State of California
AIR RESOURCES BOARD

Resolution 06-26

September 28, 2006

Agenda Item No.: 06-8-4

WHEREAS, sections 39002 and 39003 of the Health and Safety Code charge the Air Resources Board (ARB or 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, sections 39515 and 39516 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 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 of air quality;

WHEREAS, section 43004 of the Health and Safety Code provides that unless expressly exempted, the exhaust emissions for gasoline-powered motor vehicles shall apply to motor vehicles that have been modified or altered to use a fuel other than gasoline or diesel;

WHEREAS, section 43006 of the Health and Safety Code provides that the ARB may certify the fuel system of any motor vehicle powered by a fuel other than gasoline or diesel that meets the standards specified by section 43004 and adopt test procedures for such certification;

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 motor vehicle exhaust and evaporative emissions, reductions in emissions from in-use emissions from motor vehicles through improvements in 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 division 26, 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 division 26, 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 division 26, part 5 of the Health and Safety Code to meet emission standards established pursuant to section 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, section 43205 of the Health and Safety Code provides that commencing with the 1990 model year, manufacturers of light- and medium-duty motor vehicles and engines shall warrant to the ultimate purchaser and each subsequent purchaser that the motor vehicle or engine is designed, built, and equipped to conform with the applicable emissions standards and is free from defects in materials and workmanship that cause the motor vehicle or engine to fail to conform with the applicable requirements for such vehicles under division 26, part 5 of the Health and Safety Code for three years or 50,000 miles, whichever occurs first;

WHEREAS, section 43205 of the Health and Safety Code further provides that that high-priced emission-related parts – those parts with an estimated cost of $300 per part in 1988 dollars – be warranted to be free from defects in materials and workmanship for seven years or 70,000 miles, whichever occurs first, and that the Board adopt by regulation a method to periodically revise the $300 replacement cost in accordance with the consumer price index, as published by the United States Bureau of Labor Statistics;

WHEREAS, sections 43016, 43154, 43211, and 43212 of the Health and Safety Code provides 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, in July 1990, the Board adopted and the Office of Administrative Law subsequently approved regulations regarding "Malfunction and Diagnostic System Requirements – 1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines," (OBD II), which are codified at title 13, California Code of Regulations (CCR), section 1968.1, and which set forth requirements for (1) monitoring catalyst efficiency, engine misfire, evaporative system integrity, secondary air injection, and chlorofluorocarbon containment; (2) improving current monitoring of the fuel system, oxygen sensor, EGR system, and other emission-related components of the on-board diagnostic system; and (3) standardizing fault codes, diagnostic repair equipment, the vehicle connector used for attaching the repair equipment to the vehicle, and the protocol for downloading repair information in order to improve the effectiveness of emission control system repairs;

WHEREAS, the Board adopted amendments to title 13, CCR, section 1968.1 in 1991, 1993, 1994, and 1996, which were respectively approved by the Office of Administrative Law;

WHEREAS, the U.S. Environmental Protection Agency (U.S. EPA) on October 11, 1996 approved California's request for a waiver of preemption under section 209(b) of the federal Clean Air Act (CAA) for the OBD II regulations (61 Fed.Reg. 53371);

WHEREAS, in 1998 the Board adopted stringent second generation tailpipe and evaporative emission standards for low emission vehicles ("LEV II");

WHEREAS, diesel-powered vehicles are not presently tested under the California Motor Vehicle Inspection Program established pursuant to division 26, part 5, chapter 5 of the Health and Safety Code, and are expressly exempted under Health and Safety Code section 44011(a)(1) until the Department of Consumer Affairs implements test procedures for diesel-powered vehicles pursuant to Health and Safety Code section 44012;

WHEREAS, in April 2002, the Board adopted and the Office of Administrative Law subsequently approved regulations regarding "Malfunction and Diagnostic System

Requirements for 2004 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines," (OBD II), which are codified at title 13, CCR, section 1968.2, and which (1) carried over most of the requirements of section 1968.1; (2) revised several monitoring requirements including, among other things, the requirements for catalyst monitoring, misfire monitoring, and oxygen sensor monitoring; and (3) established several new requirements including requirements for cold start emission reduction strategy monitoring, direct ozone reduction monitoring, production vehicle evaluation and verification testing, and standardized measurement of real world monitoring performance;

WHEREAS, in April 2002, the Board adopted and the Office of Administrative Law subsequently approved regulations regarding "Enforcement of Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines," which are codified at title 13, CCR, section 1968.5, and which set forth enforcement procedures for compliance with the OBD II requirements that set forth a specific protocol for in-use testing of OBD II-equipped motor vehicles and engines and remedying noncompliance with the OBD II requirements;

WHEREAS, in 1979, the Board adopted and the Office of Administrative Law subsequently approved regulations regarding emission warranty requirements for passenger cars, light-duty trucks, and medium-duty vehicles, which are codified at title 13, CCR, sections 2035, 2037, and 2038, and which set forth (1) requirements for manufacturers to warrant emission-related parts for both defects and performance for a period of three years and 50,000 miles; and (2) a subset of "high-cost" emission-related parts that are eligible to be warranted for seven years and 70,000 miles if they met specific inflation-adjusted cost numbers;

WHEREAS, the Board adopted amendments to title 13, CCR, sections 2035, 2037, and 2038 in 1990 and 1999, which were respectively approved by the Office of Administrative Law;

WHEREAS, the Administrator of U.S. EPA has historically found California's warranty requirements to be within the scope of waivers of preemption that have been granted for light- and medium-duty emission standards under section 209(b) of the CAA (see e.g., 44 Fed.Reg. 61096 (October 23, 1979) and 57 Fed.Reg. 38502 (August 25, 1992));

WHEREAS, the staff has now proposed adoption of amendments to title 13, CCR, sections 1968.2, 1968.5, 2035, 2037, and 2038, set forth in Attachments A, B, and C hereto;

WHEREAS, the proposed amendments to section 1968.2 would include, among other things, more comprehensive diagnostic requirements for diesel vehicles that are more consistent with the heavy-duty OBD requirements of title 13, CCR section 1971.1, the addition of monitoring requirements for cylinder air-fuel imbalance, and, in response to

manufacturers' concerns regarding implementation of the 2002 amendments, clarifications and/or modifications to several areas of the regulation including in-use performance ratio phase-in schedule and requirements, catalyst oxides of nitrogen (NOx) monitor threshold phase-in schedule, oxygen sensor monitoring, and standardization requirements;

WHEREAS, the proposed amendments to section 1968.5 would include, among other things, revisions to the applicability dates regarding in-use performance ratio issues to reflect the amendments being proposed for section 1968.2, deletion of reference to the "procedures of the California I/M program" in the mandatory recall provisions and listing of the specific criteria in which mandatory recall would be applicable if valid data of specific parameters cannot be obtained from the onboard computer, and modified in-use thresholds (i.e., thresholds at which a vehicle would be found to have a nonconforming OBD II system and would be subject to possible enforcement action) for OBD II emission testing of diesel vehicles certified to the higher interim malfunction thresholds required for the 2007 through 2012 model years;

WHEREAS, the proposed amendments to sections 2035, 2037, and 2038 would, among other things, update the references to emission-related parts to account for emission-control technology used today and simplify the requirements where possible;

WHEREAS, the California Environmental Quality Act (CEQA), section 21080.5 of the Public Resources Code and Board regulations at title 17, 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 proposed regulations on the economy of the state;

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 adoption of proposed amendments to sections 1968.2, 1968.5, 2035, 2037, and 2038, title 13, CCR;

WHEREAS, the Board finds regarding the adoption of the proposed amendments to section 1968.2 of title 13, CCR, that:

> With the introduction of 1996 model year motor vehicles and engines, manufacturers have incorporated OBD II systems into nearly all of their vehicle models and engines pursuant to the standards and other requirements of title 13, CCR, sections 1968.1 and 1968.2;
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> Since the adoption of section 1968.2 in 2002, it has become apparent that additional monitoring requirements as well as revisions to existing requirements

to the OBD II regulations are necessary to improve emission-control system monitoring and compliance in light of input from manufacturers, increasingly stringent tailpipe emission standards, and the need to better serve automotive repair technicians and to incorporate the use of OBD II systems into the State inspection and maintenance (I&M) program;

Emissions from diesel vehicles, especially NOx and particulate matter (PM) emissions, are of great concern;

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

Title 13, CCR section 1971.1 was adopted in 2005 requiring comprehensive OBD requirements for heavy-duty gasoline and diesel vehicles starting in the 2010 model year based on emission controls projected to be used and the capabilities of emission controls and other technologies;

The proposed amendments to section 1968.2 of title 13, CCR would include more comprehensive monitoring requirements for diesel vehicles to make it more consistent with those required for heavy-duty vehicles in section 1971.1;

Requiring more comprehensive monitoring requirements for diesel emission control systems is needed to help ensure that diesel vehicles certified to the more stringent emission standards perform at or near such levels in-use;

Emission testing requirements to be performed by manufacturers on light-duty diesels that have been certified to the higher interim malfunction thresholds during the 2007 through 2012 model years are necessary to provide some assurance that the vehicles, as a whole, do not have a design defect that causes them to fail to meet the base emission standards;

Manufacturers of light-duty vehicles shall also be responsible for offsetting any increased emissions from vehicles certified to the higher interim malfunction thresholds during the 2007 through 2012 model years by funding a program(s) that will offset any such excess emissions;

Other proposed amendments to title 13, CCR section 1968.2 would help ensure that all OBD II systems meet their stated purpose of notifying vehicle operators of malfunctions to a motor vehicles emission control system and assisting the service and repair industry in repair of such malfunctions and that such systems function properly in-use;

The proposed new requirements and revisions to title 13, CCR, section 1968.2 further help to ensure that a motor vehicle certified to the LEV II emission standards will continue to operate in-use at or near those levels throughout the motor vehicle's life;

The storage and erasure of permanent fault codes are necessary to help prevent fraudulent testing at State I&M stations;

The use of the interim minimum in-use performance ratio of 0.100 needs to be extended for an additional year to allow manufacturers more time to sufficiently collect and evaluate in-use performance data from the field to determine if monitoring changes are needed to meet the final ratios;

The use of the higher interim malfunction threshold of "3.5 times the NOx standards" for catalyst NOx conversion efficiency monitoring needs to be extended for two additional years to allow manufacturers to efficiently redesign their catalysts and/or catalyst monitors to meet this requirement;

Monitoring for air-fuel ratio cylinder imbalance faults for gasoline vehicles helps avoid undetected malfunctions that result in high emissions and ensure that emission benefits of the LEV II program are achieved;

Clarifications and more details of the minimum acceptable monitoring for primary and secondary oxygen sensors on gasoline vehicles are necessary to ensure that emission benefits are achieved and secondary oxygen sensors are sufficient capable of readily detecting catalyst malfunctions;

To assist repair technicians in fixing emission control systems, additional data parameters need to be reported by the OBD II system;

To alleviate the workload burden of mid-size vehicle manufacturers, the number of vehicles required to be emission tested and validation tested with regard to diagnostics has been reduced;

To allow manufacturers more time to obtain the minimum number of vehicles required by the regulation to collect in-use performance data, the proposed amendments extend the deadline for reporting the data from six months to twelve months after the start of normal production;

The proposed amendments to title 13, CCR, section 1968.2 are necessary, cost-effective, and technologically feasible to carry out the purposes of the California Clean Air Act; and

WHEREAS, the Board finds regarding the adoption of the proposed amendments to section 1968.5 of title 13, CCR, that:

Changes are needed to section 1968.5 to align with the proposed amendments to section 1968.2;

Deletion of references to "the procedures of California I/M program" and addition of the specific criteria for non-compliance determination are necessary because the procedures are outside of ARB's control, have not been updated to keep pace with OBD II technology, and do not reflect the planned inspection methods for future OBD II vehicles;

More appropriate in-use thresholds (i.e., thresholds at which a vehicle would be found to have a nonconforming OBD II system and would be subject to possible enforcement action) are needed to reflect diesel vehicles certified to the higher interim OBD II malfunction thresholds required for the 2007 through 2012 model years;

WHEREAS, the Board finds regarding the adoption of the proposed amendments to sections 2035, 2037, and 2038 of title 13, CCR, that:

To make certain that all high-priced emission-related parts are covered by the extended 7 year/70,000 mile warranty coverage, it is necessary to discontinue the use of and reference to an out-of-date emissions-related parts list and instead require that all parts covered by the 3 year/50,000 mile defects warranty coverage and which meet the inflation adjusted cost-limits be covered by the 7 year/70,000 mile coverage;

This will ensure that high-priced parts related to newer emission control technologies are covered by the 7 year/70,000 mile coverage and that consumers would be less confused about what parts are covered under the extended warranty coverage; and

WHEREAS, the Board further finds regarding the adoption of proposed amendments to sections 1968.2, 1968.5, 2035, 2037, and 2038 of title 13, CCR that:

With respect to the requirements of CEQA, the proposed amendments to sections 1968.2, 1968.5, 2035, 2037, and 2038, title 13, CCR, may have a minimal adverse impact on the environment. The impact may occur as a result of the higher interim malfunction thresholds for light-duty diesel vehicles during the 2007 through 2012 model years; the impact should be minimal given the limited number of diesel vehicles that are projected to be introduced into the state during these years and because of the amendments requiring manufacturers to conduct additional emission testing on light-duty diesel vehicles that they certify during this time period;

Any increased emissions from the use of light-duty diesel vehicles are expected to be largely offset by requiring manufacturers to pay mitigation fees that will be used to fund environmental programs that will be designed to achieve emission reductions comparable to any increase in emissions; also the use of light-duty diesel vehicles will result in fuel-economy savings when compared to gasoline-

powered vehicles, resulting in the release of fewer greenhouse gasses being released into the atmosphere;

To the extent that increased impacts do occur, overriding considerations exist in that the higher thresholds are necessary because many of the diesel emission control technologies and associated monitoring systems involved are new and evolving and have never previously existed on diesel vehicles;

The identified potential emissions impact should not have a disproportionate impact on any community in the State, especially low-income or minority communities, in that expected emissions are expected to be insignificant and affected diesel vehicles will be located throughout the state and not congregated in any specific area;

The economic and cost impacts of the proposed amendments to title 13, CCR, sections 1968.2, 1968.5, 2035, 2037, and 2038 have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are set forth in the Initial Statement of Reasons for this regulatory action;

The reporting requirements of title 13, CCR, sections 1968.2, 1968.5, 2035, 2037, and 2038, as amended, that are applicable to businesses are necessary for the health, safety, and welfare of the people of the State; and

The requirements of title 13, CCR, sections 1968.2, 2035, 2037, and 2038 are similar but not identical to requirements addressed in federal regulations; differing California regulations are authorized by the Health and Safety Code and the cost of differing state regulations is justified by the benefit to human health, public safety and welfare, and the environment.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the proposed amendments to sections 1968.2, 1968.5, 2035, 2037, and 2038, title 13, CCR as modified as set forth in Attachments A, B and C hereto, which were made available as part of the 45-day notice package, and staff's proposed modifications as set forth in Attachment D hereto, which was distributed at the September 28, 2006 hearing.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to take final action to adopt the amendments set forth in Attachments A, B and C, with the modifications set forth in Attachment D and such other conforming modifications that may be appropriate, after making the modified regulatory language and any additional supporting documents and information available for public comment for a period of at least 15 days, provided that the Executive Officer shall consider such written comments regarding the modification 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 the Board hereby determines pursuant to section 209(b) of the Clean Air Act that the approved amendments to sections 1968.2, 1968.5, 2035, 2037, and 2038 do not undermine California's previous determinations that the State's standards are in the aggregate, at least as protective of the public health and welfare as applicable federal standards or that requirements and procedures are inconsistent with section 202(a) of the Clean Air Act and do not raise any new issues.

BE IT FURTHER RESOLVED that to the extent a new waiver is required, California needs its own motor vehicle emission reductions program to meet compelling and extraordinary environmental conditions.

BE IT FURTHER RESOLVED that the Executive Officer shall, upon adoption, forward the amendments to title 13, CCR, sections 1968.2 and 1968.5 to the Administrator of U.S. EPA with a request that the amendments be found to be within the scope of the existing waiver(s) that has been granted under section 209(b) of the CAA for title 13, CCR, sections 1968.1, 1968.2, and 1968.5 or, to the extent that the Executive Officer deems necessary, be granted a new waiver.

BE IT FURTHER RESOLVED that the Executive Officer shall, upon adoption, forward the amendments to title 13, CCR, sections 2035, 2037, and 2038 to the Administrator of U.S. EPA with a request that requirements set forth therein be found to be within the scope of the existing waiver that has been granted under section 209(b) of the CAA for California emission standards and other requirements.

BE IT FURTHER RESOLVED that the Board directs the staff to work closely with the Department of Consumer Affairs and the Bureau of Automotive Repair to expeditiously develop test procedures for conducting smog checks on light-duty diesel vehicles and including such vehicles in the State's Motor Vehicle Inspection Program.

BE IT FURTHER RESOLVED that the Board directs the staff to continue to closely monitor vehicle manufacturers in complying with the requirements of section 1968.2, title 13, CCR, and the implementation of section 1968.5, title 13, CCR, and to report to the Board in approximately two years, if amendments to the regulations are necessary.

I hereby certify that the above is a true and correct copy of Resolution 06-26, as adopted by the Air Resources Board.

Lori Andreoni

Lori Andreoni, Clerk of the Board

Resolution 06-26
September 28, 2006

Identification of Attachments to the Resolution

Attachment A: Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines, Section 1968.2, Title 13, California Code of Regulations

Attachment B: Enforcement of Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines, Section 1968.5, Title 13, California Code of Regulations

Attachment C: Emission Control System Warranty Requirements for 1990 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines, Sections 2035, 2037, and 2038, Title 13, California Code of Regulations

Attachment D: Staff's Suggested Modifications to the Proposed Regulations, as distributed at the September 28, 2006 hearing