

State of California  
AIR RESOURCES BOARD

**VERIFICATION PROCEDURE, WARRANTY AND IN-USE COMPLIANCE  
REQUIREMENTS FOR IN-USE STRATEGIES TO CONTROL EMISSIONS FROM  
DIESEL ENGINES**

**Resolution 12-30**

August 23, 2012

Agenda Item No.: 12-5-3

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 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, 43018, 43101, and 43104 of the Health and Safety Code authorize the Board to adopt motor vehicle emission standards, in-use performance standards, and test procedures, which it finds to be necessary, cost-effective, and technologically feasible;

WHEREAS, California identified diesel particulate matter as a toxic air contaminant by regulation (title 17, California Code of Regulations, section 93000) in August 1998;

WHEREAS, the Board adopted the Diesel Risk Reduction Plan in 2000 which established discrete goals for reducing emissions from virtually all in-use diesel engines within the State of California by 2010 and 2020;

WHEREAS, diesel emission control strategies have been developed that may be applied to in-use diesel-fueled vehicles and equipment;

WHEREAS, the Board has adopted a number of regulations to reduce emissions from in-use diesel vehicles and equipment, including heavy-duty on-road vehicles, off-road equipment, transport refrigeration units, auxiliary power units, stationary engines and drayage trucks;

WHEREAS, the Board adopted a verification procedure, warranty, and in-use compliance for in-use strategies to control emissions from diesel engines (sections

2700-2711, title 13, California Code of Regulations) in May 16, 2002, and has subsequently amended it several times;

WHEREAS, the verification procedure is intended to support the various regulations approved by the Board to reduce emissions from in-use diesel vehicles and equipment by evaluating the emission reduction claims and durability of the diesel emission control strategies and providing a manufacturer warranty for these systems;

WHEREAS, the verification procedure is a voluntary program whereby manufacturers of diesel emission control strategies may apply for the verification of a candidate device for sale in California;

WHEREAS, the federal Clean Air Act provides California a waiver of preemption for standards adopted for the control of emissions from new motor vehicles and engines if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as the applicable federal standards;

WHEREAS, the United States Environmental Protection Agency (U.S. EPA) has published a draft document, "General Verification Protocol for Diesel Exhaust Catalysts, Particulate Filters, and Engine Modification Control Technologies for Highway and Nonroad Use Diesel Engines," but has not promulgated formal regulations for this verification protocol;

WHEREAS, the U.S. EPA draft verification protocol is intended to support the voluntary retrofit programs initiated by U.S. EPA, while staff's proposal is to support ARB's Diesel Risk Reduction Plan and all the associated in-use fleet regulations;

WHEREAS, there are significant differences between the California verification program and the voluntary U.S. EPA draft verification protocol, most notably that the U.S. EPA program does not have warranty provisions;

WHEREAS, to improve the effectiveness of the California verification program, ARB staff has proposed the adoption of amendments to the verification procedure;

WHEREAS, ARB staff met and worked with affected stakeholders in developing the proposed amendments, including meetings with affected stakeholders and public workshops;

WHEREAS, with the information and comments received from such meetings, ARB staff prepared a report entitled "Staff Report: Initial Statement of Reasons for Rulemaking – Proposed Amendments to the Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines," released July 5, 2012 (ISOR);

WHEREAS, the Board has considered the effects of the proposed amendments on the economy of the State;

WHEREAS, the California Environmental Quality Act and Board regulations require that no project which 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;

WHEREAS, the Executive Officer has determined that the proposed regulations will not have a significant, if any, impact on the creation or elimination of jobs within the State of California, the creation of new businesses or elimination of existing businesses within California, or the expansion of businesses currently doing business within California;

WHEREAS, the Board finds that:

Diesel emission control strategies have been proven successful in a variety of applications and field demonstration programs;

It is appropriate for California to establish and maintain its own diesel emission control strategy verification program to support programs achieving additional needed emission reductions;

The proposed regulations are authorized by California law, and the cost of the regulations is justified by the benefit to human health, public safety, or the environment;

The economic and fiscal impacts of the proposed amendments to the verification procedure have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are set forth in the ISOR;

The function of the proposed amendments is to improve the ability of the verification procedure to support the Diesel Risk Reduction Plan and related programs such as the Statewide Truck and Bus Fleet Rule, In-use Off Road Rule, Drayage Truck Rule, Transportable Refrigeration Units Rule, Public Agency and Utilities Rule, Solid Waste Collection Vehicle Rule, the Carl Moyer Memorial Air Quality Standards Attainment Program, and the Lower-Emissions School Bus Program; and

Because no direct emissions benefits are associated with the staff's proposal, a traditional cost effectiveness calculation cannot be made.

WHEREAS, the Board further finds that the proposed amendments would make all of the following necessary and appropriate changes:

Reduce in-use testing costs for applicants by replacing one phase of in-use compliance emissions testing with field testing;

Significantly increase the sales triggers that determine when in-use compliance testing must begin;

Include functional testing in-field to reduce the need to remove and replace entire systems for in-use compliance emissions testing;

Provide a pathway to complete in-use compliance testing using only one phase of in-use compliance emissions testing;

Provide an option that allows applicants to request the use of only one size of emissions test engine for in-use testing;

Extend the time allowed to complete a conditional off-road verification by one year;

Add recall provisions that specify the Executive Officer's recall authority;

Require applicants to authorize installers of their diesel emission control strategies and provide authorization criteria in their installation manuals;

Require applicants or their authorized installers to provide training on the operation and maintenance of the diesel emission control strategy to the end-user upon installation;

Require installers of diesel emission control strategies to be authorized by the party that holds the verification and to adhere to the installation and assessment requirements of the applicant;

Require applicants to develop additional criteria, such as a smoke opacity limit, that can be used to assess the suitability of the candidate engine before installing a diesel emission control strategy;

Require applicants or their authorized installers to assess the suitability of the candidate engine before installing the diesel emission control strategy;

Require applicants of temperature dependent diesel emission control strategies to use the most challenging duty cycle when determining if the temperature requirements are satisfied and notify the end-user regarding how a change in the duty cycle will affect the performance of the strategy;

Provide an option that allows owners of emergency standby engines permitted by a California Air District to request a period of less than 24 hours to assess the minimum temperature requirements prior to retrofit;

Require applicants to concurrently submit to ARB, end-users, authorized installers, and distributors any information that effects the proper operation and maintenance of their diesel emission control strategy;

Clarify the safety analysis and reporting requirements of the Procedure;

Clarify the minimum requirements for an applicant's owner's and installation manuals;

Clarify the diesel emission control strategy labeling requirements;

Clarify the high backpressure notification, monitoring, and data storage requirements;

Clarify the limits on non-methane hydrocarbons and oxides of nitrogen that must be met to receive verification;

Clarify that applicants must submit any electronic system codes generated during a durability or field demonstration including the date and time each code occurs;

Clarify that diesel emission control strategies must be appropriately sized for both emissions and durability test engines;

Clarify that laboratory-based durability demonstrations are not acceptable as the primary durability data to support verification of diesel emission control strategies intended for on-road, off-road, or auxiliary power unit applications;

Add language specifying ARB staff's authority to enter any facility for the purpose of selecting new diesel emission control strategies for the purpose of inspection or testing;

Clarify the requirements under the Procedure for any applicant that modifies the design of their diesel emission control strategy;

Clarify that the Procedure applies only to market-ready diesel emission control strategies;

Specify the Executive Officer's authority to request applicants submit a market-ready diesel emission control strategy along with their preliminary verification application;

Clarify the preliminary and final verification application review processes used by ARB staff;

Clarify the criteria for which an application for verification may be terminated;

Clarify the requirement that an applicant must wait at least thirty (30) days before resubmitting an application for verification that was terminated;

Clarify the warranty reporting requirements for applicants and require installers to begin submitting an annual installation warranty report;

Clarify that the warranty requirements extend to components used to match the diesel emission control strategy to the target engine;

Clarify the calculations used to determine emissions reductions;

Clarify the attributes of an emission control group and the selection of test engines;

Clarify the testing requirements for alternative fuels and fuel additives;

Clarify that a retrofit system verified under the Procedure must be properly installed and maintained;

Clarify that no person may alter or tamper with an installed ARB verified diesel emission control strategy; and

Clarify some existing requirements to aid applicants in the verification process.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby adopts the amendments to sections 2701, 2702, 2703, 2704, 2705, 2706, 2707, 2708, 2709, 2710 and 2711, title 13, California Code of Regulations, as set forth in Attachment A.

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 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 Board hereby determines that the regulations approved 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 regulations approved herein will not cause the California emission standards and test procedures for new motor vehicles to be inconsistent with section 202(a) of the Clean Air Act and raise no new issues affecting previous waiver determinations of the Administrator of the U.S. EPA pursuant to section 209(b) of the Clean Air Act.

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

I hereby certify that the above is a true and correct copy of Resolution 12-30, as adopted by the Air Resources Board.

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Mary Alice Morency, Clerk of the Board

Resolution 12-30

August 23, 2012

Identification of Attachments to the Resolution

**Attachment A:** Proposed Regulation for the Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines, as set forth in Appendix A of the Staff Report: Initial Statement of Reasons, released July 5, 2012.