STATE OF CALIFORNIA
AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95812

PETE WILSON, Governor

State of California
AIR RESOURCES BOARD

Notice of Decision and
Response to Significant Environmental Issues

Item: PUBLIC HEARING TO CONSIDER AMENDMENTS TO CERTIFICATION REQUIREMENTS AND PROCEDURES FOR LOW-EMISSION PASSENGER CARS, LIGHT-DUTY TRUCKS, AND MEDIUM-DUTY VEHICLES.

Approved by: Executive Order G-812
Signed: September 22, 1993

Agenda Item No.: 93-1-3

Public Hearing Date: January 14, 1993

Issuing Authority: Air Resources Board

Comment: Several comments were received identifying significant environmental issues pertaining to this item. These comments are summarized and responded to in the Final Statement of Reasons, which is incorporated by reference herein.

Response: Resolution 93-3 is also incorporated herein and attached hereto. In the Resolution, the Board found that the approved amendments would not have any significant adverse environmental impacts.

Certified: Pat Hutchens
Pat Hutchens
Board Secretary

Date: September 23, 1993

RECEIVED BY
Office of the Secretary

SEP 24 1993

RESOURCES AGENCY OF CALIFORNIA

State of California
AIR RESOURCES BOARD

Resolution 93-3

January 14, 1993

Agenda Item No.: 93-1-3

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 contaminants from motor vehicles is the primary cause of air pollution in many parts of the state;

WHEREAS, section 43018(a) of the Health and Safety Code, enacted by the California Clean Air Act of 1988, 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 the state ambient air quality standards at the earliest practicable date;

WHEREAS, section 43018(b) of the Health and Safety Code directs the Board no later than January 1, 1992 to take whatever actions are necessary, cost-effective, and technologically feasible in order to achieve, by December 31, 2000, a reduction of reactive organic gases (ROG) of at least 55 percent and a 15 percent reduction in the emissions of oxides of nitrogen (NOx) from motor vehicles, and the maximum feasible reductions in particulates (PM), carbon monoxide (CO), and toxic air contaminants from vehicular sources;

WHEREAS, section 43018(c) of the Health and Safety Code provides that in carrying out section 43018, 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 and motor vehicle fuel, including but not limited to reductions in motor vehicle exhaust and evaporative emissions, reductions in in-use vehicular emissions through durability and performance improvements, requiring the purchase of low-emission vehicles by state fleet operators, and specification of vehicular fuel composition;

WHEREAS, section 43101 of the Health and Safety Code directs the Board to adopt and implement emission standards for new motor vehicles which the Board has found to be necessary and technologically feasible to carry out the purposes of Division 26 of the Health and Safety Code;

WHEREAS, section 43104 of the Health and Safety Code directs the Board to adopt test procedures for determining whether new motor vehicles are in compliance with the emission standards established by the Board;

WHEREAS, in a 1990-1991 rulemaking, the Board adopted the Low-Emission Vehicle regulations, which require the phased introduction of vehicles meeting standards for four progressively more stringent categories of light-duty vehicles: Transitional Low-Emission Vehicles (TLEVs), Low-Emission Vehicles (LEVs), Ultra-Low-Emission Vehicles (ULEVs), and Zero-Emission Vehicles (ZEVs);

WHEREAS, the Low-Emission Vehicle regulations include a protocol under which the Executive Officer is to establish reactivity adjustment factors (RAFs) for representative vehicle/fuel combinations by applying a reactivity scale based on the maximum incremental reactivity (MIR) of individual hydrocarbon species to hydrocarbon exhaust speciation profiles; these RAFs are to be applied to the non-methane organic gas exhaust mass emissions from TLEVs, LEVs and ULEVs operating on fuels other than conventional gasoline, to determine compliance with applicable emission standards;

WHEREAS, following a hearing on November 14, 1991, the Board adopted amendments to the Low-Emission Vehicle regulations which established a RAF for TLEVs operated on methanol (M85) and made various changes regarding the calculation and use of RAFs for low-emission vehicles;

WHEREAS, at a June 11, 1992 public meeting, the staff presented a status report to the Board on the progress being made by the industry to comply with the Low-Emission Vehicle regulations; following the staff's presentation and comments from industry representatives and other members of the public, the Board adopted Resolution 92-46, which found that the low-emission vehicle standards continue to be technologically feasible within the required timeframes;

WHEREAS, in conjunction with a public hearing notice dated September 15, 1992, the staff proposed a wide range of regulatory amendments to the Low-Emission Vehicle regulations and to the general certification requirements and procedures for light- and medium-duty vehicles, intended to augment various provisions, improve clarity and facilitate implementation; these amendments include the establishment of a test procedure and certification requirements for hybrid electric vehicles, revision of the requirements for compliance with the NMOG and formaldehyde standards at 50°F, establishment of RAFs for TLEVs and LEVs operated on Phase 2 reformulated gasoline certification fuel, and establishment of a methane RAF for compressed natural gas (CNG) low-emission vehicles;

WHEREAS, the staff's proposal would be effected by amendments to Title 13, California Code of Regulations, sections 1960.1, 1976 and 2061 as set forth in Attachment A hereto; amendments to the California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles, which is incorporated by reference in section 1960.1, as set forth in Attachment B hereto; amendments to the California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles, which is incorporated by reference in section 1976, as set forth in Attachment C hereto; amendments to the

California Assembly-Line Test Procedures for 1983 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles, which is incorporated by reference in section 2016, as set forth in Attachment D hereto; and amendments to the California Non-Methane Organic Gas Test Procedures, as set forth in Attachment E hereto;

WHEREAS, the California Environmental Quality Act and Board regulations require that an action not be adopted as proposed where it will have significant adverse environmental impacts if feasible alternatives or mitigation measures are available which would substantially reduce or avoid such impacts;

WHEREAS, the Board has considered the impact of the proposed regulatory action 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; and

WHEREAS, the Board finds that:

The amendments approved herein, including the revisions pertaining to test procedures for hybrid electric vehicles, cold CO requirements, ZEV certification procedures, test procedures for ethanol vehicles, 50°F test requirements, the ZEV credit system, RAFs for Phase 2 reformulated gasoline certification fuel, a methane RAF for CNG low-emission vehicles, deterioration factors for engine-specific RAFs, and calculation of penalties for violations, are necessary and appropriate to add specificity, enhance clarity, and facilitate implementation of the low-emission vehicle requirements;

It is appropriate at this time to establish RAFs for TLEV and LEV light-duty vehicles operating on Phase 2 reformulated gasoline certification fuel, and to establish baseline values of reactivity expressed in grams of ozone/ gram NMOG for LEVs and ULEVs operating on conventional gasoline, only for the 1993 through 1997 model-years, so that any additional data and analytical methods can be considered in the subsequent adoption of RAFs and baseline reactivity values for such categories for the 1998 and subsequent model years;

The baseline values of reactivity approved herein for 1993 through 1997 LEVs and ULEVs operating on conventional gasoline are appropriately based on tests of vehicles equipped with advanced emission control systems demonstrated by the Board to be capable of achieving compliance with LEV and ULEV standards when operating on conventional gasoline;

The RAFs approved herein for the TLEV and LEV emission categories for vehicles operating on Phase 2 reformulated gasoline are appropriately based on application of the established MIRs to the best available speciated hydrocarbon exhaust emission data from vehicles operating on these fuels and meeting the TLEV and LEV standards;

Confirmatory modeling indicates that there is little or no bias in the application of the established MIR scale to the speciated exhaust of TLEVs and LEVs operating on Phase 2 reformulated gasoline, and thus no correction factor is necessary or appropriate for the Phase 2 reformulated gasoline RAFs for these vehicle categories; and

The amendments approved herein will not have any significant adverse environmental impacts.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the amendments to sections 1960.1, 1976 and 2061, and the documents incorporated therein, as set forth in Attachments A through E hereto, with the modifications described in Attachment F hereto.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to incorporate into the approved amendments the modifications described in Attachment F hereto, with such other conforming modifications as may be appropriate, and to adopt the amendments approved herein, after making the modified regulatory language available for public comment for a period of 15 days, provided that the Executive Officer shall consider such written comments regarding the modifications as may be submitted during this period, shall make modifications after comments have been received, and shall present the regulations to the Board for further consideration if he determines that this is warranted.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to schedule a rulemaking hearing by March, 1994, to establish baseline values of reactivity for 1998 and subsequent model-year LEVs and ULEVs operating on conventional gasoline, and RAFs for 1998 and subsequent model year passenger cars, light-duty trucks, and medium-duty vehicles operated on Phase 2 reformulated gasoline certification fuel, subject to the availability of suitable test vehicles; in proposing such baseline values and RAFs the Executive Officer shall work cooperatively with industry to identify any relevant new data or analytical methods.

BE IT FURTHER RESOLVED that it is the intent of the Board that any proposed revisions to the baseline reactivity values for LEVs and ULEVs shall not reduce the stringency of the adopted emission standards, except as may result from improved test methods and data analysis.

BE IT FURTHER RESOLVED that the Board directs the staff to continue to evaluate the need to adjust the RAF process in order to account for the

reactivity of emissions of CO from low-emission vehicles, and to report back to the Board as appropriate on recommendations in this area.

BE IT FURTHER RESOLVED that the Board hereby determines that the amendments approved herein will not cause the 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 motor vehicle emission standards and test procedures are necessary to meet compelling and extraordinary conditions.

BE IT FURTHER RESOLVED that the Board finds that the California motor vehicle emission standards and test procedures as amended herein 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 amendments to the Environmental Protection Agency with a request for confirmation that the amendments are within the scope of an existing 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 93-3 as adopted by the Air Resources Board.

Pat Hutchens

Pat Hutchens, Board Secretary

RECEIVED BY
Office of the Secretary

SEP 24 1993

RESOURCES AGENCY OF CALIFORNIA

Resolution 93-3

January 14, 1993

Identification of Attachments to the Resolution

Attachment A: Amendments to Title 13, California Code of Regulations, sections 1960.1, 1976, and 2061, as appended to the Staff Report released September 25, 1992.

Attachment B: Amendments to the California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles, as made available by the ARB's Mobile Source Division September 25, 1992.

Attachment C: Amendments to the California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles, as made available by the ARB's Mobile Source Division September 25, 1992.

Attachment D: Amendments to the California Assembly-Line Test Procedures for 1983 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles, as made available by the ARB's Mobile Source Division September 25, 1992.

Attachment E: Amendments to the California Non-Methane Organic Gas Test Procedures, as made available by the ARB's Mobile Source Division September 25, 1992.

Attachment F: Staff's Suggested Changes to the Original Proposal, distributed at the hearing on January 14, 1993.