State of California
AIR RESOURCES BOARD

Resolution 93-59

November 18, 1993

Agenda Item No.: 93-14-2

WHEREAS, sections 39600 and 39605 of the Health and Safety Code authorize the Air Resources Board (the "Board") to act as necessary to execute the powers and duties granted to and imposed upon the Board and to assist the local air pollution control and air quality management districts ("districts");

WHEREAS, in California mobile sources account for approximately 60 percent of all ozone forming emissions and 90 percent of all carbon monoxide emissions;

WHEREAS, the Board has adopted the nation's most extensive and stringent motor vehicle emissions control and fuels regulations, which have resulted in, and will continue to result in, significant emission reductions;

WHEREAS, opportunities exist to further reduce emissions from mobile sources which go beyond the Board's existing regulations;

WHEREAS, the Board, the districts and other parties have expressed considerable interest in the development of methods for generating mobile source emission reduction credits to accommodate industrial and commercial growth in California;

WHEREAS, the Board is authorized to issue guidelines under authority found in section 39003 of the Health and Safety Code, which directs the Board to coordinate efforts to attain and maintain ambient air quality standards; section 39605(a) of the Health and Safety Code, which authorizes the Board to provide assistance to the districts; and sections 39500 and 41500 of the Health and Safety Code, which require the Board to coordinate, encourage, and review the efforts of governmental agencies as they relate to air pollution;

WHEREAS, in February 1993 the Board approved a set of guidelines entitled "Mobile Source Emission Reduction Credits: Guidelines for the Generation and Use of Mobile Source Emission Reduction Credits" (the "Guidelines");

WHEREAS, the purpose of the Guidelines is to assist districts and interested parties in developing and implementing mobile source emission reduction credit programs, and to ensure that district mobile source credit programs do not conflict with or compromise the Board's comprehensive motor vehicle emission controls and fuels program;

WHEREAS, at the Board's direction, staff has developed an addition to the Guidelines entitled "Mobile Source Emission Reduction Credits: Guidelines for the Generation of Mobile Source Emission Reduction Credits By Retrofit of Existing Vehicles" (the "Retrofit Guidelines");

WHEREAS, the purpose of the Retrofit Guidelines is to provide additional guidance for generating mobile source emission credits by retrofitting existing vehicles to low-emission configurations;

WHEREAS, at the Board's direction, staff has taken into consideration written and oral comments received at public workshops, and has incorporated responses to such comments into the Retrofit Guidelines;

WHEREAS, the staff has used the most current and accurate information available to establish calculation procedures for the Retrofit Guidelines;

WHEREAS, the Board finds that mobile source emission reduction credits should be 1) real and surplus to existing and anticipated state, local, and federal regulations, 2) enforceable, and 3) quantifiable, with an established lifespan;

WHEREAS, the Board has held a duly noticed public meeting to consider approval of the Retrofit Guidelines, and has considered the comments presented by representatives of the Board, staff, districts, affected industries, and other interested persons and agencies;

WHEREAS, sections 39515 and 39516 of the Health and Safety Code authorize the Board to delegate any duty to the Executive Officer which the Board deems appropriate;

WHEREAS, the staff has requested that the Board delegate to the Executive Officer the authority to make future changes to the Guidelines as necessary;

NOW, THEREFORE, BE IT RESOLVED that the Board approves the document entitled "Mobile Source Emission Reduction Credits: Guidelines for the Generation of Mobile Source Emission Reduction Credits By Retrofit of Existing Vehicles" for incorporation into the Guidelines.

BE IT FURTHER RESOLVED that the Board approves the Retrofit Guidelines with the changes recommended by the staff in attachment A.

BE IT FURTHER RESOLVED that the Board delegates to the Executive Officer the authority to make future changes to the Guidelines as necessary.

BE IT FURTHER RESOLVED that the Board directs the staff to propose changes to the regulations contained in the document "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for Motor Vehicles Certified for 1994 and Subsequent Model Years" as described in the Retrofit Guidelines.

BE IT FURTHER RESOLVED that the Board encourages districts to implement mobile source emission reduction credit programs that provide increased flexibility and opportunity for cost savings by regulated sources so long as district programs do not conflict with or compromise California's motor vehicle emission control and fuels programs.

Attachment A

PUBLIC HEARING TO CONSIDER THE APPROVAL OF GUIDELINES FOR THE GENERATION OF EMISSION REDUCTION CREDITS BY THE LOW-EMISSION RETROFIT OF EXISTING VEHICLES

Staff's Recommended Changes to the Originally Proposed Retrofit Guidelines

1) Modify Chapter 2 to allow for credit generation for emission reductions from retrofitted light-duty vehicles certified to the tier 1 non-methane hydrocarbon (NMHC) standards. For light-duty vehicles weighing less than 3,751 pounds these standards are: 0.25 grams per mile (g/mi) NMHC, 3.4 g/mi carbon monoxide (CO) and 0.4 g/mi oxides of nitrogen (NOx). For light-duty trucks that weigh over 3,750 pounds these standards are: 0.50 g/mi NMHC, 9.0 g/mi CO and 1.0 g/mi NOx. Credit would be allowed for the difference in certification standards before and after the vehicles are retrofitted.

2) Modify the section entitled Alternative Fuel Retrofit Regulations, on page A-2, to specify that the regulations will be changed to allow dual-fuel vehicles to generate credits for reducing emissions using clean fuel as long as the vehicles, when using gasoline, meet the certification standards for the original gasoline engine.

3) Modify the section entitled Low-Emission Vehicle and Clean Fuels Regulations, on page A-3, to include a paragraph explaining that starting in 1995, vehicles that weigh 8,501 pounds to 14,000 pounds, currently classified as heavy-duty vehicles, will be reclassified as medium-duty vehicles. The low-emission vehicle regulations allow these vehicles the option of certifying to engine emission standards. This paragraph will specify that for vehicles in this weight class, the same test procedures used to certify the original engines must be used to certify the retrofitted engines to credit-generating low-emission vehicle standards.

4) Modify the section entitled Credit Calculation for Exhaust Emission Reductions, on page A-6, to allow dual-fuel vehicles to certify on gasoline to their original certification standards. The section will also state that credit for dual-fuel vehicles would only be granted for the number of miles traveled using clean fuel.

5) Modify the section entitled Credit Calculation for Exhaust Emission Reductions, on page A-6, to include a statement regarding the reclassification of heavy-duty vehicles that weigh 8,501 pounds to 14,000 pounds to the medium-duty vehicle class beginning in 1995. These vehicles can be certified using either vehicle certification standards or optional engine certification standards. If vehicles using engines that were certified to the optional engine certification standards are subsequently retrofitted to low-emission standards, the credit-generating calculation procedure would be similar to the calculation procedures in the heavy-duty vehicle retrofit guidelines.

6) Modify the section entitled "Credit Life", on page A-10, to specify that the typical number of years it takes for light- and medium-duty vehicles to travel 100,000 miles and 120,000 miles respectively, is approximately 10-years. Thus, the section will state that the staff assumes that

light- and medium-duty vehicles travel approximately 10,000 or 12,000 miles per year.

7) Modify the section entitled "Credit Certification", which begins on page B-7, to allow new engine certification data to be used for certifying an upgrade kit, produced by the engine manufacturer, to a low-emission credit standard. To qualify, the upgrade kit must result in a retrofitted engine which is identical in configuration and calibration to the engine on which the certification data measurements were made.

8) Modify the subsection entitled "Enforcement", which begins on page B-12, to exempt upgrade kits (as described in item 7, above) from the in-use compliance testing requirements of the alternative fuel retrofit regulations. The basis for this exemption is that the new engines are already subject to in-use compliance testing and further testing of engines that are upgraded to an identical configuration would be redundant.

9) Modify the subsection entitled "Conversion Factor", on page B-9, to indicate that the method of determination described in that paragraph is not the exclusive method acceptable to ARB. Explain that the credit applicant may submit a conversion factor, based on any commonly accepted data and methodology. The proposed conversion factor will be subject to district and ARB review and approval.

10) Modify the subsection entitled "Credit Standards", beginning on page B-4, to reflect the change in the maximum credit standard, for all pollutants, from 30% below the applicable ceiling standard to 25% below the applicable ceiling standard.