

State of California  
AIR RESOURCES BOARD

**PROPOSED ALTERNATIVE CERTIFICATION REQUIREMENTS AND TEST  
PROCEDURES FOR HEAVY-DUTY ELECTRIC AND FUEL-CELL VEHICLES AND  
PROPOSED STANDARDS AND TEST PROCEDURES FOR ZERO-EMISSION  
POWERTRAINS**

Resolution 19-7

February 21, 2019

Agenda Item No.: 19-2-5

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the California Air Resources Board (CARB or Board) to adopt standards, rules, and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, sections 43013, 43100, 43101, 43102, 43104, and 43806 of the Health and Safety Code authorize the Board to adopt emission standards and test procedures to control air pollution caused by motor vehicles;

WHEREAS, section 43018(c) of the Health and Safety Code provides that in carrying out section 43018, the Board shall adopt standards and regulations that will result in the most cost-effective combination of control measures on all classes of motor vehicles and motor vehicle fuel, including but not limited to reductions in motor vehicle exhaust and evaporative emissions, and reductions in in-use vehicular emissions through durability, performance improvements, and specification of vehicular fuel composition;

WHEREAS, section 43105 of the Health and Safety Code authorizes the Board to require manufacturers of certified vehicles to take corrective action specified by the Board, which may include recall, if those vehicles have violated emission standards or test procedures;

WHEREAS, section 43106 of the Health and Safety Code provides that each new motor vehicle or engine required under Part 5 of the Health and Safety Code to meet the emission standards established pursuant to section 43101 shall be, in all material respects, substantially the same in construction as the test motor vehicle or engine that has been certified by the Board (in accordance with Article 1, Chapter 2, of Part 5 of the Health and Safety Code);

WHEREAS, sections 39500 and 40000 of the Health and Safety Code designate CARB as the agency responsible for control of emissions from motor vehicles;

WHEREAS, sections 39010 and 39601 of the Health and Safety Code provide that a definition set forth in Chapter 2 of Division 26 of the Health and Safety Code shall govern the construction of the division unless and until rules and regulations are adopted by the Board that revise such definition, and that the Board may revise such definition in order to conform to definitions to federal laws and rules and regulations;

WHEREAS, section 38580 of the Health and Safety Code requires the Board to monitor compliance with and enforce a rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism adopted by CARB pursuant to Division 25.5;

WHEREAS, section 38505 of the Health and Safety Code defines "greenhouse gas" (GHG) or "greenhouse gases" (GHGs), for purposes of Division 25.5 of the Health and Safety Code as including all of the following gases: carbon dioxide (CO<sub>2</sub>), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride;

WHEREAS, section 38560 of the Health and Safety Code directs the Board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions from sources or categories of sources, subject to the criteria and schedules set forth in part 4 of division 25.5 of the Health and Safety Code;

WHEREAS, section 43205.5 of the Health and Safety Code requires manufacturers to warrant to ultimate purchasers and subsequent purchasers of their heavy-duty vehicles and engines that the vehicles and engines are designed, built, and equipped to conform to applicable emission standards for a period of use determined by the Board, and that such vehicles and engines are free from defects in materials and workmanship which cause the engines and vehicles to fail to conform to applicable requirements for the same, or lesser, period of usage;

WHEREAS, section 39667 of the Health and Safety Code directs the Board to consider revisions to its emissions standards for vehicular sources to achieve the maximum possible reduction in public exposure to substances that the Board has identified as toxic air contaminants pursuant to section 39662 of the Health and Safety Code; such regulations affecting new motor vehicles are to be based on the most advanced technology feasible for the model year and may include, but are not limited to, the required installation of vehicular control measures on new motor vehicles;

WHEREAS, Assembly Bill 32 (AB 32) added section 38501 to the Health and Safety Code, which expresses the Legislature's findings that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California, and the Legislature's intent that CARB coordinate with state agencies and consult with the environmental justice community, industry sectors, business groups, academic institutions, environmental organizations, and other stakeholders in implementing AB 32, and design emissions reduction measures to meet the statewide

emissions limits for GHGs in a manner that minimizes costs and maximizes benefits for California's economy, maximizes additional environmental and economic co-benefits for California, and complements the State's efforts to improve air quality;

WHEREAS, section 38510 of the Health and Safety Code designates CARB as the State agency charged with monitoring and regulating sources of GHG emissions that cause global warming in order to reduce such emissions;

WHEREAS, while California has made dramatic progress to improve its air quality and reduce greenhouse gases (GHG), the state must continue its transition to significantly cleaner transportation and freight movement technologies to achieve its long-term climate and public health goals;

WHEREAS, the Legislature has enacted Senate Bill 32 (SB 32) that expands upon the California Global Warming Solution Act of 2006 to reduce GHG emissions to 40 percent below 1990 levels by 2030;

WHEREAS, in recognition of the devastating impacts of climate change emissions on California, Governor Arnold Schwarzenegger, in June 2005, signed Executive Order S-3-05, June 1, 2005, which established the following GHG emission targets:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emission 80 percent below 1990 levels;

WHEREAS, Governor Brown's Executive Order B-16-12 requires reductions from the transportation sector to 80 percent below 1990 levels by 2050 and the deployment of 1.5 million zero-emission vehicles by 2025;

WHEREAS, Governor Edmund G. Brown Jr., in Executive Order B-30-15, April 29, 2015, established a 2030 GHG emission reduction target of 40 percent below 1990 levels, in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050;

WHEREAS, Governor Brown's Executive Order B-48-18 requires the deployment of 5 million zero-emission vehicles by 2030;

WHEREAS, Governor Edmund G. Brown Jr., in Executive Order B-55-15, September 10, 2018, established a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and maintain net negative emissions thereafter;

WHEREAS, the California Sustainable Freight Action Plan sets targets of 100,000 freight vehicles and equipment capable of zero-emission operation by 2030;

WHEREAS, actions to deploy zero-emission technology will be essential to meeting these goals;

WHEREAS, CARB's 2016 State Strategy for the State Implementation Plan, 2016 Mobile Source Strategy, and the California Sustainable Freight Action Plan identify several measures intended to accelerate deployment of zero-emission technology in the mobile source sector;

WHEREAS, staff has proposed the Alternative Certification Requirements and Test Procedures for Heavy-Duty Electric and Fuel-Cell Vehicles and Proposed Standards and Test Procedures for Zero-Emission Powertrains, as set forth in Appendix A to the Initial Statement of Reasons released to the public on December 31, 2018, and additional suggested modifications to the original proposal as set forth in Attachment D to this resolution;

WHEREAS, CARB's regulatory program that involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans has been certified by the Secretary for Natural Resources under Public Resources Code section 21080.5 of the California Environmental Quality Act (CEQA; California Code of Regulations, title 14, section 15251(d)), and CARB conducts its CEQA review according to this certified program (California Code of Regulations, title 17, sections 60000-60007);

WHEREAS, CARB prepared a draft environmental analysis under its certified regulatory program and circulated it as *Draft Environmental Analysis Prepared for the Proposed Zero-Emission Airport Shuttle Regulation and Zero-Emission Powertrain Certification Regulation*, as Appendix B to the Staff report, for public comment 45 days from January, 4, 2019, through February 19, 2019;

WHEREAS, the draft environmental analysis concluded that implementation of the proposed Alternative Certification Requirements and Test Procedures for Heavy-Duty Electric and Fuel-Cell Vehicles and Proposed Standards and Test Procedures for Zero-Emission Powertrains would result in no adverse impacts to any of the environmental resource areas;

WHEREAS, a public hearing and other administrative proceedings have been held according to the provisions of Chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code; and

WHEREAS, the Board finds that:

The heavy-duty zero-emission industry is subject to many of the issues associated with any emerging market such as substantial variability in vehicle quality and support, purchasers are still relatively unfamiliar with zero-emission technology and its operational impacts, and limited historical information is available by which to evaluate manufacturers;

In order to increase deployment volume while also encouraging technology advancement, California needs to continue to support both market-ready and cutting-edge zero-emission applications;

The proposed regulatory action would help support the industry by instilling more confidence in fleets purchasing these vehicles as the state continues to roll out its suite of heavy-duty zero-emission measures;

In order to provide this needed support, the proposed regulatory action would build upon existing certification requirements for heavy-duty electric and fuel-cell vehicles and establish an alternative certification procedure that helps ensure such vehicles are well-supported once deployed and consistent and reliable information is available to fleets when making purchase decisions;

The proposed certification process is simple and straightforward and is based upon the expected best practices by market leaders;

Future zero-emission measures, including both regulatory and incentive-based measures, could incorporate the proposed certification procedure, in whole or in part, as a requirement;

The proposed certification framework would provide a process that addresses the needs of more-mature heavy-duty zero-emission applications while still promoting technology innovation by allowing more-cutting edge applications to continue to certify through the less-stringent certification requirements that exist today;

The proposed certification framework will not have a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states, or on representative private persons;

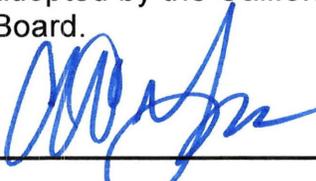
No alternative considered to date, or that has otherwise been identified and brought to the attention of the Board, would be more effective in carrying out the purpose for which the regulation is proposed, would be as effective and less burdensome to affected private persons than proposed regulation, or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law of the proposed amendments, upon considering, among other things, the standardized regulatory impact analysis of the proposed amendments and the specific benefits of the proposed amendments that were identified in the Notice of this action; and

The proposed certification framework are consistent with the Board's environmental justice policies and do not disproportionately impact people of any race, culture, or income.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby directs the Executive Officer to take the following actions:

1. Make the modified regulatory language in Attachment D, and any additional conforming modifications that are appropriate, available for public comment, with any additional supporting documents and information, for a period of at least 15 days. The Executive Officer shall consider written comments submitted during the public review period and make any further modifications that are appropriate available for public comment for at least 15 days.
2. Evaluate all comments received during the public comment periods, including comments raising significant environmental issues, and prepare written responses to such comments as required by CARB's certified regulations pursuant to California Code of Regulations, title 17, sections 60000-60007 and Government Code section 11346.9(a).
3. If appropriate, to prepare and circulate any further environmental analysis to the extent required by CARB's regulations pursuant to California Code of Regulations, title 17, sections 60000-60007, and as necessary, consider all feasible mitigation or alternatives that could eliminate or substantially lessen any significant adverse environmental impacts identified.
4. Present to the Board, at a subsequently scheduled public hearing, staff's written responses to any comments raising significant environmental issues, along with the final environmental analysis, for consideration for approval.
5. Present to the Board, at a subsequently scheduled public hearing, the Proposed Alternative Certification Requirements and Test Procedures for Heavy-Duty Electric and Fuel-Cell Vehicles and Proposed Standards and Test Procedures for Zero-Emission Powertrains for consideration for adoption.

I hereby certify that the above is a true and correct copy of Resolution 19-7 as adopted by the California Air Resources Board.



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Cristina Granados, Clerk of the Board

Resolution 19-7

February 21, 2019

**Identification of Attachments to the Board Resolution**

- Attachment A\*:** Proposed Alternative Certification Requirements and Test Procedures for Heavy-Duty Electric and Fuel-Cell Vehicles and Proposed Standards and Test Procedures for Zero-Emission Powertrains, sections 1956.8, Title 13 and section 95663 Title 17 California Code of Regulations, as set forth in Appendix A to the Initial Statement of Reasons, released December 31, 2018.
- Attachment B\*:** Proposed Zero-Emission Powertrain Certification Amendments to, “California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles,” as set forth in Appendix C to the Staff Report: Initial Statement of Reasons, released December 31, 2018.
- Attachment C\*:** Proposed California Standards and Test Procedures for New 2021 and Subsequent Model Heavy-Duty Zero-Emission Powertrains, as set forth in Appendix D to the Staff Report: Initial Statement of Reasons, released December 31, 2018.
- Attachment D:** Staff’s Suggested Modifications to the Original Proposal (Distributed at the February 21, 2019 CARB hearing)

\*Attachment A through C are not attached to the proposed resolution; they are simply described herein. Only Attachment D, the proposed modifications, is actually attached.