

UPDATED INFORMATIVE DIGEST

ZERO EMISSION VEHICLE REGULATION AMENDMENTS

Sections Affected: This action amends California Code of Regulations, title 13, sections 1962.1 and 1962.2, and proposed amendments to “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”, as adopted December 17, 2008, and as last amended December 6, 2012, which is incorporated by reference in section 1962.1, title 13, California Code of Regulations, and “California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes,” as adopted March 22, 2012, and as last amended December 6, 2012, which is hereby incorporated by reference in section 1962.2, title 13, California Code of Regulations. Also incorporated by reference is SAE J2481 “Utility Factor Definitions for Plug-In Hybrid Electric Vehicles Using 2001 U.S. DOT National Household Travel Survey Data,” as revised in September 2010, available at the California Environmental Protection Agency Headquarters, in Sacramento, California.

Background

In January 2012, the ARB approved the Advanced Clean Cars program, which included increased ZEV requirements through 2025 model year, and the next generation of light duty greenhouse gas (GHG) and criteria pollutant emission standards (LEV III). This historic program combined the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025 and assured the development of environmentally superior cars that will continue to deliver the performance, utility, and safety vehicle owners have come to expect. The Board approved subsequent minor amendments to the Advanced Clean Car program in November 2012, and a final EPA waiver was granted in January 2013.

Due to a compressed schedule, staff was not able to make additional minor modifications before the regulation was finalized in December 2012. Staff returned to the Board with minor amendments to effectuate an agreement between the Section 177 states¹ and regulated manufacturers, add provisions to ensure ZEVs are delivered for sale in California every year, modify the fast refueling definition, and add conforming and clarifying language where needed.

Description of Regulatory Action

Amendments addressed four minor problems, while still maintaining the Board’s commitment to a strengthened ZEV regulation:

¹Section 177 of the federal Clean Air Act allows other states to adopt California motor vehicle emission standards including the ZEV regulation.

1) Adjust the optional Section 177 state compliance path as committed to by the Section 177 states and the manufacturers.

In 2012, the Board approved a new optional provision which allowed manufacturers to produce extra ZEVs in the section 177 states prior to model year 2018. In exchange for these extra ZEVs, manufacturers gain the ability to pool credits across state lines within and between two Regional pools. Additionally, manufacturers would also be allowed to comply with a reduced transitional zero emission vehicles (TZEV) and ZEV portion of their requirement in certain model years. This provision was put in place to smooth the transition into 2018 and subsequent model year requirements, and ensure ZEVs were placed in the section 177 states prior to 2018 model year. Manufacturers and the section 177 states helped draft language, which was finalized in 2012. Since adoption, manufacturers and Section 177 states have continued discussions surrounding this provision, and have requested a number of changes to ensure its success.

The Board adopted staff's proposal to exclude the use of transportation system credits for meeting the additional ZEV percentages in each of the Section 177 states in model years 2016 and 2017. This modification will help ensure those additional percentages are met with credits from actual vehicles. The Board also adopted a change to allow manufacturers on the optional compliance path to trade and transfer 2012 through 2017 model year ZEV and TZEV credits within and between each Regional pool². This means that, for example, a manufacturer could use 2012 through 2015 model year credits to meet a 2015 model year obligation.

The Board additionally adopted staff's proposal to remove the requirement to provide vehicle identification numbers (VIN) for TZEVs prior to 2018 model year and substitute a requirement that manufacturers provide VINs for ZEVs and TZEVs upon request. Lastly, the Board approved simplifying the provision specifying what happens when a manufacturer elects the optional Section 177 state compliance path, but fails to comply with any or all of the requirements.

2) Maintains a minimum ZEV credit requirement, regardless of model year and use of non-ZEV credits earned in the regulation.

Various caps on use of credits from special flexibility provisions have been put in place over iterations of the regulation to ensure manufacturers are still required to produce ZEVs. However, staff found that there was no clear direction for how to apply these caps in combination to meet ZEV requirements. For example, a large volume manufacturer is subject to the following caps when meeting its 2018 model year minimum ZEV requirement:

² Two Regional pools were created for the purpose of this provision: the West Region pool and East Region Pool. States west of the Mississippi River, excluding California, make up the West Region pool, and states east of the Mississippi River make up the East Region pool.

- Extended Range Battery Electric Vehicle (BEVx) Credits: No more than 50% of minimum ZEV requirement³
- GHG-ZEV Over-compliance Credits: No more than 50% of minimum ZEV requirement⁴
- Transportation System Credits from ZEVs: No more than 10% of minimum ZEV requirement

The Board adopted staff's proposal of an overall 50% cap when a manufacturer uses credits (other than pure ZEV credits) in combination to meet its minimum ZEV requirement in any given model year.

3) Modify fast refueling definition to ensure vehicle usage and capability

Adopted in 2001, ZEVs with the ability to refuel to 95% of full capacity within 15 minutes are allowed to earn more credit, under the Type IV and Type V ZEV definitions. Through 2013 model year, BEVs had been qualifying under the fast refueling definition by means of battery exchange capability. However, it has not been publicly demonstrated that battery exchanges have occurred on the vehicles earning credits.

The Board directed staff to ensure actual usage along with capability to qualify for fast refueling credits. The final modifications require manufacturers to submit fast refueling usage data in order to qualify for fast refueling credits. Over a 12 month period, manufacturers seeking to earn fast refueling credits are required to submit the number of fast refueling events for all vehicles in the vehicle fleet. The modifications specify that no more than 25 fast refuel events can be attributed to a single vehicle and that the number of fast refuel events cannot exceed the total number of vehicles in the vehicle fleet. The data submission requirement does not apply to manufacturers of fuel cell electric vehicles (FCEV), because all miles are attributed to fast refueling hydrogen fueling stations.

Comparable Federal Regulations:

Currently, there are no comparable federal regulations mandating auto manufacturers to produce PZEVs, AT PZEVs, TZEVs and/or ZEVs.

Changes to Underlying Laws:

There have been no changes to the statutory authority governing adoption of this regulation.

³ CCR, Title 13, Section 1962.2(g)(6)(B)

⁴ CCR, Title 13, Section 1962.2(g)(6)(C)3.

Changes to the Effect of the Regulation:

Overall, the revised ZEV regulation will help ensure a strong ZEV regulation remains in place in California and all Section 177 states, while allowing appropriate compliance flexibility where needed. Also, the modifications to the fast refueling definition will help to prevent gaming, and ensure usage of fast refueling via battery swap before credit is given. This will have no impact on the requirements, or the number of vehicles expected in compliance with the regulation.

Changes to the Proposed Regulation Since the Publication of the Notice:

ARB conducted two 15-day change comment periods pursuant to Government Code section 11346.8. The 15-day changes modified the regulation to require manufacturers to submit fast refueling usage data in order to qualify for fast refueling credits. Over a 12 month period, manufacturers seeking to earn fast refueling credits are required to submit the number of fast refueling events for all vehicles in the vehicle fleet. The modifications specify that no more than 25 fast refuel events can be attributed to a single vehicle and that the number of fast refuel events cannot exceed the total number of vehicles in the vehicle fleet. The data submission requirement does not apply to manufacturers of fuel cell electric vehicles (FCEV), because all miles are attributed to fast refueling hydrogen fueling stations.