

State of California
AIR RESOURCES BOARD

Resolution 87-17

February 26, 1987

Agenda Item No.: 87-3-1

WHEREAS, Section 39602 of the Health and Safety Code designates the Air Resources Board ("ARB" or the "Board") as the air pollution control agency for all purposes set forth in federal law and as the state agency responsible for the preparation of the State Implementation Plan (SIP) required by the Clean Air Act, and further provides that the SIP shall include only those provisions necessary to meet the requirements of the Clean Air Act;

WHEREAS, Sections 110 and 171 et seq. of the Clean Air Act require the SIP in designated nonattainment areas of the state to provide for the attainment and maintenance of national ambient air quality standards by specified deadlines;

WHEREAS, pursuant to Clean Air Act Section 107, Kern County has been designated a nonattainment area for ozone, and therefore the Kern County Air Pollution Control Board adopted a 1979 Plan for attainment of the national ambient air quality standard for ozone;

WHEREAS, the national ozone standard of 0.12 parts per million ("ppm") averaged over one hour has not been attained in central or western Kern County;

WHEREAS, Clean Air Act Section 172(b)(2) requires the nonattainment area plan to provide for the implementation of all reasonably available control measures as expeditiously as practicable;

WHEREAS, Section 110(a)(2)(H) of the Clean Air Act requires the Environmental Protection Agency ("EPA") to call for a revision to the SIP when the EPA finds that a SIP is substantially inadequate to meet the ambient air quality standards;

WHEREAS, on February 24, 1984, the EPA Administrator issued such a "SIP call" for Kern County;

WHEREAS, extensive cooperative discussions among the staffs of the ARB, the EPA, and Kern County led to the preparation of a draft 1986 Kern County Plan for consideration by the Kern County Board which met most of the requirements of the Clean Air Act;

WHEREAS, the modeling in the draft Plan indicated that control of both reactive organic gases ("ROG") and oxides of nitrogen ("NOx"), both of which are precursors to the formation of ozone, would reduce ozone concentrations in Kern County, but the Plan adopted by the Kern County Air Pollution Control Board on March 31, 1986 contained no new control measures for NOx;

WHEREAS, the failure to include NOx measures made the plan inconsistent with the Clean Air Act requirement in that the Plan did not contain all reasonably available measures to reduce ozone precursor emissions from existing sources in both central and western Kern County;

WHEREAS, the Kern County Board submitted the 1986 Kern County Plan to the ARB on April 21, 1986 and requested that it be submitted to the EPA as part of California's State Implementation Plan;

WHEREAS, the Board held a public hearing on August 21 and 22, 1986 to consider the 1986 Kern County Plan pursuant to the requirements and procedures set forth in Health and Safety Code Sections 41502 and 41650-41652;

WHEREAS, on August 22, 1986 the Board amended the 1986 Kern County Plan for the reasons set forth in ARB Resolution 86-76, incorporated by reference herein;

WHEREAS, among other revisions, the Board amended the 1986 Kern County Plan by adding a commitment that Kern County APCD Rule 425, Oxides of Nitrogen Emissions from Steam Generators Used in Thermally Enhanced Oil Recovery, will be considered for amendment at a public hearing by September 30, 1987, to (1) limit NOx emissions from oil and gas-fired steam generators in Kern County to 0.14 pound per million Btu of actual heat input; (2) eliminate Section C (banking provision) of the rule; (3) require that Section E of the rule be amended to (a) require that presently required compliance plans include enforceable, generator-specific emission limits and (b) specify criteria and procedures which must be followed before these limits may be changed; and (4) disallow the inclusion of nonoperating and unbuilt steam generators into the field-wide average emission calculations;

WHEREAS, the Board also added a commitment to the Plan that a public hearing will be held to consider the adoption by September 30, 1987, of a rule that is at least as effective as the South Coast AQMD's Rule 1110.1 to control NOx emissions from gas-fired internal combustion engines in Kern County;

WHEREAS, both of the above commitments apply to requirements applicable throughout the San Joaquin Valley Air Basin portion of the County, i.e. to both central and western Kern;

WHEREAS, the Board also appointed a committee of the Board to review the question of whether NOx controls need to be implemented on the west side at this time in order to attain the ozone ambient air quality standard and directed the Executive Officer to forward the Plan as amended to the EPA unless the Board determined on the basis of the committee report to consider revisions at a public hearing;

WHEREAS, the committee met several times to gather information and consider testimony and on November 20, 1986 submitted to the Board its written report, which included a number of formal findings, incorporated by reference herein;

WHEREAS, in its report dated November 20, 1986 the committee also made recommendations to the Board pertaining to NOx controls on the west side, incorporated by reference herein and summarized as follows:

1. The Board should schedule a public hearing to consider amending the Kern County Plan to require the implementation of NOx controls on the west side only if the national ozone standard is exceeded after the statutory deadline for attainment;
2. The Board should consider establishing the following description of an exceedance of the standard in western Kern County: ambient ozone concentration of 0.13 ppm or greater at any western Kern station on four or more separate days during the period from January 1, 1986 through December 31, 1988; and
3. The entire Kern County Plan as amended by the Board August 22, 1986 should be immediately submitted to the EPA with a request that the EPA take no formal action on the NOx control measures for western Kern until the amendments proposed above are considered by the Board and any resulting changes submitted to the EPA;

WHEREAS, the Board endorsed the report submitted by the committee and adopted Resolution 86-104 on November 20, 1986, which directed the Executive Officer to forward the 1986 Kern County Plan as amended to the EPA and requested the EPA to withhold final action on the Plan until March 31, 1987 and further directed the Executive Officer to schedule a hearing in February 1987 for the purpose of considering amendments to the Plan relating to NOx controls on the west side;

WHEREAS, the California Environmental Quality Act and ARB regulations require that no action which may have an adverse impact on the environment be undertaken if feasible alternatives or mitigation measures are available which would eliminate or substantially diminish such impacts, and that specified findings be made in the event significant effects may occur;

WHEREAS, on February 26, 1987 the Board held a noticed public hearing in accordance with the provisions and procedures set forth in Health and Safety Code Sections 41502, 415651 and 41652;

WHEREAS, the Board has considered the significant issues raised and written evidence presented by interested persons and Board staff, and has addressed such issues in Attachment C to this resolution;

WHEREAS, based upon the report presented by the committee of the Board, the information presented by the staff, and the written and oral testimony received prior to and at the hearing, the Board finds:

1. The degree of violation of the ozone standard in western Kern County is marginal, and the number of violations fewer than in central Kern County;

2. Meteorological factors cannot explain the year-to-year variations in the ambient ozone concentrations in western Kern County (i.e., based on the limited data available, a statistical analysis showed meteorological variables accounting for only approximately 15-35% of the variation in ozone concentrations);
3. Modeling analyses currently available do not establish whether or not the ozone standard will be attained in western Kern County with ROG controls alone;
4. The ozone benefits to be derived from the control of ROG emissions from heavy oil test stations have not yet occurred but are expected to occur in the near future and may be sufficient to enable attainment of the ozone standard;
5. While reductions in emissions of both ROG and NOx will reduce ozone by a greater amount than reductions of ROG alone in western Kern County, the simultaneous reduction of both precursors will not necessarily result in earlier attainment of the ozone standard;
6. If reductions in ROG emissions do not result in attainment of the ozone standard, reductions of NOx emissions will be necessary and should be expeditiously implemented;
7. In light of the impossibility of predicting with sufficient certainty future ozone levels in western Kern County, it is advisable to plan for the automatic imposition of NOx controls if further exceedances of the ozone standard as defined below occur;
8. It is appropriate to condition the imposition of NOx controls in western Kern County, if needed to attain the ozone standard, upon the occurrence of more than three measured exceedances of the ozone standard during a three-year period in order to be consistent with federal regulations for calculating violations of ambient standards;
9. It is appropriate that the three-year period begin in 1988 and end in 1990 in order to allow for an evaluation of the full ozone benefits due to the control of ROG emissions from the heavy oil test stations;
10. If shown to be necessary, the control measures for NOx can be implemented on the west side within approximately 15 to 18 months from the determination that the ozone standard has been violated, a period which allows adequate lead time for equipment installation. A compliance schedule for implementing the NOx controls is set forth in Attachment B;
11. The March 31, 1986 Plan submitted to the ARB for review by Kern County remains inadequate to meet California Air Ambient requirements with regard to the west side because it does not provide for the expeditious implementation of NOx controls if they are found to be necessary for attainment of the ozone standard;

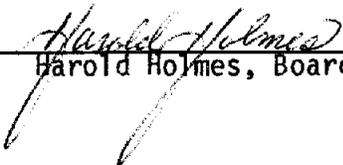
12. The most appropriate definition of western Kern County for purposes of this action is that portion of Kern County which lies to the west of Interstate Highway 5;

WHEREAS, the staff report identified several potential significant adverse environmental effects which may result from the deferral or elimination of NOx controls in western Kern County. Therefore, the following findings are appropriate:

1. If the ozone standard is attained with the implementation of the ROG controls already in the plan, ozone levels will be lower than present ambient levels and will satisfy the requirements of the Clean Air Act, and the ARB is constrained by Health and Safety Code Section 39602 from including in the SIP measures not required by the Clean Air Act;
2. If the ozone standard is not attained with the implementation of the ROG controls alone, the automatic implementation of NOx controls when measured ozone concentrations exceed the standard after 1988 substantially mitigates all of the significant environmental effects of not requiring NOx controls on the west side at this time;
3. If the ozone standard is attained with the implementation of ROG controls alone, the planned reduction of approximately 41 tons per day (in 1995) of NOx emissions in western Kern County will not occur and any beneficial effects of this reduction of NOx emissions in further reducing ozone to meet the state oxidant standard and in reducing particulate matter and wet and dry acid deposition will be foregone; however, the ARB is prevented by Health and Safety Code Section 39602 from retaining the NOx controls in the SIP as a result of this hearing if they are not necessary to attain the national ozone standard;
4. As mitigation for the foregone benefits of NOx controls described in 3. above, NOx controls, among other strategies, will be considered at appropriate meetings concerning the attainment of the state PM₁₀ standard, the national particulate matter standard, and the reduction of acid deposition;
5. In addition to legal considerations, the cost to industry and the public of imposing NOx controls at a time when their need has not been established for attainment of the ozone standard makes the no-project alternative (i.e. retention of NOx controls on the west side) inappropriate within the context of this proceeding;
6. The benefits of this action outweigh the unavoidable adverse environmental effects of the action under all of the contingencies described above because most of the impacts are substantially mitigated; economic and legal considerations make infeasible the imposition of NOx controls on the west side at this time within the context of attaining the ozone standard; and appropriate strategies for reducing acid deposition and particulate matter will be considered as necessary in appropriate proceedings.

NOW, THEREFORE, BE IT RESOLVED that the Board directs the Executive Officer to amend the 1986 Kern County Plan submitted to the EPA in November 1986 as set forth in Attachment A, incorporated by reference herein, and further directs the Executive Officer to submit the amendments to the EPA as a revision to the State of California State Implementation Plan and to the Kern County Air Pollution Control District as expeditiously as practicable.

I hereby certify that the above is a true and correct copy of Resolution 87-17, as adopted by the Air Resources Board.



Harold Holmes, Board Secretary

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ATTACHMENT A

1. The measures for the control of NOx emissions (i.e., amendments to Rule 425 and a regulation for gas-fired internal combustion engines) which the Board added to the Kern County Plan in August of 1986 shall not be required in western Kern County as defined herein unless the implementation of existing ROG controls fails to attain the national ozone standard as specified in 2. below.
2. Implementation of existing ROG controls shall be deemed to have failed to attain the national ozone standard if measured ozone concentrations in western Kern County as defined herein exceed 0.12 ppm on more than three separate days during the three-year period of January 1, 1988, through December 31, 1990.
3. The NOx controls contained in the 1986 Kern County Plan shall be adopted and implemented in central Kern County as specified in Resolution 86-76 and shall be required and automatically imposed in western Kern County at any time during those three years that a fourth exceedance of the standard occurs.
4. The imposition of NOx controls in western Kern County, if needed as described in 3. above, shall be in accordance with the compliance schedule set forth in Attachment B, incorporated by reference herein.
5. For the purposes of this Plan revision concerning control measures for oxides of nitrogen, western Kern County shall be defined as that portion of Kern County in the San Joaquin Valley Air Basin which lies to the west of Interstate Highway 5.
6. The emission inventory and forecasts shall be revised as necessary to reflect best available data regarding the emissions and emission reductions of reactive organic gases from the heavy oil test stations.
7. All changes to the text of the Kern County Plan which are necessary to implement the above amendments to the Plan shall be made prior to sending the revision to EPA.

ATTACHMENT B
COMPLIANCE SCHEDULES

<u>SIZE OF SOURCE</u>	<u>DESCRIPTION</u>	<u>COMPLIANCE</u>
<u>Internal Combustion Engines</u>		
500 hp and over ¹	Rich ² over 200 hp	15 months ³
	Rich >50 and ≤ 200 hp	12/31/95
	Lean ² over 500 hp	15 months ³
	Lean >50 and ≤ 500 hp	12/31/95
Under 500 hp ¹	All	12/31/95
<u>Steam Generators</u>		
All	All	18 months ³

- 1 Cumulative total (installed brake horsepower) of all internal combustion engines at one source.
- 2 Rich means rich-burn engines.
Lean means lean-burn engines.
- 3 From the fourth exceedance of the ozone standard after January 1, 1988.

OPPOSING CONSIDERATIONS AND BOARD RESPONSE

OPPOSING CONSIDERATION: WOGA REQUESTED THAT THE BOARD FURTHER REVISE THE PLAN SO THAT CONTROL OF FUGITIVE HYDROCARBON EMISSIONS FROM OIL AND GAS PLANTS IN WESTERN KERN COUNTY WOULD BE HANDLED IN THE SAME MANNER AS THE STAFF PROPOSED FOR NITROGEN OXIDE EMISSIONS. THAT IS, THAT THE FUGITIVE EMISSION CONTROLS NOT BE REQUIRED UNLESS THE OZONE STANDARD IS EXCEEDED ON MORE THAN THREE DIFFERENT DAYS BETWEEN JANUARY 1, 1988, AND DECEMBER 31, 1990. IN THIS REGARD, KERN COUNTY ASKED WHETHER WOGA'S REQUEST COULD BE CONSIDERED BY THE DISTRICT DURING ITS RULEMAKING PROCESS.

BOARD RESPONSE: THIS SUGGESTED MODIFICATION IS BEYOND THE SCOPE OF THE HEARING NOTICE FOR THIS HEARING. FEDERAL REGULATIONS (40 CFR SECTION 51.4) AND STATE LAW LIMIT THE BOARD'S ABILITY TO MODIFY THE KERN COUNTY SIP AT THIS HEARING TO MATTERS SPECIFICALLY CITED IN THE HEARING NOTICE (THAT IS, MATTERS RELATED TO THE CONTROL OF EMISSIONS OF OXIDES OF NITROGEN IN WESTERN KERN COUNTY).

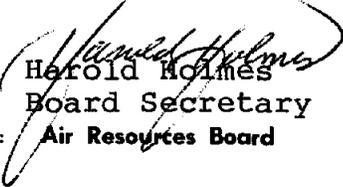
THE KERN COUNTY PLAN AS REVISED BY THE BOARD IN AUGUST 1986 COMMITS THE BOARD TO CONSIDER AMENDMENTS TO RULES (INCLUDING THE FUGITIVE RULES) AND SUBMIT THEM TO EPA AS SIP REVISIONS. THE PLAN FURTHER PROVIDES THE DISTRICT THE OPPORTUNITY TO ADOPT RULES FOR THIS PURPOSE. THESE RULES MUST BE APPROVED BY THE BOARD AS

Memorandum

To : Gordon Van Vleck
Secretary
Resources Agency

Date : March 12, 1987

Subject: Filing of Notice of
Decisions of the Air
Resources Board


Harold Holmes
Board Secretary

From : Air Resources Board

Pursuant to Title 17, Section 60007 (b), and in compliance with Air Resources Board certification under Section 21080.5 of the Public Resources Code, the Air Resources Board hereby forwards for posting the attached notice of decisions and response to environmental comments raised during the comment period.

ATTACHMENTS

86-76

86-104

87-17