# FINAL REGULATION ORDER

## AMENDMENTS TO THE CALIFORNIA ZERO EMISSION VEHICLE REGULATION – SECTION 1962, TITLE 13, CALIFORNIA CODE OF REGULATIONS – AND RELATED PROVISIONS

Set forth below are the adopted amendments to the California zero emission vehicle (ZEV) regulation, related regulations, and the incorporated "California Exhaust Emission Standards and Test Procedures For 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 And Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck And Medium-Duty Vehicle Classes." The text of the adopted amendments is shown in underline to indicate additions and ~~strikeout~~ to indicate deletions, compared to the preexisting regulatory language.

Amend section 1962, title 13, California Code of Regulations, to read as follows:

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

(a) *ZEV Emission Standard.* The Executive Officer shall certify new 2003 and subsequent model passenger cars, light-duty trucks and medium-duty vehicles as ZEVs if the vehicles produce zero exhaust emissions of any criteria pollutant (or precursor pollutant) under any and all possible operational modes and conditions. Incorporation of a fuel-fired heater shall not preclude a vehicle from being certified as a ZEV provided: (1) the fuel-fired heater cannot be operated at ambient temperatures above 40$^{o}$F, (2) the heater is demonstrated to have zero fuel evaporative emissions under any and all possible operational modes and conditions, and (3) the emissions of any pollutant from the fuel-fired heater when operated at an ambient temperature between 68$^{o}$F and 86$^{o}$F do not exceed the emission standard for that pollutant for a ULEV under section 1961(a)(1).

A vehicle that would meet the emissions standards for a ZEV except that it uses a fuel-fired heater that can be operated at ambient temperatures above 40$^{o}$F, that cannot be demonstrated to have zero fuel evaporative emissions under any and all possible operation modes and conditions, or that has emissions of any pollutant exceeding the emission standard for that pollutant for a ULEV under section 1961(a)(1), shall be certified based on the emission level of the fuel-fired heater

(b) *Percentage ZEV Requirements.*

(1) *General Percentage ZEV Requirement.*

(A) *Basic Requirement.* The minimum percentage ZEV requirement for each manufacturer ~~in 2003 and subsequent model years~~ is listed ~~that at least 10%~~ in the table below as the percentage of the PCs and LDT1s, and LDT2s to the extent required by section (b)(1)(C),

produced by the manufacturer and delivered for sale in California that must be ZEVs, subject to the conditions in this section 1962(b).

| *Model Years* | *Minimum ZEV Requirement* |
|---|---|
| 2003 through 2008 | 10 percent |
| 2009 through 2011 | 11 percent |
| 2012 through 2014 | 12 percent |
| 2015 through 2017 | 14 percent |
| 2018 and subsequent | 16 percent |

(B) *Calculating the Number of Vehicles to Which the Percentage ZEV Requirement is Applied.* A manufacturer's volume of PCs and LDT1s produced and delivered for sale in California will be averaged for the 1997, 1998, and 1999 model years to determine the California PC and LDT1 production volume for the model year 2003 to 2005 ZEV requirements. For subsequent three-year periods following model years 2003 to 2005, a manufacturer's California production volume of PCs and LDT1s, and LDT2s as applicable, will be based on a three-year average of the manufacturer's volume of PCs and LDT1s, and LDT2s as applicable, produced and delivered for sale in California in the prior fourth, fifth and sixth years (e.g. 2006 to 2008 model-year ZEV requirements will be based on California production volumes of PCs and LDT1s, and LDT2s as applicable, for 2000 to 2002 model years). This production averaging is used to determine ZEV requirements only, and has no effect on a manufacturer's size determination. As an alternative to the three year averaging of prior year production described above, a manufacturer may during the first model year of a three year period elect to base its ZEV obligation on the number of PCs and LDT1s, and LDT2s to the extent required by section (b)(1)(C), produced by the manufacturer and delivered for sale in California that same year. If a manufacturer elects to use this method it must be used for each year of the three-year period. In applying the ZEV requirement, a PC, ~~or~~ LDT1, or LDT2 (beginning in the 2007 model year) that is produced by a small volume manufacturer, but is marketed in California by another manufacturer under the other manufacturer's nameplate, shall be treated as having been produced by the marketing manufacturer.

(C) *Phase-in of ZEV Requirements for LDT2s.* Beginning with the ZEV requirements for the 2007 model year, a manufacturer's LDT2 production shall be included in determining the manufacturer's overall ZEV requirement under section (b)(1)(A) in the increasing percentages shown the table below.

| 2007 | 2008 | 2009 | 2010 | 2011 | 2012+ |
|---|---|---|---|---|---|
| 17% | 34% | 51% | 68% | 85% | 100% |

~~(1)~~(2) ~~*Basic*~~ *Requirements for Large Volume, Intermediate Volume, Independent Low Volume, and Small Volume Manufacturers.*

(A) *Large Volume Manufacturers.* In 2003 ~~and subsequent~~ through 2008 model years, a large-volume manufacturer must meet at least ~~40%~~ 20% of its ZEV requirement with ZEVs~~, full ZEV allowance vehicles,~~ or ZEV credits generated by such vehicles, and at least

another 20% with ZEVs, advanced technology PZEVs, or credits generated by such vehicles. The remainder of the large-volume manufacturer's ZEV requirement may be met using ~~partial ZEV allowance vehicles~~ PZEVs or credits generated by such vehicles. As the ZEV requirement increases over time (from 10% in model year 2003 to 16% in model year 2018), the maximum portion of the ZEV requirement that may be satisfied by 0.2 allowance PZEVs, or credits generated by such vehicles, is limited to 6% of the manufacturer's applicable California PC, LDT1, and LDT2 production volume; advanced technology PZEVs or credits generated by such vehicles may be used to meet up to one-half of the manufacturer's remaining ZEV requirement.

(B) *Intermediate Volume Manufacturers.* In 2003 and subsequent model years, an intermediate volume manufacturer may meet its ZEV requirement with up to 100 percent partial ZEV allowance vehicles or credits generated by such vehicles.

(C) *Small Volume Manufacturers and Independent Low Volume Manufacturers*. A small volume manufacturer or an independent low volume manufacturer is not required to meet the percentage ZEV requirements. However, a small volume manufacturer or an independent low volume manufacturer may earn and market credits for the ZEVs or ~~ZEV allowance vehicles~~ PZEVs it produces and delivers for sale in California.

~~(2)~~(3) *Counting ZEVs and ~~ZEV Allowance Vehicles~~ PZEVs in Fleet Average NMOG Calculations.* ~~Vehicles certified as ZEVs and as full ZEV allowance vehicles shall be counted as ZEVs~~ ~~f~~For ~~the~~ purposes of calculating a manufacturer's fleet average NMOG value and NMOG credits under sections 1961(b) and (c), a vehicle certified as a ZEV is counted as one ZEV, and a ~~Partial ZEV allowance vehicles shall be~~ PZEV is counted as one SULEV~~s~~ certified to the 150,000 mile standards ~~for the purpose of calculating a manufacturer's fleet average NMOG value and NMOG credits under sections 1961(b) and (c)~~, regardless of any ZEV or PZEV multipliers.

~~(3)~~(4) *Implementation Prior to 2003 Model Year.* Prior to the 2003 model year, a manufacturer that voluntarily produces vehicles meeting the ZEV emission standards applicable to 2003 and subsequent model year vehicles may certify the vehicles to those standards and requirements for purposes of calculating fleet average NMOG exhaust emission values and NMOG credits under sections 1961(b) and (c), and for calculating ZEV credits as set forth in section 1962~~(d)~~(g).

~~(4)~~(5) *Changes in Small Volume, Independent Low Volume, and Intermediate Volume Manufacturer Status.* 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 independent low volume manufacturer's average California production volume exceeds 10,000 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, or if an intermediate volume manufacturer's average California production volume exceeds ~~35,000~~ 60,000 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, independent low volume, or

intermediate volume manufacturer, as applicable, and shall comply with the ZEV requirements for independent low volume, intermediate volume or large volume manufacturers, as applicable, beginning with the ~~fourth~~ sixth model year after the last of the three consecutive model years. If a manufacturer's average California production volume falls below 4,500, 10,000 or ~~35,000~~ 60,000 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 volume, independent low volume, or intermediate volume manufacturer, as applicable, and shall be subject to the requirements for a small volume, independent low volume, or intermediate volume manufacturer beginning with the next model year. In determining small volume manufacturer status, vehicles produced by one manufacturer and marketed in California by another manufacturer under the other manufacturer's nameplate shall be treated as part of the California production volume of the sales of the marketing manufacturer.

(c) *Partial ~~and Full~~ ZEV Allowance Vehicles (PZEVs).*

(1) *Introduction.* This section 1962(c) sets forth the criteria for identifying vehicles delivered for sale in California as ~~partial or full ZEV allowance vehicles~~ PZEVs. A ~~partial ZEV allowance vehicle~~ PZEV is a vehicle that ~~is delivered for sale in California and that~~ cannot be certified as a ZEV but qualifies for a ~~partial~~ PZEV allowance of at least 0.2 ~~but less than 1.0. A full ZEV allowance vehicle is a vehicle that is delivered for sale in California and that qualifies for a ZEV allowance of 1.0.~~

(2) *Baseline ~~Partial~~ PZEV Allowance.* In order for a vehicle to be eligible to receive a ~~partial or full~~ PZEV allowance, the manufacturer must demonstrate compliance with all of the following requirements. A qualifying vehicle will receive a baseline ~~partial~~ PZEV allowance of 0.2.

(A) *SULEV Standards.* Certify the vehicle to the 150,000-mile SULEV exhaust emission standards for PCs and LDTs in section 1961(a)(1) (for model years 2003 through 2006, existing SULEV intermediate in-use compliance standards shall apply to all PZEVs);

(B) *Evaporative Emissions.* Certify the vehicle to the evaporative emission standards in section 1976(b)(1)(E) ("zero" evaporative emissions standards);

(C) *OBD.* Certify that the vehicle will meet the applicable on-board diagnostic requirements in section 1968.1 for 150,000 miles; and

(D) *Extended Warranty.* Extend the performance and defects warranty period set forth in sections 2037(b)(2) and 2038(b)(2) to 15 years or 150,000 miles, whichever occurs first. For HEVs that are advanced technology PZEVs, the traction battery must be included as a warranty item.

(3) *Zero-Emission VMT ~~Partial~~ PZEV Allowance.*

(A) *Calculation of Zero Emission VMT Allowance.* A vehicle that meets the requirements of section 1962(c)(2) and has zero-emission vehicle miles traveled ("VMT") capability will generate an additional zero emission VMT PZEV allowance, ~~not to exceed 0.6, according to the following equation~~ calculated as follows:

~~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.~~

| *Urban All-Electric Range* | *Zero-emission VMT Allowance* |
|---|---|
| < 10 miles | 0.0 |
| 10 miles to 120 miles | (10 + [0.5 x Urban AER])/35 |
| >120 miles | 2.0 |

~~(B) The zero-emission VMT factor in the above equation is to be calculated as follows, with t~~The urban all-electric range ~~(AER)~~ shall be determined in accordance with section E.3.(2)(a) of the "California Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes," incorporated by reference in section 1962~~(e)~~(h)~~:~~.

| ~~*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~~ |

~~(C)~~(B) *Alternative Procedures.* As an alternative to determining the zero-emission VMT allowance ~~factor~~ in accordance with the preceding section 1962(c)(3)(~~B~~A), a manufacturer may submit for Executive Officer approval an alternative procedure for determining the zero-emission VMT potential of the vehicle, along with an engineering evaluation that adequately substantiates the zero-emission VMT determination. For example, an alternative procedure may provide that a vehicle with zero-emissions of one regulated pollutant (e.g. NOx) and not another (e.g. NMOG) will qualify for a zero-emission VMT allowance ~~factor~~ of ~~0.5~~ one-half that of a vehicle with zero emissions of all regulated pollutant. ~~Upon approval of the alternative procedure, the Executive Officer shall assign a zero-emission VMT factor not to exceed 1.0.~~

~~(D)~~(C) *Additional Allowances for Qualifying HEVs.* The Executive Officer shall approve an additional 0.1 zero-emission VMT partial ZEV allowance for an HEV with an all-electric

range ~~greater than 20 miles~~ if the manufacturer demonstrates to the reasonable satisfaction of the Executive Officer that the HEV is equipped with software and/or other strategies that would promote maximum use of off-vehicle charging, and that the strategies employed are reasonably reliable and tamper-proof. ~~In no event, however, may the total zero-emission VMT ZEV allowance for an HEV under section 1962(c)(3) exceed 0.6.~~

(4) ~~*Partial*~~ *PZEV Allowance for Advanced ZEV Componentry.* A vehicle that meets the requirements of section 1962(c)(2) but does not qualify for any zero-emission VMT ~~partial~~ PZEV allowance under section 1962(c)(3) ~~shall~~ may qualify for an advanced componentry ~~partial~~ PZEV allowance ~~of 0.1, if the manufacturer demonstrates to the reasonable satisfaction of the Executive Officer that the vehicle is equipped with advanced ZEV componentry such as an advanced battery integral to the operation of the vehicle power train or an electric power train~~ as provided in this section 1962(c)(4).

(A) *Use of High Pressure Gaseous Fuel or Hydrogen Storage System*. A vehicle equipped with a high pressure gaseous fuel storage system capable of refueling at 3600 pounds per square inch or more and operating exclusively on this gaseous fuel shall qualify for an advanced componentry PZEV allowance of 0.1. A vehicle fueled exclusively by hydrogen stored in a high pressure system capable of refueling at 3600 pounds per square inch or more, or stored in nongaseous form, shall also qualify for an advanced componentry PZEV allowance of 0.1.

(B) *Other Advanced Componentry.* A vehicle shall qualify for an additional advanced componentry allowance if the manufacturer demonstrates to the reasonable satisfaction of the Executive Officer that the vehicle is equipped with advanced ZEV componentry such as an advanced battery integral to the operation of the vehicle power train or an electric power train. The allowance earned by a vehicle shall be calculated according to one of the following methods, as elected by the manufacturer:

1. *$CO_2$ Reduction Method.*

a. *General.* A vehicle whose operation results in reduced $CO_2$ emissions as compared to the average vehicle in its class may qualify for an additional advanced componentry allowance in accordance with this section (c)(4)(B)1. The vehicle's class is determined in accordance with section 1962(e)(3).

b. *Equation for Determining Additional Allowance.* The following equation is used to calculate the additional allowance, provided that in order to earn any additional allowance, the $CO_2$ Savings must be at least 39,000:

$$\text{Advanced Componentry Allowance} = CO_2 \text{ Savings} \div 250{,}000$$

Where:

$$CO_2 \text{ Savings} = (\text{Class Average } CO_2 \text{ Production}) - (\text{Vehicle } CO_2 \text{ Production})$$

$$\text{Vehicle } CO_2 \text{ Production} = (150{,}000 \div \text{CMPEG}) \times 19.564$$

CMPEG is determined in accordance with section (e)(2)

Class Average $CO_2$ Production for the 2000-2007 model years is determined using the following table:

| *Vehicle Class* | *Class Average $CO_2$ Production, 2000-2007 MY* |
|---|---|
| Subcompact PC | 95, 902 |
| Compact PC | 96,533 |
| Midsize PC | 108,689 |
| Large PC | 114,633 |
| Small Truck | 117,384 |
| Medium Truck | 137,131 |
| Large Truck | 161,242 |

Class Average $CO_2$ Production for the 2008-2014 model years is determined in accordance with the following equation:

Class Average $CO_2$ Production = (150,000 / Baseline Fuel Economy for model years 2008-2014) × 19.564

Where: Baseline Fuel Economy for model years 2008-2014 means Baseline Fuel Economy for either the 2008-2011 or 2012-2014 model years, as applicable, as determined in accordance with section (e)(5).

c. *Alternative Method for Determining $CO_2$ Savings of a Vehicle That Is Not Gasoline-Fueled.* For purposes of the equation in section (c)(4)(B)1.b., the Executive Officer shall approve an alternative method for determining $CO_2$ savings of a vehicle that is not gasoline-fueled, if the manufacturer submits the alternative method with an engineering evaluation that demonstrates to the reasonable satisfaction of the Executive Officer that the alternative method fairly represents the $CO_2$ impacts of the vehicle.

2. *Alternative Efficiency Method.* A manufacturer may elect to have a vehicle's additional advanced componentry allowance determined according to the Efficiency Method, in which case the allowance shall be determined in accordance with the following equation:

Advanced Componentry Allowance = ((CMPEG / (1.3 * Baseline Fuel Economy)) – 1) * 0.5

Where: CMPEG is determined in accordance with section (e)(2).
Baseline Fuel Economy is determined in accordance with section (e)(4).

A vehicle earning an Efficiency Method advanced componentry allowance of less than zero pursuant to this subsection will be treated as having an Efficiency Method advanced componentry allowance of zero.

3. *Alternative Percent Peak Power Method For the 2000-2007 Model Years*. For the 2000-2007 model years only, a manufacturer may elect to have a vehicle's additional advanced componentry allowance determined using the Percent Peak Power method, in which case the allowance shall be determined in accordance with the following equation:

Advanced Componentry Allowance = Percentage of "maximum available power" from the electric storage device

Where: Percentage of "maximum available power" means the maximum system power output available from the electrical storage device divided by the sum of the electrical storage device and the SAE net power of the heat engine.

In order to earn any score using the Percent Peak Power method a vehicle must be able to recover kinetic energy through regenerative braking and provide at least 13 percent of "maximum available power" from the electrical storage device.

(5) *~~Partial~~ PZEV Allowance for Low Fuel-Cycle Emissions.* A vehicle that uses fuel(s) with very low fuel-cycle emissions shall receive a ~~partial~~ PZEV allowance not to exceed 0.2. In order to receive the fuel-cycle ~~partial~~ PZEV allowance, a manufacturer must demonstrate to the Executive Officer, using peer-reviewed studies or other relevant information, 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. The fuel-cycle ~~partial~~ PZEV allowance is calculated according to the following formula:

~~Partial~~ PZEV Fuel Cycle Allowance = 0.2 x [(percent of VMT using fuel(s) meeting the requirements of the preceding paragraph)/ 100]

A manufacturer's demonstration to the Executive Officer that a vehicle qualifies for a fuel-cycle ~~partial~~ PZEV allowance shall include 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.

(6) *Calculation of Combined PZEV Allowance for a Vehicle.* The combined PZEV allowance for a qualifying vehicle in a particular model year is the sum of~~:~~ the PZEV allowances listed in this section 1962(c)(6), multiplied by any PZEV introduction phase-in multiplier or

PZEV high efficiency multiplier listed in section 1962(c)(7) (if a 2002 through 2005 model-year PZEV qualifies for both multipliers listed in section 1962(c)(7), the product of the two multipliers is used as the PZEV multiplier).

(A) *Baseline PZEV Allowance.* The baseline PZEV allowance of 0.2 for vehicles meeting the criteria in section 1962(c)(2);

(B) *Zero Emission VMT PZEV Allowance.* The zero-emission VMT PZEV allowance, if any, determined in accordance with section 1962(c)(3)~~, not to exceed 0.6~~;

(C) *Advanced ZEV Componentry PZEV Allowance.* The advanced ZEV componentry PZEV allowance, if any, determined in accordance with section 1962(c)(4)~~, not to exceed 0.1~~; and

(D) *Fuel-cycle Emissions PZEV Allowance.* The fuel-cycle emissions PZEV allowance, if any, determined in accordance with section 1962(c)(5)~~, not to exceed 0.2~~.

(7) *PZEV Multipliers.*

(A) *PZEV Introduction Phase-In Multiplier*. Each 2000 through 2005 model-year PZEV that is produced and delivered for sale in California qualifies for a PZEV introduction phase-in multiplier as follows:

| | *MY 2000-2003* | *MY 2004* | *MY 2005* |
|---|---|---|---|
| Multiplier | 4.0 | 2.0 | 1.33 |

(B) *AT PZEV High-Efficiency Multiplier.* An AT PZEV qualifies for a full high-efficiency multiplier in accordance with section 1962(e) starting with the 2002 model year.

(C) *Introduction Phase-In Multiplier for PZEVs with > 10 Mile Zero Emission Range*. Each 2000 through 2011 model year PZEV with > 10 miles zero emission range that is produced and delivered for sale in California qualifies for a phase-in multiplier as follows:

| | MY 2000-2007 | MY 2008-2009 | MY 2010-2011 |
|---|---|---|---|
| Multiplier | 2.0 | 1.5 | 1.25 |

~~(d) *Generation and Use of ZEV Credits; Calculation of Penalties.* A manufacturer that produces and delivers for sale in California ZEVs, full ZEV allowance vehicles, or partial ZEV allowance vehicles in a given model year exceeding the manufacturer's ZEV requirement set forth in section 1962(b) shall earn ZEV credits in accordance with this section 1962(d).~~

~~(1)~~(d) *Qualification for ZEV Multipliers.*

~~(A)~~(1) *1996-1998 Model-Year ZEV Multipliers.*

~~1.~~(A) *1996-1998 Model-Year ZEV Multiplier Based on Vehicle Range.* 1996-1998 model-year ZEVs shall qualify for a ZEV multiplier based on vehicle range as follows:

| *ZEV Multiplier* | *Vehicle Range (miles)* | |
|---|---|---|
| | *Model Years 1996 and 1997* | *Model Year 1998* |
| 2 | any | >100 |
| 3 | 70 | >130 |

Range shall be determined in accordance with section 9.f.(2)(a) of the "California Exhaust Emission Standards and Test Procedures for 1988 Through 2000 Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles," incorporated by reference in section 1960.1(k).

~~2.~~(B) *1996-1998 Model-Year ZEV Multiplier Based on Specific Energy of Battery.* 1996-1998 model-year ZEVs shall qualify for a ZEV multiplier based on specific energy of the battery as follows:

| *ZEV Multiplier* | *Specific Energy of Battery (w-hr/kg)* |
|---|---|
| 2 | any |
| 3 | >40 |

~~3.~~(C) *Election of Multiplier.* A 1996-1998 model-year ZEV may qualify for a ZEV multiplier according to section 1962(d)(1)(A)~~1.~~ or section 1962(d)(1)~~(A)2.~~(B), but not both. ~~For purposes of calculating a manufacturer's fleet average NMOG value under section 1960.1(g)(2), each ZEV that qualifies for a ZEV multiplier shall be counted as one vehicle.~~

~~(B)~~(2) *1999-~~2007~~ 2000 Model-Year ZEV Multiplier Calculation for Extended Electric Range Vehicles.* ~~1.~~ Each ZEV ~~and full ZEV allowance vehicle~~ that is produced and delivered for sale in California in the 1999 ~~to~~ - ~~2007~~ 2000 model years and that has an extended electric range shall qualify for a ZEV multiplier as follows:

| *All-electric range* | *MY 1999-2000* | ~~*MY 2001-2002*~~ | ~~*MY 2003-2005*~~ | ~~*MY 2006-2007*~~ |
|---|---|---|---|---|
| 100-175 | 6-10 | ~~4-6~~ | ~~2-4~~ | ~~1-2~~ |

ZEV multipliers under the above schedule will be determined by linear interpolation between the values shown in the above schedule. Range shall be determined in accordance with ~~S~~section E.3.(2)(a) of the "California Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes," incorporated by reference in section 1962~~(e)~~(h). ZEVs that have a refueling time of less than 10 minutes and a range of 100 miles or more shall be counted as having unlimited all-electric range, and shall consequently earn the maximum allowable ZEV multiplier for a specific model year. ZEVs that have a range of 80 to 99 miles shall qualify for ZEV multipliers in the 1999~~-2002~~ 2000 model year~~s~~ in accordance with the following equation:

ZEV multiplier = (~~minimum allowable ZEV multiplier per above table for a model year~~ 6) x (AER equivalent to a 10 minute recharge/100) x 0.5.

~~2. For purposes of calculating a manufacturer's fleet average NMOG value under sections 1960.1(g)(2) and 1961(b) and (c), title 13, CCR, each extended electric range ZEV shall be counted as one vehicle.~~

(3) *ZEV Multipliers for 2001 and Subsequent Model Years.*

(A) *ZEV Phase-In Multiplier.* Each 2001 to 2005 model-year ZEV that is placed in service in California qualifies for a ZEV phase-in multiplier as follows:

| | *MY 2001-2002* | *MY 2003-2005* |
|---|---|---|
| Multiplier | 4.0 | 1.25 |

(B) *ZEV Discount Multiplier for NEVs*. Each 2004 and subsequent model-year NEV that is produced and delivered for sale in California is subject to a ZEV discount multiplier for NEVs as follows:

| | *MY 2004 - MY 2005* | *MYs 2006 and Subsequent* |
|---|---|---|
| Discount Multiplier | 0.5 | 0.15 |

(C) *ZEV Extended Electric Range Multiplier.*

1. *Basic Multiplier Schedule*. Each 2001 and subsequent model-year ZEV that is placed in service in California and that has an extended urban electric range qualifies for a ZEV extended electric range multiplier as follows:

| *Urban All-Electric Range* | *Multiplier* |
|---|---|
| < 50 miles | 1 |
| > 50 miles to < 275 miles | (Urban AER-25)/25 |
| > 275 miles | 10 |

A NEV is not eligible to earn a ZEV extended electric range multiplier. In determining ZEV range multipliers, specialty electric vehicles may, upon Executive Officer approval, be tested at the parameters used to determine the ZEV multipliers for the existing electric vehicle.

2. *Fast refueling.*

a. *Full Fueling in 10 Minutes or Less.* A 2008 and earlier model-year ZEV with the demonstrated capability to accept fuel or electric charge until achieving at least 95% SOC or rated fuel capacity in 10 minutes or less when starting from all operationally allowable SOC or fuel states is counted as having unlimited zero emission range and qualifies for the maximum allowable ZEV extended electric range multiplier.

b. *At Least 60-Mile Range in Less Than 10 Minutes.* A 2008 and earlier model year ZEV with the demonstrated capacity to accept fuel or electric charge equivalent to at least 60 miles of UDDS range when starting from 20% SOC in less than 10 minutes is counted as having 60 additional miles (up to a 275 mile maximum) of UDDS range in the range multiplier determination in section 1962(d)(3)(C)1.

3. *Multiplier Phase Down*. Starting with the 2005 model year, the ZEV extended electric range multiplier is phased down to 0.15 of its value in accordance with section 1962(e)(6).

(D) *Combined ZEV Multiplier.* Starting with the 2001 model year, the combined ZEV multiplier for each ZEV in a specific model year is the product of:

1. The ZEV phase-in multiplier if any as set forth in section 1962(d)(3)(A), times

2. In the case of a NEV, the ZEV discount multiplier for NEVs if any as set forth in section 1962(d)(3)(B), times

3. The extended electric range multiplier if any as set forth in section 1962(d)(3)(C) times

4. The high efficiency multiplier if any as set forth in section 1962(e).

~~(2)~~(E) *Effect of ZEV Multipliers.* In calculating the number of ZEVs ~~and full ZEV allowance vehicles~~ produced and delivered for sale in California by a manufacturer in a model year and the ZEV credits from such vehicles, the number of ZEVs ~~and full ZEV allowance vehicles~~ qualifying for a particular ZEV multiplier shall be multiplied by the combined ZEV multiplier.

(e) *ZEV and Advanced Technology PZEV High Efficiency Multipliers*

(1) *Eligibility.* Beginning with the 2005 model year for ZEVs and the 2002 model year for advanced technology PZEVs, both ZEVs and advanced technology PZEVs are eligible for a high efficiency multiplier. A NEV is not eligible to earn an efficiency multiplier. A vehicle earning an efficiency multiplier value of less than 1.00 pursuant to section 1962(e)(3) will be treated as having an efficiency multiplier of 1.

(2) *Calculation of CMPEG Rating.* For all vehicle types, a CMPEG (California miles per equivalent gallon) rating is determined as follows:

(A) For gasoline-fueled vehicles and HEVs with < 10 mile zero-emission range, CMPEG = Combined Fuel Economy determined in accordance with 40 CFR Part 600 = 1/ [.55 / (EPA city mpg, unadjusted) + .45 / (EPA highway mpg, unadjusted)].

(B) For BEVs and off-vehicle charge capable HEVs with 10 mile zero-emission range, CMPEG = [ 33,705 AC whr/gal / (.55 (AC whr/mile UDDS) + .45 (AC whr/mile HFEDS))] where AC whr/ mile values are determined in accordance with section E.3. "Determination of All-Electric Range-Urban," and "Determination of All-Electric Range-Highway" of the "California Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes," as incorporated by reference in section 1962(h). Qualifying HEV CMPEG determination shall be based solely on electric mode operating efficiency for vehicles that are able to maintain test cycle speed and time tolerances for the entire zero-emission range test.

(C)1. For vehicles operating on an alternative fuel other than hydrogen, including CNG or alcohol, CMPEG = Combined Fuel Economy as determined in accordance with 40 CFR Part 600. Alternate fuel vehicle CMPEG shall not be compensated with the federal (1/0.15) "fuel content" factor used in determining average fuel economy.

2. For vehicles operating on hydrogen, CMPEG shall be determined by converting the combined fuel economy value measured on the basis of miles-per-kg of hydrogen (MPkg) into CMPEG as follows:

Hydrogen MPkg x (1.0 kg H2/gallon gasoline) = CMPEG

(D) For flexible-fuel or dual-fuel vehicles, CMPEG is the lowest of the federal combined fuel economy values determined for any fuel or fuel mixture on which the vehicle is certified to operate.

(3) *Vehicle classes.*

(A) *List of vehicle classes.* Efficiency multipliers will be determined based on assignment of a vehicle to one of the following vehicle classes; interior volume is determined in

accordance with SAE Recommended Practice J1100 and U.S. EPA Fuel economy regulations, 40 CFR 600.315-82.

| *Vehicle Class* | *Class Description* |
|---|---|
| City Vehicle (effective beginning in 2008 model year) | 2 passenger electric vehicle with length < 3 meters |
| Subcompact PC | Interior volume up to 99 ft^3, and not a City Vehicle |
| Compact PC | Interior volume 100-109 ft^3 |
| Midsize PC | Interior volume 110- 119 ft^3 |
| Large PC | Interior volume over 120 ft^3 |
| Small Truck | LDT 1 |
| Medium Truck | LDT 2 |
| Large Truck | LDT 3 & 4 |

(B) *Assignment of derivative or converted vehicles*. A derivative station wagon shall be placed in the same class as the sedan on which it is based. A minivan shall be placed in the appropriate truck category based on adjusted or adjusted loaded vehicle weight. A derivative or conversion ZEV that shares a production platform with one or more gasoline engine versions shall be placed in the same class as the smallest or lightest gasoline version of the same platform for that model year.

(4) *High efficiency multipliers for the 2002-2007 model years.* For model years 2002-2007, the efficiency multiplier for each vehicle class is determined according to the following equation:

High Efficiency Multiplier = CMPEG / (1.5 * Baseline Fuel Economy)

Where: Baseline Fuel Economy is determined in accordance with the following table:

| *Vehicle Class* | *Baseline Fuel Economy MY 2002-2007* |
|---|---|
| Subcompact PC | 30.6 |
| Compact PC | 30.4 |
| Midsize PC | 27.0 |
| Large PC | 25.6 |
| Small Truck | 25.0 |
| Medium Truck | 21.4 |
| Large Truck | 18.2 |

(5) *High efficiency multipliers for the 2008 and subsequent model years.* For the 2008 and subsequent model years, the efficiency multiplier for each vehicle class is determined in accordance with the following equations:

For ZEVs and PZEVs with > 10 mile Zero Emission Range: Efficiency multiplier = CMPEG / (2.0 * Baseline Fuel Economy)

For all other AT PZEVs: Efficiency multiplier = CMPEG / (1.5 * Baseline Fuel Economy)

Where: *Baseline Fuel Economy* for model years 2008-2011 is the model year 2004 unadjusted-combined federal sales-weighted fuel economy for the vehicle class as determined by U.S. EPA. For a City Vehicle, the baseline fuel economy is 45.9.

*Baseline Fuel Economy* for Model Years 2012-2014 is the model year 2008 unadjusted-combined federal sales-weighted fuel economy for the vehicle class as determined by U.S. EPA. For a City Vehicle, the baseline fuel economy is 45.9.

*Baseline Fuel Economy* for model years 2015 and beyond shall be determined using the same methodology.

(6) *Phasing in the High Efficiency Multiplier for ZEVs.*

(A) *Range and Efficiency Phasing Factors.* For ZEVs, the high efficiency multiplier is phased in, and the extended electric range multiplier is phased down to 0.15 of its initial value, using the phasing factors in the following schedule:

*Range and Efficiency Phasing Factors for Each Model Year*

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012+ |
|---|---|---|---|---|---|---|---|---|---|
| Range | 1.000 | 0.825 | 0.600 | 0.450 | 0.300 | 0.250 | 0.200 | 0.200 | 0.150 |
| Efficiency | 0.000 | 0.100 | 0.350 | 0.550 | 0.600 | 0.700 | 0.800 | 0.800 | 0.825 |

(B) *Application of the Range and Efficiency Phasing Factors.* The range and efficiency phasing factors are applied as follows:

Phased range multiplier = ((range multiplier – 1) × range phasing factor) + 1

Phased efficiency multiplier = ((efficiency multiplier – 1) × efficiency phasing factor) + 1

(f) *In-Service Warranty Multiplier for ZEVs and PZEVs With ³ 10 Mile Zero Emission Range.* Except in the case of a NEV, an additional ZEV or PZEV multiplier will be earned for the 2001 through 2011 model years by a ZEV or a PZEV with ≥ 10 mile zero emission range whose zero-emission energy storage or conversion system is under an original warranty from the vehicle manufacturer beyond three years of service and is registered for operation on public roads in California. For the 2001 through 2007 model years, a manufacturer will receive 0.1 times the ZEV credit earned by the vehicle if it were leased or sold new in that year, including multipliers, on a year-by-year basis beginning in the fourth year. For the 2008 through 2011 model years, a manufacturer will receive 0.05 times the ZEV credit earned by the vehicle if it were leased or sold new in that year, including multipliers, on a year-by-year basis beginning in the fourth year. The warranty multiplier is reported and earned in the year following each continuous year of service. ZEVs, other than NEVs, re-leased prior to January 25, 2001 for a period beyond three years of service will earn an additional ZEV multiplier of 0.1 times the ZEV credit earned by the vehicle if it were leased or sold new in that year, including multipliers, for each additional year that they are in service and registered for operation on public roads in California. Such vehicles are not required to have the zero emission energy storage or conversion system under an original warranty from the vehicle manufacturer.

(g) *Generation and Use of ZEV Credits; Calculation of Penalties*

(1) *Introduction.* A manufacturer that produces and delivers for sale in California ZEVs or PZEVs in a given model year exceeding the manufacturer's ZEV requirement set forth in section 1962(b) shall earn ZEV credits in accordance with this section 1962(g).

~~(3)~~(2) *ZEV Credit Calculations.*

(A) *Credits from ZEVs ~~and Full ZEV Allowance Vehicles~~.* ~~A full ZEV allowance vehicle shall be treated as a ZEV in calculating and applying ZEV credits.~~ The amount of ZEV credits earned by a manufacturer in a given model year from ZEVs shall be expressed in units of g/mi NMOG, and shall be equal to the number of ZEVs produced and delivered for sale in California that the manufacturer applies towards meeting the ZEV requirements for the model year ~~(at least 40% of the ZEV requirement for a large volume manufacturer)~~ subtracted from the number of ZEVs produced and delivered for sale in California by the manufacturer in the model

year and then multiplied by the NMOG fleet average requirement for PCs and LDT1s for that model year.

(B) *Credits from ~~Partial ZEV Allowance Vehicles~~ PZEVs*. The amount of ZEV credits from ~~partial ZEV allowance vehicles~~ PZEVs earned by a manufacturer in a given model year shall be expressed in units of g/mi NMOG, and shall be equal to the total number of PZEV allowances from ~~partial ZEV allowance vehicles~~ PZEVs produced and delivered for sale in California that the manufacturer applies towards meeting its ZEV requirement for the model year ~~(a number not to exceed 60% of the ZEV requirement for large volume manufacturers)~~ subtracted from the total number of PZEV allowances from ~~partial ZEV allowance vehicles~~ PZEVs produced and delivered for sale in California by the manufacturer in the model year and then multiplied by the NMOG fleet average requirement for PCs and LDT1s for that model year.

(C) *Separate Credit Accounts.* The number of credits from a manufacturer's [i] ZEVs ~~and full ZEV allowance vehicles~~ [ii] advanced technology PZEVs, and [iii] all other PZEVs shall each be maintained separately ~~from the number of credits from the manufacturer's partial ZEV allowance vehicles~~.

~~(4)~~(3) *ZEV Credits for MDVs and LDTs other than LDT1s.* ZEVs and PZEVs classified as MDVs or as LDTs other than LDT1s may be counted toward the ZEV requirement for PCs and LDT1s, and included in the calculation of ZEV credits as specified in this section 1962~~(d)~~(g) if the manufacturer so designates.

(4) *ZEV Credits for Advanced Technology Demonstration Programs.* A vehicle placed in a California advanced technology demonstration program may earn ZEV credits even if it is not "delivered for sale." To earn such credits, the manufacturer must demonstrate to the reasonable satisfaction of the Executive Officer that the vehicles will be regularly used in applications appropriate to evaluate issues related to safety, infrastructure, fuel specifications or public education. Such a vehicle is eligible to receive the same allowances and credits that it would have earned if placed in service. To determine vehicle credit, the model-year designation for a demonstration vehicle shall be consistent with the model-year designation for conventional vehicles placed in the same timeframe.

(5) *ZEV Credits for Transportation Systems.*

(A) *General.* In model years 2001 through 2007, a ZEV, advanced technology PZEV or PZEV placed as part of a transportation system may earn additional ZEV credits, which may used in the same manner as other credits earned by vehicles of that category, except as provided in section (g)(5)(C) below. A NEV is not eligible to earn credit for transportation systems. To earn such credits, the manufacturer must demonstrate to the reasonable satisfaction of the Executive Officer that the vehicle will be used as a part of a project that uses an innovative transportation system.

(B) *Credits Earned.* In order to earn additional credit under this section (g)(5), a project must at a minimum demonstrate [i] shared use of ZEVs, AT PZEVs or PZEVs, and [ii] the application of "intelligent" new technologies such as reservation management, card systems,

depot management, location management, charge billing and real-time wireless information systems. If, in addition to factors [i] and [ii] above, a project also features linkage to transit, the project may receive further additional credit. For ZEVs only, not including NEVs, a project that features linkage to transit, such as dedicated parking and charging facilities at transit stations, but does not demonstrate shared use or the application of intelligent new technologies, may also receive additional credit for linkage to transit. The maximum credit awarded per vehicle shall be determined by the Executive Officer, based upon an application submitted by the manufacturer and, if appropriate, the project manager. The maximum credit awarded shall not exceed the following:

| *Type of Vehicle* | *Shared Use, Intelligence* | *Linkage to Transit* |
|---|---|---|
| PZEV | 2 | 1 |
| Advanced Technology PZEV | 4 | 2 |
| ZEV | 6 | 3 |

(C) *Cap on Use of Credits.*

1. *ZEVs*. Credits earned or allocated by ZEVs pursuant to this section (g)(5), including all credits earned by the vehicle itself, may be used to satisfy up to one-tenth of a manufacturer's ZEV obligation in any given model year.

2. *AT PZEVs*. Credits earned or allocated by AT PZEVs pursuant to this section (g)(5), including all credits earned by the vehicle itself, may be used to satisfy up to one-twentieth of a manufacturer's ZEV obligation in any given model year, but may only be used in the same manner as other credits earned by vehicles of that category.

3. *PZEVs*. Credits earned or allocated by PZEVs pursuant to this section (g)(5), including all credits earned by the vehicle itself, may be used to satisfy up to one-fiftieth of the manufacturer's ZEV obligation in any given model year, but may only be used in the same manner as other credits earned by vehicles of that category.

(D) *Allocation of Credits.* Credits shall be assigned by the Executive Officer to the project manager or, in the absence of a separate project manager, to the vehicle manufacturers upon demonstration that a vehicle has been placed in a project. Credits shall be allocated to vehicle manufacturers by the Executive Officer in accordance with a recommendation submitted in writing by the project manager and signed by all manufacturers participating in the project, and need not be allocated in direct proportion to the number of vehicles placed.

~~(5)~~(6) *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 credits consistent with section 1962(b). These credits may be earned previously by the manufacturer or acquired from another manufacturer~~.~~, except that beginning with the 2006 model year credits earned from NEVs offered for sale or placed in service in model years 2001 through 2005 cannot be used to satisfy more than the following portion of any program category (ZEV, AT PZEV, PZEV):

| 2006 | 2007 and beyond |
|---|---|
| 75% | 50% |

This limitation applies to credits earned in model years 2001 through 2005 by the same manufacturer or earned in model years 2001 through 2005 by another manufacturer and acquired. The amount of ZEV credits required to be submitted shall be calculated according to the criteria set forth in this section 1962~~(d)~~(g).

~~(6)~~(7) *Requirement to Make Up a ZEV Deficit.*

(A) *General.* A manufacturer that 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, except that credits generated from PZEVs may be used to offset deficits for two model years. The amount of ZEV credits required to be submitted shall be calculated by ~~(A)~~ [i] adding the number of ZEVs produced and delivered for sale in California by the manufacturer for the model year to the number of ZEV allowances from partial ZEV allowance vehicles produced and delivered for sale in California by the manufacturer for the model year (~~not to exceed 60% of~~ for a large volume manufacturer~~'s ZEV requirement~~, not to exceed that permitted under section 1962(b)(2)), ~~(B)~~ [ii] subtracting that total from the number of ZEVs required to be produced and delivered for sale in California by the manufacturer for the model year, and ~~(C)~~ [iii] multiplying the resulting value by the fleet average requirements for PCs and LDT1s for the model year in which the deficit is incurred.

(B) *Additional Time to Make Up ZEV Deficits for the 2003-2004 Model Years.*

1. *Model-Year 2003 ZEV Deficits.* A manufacturer that produces, and delivers for sale in California, model-year 2003 or earlier PZEVs that generate at least twice as many credits as are necessary to take full advantage of the manufacturer's 60% PZEV option for the 2003 model year has through the 2007 model year to fully exercise its option to meet an additional 20% of its ZEV requirement for the 2003 model year with credits from advanced technology PZEVs.

2. *Model-Year 2004 ZEV Deficits.* A manufacturer that qualifies under section 1962(g)(7)(B) 1., and produces, and delivers for sale in California, model-year 2004 or earlier PZEVs that generate at least twice as many credits as are necessary to take full advantage of the manufacturer's 60% PZEV option for the 2003 and 2004 model years, has through the 2008 model year to fully exercise its option to meet an additional 20% of its ZEV requirement for the 2004 model year with credits from advanced technology PZEVs.

~~(7)~~(8) *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 section 43211 civil penalty applicable to a manufacturer that sells a new motor vehicle that does not meet the applicable emission standards adopted by the state board. The cause of action shall be deemed to accrue when the ZEV deficits

are not balanced by the end of the specified time period. For the purposes of Health and Safety Code section 43211, the number of vehicles not meeting the state board's standards shall be calculated according to the following equation, provided that ~~no more than 60%~~ the percentage of a large volume manufacturer's ZEV requirement for a given model year that may be satisfied with partial ZEV allowance vehicles or ZEV credits from such vehicles may not exceed the percentages permitted under section 1962(b)(2)(A):

(No. of ZEVs required to be produced and delivered for sale in California for the model year) - (No. of ZEVs produced and delivered for sale in California for the model year) - (No. of ZEV allowances from partial ZEV allowance vehicles 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 LDT1s for the model-year)].

~~(e)~~(h) *Test Procedures.* The certification requirements and test procedures for determining compliance with the this section 1962 are set forth in "California Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes," adopted by the state board on August 5, 1999, and last amended December 7, 2001, which is incorporated herein by reference.

(i) *ZEV-Specific Definitions.* The following definitions apply to this section 1962.

(1) "Advanced technology PZEV" or "AT PZEV" means any PZEV with an allowance greater than 0.2 before application of the PZEV early introduction phase-in multiplier or the high efficiency multiplier.

(2) "Battery electric vehicle" means any vehicle that operates solely by use of a battery or battery pack, or that is powered primarily through the use of an electric battery or battery pack but uses a flywheel or capacitor that stores energy produced by the electric motor or through regenerative braking to assist in vehicle operation.

(3) "Neighborhood electric vehicle" means a motor vehicle that meets the definition of Low-Speed Vehicle either in section 385.5 of the Vehicle Code or in 49 CFR 571.500 (as it existed on July 1, 2000), and is certified to zero-emission vehicle standards.

(4) "Placed in service" means having been sold or leased to an end-user and not to a dealer or other distribution chain entity, and having been individually registered for on-road use by the California Department of Motor Vehicles.

(5) "Specialty electric vehicle" means a version of an existing electric vehicle that is designed for a commercial or governmental fleet application, and has the same battery pack and chassis as the existing electric vehicle from which it is modified.

~~(f)~~(j) *Abbreviations.* The following abbreviations are used in this section 1962:

"AER" means all-electric range.
"BEV" means battery electric vehicle.
"CMPEG" means California miles per equivalent gallon.
"HEV" means hybrid-electric vehicle.
"HFEDS" means highway fuel economy driving cycle.
"LDT" means light-duty truck.
"LDT1" means a light-truck with a loaded vehicle weight of 0-3750 pounds.
"LDT2" means a "LEV II" light-duty truck with a loaded vehicle weight of 3751 pounds to a gross vehicle weight of 8500 pounds, or a "LEV I" light-duty truck with a loaded vehicle weight of 3751-5750 pounds.
"MDV" means medium-duty vehicle.
"Non-Methane Organic Gases" or "NMOG" means the total mass of oxygenated and non-oxygenated hydrocarbon emissions.
"NEV" means neighborhood electric vehicle.
"NOx" means oxides of nitrogen.
"PC" means passenger car.
"PZEV" means any vehicle that is delivered for sale in California and that qualifies for a partial ZEV allowance of at least 0.2.
"SOC" means state of charge.
"SULEV" means super ultra-low-emission-vehicle.
"UDDS" means urban dynamometer driving cycle.
"ULEV" means ultra-low emission vehicle.
"VMT" means vehicle miles traveled.
"ZEV" means zero-emission vehicle.

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, 43104, 43105, 43106, 43107, 43204, and 43205.5, Health and Safety Code.

Amend title 13, CCR, section 1900 to read as follows:

§ 1900. Definitions.

[Subsections ~~(a)~~(b)(1) through ~~(17)~~(18) -- No change]

(19) "Intermediate volume manufacturer" means any pre-2001 model year manufacturer with California sales between 3,001 and ~~35,000~~ 60,000 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; any 2001 through 2002 model year manufacturer with California sales between 4,501 and ~~35,000~~ 60,000 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 2003 and subsequent model year manufacturer with California sales between 4,501 and ~~35,000~~ 60,000 new light- and medium-duty vehicles based on the average number of vehicles sold 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.

(20) "Large volume manufacturer" means any 2000 and subsequent model year manufacturer that is not a small volume manufacturer, or an independent low volume manufacturer, or an intermediate manufacturer.

(21) "Independent low volume manufacturer" means a manufacturer with California annual sales of less than 10,000 new passenger cars, light-duty trucks and medium-duty vehicles following aggregation of sales pursuant to this section 1900(a)(20). Annual sales shall be determined as the average number or sales sold for the three previous consecutive model years for which a manufacturer seeks certification; however, for a manufacturer certifying for the first time in California, annual sales shall be based on projected California sales for the model year. The annual sales from different firms shall be aggregated in the following situations:

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

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

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

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

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.

Amend section 1960.1(k), Title 13, California Code of Regulation, to read as follows:

(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 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," adopted by the state board on May 20, 1987 as last amended August 5, 1999, both which are incorporated herein by reference, and in "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," as incorporated by reference in section 1961(d). The test procedures for determining the compliance of 2001 through 2006 model-year hybrid electric vehicles with the standards set forth in this section are set forth in "California Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes, as incorporated by reference in section 1962~~(e)~~(h).

* * * *

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, 43104, 43105, 43106, 43107, 43204, and 43205.5, Health and Safety Code.

Amend section 1961(a)(8)(B) and 1961(d), title 13, California Code of Regulations, to read as follows:

(8) *Requirements for Vehicles Certified to the Optional 150,000 Mile Standards.*

(A) *Requirement to Generate Additional Fleet Average NMOG Credit.* A vehicle that is certified to the 150,000 mile standards in section 1961(a) shall generate additional NMOG fleet average credit as set forth in 1961(b)(1) or additional vehicle equivalent credits as set forth in 1961(b)(2) 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.

(B) *Requirement to Generate a Partial ZEV Allowance.* A vehicle that is certified to the 150,000 mile SULEV standards shall also generate a partial ZEV allocation according to the criteria set forth in section C.3 of the "California Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes," incorporated by reference in section 1962~~(e)(h)~~."

* * * *

(d) *Test Procedures.* The certification requirements and test procedures for determining compliance with the emission standards in this section are set forth in the "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," adopted on August 5, 1999, as amended on December 27, 2000, which is incorporated herein by reference. In the case of hybrid electric vehicles, the certification requirements and test procedures for determining compliance with the emission standards in this section are set forth in the "California Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes," incorporated by reference in section 1962~~(e)~~(h).

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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, 43104, 43105, 43106, 43107, 43204, and 43205.5, Health and Safety Code.