State of California
AIR RESOURCES BOARD

Response to Significant Environmental Issues

Item: Notice of Public Hearing to Consider the Technical Status Update and Proposed Revisions to Malfunction and Diagnostic System Requirements Applicable to 1994 and Subsequent California Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles (OBD II)

Agenda Item No.: 92-7-1

Public Hearing Date: September 12, 1991

Issuing Authority: Air Resources Board

Comment: No comments were received identifying any significant environmental issues pertaining to this item. The staff report identified no adverse environmental effects.

Response: N/A

Certified: Pat Hutchens
Pat Hutchens
Board Secretary

Date: July 1, 1992

State of California
AIR RESOURCES BOARD

Resolution 91-42

September 12, 1991

Agenda Item No.: 91-7-1

WHEREAS, Sections 39002 and 39003 of the Health and Safety Code charge 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 Air Resources Board (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, 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;

WHEREAS, in Section 43000.5 of the Health and Safety Code, enacted as part of the California Clean Air Act of 1988 (Stats. 1988, ch. 1568), the Legislature has declared that while significant reductions in vehicle emissions have been achieved in recent years, continued growth in population and vehicle miles traveled throughout the state have the potential not only of preventing attainment of the state standards, but in some cases of resulting in worsening of air quality;

WHEREAS, in Section 43000.5 of the Health and Safety Code, the Legislature further declared that the attainment and maintenance of the state air quality standards will necessitate the achievement of substantial reductions in new vehicle emissions and substantial improvements in the durability of vehicle emission systems;

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

WHEREAS, the Board has adopted "California Malfunction and Diagnostic Systems for 1988 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium Duty Vehicles with Three-Way Catalyst Systems and Feedback Control," in Section 1968, Title 13, California Code of Regulations ("CCR"), which currently requires monitoring of the fuel metering system, exhaust gas recirculation (EGR) system, and certain additional emission-related components by an on-board diagnostic system for passenger cars,

light-duty trucks, and medium-duty vehicles equipped with three-way catalyst systems and feedback control;

WHEREAS, the Board has adopted "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles With Feedback Fuel Control Systems," in Section 1968.1; Title 13, CCR, for monitoring catalyst efficiency, engine misfire, canister purge, secondary air injection, and chlorofluorocarbon (CFC) containment; for improving current monitoring of the fuel system, oxygen sensor, EGR system, and other emission-related components of the on-board diagnostic system; and for 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 directed staff to report back to it by September, 1991, regarding the progress of manufacturers in meeting the technology forcing requirements of Section 1968.1;

WHEREAS, in November, 1990, the Federal Clean Air Act Amendments became law and directed the Environmental Protection Agency ("EPA") to develop federal on-board diagnostic requirements, and EPA and staff have attempted to coordinate the development of such requirements with the California OBD regulations;

WHEREAS, the staff has proposed the adoption of amendments to Section 1968.1, Title 13 CCR to revise the OBD regulations to establish more effective monitoring strategies for catalysts, evaporative, and secondary air systems, expand the applicability of the requirements to all light- and medium-duty vehicles, allow statistic malfunction detection algorithms, and include additional demonstration testing;

WHEREAS, the Board has adopted "Certification and Service Documents - 1993 and Subsequent Model Motor Vehicles," in Section 1977, Title 13, CCR, which requires certification documents and emission-related vehicle and engine service procedures to conform to the nomenclature and abbreviations found in the Society of Automotive Engineers' (SAE) J1930 procedure;

WHEREAS, the staff has proposed the incorporation of the most recent version of the SAE J1930 procedure in response to requests from industry;

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 Board finds that:

Significant numbers of vehicles continue to operate with deteriorated catalytic converters and that catalyst performance is crucial to maintaining vehicle emissions in compliance with the applicable standards; accordingly, it is necessary to monitor catalyst performance to ensure adequate levels of conversion efficiency;

The on-board evaluation of catalyst efficiency over the same test cycle that tailpipe emissions are measured will improve the effectiveness of on-board diagnostic systems and provide a basis for system verification;

In-use surveillance programs indicate that evaporative system leaks and malfunctions cause excess emissions and, therefore, evaporative monitoring systems that can detect minor system leaks as well as other malfunctions will significantly reduce in-use evaporative emissions from vehicles;

The inclusion of all passenger vehicles, light-duty trucks and medium-duty vehicles in the requirements of Section 1968.1 will reduce in-use emissions from diesel vehicles while facilitating better diagnosis and repair of emission-related malfunctions;

The acceptance of federal on-board diagnostic systems on California vehicles after the 1998 model year that are not identified as Low Emission Vehicles will allow manufacturers to design an on-board diagnostic system for a vehicle that can be used nationwide;

A requirement to monitor chlorofluorocarbon (CFC) leakage in the air conditioning system will promote the use of CFC substitutes which will lower the demand for CFC production;

Adopting standardized fault codes and diagnostic service equipment will improve the repairability and maintenance and, therefore, the emission characteristics of motor vehicles;

The proposed on-board diagnostic revisions are cost effective and technologically feasible;

The adoption of the June, 1991, version of SAE J1930 into section 1977, Title 13, CCR, will improve the effectiveness of manufacturers' emission-related vehicle and engine service procedures and, therefore, the repairability of

motor vehicles which in turn will improve their emission characteristics;

WHEREAS, the Board further finds that:

The proposed regulations will result in reductions of motor vehicle emissions because emission systems would be more closely monitored and better maintained and will not have any significant adverse environmental effects;

WHEREAS, the Board has determined, pursuant to the requirements of the California Environmental Quality Act and Air Resources Board regulations, that this regulatory action will have no significant adverse impact on the environment.

NOW, THEREFORE, BE IT RESOLVED as amended and set forth that the Board hereby approves Sections 1968.1 and 1977, Title 13, California Code of Regulations, as set forth in Attachment A hereto.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to adopt Sections 1968.1 and 1977, Title 13, California Code of Regulations, after making the modified regulatory language and 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 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 determines that this is warranted;

BE IT FURTHER RESOLVED that because the industry standards for on-board diagnostic equipment being developed by the SAE are not ready for final incorporation into Section 1968.1, the Board hereby directs the Executive Officer to take appropriate regulatory action under the Administrative Procedure Act to evaluate and determine whether to incorporate the standards for on-board diagnostic equipment when finalized.

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, will not cause the California requirements 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 Environmental Protection Agency pursuant to section 209(b) of the Clean Air Act;

BE IT FURTHER RESOLVED that the Executive Officer shall, upon adoption, forward the regulations to the Environmental Protection Agency 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 Clean Air Act, as appropriate;

BE IT FURTHER RESOLVED that the Board directs staff to continue monitoring research and development activities related to implementation of the on-board diagnostic system requirements in Section 1968.1, and to report back to the Board on or before November 12, 1992 with a recommendation to delay the implementation of any of the requirements if such requirements are found to be nonfeasible for a significant number of manufacturers with respect to the implementation time frame specified in the regulation.

BE IT FURTHER RESOLVED that the Board directs staff to continue monitoring research and development activities related to implementation of the on-board diagnostic system requirements for low emission vehicles in Section 1968.1, and to report back to the Board on or before September 12, 1993 with a recommendation to modify any of the requirements if such requirements are found to be nonfeasible, and/or impractical for a significant number of manufacturers, with such report to include recommendations for modification of the regulation as it affects low emission vehicles, if determined to be appropriate at that time.

I hereby certify that the above is a true and correct copy of Resolution 91-42, as adopted by the Air Resources Board.

Pat Hutchens

Pat Hutchens, Board Secretary