

## Attachment B

California Environmental Protection Agency  
AIR RESOURCES BOARD

### PROPOSED 15-DAY MODIFICATIONS

#### CALIFORNIA EXHAUST EMISSION STANDARDS AND TEST PROCEDURES FOR 2009 THROUGH 2017 MODEL ZERO-EMISSION VEHICLES AND HYBRID ELECTRIC VEHICLES, IN THE PASSENGER CAR, LIGHT-DUTY TRUCK AND MEDIUM-DUTY VEHICLE CLASSES

Adopted: December 17, 2008  
Amended: December 2, 2009  
Amended: March 22, 2012  
Amended: December 6, 2012  
Amended: [insert adoption date]

Note: This document shows the originally proposed changes to the preexisting language text in underline to indicate additions and ~~strikeout~~ to indicate deletions. The further proposed amendments subject to comment are shown in double underline to indicate additions and ~~double-strikeout~~ to show deletions. Text that has both single underline and ~~double-strikeout~~ is additional text that staff proposed during the 45-day Public Notice period but proposed for retraction as part of this 15-day Public Notice period. All other portions remain unchanged and are indicated by the symbol “\* \* \* \* \*” for reference.

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## C. Zero-Emission Vehicle Standards.

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### 4. Qualification for ZEV Multipliers and Credits.

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#### 4.4 Credits for 2009 through 2017 Model Years ZEVs.

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(b) *Fast Refueling.* For purposes of subdivision C.4.4(a), a Model Year 2009 through 2017 ZEV, inclusive, shall be deemed a Type III, Type IV or Type V ZEV if it has the capability to accumulate at least 95 miles of UDDS range in 10 minutes or less, at least 190 miles of UDDS range in 15 minutes or less, or 285 miles of UDDS range in 15 minutes or less, respectively. The "fast refueling capability" requirement for a 2009 through 2017 model year Type III, IV, or V ZEV in subdivision C.4.4(a) will be considered met if the Type III ZEV has the capability to accumulate at least 95 miles of UDDS range in 10 minutes or less and the Type IV or V ZEV has the capability to accumulate at least 190 or 285 miles, respectively, in 15 minutes or less. For model year 2015 through 2017, qualifying for fast refueling by battery exchange is prohibited. For ZEVs that utilize more than one ZEV fuel, such as plug-in fuel cell vehicles, the Executive Officer may choose to waive these subdivision 1962.1(d)(5)(B) fast refueling requirements and base the amount of credit earned on UDDS ZEV range, as specified in subdivision C.4.4.(a).

For Model Years 2009 through 2014, inclusive, "capability to accumulate" means the ZEV's refueling system has been demonstrated to the satisfaction of ARB's Executive Officer as having the potential, with appropriate infrastructure or other equipment, to accumulate the miles required under this subdivision within the given time period for the claimed ZEV type. For Model Years 2015 through 2017, inclusive, "capability to accumulate" means the ZEV's refueling system has been demonstrated to the satisfaction of ARB's Executive Officer as actually accumulating the miles required under this subdivision within the given time period for the claimed ZEV type, based on refueling events. To receive fast refueling credits manufacturers must apply to ARB with the information and documentation specified below.

#### (1.) Documentation of fast refueling mileage and events

- a. For each specific model year vehicle ZEV type for which a manufacturer claims fast refueling credits, the manufacturer must submit documentation of total fleet miles attributed to fast refueling use in a 12 consecutive month period and total fleet miles in the same 12 month period.

b. To support a manufacturer's claimed number of miles attributed to fast refueling, that manufacturer must provide documentation of each fast refueling event. For each refueling event, the manufacturer must provide documentation of the date of refueling, street address of the refueling facility used, and vehicle identification number of the vehicle refueled. Fast refueling credit applicants shall retain this documentation for a minimum of three years from the date it was created and provide the documentation to ARB staff upon request within 3 business days.

(2.) Calculation of fast refueling credits

Fast refueling credits shall be calculated as follows:

Fast refueling miles / total miles = M

4 credits = ZEV credit per each Type III ZEV

4 + (M) x (1 credit) = ZEV credit per each Type IV ZEV

4 + (M) x (5 credits) = ZEV credit per each Type V ZEV

(3.) The fast refueling data submission requirement in this paragraph does not apply to manufacturers of fuel cell electric vehicles.

(c) *ZEV Credits for 2009 through 2017 Model-Year ZEVs.* A 2009 through 2017 model-year ZEV, including a Type 1.5x and Type IIx, other than a NEV or Type 0, earns 1 ZEV credit when it is produced and delivered for sale in California. A 2009 through 2017 model-year ZEV earns additional credits based on the earliest year in which the ZEV is placed in service in California (not earlier than the ZEV's model year). The vehicle must be delivered for sale and placed in service in a Section 177 state or in California in order to earn the total credit amount. The total credit amount will be earned in the state (i.e. California or a Section 177 state) in which the vehicle was delivered for sale. The following table identifies the total credits that a ZEV in each of the eight ZEV tiers will earn, including the credit not contingent on placement in service, if it is placed in service in the specified calendar year or by June 30 after the end of the specified calendar year. A vehicle is not eligible to receive credits if it is placed in service after December 31, five calendar years after the model year. For example, if a vehicle is produced in 2012, but does not get placed until January 1, 2018, the vehicle would no longer be eligible for ZEV credits.

<i>Total Credit Earned by ZEV Type and Model Year for Production and Delivery for Sale and for Placement</i>		
<i>Tier</i>	<i>Calendar Year in Which ZEV is Placed in Service</i>	
	2009-2011	2012 - 2017
NEV	0.30	0.30
Type 0	1	1
Type I	2	2
Type I.5	2.5	2.5
Type I.5x	n/a	2.5
Type II	3	3
Type IIx	n/a	3
Type III	4	4
Type IV	5	<u>4 to 5*</u>
Type V	7	2012-2014: 7 2015-2017: <u>4 to 9*</u>

\* As specified in subdivision C.4.4(b)

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