State of California
AIR RESOURCES BOARD

Resolution 88-59

November 17, 1988

Agenda Item No.: 88-14-1

WHEREAS, Sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (the Board) to adopt standards, rules and regulations necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, Health and Safety Code Sections 39000, 39001, 43013, 43101 and Western Oil and Gas Ass'n. v. Orange County APCD, 14 Cal. 3d 411 (1975), authorize the Board to regulate the composition of motor vehicle fuels as they affect motor vehicle emissions;

WHEREAS, the Board has established state ambient air quality standards for ozone, suspended particulate matter (PM10), sulfur dioxide, sulfates, visibility-reducing particles, and nitrogen dioxide, and has also established an air quality criterion for sulfate/ozone episodes;

WHEREAS, the Environmental Protection Agency (EPA) has established national ambient air quality standards for ozone, suspended particulate matter (PM10), and nitrogen dioxide;

WHEREAS, Title 13, California Code of Regulations, Section 2252(d) and following prohibits in the South Coast Air Basin and Ventura County ("South Coast Control Area") the sale, or transfer of diesel fuel for use in motor vehicles in the South Coast Control Area where the sulfur content exceeds 500 parts per million (ppm) by weight, with an exemption until January 1, 1989 for specified amounts of diesel fuel produced by small refiners;

WHEREAS, the Board's staff has conducted several workshops regarding the control of the sulfur content of motor vehicle diesel fuel on a statewide basis, and the control of the aromatic hydrocarbon content of motor vehicle diesel fuel;

WHEREAS, the staff has proposed the adoption of two new regulations which would, starting January 1, 1993, (a) limit the permissible sulfur content of motor vehicle diesel fuel to 500 ppm statewide, and (b) limit the aromatic hydrocarbon content of motor vehicle diesel fuel to 10 percent by volume statewide with a 20 percent limit for specified volumes produced by small refiners, allow offsetting higher aromatic content batches with lower aromatic content batches to meet the 10 percent limit, and authorize the Executive Officer to waive the 10 percent limit for a blend of diesel fuel containing an additive or additives where s/he finds the blend will result in no greater emissions than 10 percent aromatics diesel fuel;

WHEREAS, the California Clean Air Act of 1988 (Stats. 1988, ch. 1568; AB 2595; Sher) amends Health and Safety Code 43013, effective January 1, 1989, to provide expressly that the Board may adopt and implement motor vehicle fuel specifications for the control of air contaminants which the Board has found to be necessary, cost-effective, and technologically feasible to carry out the purposes of Division 26 of the Health and Safety Code;

WHEREAS, the California Clean Air Act enacts, effective January 1, 1989, Health and Safety Code Section 43018, which 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, and directs the Board no later than January 1, 1992 to take whatever actions are necessary, cost effective, and technologically feasible in order to achieve, not later than December 31, 2000, a 15 percent reduction in the emissions of oxides of nitrogen from motor vehicles, and the maximum feasible reductions in particulates and toxic air contaminants from vehicular sources;

WHEREAS, Health and Safety Code Section 43018, effective January 1, 1989, also directs the Board to adopt a schedule in which workshops on the adoption of vehicular fuel specifications for aromatic content and diesel fuel quality shall be held not later than March 31, 1989, and hearings to adopt associated regulations shall be held not later than November 15, 1989;

WHEREAS, Health and Safety Code Section 43018(c), effective January 1, 1989, provides that in carrying out Section 43108 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 specification of vehicular fuel composition;

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 and alternatives or feasible mitigation measures to the proposed action are available which would substantially reduce or avoid 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; and

WHEREAS, the Board finds that:

Emissions from diesel-powered motor vehicles contribute to ambient concentrations of ozone, sulfates, nitrogen dioxide, PM10, and visibility reducing particles;

The national and/or state ambient air quality standards for these pollutants are violated in California;

Emissions of oxides of nitrogen and sulfur dioxide from diesel-powered motor vehicles are projected to increase steadily in the future;

Emissions of particulate matter from diesel-powered motor vehicles are projected to decrease in the near term due to exhaust emission standards adopted by the Board, but will begin to increase after the beginning of the next century as growth in diesel-powered motor vehicle use begins to overcome the effects of the exhaust emission standards;

Reducing the sulfur content and aromatic hydrocarbon content of motor vehicle diesel fuel will reduce emissions of sulfur dioxide, oxides of nitrogen, and particulate matter from diesel-powered motor vehicles;

Diesel-powered motor vehicles emit a number of pollutants that have been identified as toxic air contaminants or are considered potential toxic compounds; the limits approved herein will reduce emissions of these pollutants and consequently reduce the potential cancer risk associated with motor vehicle diesel exhaust by approximately 10 to 17 percent;

It is technologically feasible for refiners to produce motor vehicle diesel fuel with a sulfur content of 500 ppm and an aromatic hydrocarbon content of 10 percent;

A separate, less stringent limit for the aromatic hydrocarbon content of motor vehicle diesel fuel produced by small refiners is appropriate in light of the greater economic impact of a 10 percent limit on small refiners and the greater difficulty they would have complying with the limit;

The modifications contained and described in Attachment D are necessary and appropriate to provide additional flexibility in meeting the requirements, tailor the regulatory requirements more closely to the present financial ability of the affected industry to comply, and clarify the intent of the provisions;

The cost-effectiveness ratios for reducing emissions from diesel-powered motor vehicles through the limits approved herein are within the range of other control measures adopted to reduce emissions of these pollutants;

The regulations approved herein fulfill requirements contained in the California Clean Air Act for control of diesel fuel, and are expected to be part of the most cost-effective combination of vehicular control measures adopted by the Board pursuant to Health and Safety Code Section 43018 effective January 1, 1989;

The emission reduction effect of reduced levels of sulfur and aromatic hydrocarbons in motor vehicle diesel fuel would occur immediately upon implementation of such reduced levels;

The economic impacts of the regulations approved herein are warranted in light of the public health benefits associated with the regulations;

The regulations approved herein are necessary and appropriate to attain and maintain the state and national ambient air quality standards identified above;

The additional processing and associated changes at refineries required to produce diesel fuel meeting the regulatory limits approved herein could result in significant adverse environmental impacts from increased emissions of sulfur dioxide and oxides of nitrogen at those facilities; the permit requirements of the air pollution control districts are expected substantially to mitigate such impacts; to the extent such impacts are not fully mitigated they would be outweighed by the greater reductions in sulfur dioxide and oxides of nitrogen emissions resulting from the approved regulations; the approved regulations will have no other significant adverse environmental impacts.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the adoption of Sections 2255 and 2256, Title 13, California Code of Regulations, as set forth in Attachments A and B hereto, and the amendment of Section 2252, Title 13, California Code of Regulations, as set forth in Attachment C hereto, with the modifications set forth or described in Attachment D hereto, and with additional modifications to: (i) postpone the implementation dates from January 1, 1993 to October 1, 1993, with corresponding modifications to other dates; (ii) refine the provisions on "mid-sized" refiners and small refiners' "exempt amount"; (iii) delete from the reasons stated in a variance application the requirement that they be "extraordinary"; and (iv) provide for consideration of aggregated emissions impacts in the evaluation of diesel fuel blends with alternative specifications.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to incorporate into Attachments A, B, and C the modifications approved by the Board herein, to conduct a workshop on such modifications, and either to adopt the regulatory actions in Attachments A, B, and C as modified after making them available to the public for a comment period of 15 days, with such minor modifications as may be desirable and necessary, or to present the regulations to the Board for final consideration and adoption, as he determines is most appropriate.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to report back to the Board in approximately one year on the status of implementation of the regulations approved herein, said report to include the following: (i) the results of any new tests comparing the emissions of heavy-duty diesel engines running on diesel fuel blends with varying characteristics; (ii) any additional information on the lubricity of diesel fuel having an aromatic hydrocarbon content of 10 percent; (iii) the status of a 10 percent aromatic content reference fuel and the test procedure for

comparing such fuel to diesel fuel with alternative specifications; (iv) recommendations on a possible requirement that any alternative specification diesel fuel produced by a small refiner must meet the same requirements applicable to other refiners; (v) recommendations on whether Section 2256 should be modified in the future to add provisions expressly pertaining to maintenance turnarounds; and (vi) ways of limiting emissions in California from heavy-duty vehicles fueled outside the state.

I hereby certify that the above is a true and correct copy of Resolution 88-59, as adopted by the Air Resources Board.

Cary Allison, Board Secretary

State of California
AIR RESOURCES BOARD

Response to Significant Environmental Issues

Item: Public Hearing to Consider Adoption of Regulations Limiting the Sulfur Content and the Aromatic Content of Motor Vehicle Diesel Fuel

Agenda Item No.: 88-14-1

Public Hearing Date: November 17, 1988

Response Date: June 8, 1989

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, Section IV, which is incorporated herein by reference.

In Resolution 88-59, which is also incorporated herein by reference, the Air Resources Board found that the additional processing and associated changes at refineries required to produce diesel fuel meeting the regulatory limits in the new regulations could result in significant adverse environmental impacts from increased emissions of sulfur dioxide and oxides of nitrogen at those facilities; that the permit requirements of the air pollution control districts are expected substantially to mitigate such impacts; that to the extent such impacts are not fully mitigated they would be outweighed by the greater reductions in sulfur dioxide and oxides of nitrogen emissions resulting from the regulations; and that the regulations will have no other significant adverse environmental impacts.

Response: See above.

CERTIFIED: Cary Allen
Board Secretary

Date: 8/21/89