State of California
AIR RESOURCES BOARD

CALIFORNIA INTERIM CERTIFICATION PROCEDURES FOR 2004 AND SUBSEQUENT MODEL HYBRID-ELECTRIC AND OTHER HYBRID VEHICLES IN THE URBAN BUS AND HEAVY-DUTY VEHICLE CLASSES

Resolution 13-54

December 12, 2013

Agenda Item No.: 13-11-1

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (ARB 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, section 39003 of the Health and Safety Code establishes that the Board is the state agency charged with coordinating efforts to attain and maintain ambient air quality standards, to conduct research into the causes of and solution to air pollution, and to systematically attack the serious problem caused by motor vehicles, which is the major source of air pollution in many areas of the state;

WHEREAS, section 43000(a) of the Health and Safety Code states that the Legislature finds and declares the emission of air pollutants from motor vehicles is the primary cause of air pollution in many parts of the state;

WHEREAS, section 43013(a) of the Health and Safety Code provides that the Board shall adopt and implement motor vehicle emission standards, in-use performance standards, and motor vehicle fuel specifications for the control of air contaminants and sources of air pollution which the Board has found to be necessary, cost-effective, and technologically feasible, to carry out the purposes of Division 26 of the Health and Safety Code, unless preempted by federal law;

WHEREAS, section 43013(h) of the Health and Safety Code declares the intent of the Legislature that the Board act as expeditiously as is feasible to reduce nitrogen oxide emissions from diesel vehicles, marine vessels, and other categories of vehicular and mobile sources which significantly contribute to air pollution problems;

WHEREAS, section 43018(a) of the Health and Safety Code, the Board shall endeavor to achieve the maximum degree of emission reduction possible from vehicular and other mobile sources in order to accomplish the attainment of the state standards at the earliest practicable date;

WHEREAS, section 43104 of the Health and Safety Code states that for the certification of new motor vehicles or new motor vehicle engines, the Board shall adopt, by regulation, test procedures and any other procedures necessary to determine whether the vehicles or engines are in compliance with the emissions standards established pursuant to section 43101. The Board shall base its test procedures on federal test procedures or on driving patterns typical in the urban areas of California;

WHEREAS, pursuant to title 40 of the Code of Federal Regulations, part 86, the United States Environmental Protection Agency (U.S. EPA) has promulgated control of emissions from new and in-use highway vehicles and engines;

WHEREAS, pursuant to title 40 of the Code of Federal Regulations, parts 1065 and 1066, U.S. EPA has promulgated engine and vehicle testing procedures;

WHEREAS, prior to 2002, California's heavy-duty vehicle certification procedure specified testing conducted using engine-based procedures;

WHEREAS, because hybrid-electric vehicles utilize both an electric motor and an internal combustion engine, engine testing alone does not reflect the emission benefits of the electric motor, and ARB therefore needed a methodology to quantify the emission benefits provided by heavy-duty hybrid-electric drive systems in urban transit buses;

WHEREAS, on October 24, 2002, the Board adopted "California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric Vehicles in the Urban Bus and Heavy-Duty Vehicle Classes"(2002 Interim Procedures) in conjunction with modifications to the Public Transit Bus Fleet Rule, to enable it to quantify the emission benefits of hybrid-electric drive systems in transit bus and other heavy-duty vehicles in order to reflect advances in technology that could not be captured in ARB's existing heavy-duty engine certification procedures;

WHEREAS, on July 15, 2013, the U.S. Environmental Protection Agency (U.S. EPA) granted California a waiver of preemption pursuant to section 209(b) of the federal Clean Air Act for the emissions standards and test procedures applicable to 2002 and later model year urban buses; the 2002 Interim Procedures were a subset of the waived test procedures;

WHEREAS, the 2002 Interim Procedures are optional test procedures;

WHEREAS, since 2002, hybrid technology has advanced technologically and is being used in more heavy-duty vehicle applications such as beverage, package and linen delivery vehicles, and ARB therefore needs to better quantify emission reductions that are and will be achieved from heavy-duty hybrid vehicles;

WHEREAS, the 2002 Interim Procedures need to be updated to ensure that they adequately measure emissions from the different types of vocational hybrid vehicles using the technology and to account for new heavy-duty hybrid-electric technologies such as plug-in hybrid-electric vehicles;

WHEREAS, the proposed amendments to the 2002 Interim Procedures are designed for heavy-duty hybrid-electric vehicle manufacturers seeking voluntary vehicle-based (as opposed to engine-based) certification and are based on test procedures requiring use of a chassis dynamometer;

WHEREAS, several financial incentive programs require that heavy-duty hybrid vehicles be certified or be able to demonstrate emissions and/or fuel economy benefits over comparable conventional vehicles as a condition of eligibility for grants, and the proposed amendments were designed to allow manufacturers to certify their heavy-duty hybrid vehicles, in order for the vehicles to be eligible for grants;

WHEREAS, ARB staff has proposed amendments to the 2002 Interim Procedures, as set forth in Attachment A hereto, which are primarily intended to ensure that the revised test procedures are applicable to a wider range of vehicle classes and vocations;

WHEREAS, ARB staff has proposed amendments to the certification procedures for new 2004 and subsequent model year heavy-duty hybrid-electric vehicles, greater than 14,000 pounds gross vehicle weight rating, including hybrid-electric urban buses and other hybrid vehicles, as set forth in Attachment A hereto; these amendments include the following primary elements:

Expand the applicability of the certification procedures to a broader category of heavy-duty vehicles, including hydraulic, turbine, flywheel, or fuel cell hybrid vehicles;

Clarify and update existing requirements for test facilities, equipment and test procedures to incorporate advancements in current technology and to improve testing requirements and processes; and

Clarify the calculation of emission factors.

WHEREAS, ARB staff prepared a staff report entitled "Initial Statement of Reasons (ISOR) for Proposed Rulemaking, Proposed Greenhouse Gas (GHG) Regulations and Optional Reduced Emission Standards for Medium- and Heavy-Duty Engines and Vehicles, Amendments to the Tractor-Trailer GHG Regulation, and Amendments to the Diesel-Fueled Commercial Motor Vehicle Idling Rule and Heavy-Duty Hybrid-Electric Vehicle Certification Procedures" which presents the rationale for the proposed amendments;

WHEREAS, the ISOR and proposed regulatory language were made available to the public for at least 45 days prior to the public hearing to consider the proposed amendments to the Heavy-Duty Hybrid-Electric Vehicle Certification Procedures";

WHEREAS, the California Environmental Quality Act (CEQA) requires that a public agency not approve a project as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant

environmental impacts of such a project; in the event that specific economic, social, or other conditions make infeasible the alternatives or mitigation measures, the project may be approved if it is determined that any remaining unavoidable significant impacts are acceptable due to overriding considerations;

WHEREAS, Public Resources Code section 21080.5 allows public agencies with regulatory programs to prepare a plan or other written document in lieu of an environmental impact report or negative declaration once the Secretary of the Resources Agency has certified the regulatory program;

WHEREAS, that portion of the ARB's regulatory program that involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans has been certified by the Secretary of Resources Agency (CEQA Guidelines, section 15251(d));

WHEREAS, in accordance with ARB's certified regulatory program at title 17, California Code of Regulations (CCR), section 60005 (b), and the policy and substantive requirements of CEQA, as part of the Initial Statement of Reasons (ISOR), ARB staff prepared an assessment of the potential for significant adverse and beneficial environmental impacts associated with the proposed amendments;

WHEREAS, the environmental analysis, circulated with the ISOR for 45 days, concluded the proposed amendments would result in no adverse impacts to the environment;

WHEREAS, no comments were received during the 45-day comment period that raise significant environmental issues, therefore, no approval of written responses to such comments is required per title 17, CCR, section 60007;

WHEREAS, the Board has considered the impact of the proposed amendments on the economy of the State and the potential for adverse economic impacts on California business enterprises and individuals;

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

WHEREAS, the Board finds that:

> Hybrid technology has advanced technologically and expanded into more sectors of the heavy-duty vehicle sector since 2002, and ARB needs to better quantify emission reductions from existing and future heavy-duty hybrid vehicles;
>
> The existing interim certification procedures for hybrid-electric vehicles in the urban bus and heavy-duty vehicle classes need to be updated to ensure that they adequately measure emissions from different categories of vocational hybrid

vehicles and to account for new heavy-duty hybrid-electric technologies such as plug-in hybrid-electric vehicles;

The proposed amendments to the interim certification procedures for hybrid-electric vehicles in the urban bus and heavy-duty vehicle classes will provide flexibility for manufacturers, reliability for transit agencies and other vocational fleets, and enforceability for the Board; and will provide staff with a continued evaluation of hybrid-electric drive system technology;

The reporting requirements of the proposed amended regulations that apply to business are necessary for the health, safety, and welfare of the people of the State;

The economic and fiscal impacts of the proposed amendments have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are set forth in the ISOR, as supplemented by staff's presentation at the hearing of this item;

Overall, the proposed amendments are not anticipated to impose any additional costs for hybrid-electric vehicle manufacturers over the costs such manufacturers are subject to if they elect to utilize the existing interim certification procedures for hybrid-electric vehicles in the urban bus and heavy-duty vehicle classes;

The proposed amendments will have minimal impacts on the creation of new jobs or businesses within the state because the proposed amendments are voluntary, and although a few jobs or businesses, such as manufacturers of hybrid-electric vehicles and components or parts, laboratories or testing facilities may be created or expanded if the demand for vehicle purchases and chassis testing increases, there will most likely be no elimination of existing businesses within the state;

The proposed amendments will not affect the ability of California businesses to compete with businesses in other states; and

No reasonable alternative considered, or that has otherwise been identified and brought to the attention of ARB, would be more effective at carrying out the purpose for which the amendments are proposed, or would be as effective as and less burdensome to affected private persons and businesses than the proposed amendments.

On the basis of the whole record, including the environmental analysis included in the ISOR and comments received, there is no substantial evidence that the proposed amendments will result in any significant adverse impacts on the environment; and

The proposed amendments are consistent with ARB'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 approves for adoption the proposed amendments of title 13, CCR, section 1956.8 and approves the incorporated "California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric and Other Hybrid Vehicles in the Urban Bus and Heavy-Duty Vehicle Classes", as set forth in Attachment A, hereto, with the modifications shown in Attachments B and C hereto.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to make the modified regulatory language and any additional supporting documents and information available to the public for a period of at least 15 days, provided such modifications do not alter the conclusion of the environmental analysis, and provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such further modifications as may be appropriate in light of the comments received, shall make those modifications available for public comment for at least 15-days, and shall present the regulation to the Board for further consideration if he determines that this is warranted. Upon the Executive Officer addressing the need for any additional conforming modifications as appropriate and making such modifications, if any, publicly available for comment, the Executive Officer shall take final action to adopt the regulation, as set forth in Attachments B and C hereto and in any subsequent modifications that have been made publicly available for comment.

BE IT FURTHER RESOLVED if it is determined that any 15-day modifications to the regulation affect the conclusion of the environmental analysis, the Executive Officer shall prepare and circulate any additional environmental analysis to the extent required by ARB's regulations at title 17, CCR, sections 60001-60007, and/or prepare written responses to any comments received raising significant environmental issues to present to the Board for its consideration for approval along with the proposed Final Regulation Order.

BE IT FURTHER RESOLVED that the Board hereby determines that the regulations adopted herein will not cause California motor vehicle emission standards, in the aggregate, to be less protective of public health and welfare than applicable federal standards.

BE IT FURTHER RESOLVED that the Board hereby finds that separate California emission standards and test procedures are necessary to meet compelling and extraordinary conditions.

BE IT FURTHER RESOLVED that the Board finds that the California emission standards and test procedures as adopted herein will not cause the California requirements to be inconsistent with section 202(a) of the federal Clean Air Act and

raise no new issues affecting previous waiver determinations of the Administrator of U.S. EPA pursuant to section 209(b) of the federal Clean Air Act.

BE IT FURTHER RESOLVED that the Executive Officer shall, upon adoption, forward the regulations to U.S. EPA with a request for a waiver or confirmation that the regulations are within the scope of an existing waiver of federal preemption pursuant to section 209(b) of the federal Clean Air Act, as appropriate.

I hereby certify that the above is a true and correct copy of Resolution 13-54, as adopted by the Air Resources Board.

Tracy Jensen, Clerk of the Board

Resolution 13-54

December 12, 2013

Identification of Attachments to the Board Resolution

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Attachment A*: Proposed Modifications to the Regulation for California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric and Other Hybrid Vehicles in the Urban Bus and Heavy-Duty Vehicle Classes, California Code of Regulations, title 13, section 1956.8, as set forth in Appendix 1-E to the Initial Statement of Reasons, released October 23, 2013.

Attachment B: Staff's Suggested Modifications to the Proposed Regulation Order for Amendments to Heavy-Duty Hybrid-Electric Vehicle Certification Procedures

Attachment C: Staff's Suggested Modifications to the Proposed Modifications to the Regulation for California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric and Other Hybrid Vehicles in the Urban Bus and Heavy-Duty Vehicle Classes

*Attachment A is not attached to the proposed resolution, it is simply described on this page.