

State of California  
AIR RESOURCES BOARD

Resolution 04-16

May 20, 2004

Agenda Item No.: 04-5-4

WHEREAS, sections 39002 and 39003 of the Health and Safety Code charge the Air Resources Board (ARB or the Board) with the responsibility for systematically attacking the serious air pollution problem caused by motor vehicles;

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the 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 39515 of the Health and Safety Code provide that the Board may delegate any duty to the Executive Officer which the Board deems appropriate and that any power, duty, purpose, function, or jurisdiction which the Board may lawfully delegate shall be conclusively presumed to have been delegated to the Executive Officer unless the Board has expressly reserved such authority onto itself;

WHEREAS, in sections 43000 and 43000.5(a) of the Health and Safety Code, the Legislature declared that the emission of air pollutants from motor vehicles is the primary cause of air pollution in many parts of the state and that despite significant reductions in vehicle emissions in recent years, continued growth in population and vehicle miles traveled throughout California have the potential not only to prevent attainment of the state standards, but in some cases, to result in worsening air quality;

WHEREAS, section 43000.5(c) of the Health and Safety Code provides that the burden for achieving needed reductions in vehicle emissions should be distributed equitably among various classes of vehicles, including heavy-duty vehicles to accomplish improvements in both the emissions level and in-use performance and durability of all new motor vehicles;

WHEREAS, section 43806 of the Health and Safety Code directs the Board to adopt emission standards and procedures applicable to new engines used in publicly owned and privately owned public transit buses;

WHEREAS, section 43013 of the Health and Safety Code authorizes the Board to adopt motor vehicle emission standards and in-use performance standards that it finds to be necessary, cost-effective, and technologically feasible;

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

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

WHEREAS, section 43101 of the Health and Safety Code directs the Board to adopt and implement emission standards for new motor vehicles for the control of emissions therefrom that are necessary and technologically feasible;

WHEREAS, section 43102 of the Health and Safety Code provides that the Board shall not certify a new motor vehicle or motor vehicle engine unless the vehicle or engine meets the emission standards adopted by the ARB pursuant to Part 5 of the Health and Safety Code under test procedures adopted pursuant to section 43104;

WHEREAS, section 43104 of the Health and Safety Code provides that the Board shall adopt test procedures and any other procedures necessary to certify that new motor vehicles and engines are in compliance with the emissions standards established under Part 5 of the Health and Safety Code;

WHEREAS, section 43105 of the Health and Safety Code provides that no new motor vehicle or engine required under Part 5 of the Health and Safety Code to meet emission standards shall be sold to the ultimate purchaser, ordered or delivered for sale to the ultimate purchaser, or registered in this state if the manufacturer has violated emission standards or test procedures and has failed to take corrective action, which may include recall of vehicles or engines, specified by the Board in accordance with its regulations; WHEREAS, sections 43016, 43154, 43211, and 43212 of the Health and Safety Code provide that penalties may be assessed against motor vehicle manufacturers for noncompliance with ARB emission standards, other certification requirements, or other rules and regulations of the Board;

WHEREAS, the Board has adopted and the Office of Administrative Law subsequently has approved regulations regarding malfunction and diagnostic system requirements (OBD II) that were first implemented in the 1994 model-year for passenger cars, light-duty trucks, and medium-duty vehicles and engines;

WHEREAS, in 2001 and 2002, the Board adopted more stringent tailpipe emission standards for 2007 and subsequent heavy-duty diesel engines and 2008 and subsequent heavy-duty Otto-cycle engines, respectively;

WHEREAS, the California Environmental Quality Act (CEQA), section 21080.5 of the Public Resources Code and Board regulations at title 17, California Code of Regulations (CCR), section 60006 require that no project which may have significant adverse environmental impacts may be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts;

WHEREAS, pursuant to section 43101 of the Health and Safety Code and section 11346.3 of the Government Code, the Board has considered and assessed the effects of the regulation on the economy of the state;

WHEREAS, the staff has now proposed adoption of title 13, CCR, section 1971 that would establish engine manufacturer diagnostic system (EMD) requirements for 2007 and subsequent model year heavy-duty engines;

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 to consider the proposed adoption of section 1971, title 13, CCR;

WHEREAS, the Board finds regarding the adoption of section 1971 of title 13, CCR, that:

Since the introduction of 1996 model year light-duty and medium-duty motor vehicles and engines, manufacturers have incorporated OBD II systems into nearly all of their light-duty and medium-duty vehicle models and engines pursuant to the standards and other requirements of title 13, CCR, sections 1968.1 and 1968.2;

Emissions from heavy-duty trucks, especially Oxides of Nitrogen (NOx) and Particulate Matter (PM) emissions released from diesel trucks, are of great concern;

NOx is a precursor to ozone and causes lung irritation, and diesel PM is carcinogenic and has been identified as a toxic air contaminant;

Particulate filters are expected to be universally used on heavy-duty diesel engines by the 2007 model year;

In an effort to meet federal and state ambient air quality standards and comply with the federally mandated State Implementation Plan (SIP) to meet those standards, California has continued in the forefront in adopting the most stringent motor vehicle emission control program in the nation;

The recently revised SIP includes a SIP Commitment Measure On-Road Heavy Duty – 3 to complement the new emission standards for heavy-duty diesel engines and to achieve reductions of in-use emissions from on-road heavy-duty diesel vehicles;

Adopting diagnostic requirements for heavy-duty vehicles is an essential first step towards monitoring heavy-duty vehicle emission control systems and meeting the state's obligations to reduce emissions from on-road heavy-duty vehicles;

To assure compliance with increasingly stringent emission standards that are required for future heavy-duty engines and to better serve repair technicians, it is necessary that engines certified to those standards be equipped with diagnostic systems that monitor the emission control system;

To assure sufficient leadtime and to complement the more stringent 2007 emission standards, section 1971 of title 13, CCR, would apply to 2007 and subsequent model year on-road heavy-duty engines and vehicles produced for sale in California with a gross vehicle weight rating of greater than 14,000 pounds;

Section 1971 of title 13, CCR, would be referred to as the EMD regulation, and would build on the basic engine diagnostic system heavy-duty engine manufacturers are currently using to provide diagnostic capability for the most important emission control systems;

Monitoring of the major emission control systems, specifically the fuel system, exhaust gas recirculation system, PM trap, and emission-related electronic components, is needed to help ensure that heavy-duty engines that have been certified to the more stringent emission standards perform at or near such levels in-use;

To ensure that a malfunction of any of these systems/components is promptly fixed, the EMD regulation would require the EMD system to alert the vehicle operator to the problem by illuminating a warning light and to output diagnostic information for use by repair technicians; and

The requirements of title 13, CCR, section 1971 are necessary, cost-effective, and technologically feasible to carry out the purposes of the California Clean Air Act; and

WHEREAS, the Board further finds regarding the adoption of section 1971 of title 13, CCR that:

With respect to the requirements of CEQA, section 1971, title 13, CCR, would

not adversely impact the environment but would help guarantee that engines initially certified to low emission standards maintain such emission levels throughout their lives; by doing so, the regulation would help in the attainment and maintenance of the national ambient air quality standards for ozone, carbon monoxide and nitrogen dioxide;

Having identified that the regulation should not adversely affect the environment, but rather help ensure that measurable emission benefits are achieved statewide, section 1971, title 13, CCR, should not adversely impact any community in the State, especially low-income or minority communities;

The economic and cost impacts of title 13, CCR, section 1971 have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are set forth in the Staff Report: Initial Statement of Reasons for this regulatory action;

The reporting requirements of title 13, CCR, section 1971 applicable to businesses are necessary for the health, safety, and welfare of the people of the State;

No alternative considered by the ARB, or that has otherwise been identified and brought to the attention of the ARB, would be more effective in carrying out the purpose of the regulation or would be as effective and less burdensome to affected private persons than the regulation;

Though there is currently no federal regulation requiring diagnostic systems on vehicles and engines above 14,000 pounds (i.e., no federal requirements similar to the requirements of title 13, CCR, section 1971), the U.S. Environmental Protection Agency (U.S. EPA) has indicated its intent to develop a federal program in the near future that would harmonize with the California program and that would use the California program as a template; and

The California EMD regulation is justified in that state law authorizes it and the cost of the regulation is justified by the benefit to human health, public safety, public welfare, or the environment.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves section 1971, title 13, CCR as set forth in Attachments A and B hereto and such other conforming modifications as may be appropriate;

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to adopt section 1971, title 13, CCR, after making the modified regulatory language and any additional supporting documents and information available for public comment for a period of 15 days, provided that the Executive Officer shall consider such written comments regarding the modifications and additional supporting documents and

information as may be submitted during this period, shall make modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if he or she determines that this is warranted.

BE IT FURTHER RESOLVED that, with the adoption of title 13, CCR, section 1971, the Board hereby determines that pursuant to section 209(b) of the Clean Air Act the State's standards would, in the aggregate, be at least as protective of the public health and welfare as applicable federal standards, that California needs its own state mobile source program to meet compelling and extraordinary conditions, and that the adopted standards and procedures are not inconsistent with section 202(a) of the Clean Air Act.

BE IT FURTHER RESOLVED that the Executive Officer shall, upon adoption, forward the regulations to the U.S. Environmental Protection Agency with a request for a waiver of federal preemption pursuant to section 209(b) of the Clean Air Act.

I hereby certify that the above is a true and correct copy of Resolution 04-16, as adopted by the Air Resources Board.

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Lori Andreoni, Clerk of the Board

**Identification of Attachment to the Resolution**

**Attachment A:** Engine Manufacturer Diagnostic System Requirements for 2007 and Subsequent Model Year Heavy-Duty Engines, Section 1971, Title 13, California Code Regulations

**Attachment B:** Staff's Suggested Modifications to Engine Manufacturer Diagnostic System Requirements for 2007 and Subsequent Model Year Heavy-Duty Engines, Section 1971, Title 13, California Code Regulations