500 new passenger cars, light-duty trucks, medium-duty vehicles, heavy-duty vehicles and heavy-duty engines based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years for which a manufacturer seeks certification.

(2) "*Intermediate volume manufacturer*" means any 2003 and subsequent model year manufacturer with California production volumes between 4,501 and 35,000 new light- and medium-duty vehicles based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years for which a manufacturer seeks certification. For a manufacturer certifying for the first time in California, model year sales shall be based on projected California sales.

Note: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43104 and 43105, Health and Safety Code. Reference: Sections 39002, 39003, 39667, 43000, 43009.5, 43013, 43018, 43100, 43101, 43101.5, 43102, 43103, 43104, 43105, 43106, 43107, 43204, and 43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

The modifications being proposed in this new section are discussed more fully in the summary explanation of proposed modifications contained in Appendix B - "Summary of Proposed Modifications to the California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles."

4. Title 13, CCR Section 1962

Add new Title 13, CCR Section 1962 to read as follows:

§1962. Zero-Emission and Hybrid Electric Vehicle Exhaust Emission Standards for 2003 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.

(a) *Emission Standards.* The exhaust emissions from new 2003 and subsequent model passenger car, light-duty truck and medium-duty zero-emission vehicles (ZEVs) shall not exceed:

1.1 *ZEV Emission Standard*. The Executive Officer shall certify as ZEVs vehicles that produce zero exhaust emissions of any criteria pollutant (or precursor pollutant) under any and all possible operational modes and conditions.

1.2 *Fuel Fired Heater Emission Standards*. Incorporation of a fuel fired heater shall not preclude a vehicle from being certified as a ZEV provided the fuel fired heater cannot be operated at ambient temperatures above 40°F, and the heater is demonstrated to have zero fuel evaporative emissions under any and all possible operational modes and conditions. In addition, the emissions of the fuel fired heater shall not be greater than the emissions of a vehicle certified to the Ultra-Low-Emission Vehicle (ULEV) standards when operated between 68°F - 86°F as set forth in §1961(a)(1). If the emissions of the fuel fired heater exceed the applicable ULEV standards when operated between 68°F - 86°F, the vehicle shall not certify as a ZEV but shall certify according to the emission level of the fuel fired heater. Vehicles that utilize fuel fired heaters that can be operated at ambient temperatures above 40° F or which cannot be demonstrated to have zero fuel evaporative emissions under any and all possible operation modes and conditions shall not be certified as ZEVs and shall be certified according to the emission level of the fuel fired heater.

(b) *Phase-In Requirements*. In 2003 and subsequent model years, at least 10% of a manufacturer's passenger car ("PC") and light-duty truck 0-3750 lbs. loaded vehicle weight (LVW) fleet based on the production volume ("ZEV requirement") shall be certified, produced and delivered for sale in California as Section (a) ZEVs or (c)(2) vehicles according to the following restrictions:

1.1 *Large Volume Manufacturers*. In 2003 and subsequent model years, a large-volume manufacturer must meet at least 40% of its ZEV requirement with ZEVs as determined in subparagraph (a) of these test procedures and/or as vehicles with a 1.0 total partial ZEV Allowance as determined in subparagraph (c)(2) of these test procedures. The remainder of the ZEV requirement can be met using vehicles meeting the partial ZEV Allowance criteria set forth in subparagraph (c)(2) of these test procedures.

1.2 *Intermediate Volume Manufacturers*. In 2003 and subsequent model years, an intermediate volume manufacturer as defined in Title 13 CCR §1961(e)(2) may meet the ZEV

requirement using vehicles that meet the requirements set forth in subparagraph (c)(2) of these procedures.

1.3 *Small Volume Manufacturers*. A small volume manufacturer, as defined in Title 13 CCR §1961(e)(1), shall not be required to meet the percentage ZEV requirements. However, a small volume manufacturer may earn and market credits for the ZEVs or partial ZEV Allowance vehicles it produces and delivers for sale in California.

2. *Fleet Average NMOG Requirements*. Vehicles certified to the ZEV emission standards in subparagraph (a) or subparagraph (c)2.2 vehicles that receive a 1.0 partial ZEV Allowance shall be counted as ZEVs for the purpose of calculating the fleet average Non-Methane Organic Gas (NMOG) exhaust emission value and NMOG credits under Title 13, CCR §1960.1(g)(2) or 1961(b), and for calculating ZEV credits as set forth in subparagraph (c) below. Except for vehicles that receive a 1.0 partial ZEV allowance, vehicles meeting the criteria set forth in subparagraph (c)2 shall be counted as SULEVs certified to the 150,000 mile standards in the fleet average NMOG equation and may receive for partial ZEV allowance credits as set forth in subparagraph (c) below.

3. *Implementation Prior to 2003*. Prior to the 2003 model year, a manufacturer that voluntarily produces vehicles meeting the ZEV emission standards in subparagraph (a) or subparagraph (c)2.2 vehicles that receive a 1.0 partial ZEV allocation applicable to 2003 and subsequent model year vehicles may certify those vehicles as ZEVs for the purposes of calculating fleet average NMOG exhaust emission values and NMOG credits under Title 13 CCR §1960.1(g)(2) or §1961(b), and calculating ZEV credits as set forth in subparagraph (c) below.

4. *Small and Intermediate Volume Manufacturer Requirements.* In 2003 and subsequent model years, if a small volume manufacturer's average California production volume exceeds 4,500 units of new PCs, LDTs, and MDVs based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years, or if an intermediate volume manufacturer's average California production volume exceeds 35,000 units of new PCs, LDTs, and MDVs based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years, the manufacturer shall no longer be treated as a small volume or intermediate manufacturer, as applicable, and shall comply with the ZEV requirements applicable to intermediate or large volume manufacturers beginning with the fourth model year after the last of the three consecutive model years. If a manufacturer's average California production volume falls below 4,500 or 35,000 units of new PCs, LDTs, and MDVs, as applicable, based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years, the manufacturer shall be treated as a small or intermediate volume manufacturer, as applicable, and shall be subject to requirements for a small or intermediate volume manufacturer beginning with the next model year.

(c) *Determination of ZEV Credits.*

(1) *Calculation of Credits*. A manufacturer that produces and delivers for sale in California subparagraph (a), (c)2.1 and/or (c)2.2 vehicles exceeding the ZEV requirement in a given model year set forth in Section (c)2 shall earn ZEV credits or partial ZEV allowance credits.

1.1. *ZEV Multiplier Calculation Criteria for 1999 to 2007 Model Years*. Each subparagraph (a) ZEV and/or subparagraph (c)2.2 vehicle receiving a 1.0 partial ZEV allowance produced and delivered for sale in the 1999 to 2007 model years shall earn credits that may be counted as follows:

All-electric range	**MY 1999-2000**	**MY 2000 -2002**	**MY 2003-2005**	**MY 2006-2007**
100-175	6-10	4-6	2-4	1-2

1.1.1 ZEV credits will be determined by linear interpolation between the values shown in the above schedule. Range shall be determined in accordance with Section F.3.(2)(a) of the "California Zero-Emission and Hybrid Electric Vehicle Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles." ZEVs that have a refueling time of less than 10 minutes shall be counted as having unlimited all-electric range and consequently, shall qualify to receive the maximum allowable ZEV multiplier for a specific model year.

1.1.2 For purposes of calculating a manufacturer's fleet average NMOG value contained in Title 13, CCR §1960.1(g)(2) or §1961(b), each ZEV shall be counted as one vehicle.

1.2 *Credit Calculation for 1999 and Subsequent Model Years.*

1.2.1 The amount of ZEV credits earned shall be equal to the number of subparagraph (a) ZEVs that a manufacturer applies towards meeting the ZEV requirements for the model year (at least 40% of the ZEV requirement for large volume manufacturers) subtracted from the [number of subparagraph (a) ZEVs plus the number of subparagraph (c)2.2 ZEVs receiving a 1.0 partial ZEV Allowance] produced and delivered for sale in the model year multiplied by ZEV multiplier wherever applicable. The resulting ZEV credits shall be multiplied by the NMOG fleet average requirement for PCs and LDTs 0-3750 lbs. LVW for that model year and expressed in units of g/mi NMOG.

1.2.2 The amount of partial ZEV allowance credits (a number not to exceed 60% of the ZEV requirement for large volume manufacturers) shall be equal to the number of subparagraph (c)(2) vehicles, except those granted a partial ZEV Allowance of 1.0 that a manufacturer applies towards meeting the ZEV requirement for the model year subtracted

from the number of (c)2.1 and/or (c)2.2 vehicles, except those granted a partial ZEV Allowance of 1.0, produced and delivered for sale in the model year. The resulting partial ZEV Allowance credits shall be multiplied by the NMOG fleet average requirement for PCs and LDTs 0-3750 lbs. LVW for that model year and expressed in units of g/mi NMOG.

1.2.3 ZEV credits and partial ZEV Allowance credits shall be maintained as separate categories. Large volume manufacturers shall not use partial ZEV Allowance credits to satisfy any deficits in meeting the requirement that 40% of the ZEV requirement must be met using subparagraph (a) vehicles or subparagraph (c)2 vehicles receiving a partial ZEV Allowance of 1.0.

(2) *Determination of Partial ZEV Allowance*.

2.1 *Baseline Partial ZEV Allowance*. In order for a vehicle to be eligible to receive any partial ZEV Allowance, a manufacturer must demonstrate compliance with all of the following requirements. A vehicle that demonstrates compliance with the following requirements shall receive a partial ZEV Allowance of 0.2.

2.1.1 Certify to the SULEV standard in Title 13, CR §1961(a)(1) at 150,000 miles for PCs and LDTs;

2.1.2 Certify to the evaporative emission standards set forth in Title 13, CCR, §1976(F) (zero evap standards);

2.1.3 Certify that the vehicle will meet the applicable on-board diagnostic requirements in Title 13, CCR §1968.1 at 150,000 miles;

2.1.4 Extend the performance and defects warranty period set forth in Title 13, CCR §§2037(b)(2), and 2038(b)(2) to 15 years or 150,000 miles, whichever occurs first.

2.2 A vehicle that meets the requirements of subparagraph 2.1, above, shall also be eligible to receive additional partial ZEV allowances by meeting one or more of the following requirements:

2.2.1 *Zero-emission VMT ZEV Allowance*. Under this category, a vehicle may receive a ZEV Allowance either under subsection 2.2.1.1 or subsection 2.2.1.2 but not both.

2.2.1.1 A vehicle that has zero-emission vehicle miles traveled ("VMT") capability shall receive a partial ZEV Allowance, not to exceed 0.6, according to the following equation:

Zero-emission VMT Partial ZEV Allowance = 0.6 x Zero-Emission VMT Factor

where zero-emission VMT factor is the ratio of the zero-emission miles the vehicle travels to the total miles traveled per trip.

(a) Zero-emission VMT factors are calculated as follows:

Urban All-Electric Range	**Zero-emission VMT Factors:**
< 20 miles	0.0
≤ 20 miles to < 100 miles	(30 + [0.5 x Urban AER)/80
≥ 100 miles	1.0

Urban All-electric range ("Urban AER") is determined in accordance with the procedures set forth in Section F.(3)(a) of the "California Zero-Emission and Hybrid Electric Vehicle Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles."

(b) A manufacturer may submit an alternative procedure for prior approval by the Executive Officer to determine the zero-emission VMT potential of the vehicle as a percent of total VMT provided the manufacturer provides an engineering evaluation to substantiate the zero-emission VMT determination. On approval, the Executive Officer shall assign a zero-emission VMT factor not to exceed 1.0. For example, a vehicle with zero-emissions of one regulated pollutant (e.g. NOx) and not another (e.g. NMOG) may qualify for a zero-emission VMT factor of 0.5.

(c) Vehicles meeting the criteria set forth in subparagraph (c)2 and that are assigned a partial ZEV Allowance of less than 1.0 shall be counted as SULEVs in the fleet average NMOG equation.

(d) HEVs with all-electric range greater than 20-miles and equipped with software and/or other strategies that would promote maximum use of off-vehicle charging qualify for an additional partial ZEV Allowance of 0.1. The Executive Officer shall approve the 0.1 additional zero-emission VMT ZEV allowance based on whether the strategy is tamper-proof, effective, or other similar factors.

2.2.1.2 Vehicles that do not qualify for any ZEV Allowance under Section 2.2.1.1 may qualify for a ZEV Allowance of 0.1 if the vehicle is equipped with advanced ZEV componentry such as an advanced battery integral to the operation of the vehicle power-train, an electric power-train and/or other potential ZEV technologies subject to approval by the Executive Officer.

2.2.2 *Partial ZEV Allowance for Fuel-cycle Emissions*. A vehicle that uses fuel(s) with very low fuel-cycle emissions shall receive a partial ZEV Allowance not to exceed 0.2. In order to receive the fuel-cycle partial ZEV allowance, a manufacturer must demonstrate, using peer-reviewed studies or other relevant information approved by the Executive Officer, that NMOG emissions associated with the fuel(s) used by the vehicle (on a grams/mile basis) are lower than or equal to 0.01 grams/mile. Fuel-cycle emissions must be calculated based on near-term production methods and infrastructure assumptions and the uncertainty in the results must be quantified. This partial ZEV allowance is calculated according to the following formula:

Partial ZEV Fuel Cycle Allowance = 0.2 x (percent of VMT using fuel(s) meeting the requirements of 2.2.2 above)

A manufacturer must submit test results and/or empirical data supporting the estimate of the relative proportion of VMT while operating on fuel(s) with very low fuel-cycle emissions for prior approval by the Executive Officer.

2.3 *Calculation of Total Partial ZEV Allowance*. The total partial ZEV Allowance assigned to a vehicle, not to exceed 1.0, is the sum of partial ZEV Allowances earned according to the requirements set forth in 2.1 and 2.2.

Step 1: Does the vehicle meet SULEV standard at 150,000 miles and have a 150,000 mile emission warranty?
A)If yes, vehicle receives 0.2 in this category and go to step 2. _____

B)If no, vehicle does not qualify for any ZEV Allowance and go to step 4.

Step 2: Estimate the zero-emission VMT factor.
Is the zero-emission VMT factor greater than zero?
A) If yes, compute zero-emission VMT Allowance and write it in this line and go to step 3. _____

B) If no, is the vehicle equipped with advanced ZEV componentry?
If yes, write 0.1 on this line. _____
Go to step 3.

Step 3. Does the vehicle use fuels that have low-fuel cycle emissions?
A) If yes, estimate the low-fuel cycle emissions partial ZEV Allowance and write it on this line. Go to step 4. _____

B) If no, go to step 4.

Step 4. Sum the values (if any) from steps 1-3
This the total partial ZEV Allowance applicable to the vehicle. _____

2.4 Vehicles receiving the maximum allowable partial ZEV Allowance of 1.0 will be considered a subparagraph (a) ZEV for purposes of the phase-in requirements set forth in subparagraph (a)2 of this section.

2.5 Except for vehicles that receive a total partial ZEV Allowance of 1.0, the partial ZEV Allowance can only be used to meet the 60% maximum ZEV requirement set forth in subparagraph (a)2 of this section.

(3) *Credit Discounting.* The emission credits earned in any given model year shall not be discounted in ~~retain full value through the~~ subsequent model years. ~~The value of any credits not used to equalize the previous model-year's debit, shall be discounted by 50% at the beginning of second model year after being earned, discounted to 25% of its original value if not used by the beginning of the third model year after being earned, and will have no value if not used by the beginning of the fourth model year after being earned.~~

(4) *Submittal of ZEV Credits*. A manufacturer may meet the ZEV requirements in any given model year by submitting to the Executive Officer a commensurate amount of ZEV and partial ZEV allowance credits. These credits may be earned previously by the manufacturer or acquired from another manufacturer. The amount of ZEV and partial ZEV allocation credits required to be submitted shall be calculated according to the criteria set forth in this subparagraph (c).

(5) *Requirement to Make Up a ZEV Deficit*. A manufacturer that certifies, produces, and delivers for sale in California fewer ZEVs than required in a given model year shall make up the deficit by the end of the next model year by submitting to the Executive Officer a commensurate amount of ZEV credits. The amount of ZEV credits required to be submitted shall be calculated by subtracting the number of ZEVs and partial ZEV allowance vehicles produced and delivered for sale in California by the manufacturer for the model year from the number of subparagraph (a) ZEVs or required to be produced by the manufacturer for the model year and then multiplying by the fleet average requirements for PCs and LDTs 0-3750 lbs. LVW for the model year in which the deficit is incurred. A large volume manufacturer shall not use partial ZEV allowance credits to satisfy any subparagraph (a) ZEV deficits.

(6) *Penalty for Failure to Meet ZEV Requirements.* Any manufacturer that fails to produce and deliver for sale in California the required number of ZEVs or submit an appropriate amount of ZEV credits and does not make up ZEV deficits within the specified time period shall be subject to the Health and Safety Code §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 ZEV deficits are not balanced by the end of the specified time period. For the purposes of Health and Safety Code

§43211, the number of vehicles not meeting the state board's standards shall be calculated according to the following equation:

6.1 Subparagraph (a) ZEVs or subparagraph (c)2 vehicles receiving a Partial ZEV Allowance of 1.0.

(No. of subparagraph (a) ZEVs or subparagraph (c)2 vehicles receiving a partial ZEV allowance of 1.0 required to be produced and delivered for sale in California for the model year) - (No of subparagraph (a) ZEVs or subparagraph (c)2 vehicles receiving a partial ZEV allowance of 1.0 produced and delivered for sale in California for the model year) - [(Amount of ZEV credits submitted ~~for the model year~~) / (the fleet average requirement for PCs and LDTs 0-3750 lbs. LVW for the model-year)].

6.2 Subparagraph (c)2 vehicles receiving a Partial ZEV Allowance

(No. of subparagraph (c)2 vehicles required to be produced and delivered for sale in California for the model year) - (No of subparagraph (c)2 vehicles produced and delivered for sale in California for the model year) - [(Amount of ZEV credits or partial ZEV allowance credits submitted) / (the fleet average requirement for PCs and LDTs 0-3750 lbs. LVW for the model-year)].

(7) *ZEV Credits for MDVs, LDTs 3751-5750 lbs. LVW and LDTs 3751 lbs. LVW - 8500 lbs. GVW*. ZEVs classified as MDVs or as LDTs 3751-5750 lbs. LVW or LDTs 3751 lbs. LVW -8500 lbs. GVW may be counted toward the ZEV requirement for PCs and LDTs 0-3750 lbs. LVW and included in the calculation of ZEV credits as specified in subparagraph (c) if the manufacturer so designates.

(d) *Test Procedures.* The certification requirements and test procedures for determining compliance with these standards are set forth in "California Zero-Emission and Hybrid Electric Vehicle Exhaust Emission Standards and Test procedures for 2003 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles," adopted by the state board on ???_____ which is incorporated herein by reference.

Note: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43104 and 43105, Health and Safety Code. Reference: Sections 39002, 39003, 39667, 43000, 43009.5, 43013, 43018, 43100, 43101, 43101.5, 43102, 43103, 43104, 43105, 43106, 43107, 43204, and 43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

These modifications are discussed more fully in Appendix B in the section concerning the "California Zero-Emission and Hybrid Electric Vehicle Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles."

5. Title 13, CCR, Section 1965

§1965. Emission Control Labels - 1979 and Subsequent Model-Year Motor Vehicles.

Amend Title 13, CCR, Section 1965 to read as follows:

In addition to all other requirements, emission control labels required by California certification procedures shall conform to the "California Motor Vehicle Emission Control Label Specifications," adopted March 1, 1978, as last amended ~~[insert last amended date]~~ _____, which is incorporated herein by reference.

Note: Authority cited: Sections 39600, and 39601, Health and Safety Code. Reference: Sections 39002, 39003, 43000, 43013, 43100, 43101, 43102, 43103, 43104, and 43107, Health and Safety Code.

Summary Explanation of Proposed Modifications

The specifications incorporated by reference in the CCR section are being amended to include to Smog Index Label Specifications. See Appendix H for a discussion of the proposed modifications.

6. Title 13, CCR, Section 1976

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

Amend Title 13, CCR, Section 1976 to read as follows:

[Subsection (a) -- No change.]

(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 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:

Vehicle Type	*Model Year*	*Hydrocarbons*[(1)] *Diurnal + Hot Soak (grams/test) 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:

Vehicle Type	*Model Year*	*Hydrocarbons*[1]	
		Three-Day Diurnal + Hot Soak (grams/test) Useful Life[2]	*Running Loss (grams/mile) Useful Life* [2]
Passenger cars	1995 through 2005 ~~and subsequent~~ [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 (over 14,000 lbs. GVWR)		2.0	0.05
Hybrid electric passenger cars	1993 through 2005 ~~and subsequent~~ [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, 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

* 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 the 2005 ~~and subsequent~~ 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 ~~and subsequent~~ 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 ~~and subsequent~~ model year~~s~~.

(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:

Vehicle Type	*Model Year*	*Hydrocarbons*[(1)] *Two-Day Diurnal + Hot Soak (grams/test) Useful Life*[(2)]
Passenger cars	1996 through 2005 ~~and subsequent~~ [(3)]	2.5
Light-duty trucks		2.5
Medium-duty vehicles (6,001-8,500 lbs. GVWR) with fuel tanks < 30 gallons with fuel tanks ≥ 30 gallons (8,501-14,000 lbs. GVWR)		 2.5 3.0 3.5
Heavy-duty vehicles (over 14,000 lbs. GVWR)		4.5
Hybrid electric passenger cars	1996 through 2005 ~~and subsequent~~ [(3)]	2.5
Hybrid electric light-duty trucks		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, 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 ~~and subsequent~~ 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 the 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," the near-zero evaporative emission standards are:

Vehicle Type	*Hydrocarbon(1) Standards(2)(3)*		
	Running Loss (grams per mile)	*Three Day Diurnal + Hot Soak (grams per test)*	*Two-Day Diurnal + Hot Soak (grams per test)*
Passenger Cars	0.01	0.4	0.5
Light-Duty Trucks (under 8,501 lbs. GVWR)			
with fuel tanks < 30 gallons	0.01	0.4	0.5
with fuel tanks ≥ 30 gallons	0.01	0.5	0.6
Medium-Duty Vehicles (8,501 - 14,000 lbs. GVWR)	0.01	0.6 (4)	0.7
	0.01	0.4 (5)	0.5
Heavy-Duty Vehicles (over 14,000 lbs. GVWR)	0.01	0.4	0.5
Hybrid Electric PCs and LDTs (under 8,501 lbs. GVWR)	0.01	0.4	0.5

(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, Title 13, California Code of Regulations shall be based on an engineering evaluation of the system and data submitted by the applicant.

(3) The near-zero evaporative emission standards shall be phased-in beginning with the 2004 model year. Each manufacturer, except small volume manufacturers, shall certify the specified percentage of passenger cars, light-duty trucks, medium-duty vehicles, and heavy-duty vehicles to the near-zero emission standards, independent from the vehicles certified to the zero evaporative standards in section (b)(1)(F), according to the following schedule:

Model Year	*Minimum Percentage of Vehicles Certified*
2004	35
2005	70
2006 and subsequent	80

A small volume manufacturer shall certify 80 percent of its 2006 and subsequent model passenger cars, light-duty trucks, medium-duty vehicles, and heavy-duty vehicles to the near-zero evaporative standards, independent from the vehicles certified to the zero evaporative standards in section (b)(1)(F).

All 2004 through 2005 model year vehicles not subject to the near-zero and zero evaporative standards in section (b)(1)(F) pursuant to the phase-in schedule shall comply with the evaporative standards specified in (b)(1)(A) and (B) of this section.

(4) The standards in this row apply to medium-duty vehicles certified according to the exhaust standards in Title 13, CCR, Section 1961.

(5) The standards in this row apply to incomplete medium-duty vehicles certifying to the exhaust standards in Title 13, CCR, Section 1956.8.

(F) For the 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," the zero evaporative emission standards are:

Vehicle Type	*Hydrocarbon[1] Standards[2][3]*		
	Running Loss (grams per mile)	*Three Day Diurnal + Hot Soak (grams per test)*	*Two-Day Diurnal + Hot Soak (grams per test)*
Passenger Cars	0.01	0.2	0.2
Light-Duty Trucks (under 8,501 lbs. GVWR)	0.01	0.2	0.2
Medium-Duty Vehicles (8,501 - 14,000 lbs. GVWR)	0.01	0.3[4]	0.3
	0.01	0.2[5]	0.2
Heavy-Duty Vehicles (over 14,000 lbs. GVWR)	0.01	0.4	0.2
Hybrid Electric PCs and LDTs (under 8,501 lbs. GVWR)	0.01	0.2	0.2

(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, Title 13, California Code of Regulations shall be based on an engineering evaluation of the system and data submitted by the applicant.

(3) The zero evaporative emission standards shall be phased-in beginning with the 2004 model year. Each manufacturer, except small volume manufacturers, shall certify the specified percentage of passenger cars, light-duty trucks, medium-duty vehicles, and heavy-duty vehicles to the zero emission standards, independent from the vehicles certified to the near-zero evaporative standards in section (b)(1)(E), according to the following schedule:

Model Year	*Minimum Percentage of Vehicles Certified*
2004	5
2005	10
2006 and subsequent	20

A small volume manufacturer shall certify 20 percent of its 2006 and subsequent model passenger cars, light-duty trucks, medium-duty vehicles, and heavy-duty vehicles to the zero evaporative

standards, independent from the vehicles certified to the near-zero evaporative standards in section (b)(1)(E).

All 2004 through 2005 model year vehicles not subject to the zero evaporative standards and near-zero standards in section (b)(1)(E) pursuant to the phase-in schedules shall comply with the evaporative standards specified in (b)(1)(A) and (B) of this section.

(4) The standards in this row apply to medium-duty vehicles certified according to the exhaust standards in Title 13, CCR, Section 1961.

(5) The standards in this row apply to incomplete medium-duty vehicles certifying to the exhaust standards in Title 13, CCR, Section 1956.8.

[Subsection (b)(2) --No change.]

(c) The test procedures for determining compliance with the standards in subsection (b) above applicable to 1995 through 2000 model year vehicles is set forth in "California Evaporative Emission Standards and Test Procedures for 1978-2000 ~~and Subsequent~~ Model Motor Vehicles," adopted by the state board on April 16, 1975, as last amended _____ ~~May 22, 1997~~, effective _____ ~~October 16, 1997~~, incorporated herein by reference. The test procedures for determining compliance with standards applicable to 2001 and subsequent 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 _____, incorporated herein by reference.

[Subsections (d) through (f)(1) -- No change.]

(f)(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 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" means any vehicle manufacturer with California sales less than or equal to 4,500 new vehicles per model year based on the average number of vehicles sold by the manufacturer in the previous three consecutive model years.

Note: Authority cited: Sections 39600, 39601, 39667, 43013, 43018, 43101, 43104 and 43107, Health and Safety Code. Reference: Sections 39003, 39500, 39667, 43000, 43013, 43018, 43100, 43101, 43102, 43104 and 43107, Health and Safety Code.

7. Title 13, CCR, Section 1978

§1978. Standards and Test Procedures for Vehicle Refueling Emissions.

(a)(1) Vehicle refueling emissions for 1998 through 2005 ~~and subsequent~~ model gasoline-fueled, alcohol-fueled, diesel-fueled, fuel-flexible, and hybrid electric passenger cars and light-duty trucks under 5,751 pounds loaded vehicle weight ~~, and medium-duty vehicles with a gross vehicle weight rating less than 8501 pounds,~~ shall not exceed the following standards. Gaseous-fueled vehicles are exempted from meeting these refueling standards. The standards apply equally to certification and in-use vehicles.

(A) Hydrocarbons (for gasoline-fueled, diesel-fueled, and hybrid electric vehicles): 0.20 grams per gallon of fuel dispensed.

(B) Organic Material Hydrocarbon Equivalent (for alcohol-fueled, fuel-flexible, and hybrid electric vehicles): 0.20 grams per gallon of fuel dispensed.

(2) Vehicles powered by diesel fuel are not required to conduct testing to demonstrate compliance with the refueling emission standards set forth above, provided that all of the following provisions are met:

(A) The manufacturer can attest to the following evaluation: "Due to the low vapor pressure of diesel fuel and the vehicle tank temperatures, hydrocarbon vapor concentrations are low and the vehicle meets the 0.20 grams/gallon refueling emission standard without a control system."

(B) The certification requirement described in paragraph (A) is provided in writing and applies for the full useful life of the vehicle.

In addition to the above provisions, the ARB reserves the authority to require testing to enforce compliance and to prevent noncompliance with the refueling emission standard.

Vehicles certified to the refueling emission standard under this provision shall not be counted in the phase-in sales percentage compliance determinations.

(3) The manufacturer shall adhere to the following phase-in schedule, as determined by projected vehicle sales throughout the United States, with the exception of small volume manufacturers.

ORVR Model Year Phase-In Schedule			
Class of Vehicle	**40% Fleet**	**80% Fleet**	**100% Fleet**
Passenger Cars	1998	1999	2000
Light-Duty Trucks	2001	2002	2003
~~Medium-Duty Vehicles (6,001-8,5000 lbs. GVWR)~~	~~2004~~	~~2005~~	~~2006~~

(A) Small volume manufacturers are defined for purposes of this section ~~regulation~~ as any vehicle manufacturer with California actual sales less than or equal to 4,500 ~~3000~~ new vehicles per model year based on the average number of vehicles sold by the manufacturer in the previous three consecutive years.

(B) Small volume manufacturers of passenger cars, as defined in (a)(3)(A), are exempt from the implementation schedule in (a)(3) for model years 1998 and 1999. For small volume manufacturers of passenger cars, the standards of (a)(1), and the associated test procedures, shall not apply until model year 2000, when 100 percent compliance with the standards of this section is required. Small volume manufacturers of light-duty trucks ~~and medium-duty vehicles~~ are not exempt from the implementation schedule in (a)(3).

(4) For the purposes of this paragraph, "useful life" shall have the same meaning as provided in section §2112.

(b)(1) Vehicle refueling emissions for 2004 and subsequent model gasoline-fueled, alcohol-fueled, diesel-fueled, fuel-flexible, and hybrid electric passenger cars and light-duty trucks under 8,501 pounds gross vehicle weight rating shall not exceed the following standards. Gaseous-fueled vehicles are exempted from complying with these refueling standards. The standards apply equally to certification and in-use vehicles.

(A) Hydrocarbons (for gasoline-fueled, diesel-fueled, and hybrid electric vehicles): 0.04 grams per gallon of fuel dispensed.

(B) Organic Material Hydrocarbon Equivalent (for alcohol-fueled, fuel-flexible, and hybrid electric vehicles): 0.04 grams per gallon of fuel dispensed.

(2) Vehicles powered by diesel fuel are not required to conduct testing to demonstrate compliance with the refueling emission standards set forth above, provided that all of the following provisions are met:

(A) The manufacturer can attest to the following evaluation: "Due to the low vapor pressure of diesel fuel and the vehicle tank temperatures, hydrocarbon vapor concentrations are low and the vehicle meets the 0.04 grams/gallon refueling emission standard without a control system."

(B) The certification requirement described in paragraph (A) is provided in writing and applies for the full useful life of the vehicle.

In addition to the above provisions, the ARB reserves the authority to require testing to enforce compliance and to prevent noncompliance with the refueling emission standard.

Vehicles certified to the refueling emission standard under this provision shall not be counted in the phase-in sales percentage compliance determinations.

(3) The manufacturer shall adhere to the following phase-in schedule, as determined by projected vehicle sales throughout California, with the exception of small volume manufacturers.

ORVR 2004 and Subsequent Model Year Phase-In Schedule			
Class of Vehicles	**2004**	**2005**	**2006 and Subsequent**
Passenger Cars and Light-Duty Trucks (under 8,501 lbs. GVWR)	40%	80%	100%

(A) Small volume manufacturers are defined for purposes of this section as any vehicle manufacturer with California actual sales less than or equal to 4500 new vehicles per model year based on the average number of vehicles sold by the manufacturer in the previous three consecutive years.

(B) Small volume manufacturers, as defined in (b)(3)(A), are exempt from the implementation schedule in (b)(3) for model years 2004 and 2005. For small volume manufacturers the standards of (b)(1), and the associated test procedures, shall not apply until model year 2006, when 100 percent compliance with the standards of this section is required.

(C) All 2004 through 2005 model year passenger cars and light-duty vehicles not subject to these refueling standards pursuant to the implementation schedule in (b)(3) shall comply with the refueling standards specified in (a)(1) of this section.

(4) For all vehicles certified to these standards, the "useful life" shall be 15 years or 150,000 miles, whichever first occurs.

(c) ~~(b)~~ The test procedures for determining compliance with standards applicable to 1998 through 2000 ~~and subsequent~~ gasoline, alcohol, diesel, and hybrid electric passenger cars, light-duty trucks, and medium-duty vehicles are set forth in the "California Refueling Emission Standards and Test Procedures for 1998-2000 ~~and Subsequent~~ Model Motor Vehicles," adopted April 24, 1996, effective June 19, 1996, as amended _____, incorporated herein by reference. The test procedure for determining compliance with standards applicable to 2001 and subsequent gasoline, alcohol, diesel, and hybrid electric passenger cars, light-duty trucks, and medium-duty vehicles are set forth in the "California Refueling Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," adopted _____, incorporated herein by reference.

Note: Authority cited: Sections 39600, 39667, 43013, 43018, 43101, and 43104, Health and Safety Code. Reference: Sections 39003, 39500, 39667, 43000, 43013, 43018, 43101, 43102, and 43104, Health and Safety Code.

8. Title 13, CCR, Sections 2037 and 2038

§2037. Defects Warranty Requirements for 1990 and Subsequent Model Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Motor Vehicle Engines Used in Such Vehicles.

Amend Title 13, CCR, Section 2037 to read as follows:

(a) through (f) -- [No change.]

(g) Prior to the 2001 model year, ~~E~~ each manufacturer shall submit the documents required by subsections (c)(3), (e), and (f) with the manufacturer's preliminary application for new-vehicle or engine certification for approval by the Executive Officer. For 2001 and subsequent model years, each manufacturer shall submit the documents required by (c)(3), (e), and (f) according to the requirements specified in Title 40 Code of Federal Regulations (CFR) Sections 86.1839-01(d) and 86.1840-01(e). The Executive Officer may reject or require modification of the manufacturer's list of "high-priced" warranted parts to ensure that each such list includes all emission-related parts whose replacement cost exceeds the cost limit defined in subsection (c)(1) and also may reject or require modification of any of the documents required by subsections (e) and (f). Approval by the Executive Officer of the documents required by subsections (c), (e), and (f) shall be condition of certification. The Executive Officer shall approve or disapprove the documents required by subsections (c), (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 thereof. In the event of disapproval, the manufacturer may petition the Board to review the decision of the Executive Officer.

(h) through (i) -- [No change.]

NOTE: Authority cited: Sections 39600 and 39601, Health and Safety Code. Reference: Sections 43106, 43204, 43205, 44004, 44010, 44011, 44012, 44015, and 44017, Health and Safety Code.

Summary Explanation of Proposed Modifications

These modifications are being proposed as a result of changes to the certification procedures under the CAP 2000 amendments. Under CAP 2000 only the most essential information is required in the Part I certification application which must be submitted prior to approval of the Executive Order granting certification. Although the warranty information is important, it is not necessary to demonstrate compliance with emission standards. Thus, staff is proposing that the warranty information required in Sections 2037 and 2038 be submitted with the Part II certification application beginning with the 2001 model year.

9. Title 13, CCR, Section 2038.

§2038. Performance Warranty Requirements for 1990 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, and Motor Vehicle Engines Used in Such Vehicles

(a) through (l) -- [No change.]

(m) Prior to the 2001 model year, ~~E~~ each manufacturer shall submit the documents required by subsection (c)(1) with the manufacturer's preliminary application for new vehicle or engine certification for approval by the Executive Officer. For 2001 and subsequent model years, each manufacturer shall submit the documents required by (c)(3), (e), and (f) according to the requirements specified in Title 40 Code of Federal Regulations (CFR) Sections 86.1839-01(d) and 86.1840-01(e). The Executive Officer may reject or require modification of the documents required by subsection (c)(1). Approval by the Executive Officer of the documents required by subsection (c)(1) shall be a condition of certification. The Executive Officer shall approve or disapprove the documents required by subsection (c)(1) within 90 days of the date such documents are received from the manufacturer. Any disapproval shall be accompanied by a statement of reasons therefore. In the event of disapproval, the manufacturer may petition the Board to review the decision of the Executive Officer.

NOTE: Authority cited: Sections 39600 and 39601, Health and Safety Code. Reference: Sections 43106, 43204, 43205, 44004, 44010, 44011, 44012, 44014, and 44015, Health and Safety Code.

Summary Explanation of Proposed Modifications

See explanation contained in Section 2037, above.

10. Title 13, CCR, Section 2062

§2062. Assembly-Line Test Procedures - 1998 and Subsequent Model Years.

Amend Title 13, CCR, Section 2062 to read as follows:

New 1998 ~~and subsequent~~ through 2000 model-year passenger cars, light-duty trucks, and medium-duty vehicles, subject to certification and manufactured for sale in California, except for zero-emission vehicles and medium-duty vehicles certified according to the optional standards and test procedures of Section 1956.8, Title 13, California Code of Regulations, shall be tested in accordance with the "California Assembly-Line Test Procedures for 1998 ~~and Subsequent~~ through 2000 Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles." adopted June 24, 1996, and last amended _____, which is incorporated herein by reference. New 2001 model-year passenger cars, light-duty trucks, and medium-duty vehicles, subject to certification and manufactured for sale in California, except for zero-emission vehicles and medium-duty vehicles certified according to the optional standards and test procedures of Section 1956.8, Title 13, California Code of Regulations, shall be tested in accordance with the "California Assembly-Line Test Procedures for 2001 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles." adopted _____, which is incorporated herein by reference. These test procedures shall also apply to federally certified light-duty motor vehicles, except as provided in "Guidelines for Certification of 1983 and Subsequent Model-Year Federally Certified Light-Duty Motor Vehicles for Sale in California," adopted July 20, 1982, as last amended July 12, 1991, which is incorporated herein by reference.

NOTE: Authority cited: Sections 39515, 39600, 39601, 43013, 43018, 43101, 43104 and 43210, Health and Safety Code. Reference: Sections 39002, 39003, 39500, 43000, 43013, 43018, 43100, 43101, 43101.5, 43102, 43103, 43104, 43105, 43106, 43204, 43210, 43211, and 43212, Health and Safety Code.

Summary Explanation of Proposed Modifications

Under the proposed CAP 2000 amendments, quality-audit testing will no longer be required in 2001 and subsequent model years. Thus, the current assembly-line test procedures will be sunset in the 2000 model year and a new document has been created that reflects this modification.

11. Title 13, CCR, Section 2101

§2101. Compliance Testing and Inspection - New Vehicle Selection Evaluation, and Enforcement Action.

Amend Title 13, CCR, Section 2101 to read as follows:

(a) The Executive Officer may, with respect to any new vehicle engine family, test group or subgroup being sold, offered for sale, or manufactured for sale in California, order a vehicle manufacturer to make available for compliance testing and/or inspection a reasonable number of vehicles, and may direct that the vehicles be delivered to the state board at the Haagen-Smit Laboratory, 9528 Telstar Avenue, El Monte, California. Vehicles shall be selected at random from sources specified by the Executive Officer according to a method approved by him/her, which insofar as practical shall exclude (1) vehicles manufactured pursuant to the specific order of an ultimate purchaser or (2) vehicles the selection of which, if not excluded, would result in an unreasonable disruption of the manufacturer's distribution system.

A subgroup may be selected for compliance testing only if the Executive Officer has reason to believe that the emissions characteristics of that subgroup are substantially in excess of the emissions of the engine family or test group as a whole.

(b) If the vehicles are selected for compliance testing, the selection and testing of vehicles and the evaluation of data shall be made in accordance with the "California New Vehicle Compliance Test Procedures," adopted by the state board on June 13, 1976, and amended ~~[insert last amended ate]~~ _____. Motorcycles scheduled for compliance testing shall be selected, tested, and evaluated in accordance with the "California New Motorcycle Compliance Test Procedures," adopted by the state board on June 30, 1977, and amended [insert last amended date].

(c) If the Executive Officer determines, in accordance with the "California New Vehicle Compliance Test Procedures," or the "California New Motorcycle Compliance Test Procedures" that an engine family, test group, or any subgroup within an engine family or test group, exceeds the emission standards for one or more pollutants, the Executive Officer shall notify the manufacturer and may invoke Section 2109. Prior to invoking Section 2109, the Executive Officer shall consider quality audit test results, if any, and any additional test data or other information provided by the manufacturer.

(d) [No change.]

NOTE: Authority cited: Sections 39600, 39601 and 43104, Health and Safety Code. Reference: Sections 39002, 39003, 39500, 43000, 43106, 43210, 43211, and 43212, Health and Safety Code.

Summary Explanation of Proposed Modifications

These modifications reflect the CAP 2000 amendments that modify the definition of engine family and replace it with a new designation - “test group” that will be effective beginning in the 2001 model year.

12. Title 13, CCR, Section 2106

§2106. New Vehicle Assembly-Line Inspection Testing.

Amend Title 13, CCR, Section 2106 to read as follows:

Prior to the 2001 model year, i~~I~~f reports required by an assembly-line test procedure under Article 1 of Subchapter 2 are not in accordance with reporting requirements or if surveillance under Article 2 or Article 3 of Subchapter 2 indicates that assembly-line inspection testing is being improperly performed, or that vehicles are being manufactured which do not comply with the assembly-line emission standards or functional test requirements, the Executive Officer may order corrections of reporting or test procedures, and may, in accordance with Section 2109 or 2110, as applicable, order correction of vehicles not in compliance with applicable laws, emission standards, or test procedures. In 2001 and subsequent model years, if reports required by an assembly-line test procedure under Article 1 of Subchapter 2 are not in accordance with reporting requirements or if surveillance under Article 2 or Article 3 of Subchapter 2 indicates that assembly-line inspection testing is being improperly performed, or that vehicles are being manufactured which do not comply with the functional test requirements, the Executive Officer may order corrections of reporting or test procedures, and may, in accordance with Section 2109, order correction of vehicles not in compliance with applicable laws, emission standards, or test procedures.

NOTE: Authority cited: Sections 39600, 39601, 43105 and 43210, Health and Safety Code. Reference: Sections 39002, 39003, 39500, 43000, 43104, 43105 and 43210, Health and Safety Code.

Summary Explanation of Proposed Modifications

Under the proposed CAP 2000 amendments, quality-audit testing will no longer be required in 2001 and subsequent model years. Thus, corrections of vehicles not in compliance may only be ordered as a result of functional or inspection testing.

13. Title 13, CCR, Section 2107

§2107. Assembly-Line Quality-Audit Testing.

Amend Title 13, CCR, Section 2107 to read as follows:

Prior to the 2001 model year i~~I~~f any official test procedure adopted by the state board specifies that the state board may find a violation of Section 43105 or 43106 of the Health and Safety Code or of this article when a specified percentage of assembly-line vehicles exceeds a standard and when data submitted by the manufacturer indicates such percentage is being exceeded or if surveillance under Article 2 or Article 3 of Subchapter 2 indicates that assembly-line quality audit testing is being improperly performed, the Executive Officer may invoke the provisions of Section 2109 or 2110, as applicable. In 2001 and subsequent model years, quality audit testing shall not be required.

NOTE: Authority cited: Sections 39600, 39601, 43105 and 43210, Health and Safety Code. Reference: Sections 39002, 39003, 39500, 43000, 43102, 43105, 43106 and 43210, Health and Safety Code.

Summary Explanation of Proposed Modifications

Under the proposed CAP 2000 amendments, quality-audit testing will no longer be required in 2001 and subsequent model years. See Part III of the Staff Report for an explanation of this proposed modification.

14. Title 13, CCR, Section 2110

Amend Title 13, CCR, Section 2110 to read as follows:

§2110. Remedial Action for Assembly-Line Quality Audit Testing of Less Than a Full Calendar Quarter of Production <u>Prior to the 2001 Model Year.</u>

(a) through (c) -- [No change.]

NOTE: Authority cited: Sections 39600, 39601 and 43105, Health and Safety Code. Reference: Sections 39002, 39003, 39500, 43000, 43016, 43100-43102, 43104 and 43106, Health and Safety Code.

Summary Explanation of Proposed Modifications

Under the proposed CAP 2000 amendments, quality-audit testing will no longer be required in 2001 and subsequent model years. Thus, this section will no longer apply after the 2000 model year.

15. Title 13, CCR, Section 2112

§2112. Definitions.

Amend Title 13, CCR, Section 2112 to read as follows:

(a) [No change.]

(b) "Correlation factor" means a pollutant-specific multiplicative factor calculated by a manufacturer for an engine family or test group which establishes a relationship between chassis exhaust emission data, as determined from the test procedures specified in section 1960.1 or 1961, Title 13, California Code of Regulations, and engine exhaust emission data, as determined from the test procedures specified in section 1956.8, Title 13, California Code of Regulations.

(c) through (l)(8) -- [No change.]

(*l*)(9) For 1995 and subsequent model-year medium-duty vehicles, and motor vehicle engines used in such vehicles, and 1992 and subsequent model-year medium-duty low-emission, ~~and~~ ultra-low-emission and super-ultra-low emission vehicles certified to the standards in Section 1960.1(h)(2), and motor vehicle engines used in such vehicles, a period of use of eleven years or 120,000 miles, whichever first occurs. For 2001 and subsequent model year medium-duty low-emission, ultra-low-emission and super-ultra-low-emission vehicles certified to the standards in 1961(??), and motor vehicle engines used in such vehicles, a period of use of ten years or 120,000 miles, whichever occurs first.

(l)(10) through (l)16) -- [No change.]

(l)(17) For those passenger cars and light-duty trucks certified pursuant to Title 13, CCR, section 1961(??), the useful life shall be ten years or 120,000 miles, whichever occurs first.

(m) through Appendix A -- [No change.]

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43104, and 43105, Health and Safety Code. Reference: Sections 39002, 39003, 43000, 43009.5, 43013, 43018, 43100, 43101, 43101.5, 43102, 43103, 43104, 43105, 43106, 43107, and 43204-43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

The addition of the term, "test group," is a result of the CAP 2000 amendments and the addition of a new CCR section 1961 reflects the proposed LEV II emission standards. One of the proposed amendments to the LEV II regulations is the increase in the useful life of passenger cars, and light-duty trucks to 10 years or 120,000 miles. The useful life of medium-duty vehicles has been amended to 10 years to align with the passenger car and light-duty truck useful life.

16. Title 13, CCR, Section 2114

§2114. Voluntary and Influenced Recall Plans.

Amend Title 13, CCR, Section 2115 to read as follows:

(a) The recall plan for both voluntary and influenced recalls shall contain the following information unless otherwise specified:

(1) A description of each class or category of vehicle or engine subject to recall including the number of vehicles or engines to be recalled, the engine family, test group or a subgroup thereof, the model year, the make, the model, and such other information as may be required to identify the vehicles or engines to be recalled.

(a)(2) through (a)(9) -- [No change.]

(10) Under an influenced recall, an estimate of the capture rate from the proposed recall derived from actual data and/or manufacturer experience. A 60 percent capture rate shall be assigned for recalls based exclusively on noncompliance as defined in Section 2112(~~g~~h)(1), above.

(11) Under an influenced recall based on noncompliance as defined in Section 2112(~~g~~h)(2), above, a description of the impact of the proposed changes on the average emissions from the vehicles or engines to be recalled. The description shall contain the following:

(11)(A) through (C) -- [No change.]

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018 and 43105, Health and Safety Code. Reference: Health and Safety Code Sections 43000, 43009.5, 43013, 43018, 43101, 43104, 43105, 43106, 43107 and 43204-43205.5.

Summary Explanation of Proposed Modifications

The term, "test group" has been added to reflect CAP 2000 amendments. The changes in subparagraphs (10) and (11) are corrections. The correct designation should be (h) rather than (g).

17. Title 13, CCR, Section 2119

§2119. Recordkeeping Reporting Requirements.

Amend Title 13, CCR, Section 2119 to read as follows:

(a) Unless otherwise specified by the Executive Officer, the manufacturer shall report on the progress of the recall campaign by submitting subsequent reports for six consecutive quarters commencing with the quarter after the recall campaign begins. Such reports shall be submitted no later than 25 days after the close of each calendar quarter to: Chief, Mobile Source Operations Division, 9528 Telstar, El Monte, CA 91731. For each class or category of vehicle or engine subject to the emission recall campaign, the quarterly report shall contain the following:

(1) Engine family or test group and emission recall campaign number designated by the manufacturer.

(a)(2) through (d) -- [No change.]

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018 and 43105, Health and Safety Code. Reference: Sections 43000, 43009.5, 43013, 43018, 43101, 43104, 43105, 43106, 43107 and 43204-43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

The term, "test group" has been added to reflect CAP 2000 amendments and the name of the Mobile Source Division has been amended to reflect the creation of the Mobile Source Operations Division.

18. Title 13, CCR, Section 2130

§2130. Capture Rates and Alternative Measures.

Amend Title 13, CCR, Section 2130 to read as follows:

The manufacturer shall comply with the capture rate specified in the recall plan as determined pursuant to Section 2125(b)(6), above, within six consecutive quarters beginning with the quarter in which the notification of vehicle or engine owners was initiated. If, after good faith efforts, the manufacturer cannot correct the percentage of vehicles specified in the plan by the applicable deadlines and cannot take other measures to bring the engine family or test group into compliance with the standards, the manufacturer shall propose mitigation measures to offset the emissions of the unrepaired vehicles within 45 days from the last report filed pursuant to Section 2133(c), below. The Executive Officer shall approve such measures provided that:

(a) through (c) -- [No change.]

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018 and 43105, Health and Safety Code. Reference: Sections 43000, 43009.5, 43013, 43018, 43101, 43104, 43105, 43106, 43107 and 43204-43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

The term, "test group" has been added to reflect CAP 2000 amendments.

19. Title 13, CCR, Section 2137

§2137. Vehicle Selection.

Amend Title 13, CCR, Section 2137 to read as follows:

(a) Any vehicle of an engine family, test group, or any vehicle of a subgroup of an engine family or test group, manufactured for sale in California, shall be subject to these test procedures during its useful life. A minimum of ten (10) in-use vehicles determined by the ARB to be properly maintained and used will be procured and tested by the ARB or its designated laboratory to represent the emission characteristics of the engine family, test group or subgroup. The ARB may test less than ten (10) in-use vehicles if the manufacturer notifies the ARB in writing that the manufacturer will accept the results from less than ten (10) vehicles as being representative of the engine family, test group or subgroup.

(b) through (4) -- [No change.]

(5) Prior to 1998, lLead content of fuel sample from the vehicle tank meets applicable standards.

(b)(6) -- [No change.]

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018 and 43105, Health and Safety Code. Reference: Sections 43000, 43009.5, 43013, 43018, 43101, 43104, 43105, 43106, 43107 and 43204-43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

The term, "test group" has been added to reflect CAP 2000 amendments and the requirement to test for lead has been removed because lead is no longer allowed in gasoline.

20. Title 13, CCR, Section 2138

Amend Title 13, CCR, Section 2138 to read as follows:

§2138. <u>Restorative</u> Maintenance ~~and Preconditioning~~.

(a) Upon accepting a vehicle for testing, the ARB or its designated laboratory will replace the fuel with Indolene Clear or appropriate certification test fuel. ~~Cold soak periods shall be at least 12 hours but less than 36 hours prior to testing~~.

(b) through (b)(5) -- [No change.]

(6) <u>Check the OBD system for proper operation.</u>

<u>(7)</u> If the vehicle is within 500 miles of a scheduled maintenance service, that maintenance shall be performed except in the case of off-road motorcycles and all-terrain vehicles. For off-road motorcycles and all-terrain vehicles, all required maintenance shall be performed.

(c) -- [No change.]

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018 and 43105, Health and Safety Code. Reference: Sections 43000, 43009.5, 43013, 43018, 43101, 43104, 43105, 43106, 43107 and 43204-43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

These amendments are bring this procedure up to date to include a system check of the on-board diagnostic system and the method for preconditioning has been removed because it is in another section.

21. Title 13, CCR, Section 2139

§2139. Testing.

Amend Title 13, CCR, Section 2139 to read as follows:

After the vehicles have been accepted and restorative maintenance, if any, has been performed, the ARB or its designated laboratory shall perform the applicable emission tests pursuant to the following:

(a) For passenger cars and light-duty trucks, in-use compliance emission tests shall be performed pursuant to section 1960.1 or 1961, Title 13, California Code of Regulations.

(b) For medium-duty vehicles certified according to the chassis standards and test procedures specified in section 1960.1 or 1961, Title 13, California Code of Regulations and the documents incorporated by reference therein, in-use compliance emission tests shall be performed pursuant to section 1960.1 or 1961, as applicable, Title 13, California Code of Regulations.

(c) For medium-duty engines and vehicles certified according to the optional engine test procedures specified in section 1956.8, Title 13, California Code of Regulations and the documents incorporated by reference therein, in-use compliance emission tests shall be performed pursuant to one of the following procedures:

(1) The engines of medium-duty vehicles may be tested pursuant to the engine test procedures specified in section 1956.8, provided that the manufacturer or its designated laboratory conduct procurement and enforcement testing pursuant to Sections 2136 through 2140, Title 13, California Code of Regulation, at the manufacturer's expense.

For manufacturers that have only one engine family or test group, the manufacturer or its designated laboratory that have more than one engine family or test group, the manufacturer or its designated laboratory shall procure no more than fifteen vehicles per engine family or test group. For manufacturers that have more than one engine family or test group, the manufacturer or its designated laboratory shall procure and test at the manufacturer's expense no more than one-third of its engine families or test groups and no more than fifteen vehicles from each engine family or test group. For the purposes of this section, "one-third' of a manufacturer's engine families or test groups shall be determined by dividing the number of distinct engine families or test groups by three, adding 0.5, and truncating the result to the nearest whole number.

The specific engine families or test groups subject to enforcement testing shall be selected by the ARB. The manufacturer or its designated laboratory shall begin the engine procurement process within 10 working days of notification by the ARB and shall

complete testing within 100 working days of notification by the ARB. The Executive Officer shall approve the manufacturer's procurement procedures in advance of their use by the manufacturer. The Executive Officer shall approve a manufacturer's procurement procedures if engines are screened according to the criteria specified in section 2137, Title 13, California Code of Regulations and selected randomly from registration records compiled and prepared by R.L. Polk and Company or a comparable source. In addition, no vehicle shall be selected for enforcement testing with mileage less than 60 percent of the useful-life mileage without prior approval from the Executive Officer. The manufacturer shall permit an ARB representative to witness procurement, restorative maintenance, and enforcement testing. The Executive Officer shall have the authority to accept or reject a test engine based upon criteria specified in section 2137. Once an engine has been tested and determined to be in compliance with the current in-use emission standards, no further testing will be performed on subsequent engine families or test groups that carry-over the durability data of the tested engine family or test group.

Notwithstanding the above, if a manufacturer fails to demonstrate compliance with the emission standards after one-third of its engine families or test groups have been tested, additional engine families or test groups shall be tested, by the manufacturer or its designated laboratory, at the manufacturer's expense, until compliance is demonstrated on one-third of the engine families or test groups or all of a manufacturer's engine families or test groups have been tested. In addition, any engine family or test group which has been tested and determined to be in noncompliance shall be retested by the manufacturer each subsequent year until compliance with the applicable emission standards has been demonstrated. Notwithstanding the above, the ARB may conduct engine enforcement testing pursuant to the engine test procedures specified in section 1956.8, at their own expense.

(2) Medium-duty vehicles may be tested according to the chassis test procedures specified in section 1960.1(k) or 1961, if a manufacturer develops correlation factors which establish the relationship between engine and chassis testing for each engine family or test group and submits these correlation factors within one year after the beginning of production. The correlation factors shall be applied to the measured in-use engine exhaust emission data to determine the in-use engine exhaust emission levels. All correlation factors and supporting data included in a manufacturer's application must be submitted to and approved by the Executive Officer in advance of their use by a manufacturer. Correlation factors intended to apply to a specific engine family or test group shall be applicable for each vehicle model incorporating that specific engine. Manufacturers shall submit test data demonstrating the applicability of the correlation factors for vehicle models comprising a minimum of 80 percent of their engine sales for that specific engine family or test group. The correlation factors for the remaining fleet may be determined through an engineering evaluation based upon a comparison with similar vehicle models. The Executive Officer shall approve a submitted correlation factor

if it accurately corresponds to other established empirical and theoretical correlation factors and to emission test data available to the Executive Officer.

A manufacturer may choose to use the results from the chassis in-use testing as a screening test. If an engine family or test group does not demonstrate compliance with any of the applicable in-use engine standards, as determined from the chassis test data and the applied correlation factors, the manufacturer shall be subject to the requirements and cost of in-use compliance engine testing, as specified in section 2139(c)(1). The manufacturer shall be subject to engine testing for any non-complying engine family or test group for each subsequent year until compliance with the engine emission standards is demonstrated.

Subsequent to approval of the correlation factors, the Executive Officer may make a determination that the original correlation factors are not valid. Such a determination may be based upon in-use emission data, including chassis and engine testing. Upon determination that the correlation factors for a specific engine family or test group are not valid, the manufacturer of the engine family or test group shall be subject to the enforcement testing requirements and costs of in-use compliance engine testing, as specified in section 2139(c)(1).

(c)(3) through (g) -- [No change.]

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43104 and 43105, Health and Safety Code. Reference: Sections 39002, 39003, 43000, 43009.5, 43013, 43018, 43100, 43101, 43101.5, 43102, 43103, 43104, 43105, 43106, 43107, 43204-43205.5, and 43211-43213 Health and Safety Code.

Summary Explanation of Proposed Modifications

The addition of the term, “test group,” is a result of the CAP 2000 amendments and the addition of a new CCR section 1961 reflects the proposed LEV II emission standards.

22. Title 13, CCR, Section 2140

§2140. Notification and Use of Test Results.

Amend Title 13, CCR, Section 2140 to read as follows:

(a) The Executive Officer shall notify the manufacturer in writing if the in-use vehicle enforcement test results indicate that the test fleet contains three or more failures of the same emission-related component. Upon receipt of the notification, the manufacturer shall submit an emissions information report in accordance with Title 13, California Code of Regulations, Sections 2146 and 2147. The engine family, test group or sub-group manufacturer shall be subject to recall when a specific emission-related failure occurred in three or more test vehicles, unless the Executive Officer determines from the emissions information report that a recall is unnecessary.

(b) If the results of the in-use vehicle emission tests conducted pursuant to Section 2139 indicate that the average emissions of the test vehicles for any pollutant exceed the applicable emission standards specified in Title 13, California Code of Regulations, Section 1960.1, 1961, 1956.8, 1958 or 2412, the entire vehicle population so represented shall be deemed to exceed such standards. The Executive Officer shall notify the manufacturer of the test results and upon receipt of the notification, the manufacturer shall have 45 days to submit an influenced recall plan in accordance with Sections 2113 through 2121, Title 13, California Code of Regulations. If no such recall plan is submitted, the Executive Officer may order corrective action including recall of the affected vehicles in accordance with Sections 2122 through 2135, Title 13, California Code of Regulations.

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018 and 43105, Health and Safety Code. Reference: Sections 43000, 43009.5, 43013, 43018, 43101, 43104, 43105, 43106, 43107, 43204-43205.5 and 43211-43213, Health and Safety Code.

Summary Explanation of Proposed Modifications

The addition of the term, “test group,” is a result of the CAP 2000 amendments and the addition of a new CCR section 1961 reflects the proposed LEV II emission standards.

23. Title 13, CCR, Section 2143

§2143. Failure Levels Triggering Recall.

Amend Title 13, CCR, Section 2143 to read as follows:

An engine family, test group or a subgroup shall be subject to a recall when the number of failures of a specific emission-related component exceeds the failure level set forth below, unless the Executive Officer determines from the emission information report that a recall is unnecessary pursuant to the criteria set forth in section 2148(a) and (b). Vehicles or engines in an engine family or test group are subject to recall at the following failure levels: 4 percent or 50 (whichever is greater) for 1990 through 1991 model year vehicles or engines; 3 percent or 50 (whichever is greater) for 1992 through 1993 model-year vehicles or engines; and 2 percent or 50 (whichever is greater) for 1994 and subsequent model-year vehicles or engines. The Executive Officer may extend the applicability of the 4 or 3 percent failure levels if he/she determines that proceeding to the next lower level will create an excessive administrative burden on the ARB or the vehicle manufacturers without a corresponding benefit in the reduction of emissions.

NOTE: Authority cited: Sections 39600, 39601 and 43105, Health and Safety Code. Reference: Sections 43000, 43009.5, 43018, 43101, 43104, 43105, 43106, 43107 and 43204-43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

The addition of the term, “test group,” is a result of the CAP 2000 amendments.

24. Title 13, CCR, Section 2144

§2144. Emission Warranty Information Report.

Amend Title 13, CCR, Section 2144 to read as follows:

(a) A manufacturer shall:

(1) Review warranty claim records for each engine family or test group on a quarterly basis to determine and compile by cumulative total the number of claims made for emission-related components. The data compiled shall be based on all warranty claims, without any prescreening of data as to the validity of the claims. In the case of heavy-duty vehicles or engines, a manufacturer may use nationwide data for monitoring warranty claims of a California-certified engine family or test group which is also certified by the United States Environmental Protection Agency.

(2) Categorize warranty claims for each engine family or test group by the specific emission control component replaced or repaired.

(3) On the basis of data obtained subsequent to the effective date of these regulations, file an emission warranty information report for each quarter when the cumulative number of unscreened warranty claims for a specific emission-related component or repair represent at least one percent or twenty-five (whichever is greater) of the vehicles or engines of a California-certified engine family or test group.

(b) The emission warranty information report shall contain the following information in substantially the format outlined below:

(1) [No change.]

(2) A description of each class or category of California-certified vehicles or engines affected by a warranty replacement or warranty repair of a specific emission-related component, including model year and engine family or test group.

(3) The number and percentage of vehicles or engines in each engine family or test group for which a warranty replacement or warranty repair of a specific emission-related component was identified.

(4) [No change.]

(c) Emission warranty information reports shall be submitted not more than 25 days after the close of a calendar quarter. Subsequent to the filing of an emission warranty information report, a manufacturer shall submit quarterly reports updating the number and percentage of emission-related warranty claims with the most recent information, unless a recall has been implemented. Emission warranty information reports and updates shall be submitted to the Chief, Mobile Source Operations Division, 9528 Telstar Avenue, El Monte, CA 91731.

(d) [No change.]

NOTE: Authority cited: Sections 39600, 39601 and 43105, Health and Safety Code. Reference: Sections 43000, 43009.5, 43018, 43101, 43104, 43105, 43106, 43107 and 43204-43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

The term, “test group” has been added to reflect CAP 2000 amendments and the name of the Mobile Source Division has been amended to reflect the creation of the Mobile Source Operations Division.

25. Title 13, CCR, Section 2145

§2145. Field Information Report.

Amend Title 13, CCR, Section 2145 to read as follows:

(a) [No change.]

(b) All field information reports shall be submitted to the Chief, Mobile Source Operations Division, 9528 Telstar Avenue, El Monte, CA 91731, and shall contain the following information in substantially the format outlined below:

(1) [No change.]

(2) [No change.]

(3) A description of each class or category of California-certified vehicles or engines affected including make, model, model-year, engine family or test group and such other information as may be required to identify the vehicles or engines affected. The description shall include those engine families or test groups related to the affected engine family or test group through common certification test data allowed under Title 40, Code of Federal Regulations, Section 86.085-24(f), as amended December 10, 1984 or Title 40 Code of Federal Regulations, Section 86.1835-01, as adopted _____ ("carry-over" and "carry-across" engine families or test groups).

(4) [No change.]

(5) The number and percentage of vehicles or engines in each engine family or test group for which a failure of a specific emission-related component was identified.

(6) The total number and percentage of unscreened warranty claims and failures of a specific emission-related component projected to occur during the engine family's or test group's useful life and a description of the method used to project this number.

(7) [No change.]

NOTE: Authority cited: Sections 39600, 39601 and 43105, Health and Safety Code. Reference: Sections 43000, 43009.5, 43018, 43101, 43104, 43105, 43106, 43107 and 43204-43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

The term, "test group" has been added to reflect CAP 2000 amendments and the name of the Mobile Source Division has been amended to reflect the creation of the Mobile Source Operations Division.

26. Title 13, CCR, Section 2146

§2146. Emissions Information Report.

Amend Title 13, CCR, Section 2146 to read as follows:

(a) through (b) -- [No change.]

(c) All emissions information reports shall be submitted to the Chief, Mobile Source Operations Division, 9528 Telstar Avenue, El Monte, CA 91731, and shall contain the following information in substantially the format outlined below. For purposes of this section, the term "failure" shall be considered synonymous with the term "defect" for those emissions information reports filed pursuant to subsection (a)(3), above.

(1) [No change.]

(2) [No change.]

(3) A description of each class or category of California-certified vehicles or engines affected by the failure including make, model, model-year, engine family or test group, and such other information as may be required to identify the vehicles or engines affected.

(4) through (7) -- [No change.]

NOTE: Authority cited: Sections 39600, 39601 and 43105, Health and Safety Code. Reference: Sections 43000, 43009.5, 43018, 43101, 43104, 43105, 43106, 43107 and 43204-43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

The term, "test group" has been added to reflect CAP 2000 amendments and the name of the Mobile Source Division has been amended to reflect the creation of the Mobile Source Operations Division.

27. Title 13, CCR, Section 2147

§2147. Demonstration of Compliance with Emission Standards.

(a) [No change.]

(b) A manufacturer may test properly maintained in-use vehicles with the failed emission-related component pursuant to the applicable certification emission tests specified in Title 13, California Code of Regulations, Section 1960.1 or 1961 for passenger cars, light-duty trucks and medium-duty vehicles, Section 1956.8 for heavy-duty engines and vehicles, and Section 1958 for motorcycles. The emissions shall be projected to the end of the vehicle's or engine's useful life using in-use deterioration factors. The in-use deterioration factors shall be chosen by the manufacturer from among the following:

(1) [No change.]

(2) [No change.]

(3) Subject to approval by the Executive Officer, a manufacturer-generated deterioration factor. The Executive Officer shall approve such deterioration factor if it is based on in-use data generated from certification emission tests performed on properly maintained and used vehicles in accordance with the procedures set forth in Section 1960.1 or 1961 of Title 13 of the California Code of Regulations for passenger cars, light-duty trucks, and medium-duty vehicles; Section 1956.8 of Title 13 of the California Code of Regulations for heavy duty vehicles and engines; and Section 1958 of Title 13 of the California Code of Regulations for motorcycles, and if the vehicles from which it was derived are representative of the in-use fleet with regard to emissions performance and are equipped with similar emission control technology as vehicles with the failed component.

(c) [No change.]

NOTE: Authority cited: Sections 39600, 39601 and 43105, Health and Safety Code. Reference: Sections 43000, 43009.5, 43018, 43101, 43104, 43105, 43106, 43107 and 43204-43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

The addition of a new CCR section 1961 reflects the proposed LEV II emission standards.

28. Title 13, CCR, Section 2148

§2148. Evaluation of Need for Recall.

Amend Title 13, CCR, Section 2148 to read as follows:

(a) through (b) -- [No change.]

(c) If a manufacturer can identify a subgroup of an engine family or test group which is subject to a failure, a recall may be limited to that subgroup with Executive Officer approval.

NOTE: Authority cited: Sections 39600, 39601 and 43105, Health and Safety Code. Reference: Sections 43000, 43009.5, 43018, 43101, 43104, 43105, 43106, 43107 and 43204-43205.5, Health and Safety Code.

Summary Explanation of Proposed Modifications

The addition of the term, "test group," is a result of the CAP 2000 amendments.