

## **PROPOSED**

State of California  
Air Resources Board

Resolution 11-19

June 23, 2011

Agenda Item No.: 11-4-1

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, in section 43000 of the Health and Safety Code, the Legislature has found and declared that the emission of air pollutants from motor vehicles is the primary cause of air pollution in many parts of the state, and in sections 39002 and 39003 of the Health and Safety Code, has charged the Board with the responsibility of systematically addressing the serious air pollution problem caused by motor vehicles;

WHEREAS, sections 43013, 43101, and 43104 of the Health and Safety Code authorize the Board to adopt and implement motor vehicle emission standards, in-use performance standards, and test procedures, which it finds to be necessary, cost-effective, and technologically feasible;

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

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 and performance improvements;

WHEREAS, heavy-duty diesel vehicles play an important role in both California's and the national economy;

WHEREAS, heavy-duty diesel vehicles account for as much as 35 percent of the statewide mobile source oxides of nitrogen (NOx), and 40 percent of the diesel exhaust particulate matter (PM) inventory in 2010;

WHEREAS, California currently regulates heavy-duty diesel engine (HDDE) and medium-duty diesel engine (MDDE) exhaust emissions under waivers of federal preemption granted by the United States Environmental Protection Agency (U.S. EPA);

WHEREAS, section 39667 of the Health and Safety Code authorizes the Board to adopt vehicular emission standards to reduce identified toxic air contaminants;

WHEREAS, California identified diesel PM as a toxic air contaminant in August 1998;

WHEREAS, ARB adopted the Diesel Risk Reduction Plan in 2000, which established the goal of reducing emissions from virtually all in-use diesel engines within the State of California by 2020;

WHEREAS, the Diesel Risk Reduction Plan identified diesel-fueled heavy-duty motor vehicles as a source of diesel exhaust PM;

WHEREAS, modeling analyses show that potential cancer risk increases as the number of diesel-fueled, heavy-duty vehicles continue to operate on-road;

WHEREAS, to reduce emissions, exposure, and associated potential cancer risk, one of the strategies of the Diesel Risk Reduction Plan is to ensure in-use performance of heavy-duty diesel vehicles to certified standards;

WHEREAS, all heavy-duty diesel-fueled vehicles have significant emissions of NOx and diesel exhaust particulate matter or other toxic air contaminants;

WHEREAS, on October 25, 2001, the Board adopted more stringent emission standards for 2007 and subsequent model HDDEs and vehicles;

WHEREAS, section 43104 of the Health and Safety Code directs ARB to adopt test procedures to ensure compliance with emission standards for new heavy-duty motor vehicles;

WHEREAS, in 2001, ARB staff started working collaboratively with U.S. EPA and engine manufacturers to develop an in-use testing and compliance program for HDDEs based on performing the Not-To-Exceed test procedure which allows testing with on-board portable emission measurement systems (PEMS) during on-road operation;

WHEREAS, in May 2003, the general structure of the in-use compliance testing program was agreed upon by all parties; based upon this collaborative work, in June 2005, U.S. EPA adopted its "Final Rule on In-Use Testing Program for Heavy-Duty Diesel Engines and Vehicles," establishing a manufacturer-run in-use testing program that must be completed with for all manufacturers of HDDEs sold elsewhere in the United States;

WHEREAS, in September 2006, the Board approved “California’s Heavy-Duty Diesel In-Use Compliance Regulation”, which was subsequently approved by the Office of Administrative Law and became legally effective on October 11, 2007;

WHEREAS, California’s heavy-duty diesel in-use compliance regulation included interim “measurement allowances” to be used while conducting on-road testing of heavy-duty diesel vehicles with PEMS;

WHEREAS, because testing would be conducted in the field instead of an environmentally controlled laboratory, ARB, U.S. EPA, and the engine manufacturers agreed to determine a “measurement allowance” for each pollutant to account for any potential difference in measurement accuracy;

WHEREAS, in 2005 contracts were entered into the Southwest Research Institute (SwRI), in San Antonio, Texas, and University of California’s (at Riverside) Center for Environmental Research and Technology (CE-CERT) for conducting a gaseous measurement allowances research study under the direction of a measurement allowance steering committee (MASC) comprised of members from ARB, U.S. EPA, and the engine manufacturers;

WHEREAS, following the successful completion of the gaseous measurement allowance study in 2007, the Board adopted the gaseous measurement allowances in December 2007;

WHEREAS, in 2008 a similar research study was begun with both SwRI and CE-CERT to develop a measurement allowance for PM emissions, and was completed in November 2010 under the direction of the MASC;

WHEREAS, upon completion of the PM measurement allowance study, both SwRI and CE-CERT published MASC approved final reports, establishing a final PM measurement allowance value of 0.006 grams per brake horsepower per hour, which is to be used when conducting heavy-duty diesel in-use compliance testing with PEMS;

WHEREAS, in November 2010 U.S. EPA adopted the same PM measurement allowance for its essentially identical heavy-duty diesel in-use compliance testing program;

WHEREAS, in order to establish a manufacturer-run in-use compliance program for heavy-duty diesel engines in California based on the regulations adopted by ARB in September 2006, ARB staff has proposed amendments to title 13, California Code of Regulations, section 1956.8, as set forth in Attachment A hereto, and, amendments to the “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles,” as set forth in Attachment B hereto;

WHEREAS, ARB staff has prepared a staff report entitled “*Initial Statement of Reasons, Public Hearing to Consider the Adoption of a Particulate Matter Emissions Measurement Allowance for California’s Heavy-Duty Diesel In-Use Compliance Regulation*” (Initial Statement of Reasons), which presents the rationale for the proposed amendments;

WHEREAS, the Initial Statement of Reasons and proposed regulatory language were made available to the public for at least 45 days prior to the June 23, 2011 Board hearing;

WHEREAS, the Board has considered the effects of the proposed requirements on the economy of the state;

WHEREAS, the California Environmental Quality Act and Board regulations require that no project that may have significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts;

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; and

WHEREAS, in consideration of the information in the public record, including the Initial Statement of Reasons, written comments, and testimony provided at the hearing, the Board finds that:

1. Despite advances in reducing emissions from mobile sources, stationary sources, and area sources, California still has the most severe air pollution problems in the United States;
2. To meet federal and California Clean Air Act emission reduction requirements, ARB must continue to seek reductions from all sources under its authority, including new and in-use diesel-powered trucks;
3. The proposed amendments will help ensure that emissions generated from new diesel vehicles comply with the certification standards throughout the useful life of the vehicles;
4. The proposed amendments include requirements that 2007 and subsequent model year truck engines comply with PM standards;
5. Particulate filters are being widely incorporated into diesel-fueled HDDEs to meet the stringent 2007 and subsequent model year PM emission standards;
6. The economic and fiscal impacts of the proposed amendments have been analyzed as required by California law, and staff has determined that either there are no impacts or the impacts will be very minimal; and

7. Adoption of the proposed measurement allowances will help conduct in-use testing of heavy-duty diesel trucks and ensure that the tested trucks comply with the 2007 heavy-duty diesel engine standards.

WHEREAS, the Board further finds that:

1. The proposed amendments will have indirect emission benefits as they will help ensure that new diesel trucks comply with the certification emission standards throughout their useful life;
2. The proposed amendments will not result in any significant adverse environmental impacts, and should positively impact air quality; and
3. The proposed amendments will not affect the creation or elimination of jobs within the State of California, the creation of new businesses or the elimination of existing businesses within California, the expansion of businesses currently doing business within California, or the ability of California businesses to compete with businesses in other states;

NOW, THEREFORE, BE IT RESOLVED that, the Board hereby approves the adoption of the amendments to section 1956.8 of title 13, California Code of Regulations, as set forth in Attachment A hereto, and the amendments to the California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles, set forth in Attachment B hereto.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the Board hereby determines that the proposed amendments 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 proposed amendments will not cause the California emission standards and test procedures to be inconsistent with section 202(a) of the Clean Air Act and raise no new issues affecting previous waiver determinations of U.S. EPA Administrator pursuant to section 209(b) of the federal Clean Air Act.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to determine if additional conforming modifications to the regulation are appropriate. If no additional modifications are appropriate, the Executive Officer shall take final action to adopt the regulation, as set forth in Attachment A, and Attachment B hereto. If the Executive Officer determines that additional conforming modifications are appropriate, the Executive Officer shall adopt the modified regulation after making the modified regulatory language and any additional supporting documents and information available

to the public for a period of 15 days, 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, and shall present the regulation to the Board for further consideration if he determines that this is warranted.

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.

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**Identification of Attachments to the Resolution**

- Attachment A:** Proposed amendments to title 13, California Code of Regulations, section 1956.8, as set forth in Appendix A to the Staff Report: Initial Statement of Reasons released May 5, 2011.
- Attachment B:** Proposed amendments to the “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles,” as set forth in Appendix B to the Staff Report: Initial Statement of Reasons released May 5, 2011.