State of California
AIR RESOURCES BOARD

Resolution 89-29

March 9, 1989

Agenda Item No.: 89-4-2

WHEREAS, on January 23, 1986, pursuant to Section 39662 of the Health and Safety Code, the Air Resources Board (Board) identified hexavalent chromium as a toxic air contaminant for which there is not sufficient available scientific evidence to support identification of a threshold exposure level below which no significant adverse health effects are anticipated (see Title 17, California Code of Regulations, Section 93000);

WHEREAS, following identification of hexavalent chromium as a toxic air contaminant, the Executive Officer, with the participation of local air pollution control districts, is required to prepare a report on the need for and appropriate degree of control of hexavalent chromium emissions;

WHEREAS, on February 18, 1988, the Board considered at a public meeting the "Hexavalent Chromium Control Plan" (Plan) prepared by staff and found it to be an appropriate overall course of action for developing potential hexavalent chromium control measures;

WHEREAS, the staff has worked closely with the districts through the Technical Review Group and with the affected sources to develop as expeditiously as practicable an airborne toxic control measure for emissions of hexavalent chromium from chromate-treated cooling towers;

WHEREAS, the staff has developed a proposed airborne toxic control measure (ATCM) for hexavalent chromium emissions which would eliminate hexavalent chromium emissions by prohibiting the use of hexavalent chromium in cooling towers;

WHEREAS, the staff has prepared the "Proposed Hexavalent Chromium Control Measure for Cooling Towers" (staff report) and its Technical Support Document which include: estimates of hexavalent chromium emissions, exposure, cancer risk and cancer incidence from chromate-treated cooling towers; a discussion of the availability, technological feasibility and costs of an ATCM to reduce emissions of hexavalent chromium from chromate-treated cooling towers; a discussion of the anticipated effect of the ATCM on hexavalent chromium exposure and risk; a discussion of alternatives to the ATCM; and identification of any potential adverse health, safety or environmental impacts of the ATCM;

"The test procedures require manufacturers where feasible to design the fuel tank fill pipe assembly to discourage siphoning of methanol fuel, which due to its systemic toxicity may cause blindness and death if ingested;

"There are no feasible mitigation measures or alternatives available to the Board which would substantially reduce the potential adverse impacts of the amendments while at the same time providing the substantial overall public health benefit from the reductions noted above."

Response: N/A

Certified: _____
Board Secretary

Date: 1/18/90

State of California
AIR RESOURCES BOARD

Response to Significant Environmental Issues

Item: Public Hearing to Consider Amendments to Regulations Regarding the Certification of Methanol-Fueled Motor Vehicles and Motor Vehicle Engines for Sale in the State of California

Agenda Item No.: 89-4-1

Public Hearing Date: March 9, 1989

Issuing Authority: Air Resources Board

Comment: No comments were received identifying any significant environmental issues pertaining to this item. The staff report identified potential adverse environmental effects. These effects are discussed in the Staff Report: Initial Statement of Reasons, pages 27, 34 and 36-39. Based on the record, the Air Resources Board ("Board") found, in Resolution 89-30:

"The use of methanol-fueled vehicles in place of vehicles using petroleum-based fuels will result in significant reductions in ozone, reductions in ambient levels of formaldehyde, and reductions in levels of exposure to toxic substances, including benzene, benzo-(a)-pyrene and 1-3 butadiene; additionally, the use of methanol in diesel vehicles will result in reductions in emissions of oxides of nitrogen, particulate matter and smoke;

"An increase in the use of methanol-fueled vehicles may result in short term intermittent exposures to methanol, which has recognized acute health effects, and formaldehyde, a known animal carcinogen, which is currently under review for identification by the Board as a toxic air contaminant; however, even the worst case anticipated exposure for methanol is below the U.S. Environmental Protection Agency 'level of concern,' and formaldehyde emissions are expected to remain within the range of formaldehyde emissions from vehicles using petroleum-based fuels because of the separate formaldehyde standard included in the regulations;

aggregate, to be less protective of public health and welfare than applicable federal standards, and 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 a waiver or 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, as appropriate.

I hereby certify that the above is a true and correct copy of Resolution 89-30, as adopted by the Air Resources Board.

Cary Allison, Board Secretary

reductions in levels of exposure to toxic substances, including benzene, benzo-(a)-pyrene and 1-3 butadiene; additionally, the use of methanol in diesel vehicles will result in reductions in emissions of oxides of nitrogen, particulate matter and smoke;

An increase in the use of methanol-fueled vehicles may result in short term intermittent exposures to methanol, which has recognized acute health effects, and formaldehyde, a known animal carcinogen which is currently under review for identification by the Board as a toxic air contaminant; however, even the worst case anticipated exposure for methanol is below the U.S. Environmental Protection Agency "level of concern," and formaldehyde emissions are expected to remain within the range of formaldehyde emissions from vehicles using petroleum-based fuels because of the separate formaldehyde standard included in the regulations;

The test procedures require manufacturers where feasible to design the fuel tank fill pipe assembly to discourage siphoning of methanol fuel, which due to its systemic toxicity may cause blindness and death if ingested;

There are no feasible mitigation measures or alternatives available to the Board which would substantially reduce the potential adverse impacts of the amendments while at the same time providing the substantial overall public health benefit from the reductions noted above.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the amendments to Title 13, California Code of Regulations, Sections 1956.8, 1960.1, 1965, 1976, and 2290 and the documents incorporated by reference therein as set forth in Attachments A through K.

BE IT FURTHER RESOLVED that the Board direct the Executive Officer to adopt the amendments set forth in Attachments A through K after making them available to the public for a period of 15 days, and with such modifications as may be appropriate in light of written comments submitted during this period, provided that the Executive Officer shall present the regulations to the Board for further consideration if he determines that this is warranted in light of the written comments received.

BE IT FURTHER RESOLVED that staff shall report annually to the Board regarding developments in technology to meet the formaldehyde standards approved by the Board; the report to include information regarding emission testing performed by staff and manufacturers and the results of the formaldehyde catalyst demonstration program.

BE IT FURTHER RESOLVED that the Board hereby determines that the amendments adopted herein will not cause the California emission standards, in the

WHEREAS, the staff has proposed amendments to Section 1976 of Title 13, California Code of Regulations and the documents incorporated by reference therein, which would make existing evaporative standards and test procedures applicable to all classes of methanol-fueled vehicles and engines;

WHEREAS, the staff has proposed amendments to Section 2290 of Title 13, California Code of Regulations and the documents incorporated by reference therein, which would make existing fill pipe specifications applicable to all classes of methanol-fueled vehicles and engines, and which would require that fill pipes in methanol-fueled vehicles be designed to resist siphoning;

WHEREAS, the staff has proposed that the standards and test procedures for all classes of methanol-fueled vehicles except urban buses be effective for the 1993 and subsequent model years, and for urban buses the standards and test procedures shall be effective for the 1991 and subsequent model years except for the formaldehyde, evaporative and fill pipe standards which would be effective for the 1993 and subsequent model years;

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:

The use in California of methanol-fueled vehicles and engines can result in a reduction in air pollution in this state;

The specification of emission standards and certification test procedures for methanol-fueled vehicles and engines is necessary to allow for the sale and use of methanol-fueled vehicles and engines in California;

The adoption of an effective certification program for methanol-fueled vehicles and engines will ensure that these vehicles and engines will meet the applicable California model year emission standards necessary to address the serious air pollution problem in this state;

It is technologically feasible and cost-effective for methanol-fueled vehicles and engines to comply with the emission standards and certification test procedures set forth in Attachments A through K;

WHEREAS, the Board further finds:

The use of methanol-fueled vehicles in place of vehicles using petroleum-based fuels will result in significant reductions in ozone, reductions in ambient levels of formaldehyde, and