State of California
AIR RESOURCES BOARD

Resolution 87-84

September 10, 1987

Agenda Item No.: 87-12-3

WHEREAS, the Air Resources Board (Board) and/or the federal Environmental Protection Agency have adopted ambient air quality standards for ozone (oxidant), nitrogen dioxide, particulate matter, and visibility, and these standards are exceeded in the State's air basins;

WHEREAS, Health and Safety Code Sections 39003, 39500, 39602, and 41500 authorize the Board to coordinate, encourage, and review efforts to attain and maintain state and national ambient air quality standards;

WHEREAS, Health and Safety Code Sections 39600 and 39605 authorize the Board to act as may be necessary to execute the powers and duties granted to and imposed upon the Board and to assist the local air pollution control districts;

WHEREAS, the statewide Technical Review Group for Suggested Control Measure Development (TRG) has approved a proposed Suggested Control Measure for the Control of Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators. and Process Heaters (the "Suggested Control Measure") and has forwarded the Suggested Control Measure to the Board for consideration;

WHEREAS, at least one district is considering the control of oxides of nitrogen emissions from industrial boilers and steam generators as an air quality improvement strategy;

WHEREAS, the California Environmental Quality Act and Board regulations require that no project having significant adverse environmental impacts be adopted as proposed if feasible alternatives or mitigation measures are available;

WHEREAS, the Board has held a duly noticed public meeting to consider approval of the Suggested Control Measure and has heard and considered the -

comments presented by representatives of the Board, TRG, districts, affected industries, and other interested persons and agencies; and

WHEREAS, the Board finds:

That emissions of oxides of nitrogen from boilers, steam generators, and process heaters contribute to ambient concentrations of ozone, oxidant, nitrogen dioxide, sub-10 micron particulate matter (PM_{10}), and visibility reducing particles, and that those concentrations frequently exceed ambient air quality standards in several air basins;

That emissions of oxides of nitrogen from boilers, steam generators, and process heaters contribute to wet and dry acid deposition;

That the South Coast Air Quality Management District's air quality management plan for the South Coast Air Basin has identified the control of oxides of nitrogen emissions from industrial boilers and steam generators as a cost-effective measure necessary to achieve the state nitrogen dioxide standard, and that other districts may find that the control of oxides of nitrogen emissions from boilers, steam generators, and process heaters is needed to achieve compliance with the ambient air quality standards;

That it is technically feasible and economically reasonable to reduce oxides of nitrogen emissions from industrial, institutional, and commercial boilers, steam generators, and process heaters and that it is reasonable to require that these combustion units operate at conditions that optimize combustion efficiency and minimize emissions;

That implementation of the Suggested Control Measure would reduce oxides of nitrogen emissions from industrial, institutional, and commercial boilers, steam generators, and process heaters by approximately 40 to 45 percent with an average cost-effectiveness of about $1.00 to $3.00 per pound of oxides of nitrogen removed; and

That there is the potential for minor increases in CO and particulate emissions with the use of some NOx emission control technologies which may be used to comply with the SCM which can be prevented or minimized by proper operation of the control equipment;

That there is the potential for local ozone increases, in the vicinity of the NOx sources to be controlled, which varies from location-to-location throughout the state and will have to be weighed by the local districts individually when considering implementation of the SCM;

That no feasible mitigation measures or alternatives have been identified which would substantially reduce any of the potential adverse impacts and that the significant health benefit resulting from the decrease in NOx emissions and concomitant decreases in nitrogen dioxide, particulate matter, visibility reducing particles, and ozone, far outweighs the potential adverse impacts;

That the severe air quality problems in the South Coast Air Basin necessitate extraordinary measures to reduce emissions of the pollutants, including oxides of nitrogen, that contribute to those problems;

NOW, THEREFORE, BE IT RESOLVED that the Board approves the Suggested Control Measure for the control of emissions of oxides of nitrogen from industrial, institutional, and commercial boilers, steam generators, and process heaters, as set forth in Attachment A to this resolution.

BE IT FURTHER RESOLVED that the Executive Officer is directed to forward the Suggested Control Measure to air pollution control and air quality management districts with the recommendation that they consider adopting the measure or a similar measure to the extent that such districts need further reductions in emissions of oxides of nitrogen to attain or maintain ambient air quality standards.

BE IT FURTHER RESOLVED that the Executive Officer is directed to provide assistance to any district requesting assistance in adopting, interpreting, or implementing the Suggested Control Measure.

BE IT FURTHER RESOLVED that the Board recommends that districts with severe air quality problems such as the South Coast Air Quality Management District, in their development of a regulation to control oxides of nitrogen emissions from boilers, process heaters, and steam generators, consider the application of selective catalytic reduction or other advanced control technology to reduce emissions to a greater extent than would be reduced by implementation of the Suggested Control Measure.

I hereby certify that the above is a true and correct copy of the Resolution 87-84, as adopted by the Air Resources Board.

Harold Holmes

Harold Holmes, Board Secretary