

**FINAL STATEMENT OF REASONS
FOR CHANGES TO THE DESIGNATION CRITERIA
AND TO THE AREA DESIGNATIONS**

Report Organization

I. GENERAL

II. SUMMARY OF COMMENTS AND AGENCY RESPONSES

- A. Changes to the Designation Criteria and Area Designations
 - B. Ozone Data at Pinnacles and North Central Coast Air Basin (NCCAB)
 - C. Population Exposure and the Area Designation Process
-
-

State of California
Environmental Protection Agency
AIR RESOURCES BOARD

**Final Statement of Reasons for Rulemaking
Including Summary of Comments and Agency Responses**

PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE CRITERIA FOR DESIGNATING AREAS OF CALIFORNIA AS NONATTAINMENT, ATTAINMENT, OR UNCLASSIFIED AND TO THE AREA DESIGNATIONS FOR THE STATE AMBIENT AIR QUALITY STANDARDS

Public Hearing Date: November 18, 1993
Agenda Item No.: 93-14-3

I. GENERAL

The Staff Report: Initial Statement of Reasons for Rulemaking ("staff report"), entitled "Proposed Amendments to the Criteria for Designating Areas of California as Nonattainment, Attainment, or Unclassified and to the Area Designations for State Ambient Air Quality Standards", released October 1, 1993, is incorporated by reference herein.

Following a public hearing on November 18, 1993, the Air Resources Board (the "Board"), by Resolution 93-60, approved amendments to the designation criteria and the designation of areas in California as nonattainment, attainment, or unclassified for state ambient air quality standards. The regulations amended are contained in sections 60200, 60201, 60202, 60204, 60206, 60208, and Appendices 3 and 4 to sections 70300 through 70306, Title 17, California Code of Regulations.

The amendments to the regulations that were approved by the Board are identical to those initially proposed by the staff and made available in the staff report released on October 1, 1993.

The Board has determined that this regulatory action will not result in a mandate to any local agency or school district the costs of which are reimbursable by the state pursuant to Part 7 (commencing with 17500), Division 4, Title 2 of the Government Code.

The Board has determined that this regulatory action will not have a significant adverse economic impact on businesses.

In addition, the Board has determined that there will be no, or an insignificant, potential cost impact, as defined in Government Code section 11346.53(e), on private persons or businesses directly affected resulting from this regulatory action.

The Board has further determined that no alternative considered by the agency would be more effective in carrying out the purposes for which the regulatory action was proposed or would be as effective and less burdensome to affected private persons than the action taken by the Board.

In addition to the changes described in the Staff Report and adopted by the Board on November 18, 1993, the staff made a nonsubstantive change to CCR, Title 17, section 60201 (the area designation regulation). As proposed in the Staff Report and adopted by the Board, two separate ozone attainment areas are defined for the North Coast Air Basin: (1) Mendocino County and (2) Del Norte, Humboldt, and Trinity Counties. Since these two areas are contiguous, they should be designated as a single attainment area under the provisions of CCR, Title 17, section 70302(a). The final regulation order reflects this nonsubstantive change which does not alter the requirements, rights, responsibilities, conditions, prescriptions, or other regulatory element of any CCR provision.

II. SUMMARY OF COMMENTS AND AGENCY RESPONSES

At the public hearing, the Board heard oral comments from Ms. Victoria Evans, Sonoma Technology Inc. (STI), and from Mr. Wayne Morgan, North Coast Unified AQMD. The Board also received written comments on the day of the public hearing from Mr. Gene Huber, G. A. Huber Co., and Mr. Marc A. Aprea, Browning-Ferris Industries. The comments are divided into three categories. The comments and the agency's responses in each category are summarized below.

A. Changes to the Designation Criteria and Area Designations

1. Comment: The Board should adopt the staff's proposed amendment to the designation criteria for determining data completeness. (Evans; Morgan; Aprea)

Agency Response: This comment shows that there is general support for the staff's proposal to modify the data completeness criteria, to exclude data affected by highly irregular or infrequent events when using less than three years of ambient data to determine attainment.

2. Comment: The Board should adopt the staff's proposed amendment to the screening procedure for making attainment designations for nitrogen dioxide. (Morgan; Aprea)

Agency Response: This comment agrees with the staff's proposal to modify the screening value used in making attainment designations for nitrogen dioxide when ambient data are incomplete or unavailable.

3. Comment: The Board should adopt the staff's proposed redesignations for areas within the North Coast Unified Air Quality Management District. (Morgan)

Agency Response: This comment supports the staff's proposals in redesignating from "unclassified" to "attainment" the entire North Coast Unified AQMD for ozone, and Humboldt County for sulfur dioxide, sulfate, and hydrogen sulfide.

4. Comment: The Board's staff in the Technical Support Division should be commended for their effort in streamlining the two-part process of amending the designation criteria and the area designations into one. The Board should embrace this approach. (Morgan)

Agency Response: This comment gives support to the staff's approach of combining proposed amendments to the criteria and amendments to the area designations into one regulatory action so as to facilitate the process of informing the citizens about each area's air quality status.

B. Ozone Data at Pinnacles and North Central Coast Air Basin (NCCAB)
(All comments in this category are made by Ms. Victoria Evans, STI)

1. Comment: The staff report does not reference the ozone data collected at the Pinnacles site, located within the NCCAB. But according to conversations with the Board's staff, the ozone data at the site were used in the evaluation of area designations. These data should be included in a revised staff report.

Agency Response: The ozone data collected at Pinnacles are not directly reported to the Board staff. There was a delay in obtaining the subject data, and the data were not yet available when the staff report was prepared.

Since there were other sites in the air basin with violations of the state ozone standard, it was not critical to include the ozone data from Pinnacles in the staff report. In other words, there would be no change to the staff's proposal whether the data were considered or not.

The staff will make available a revised tabulation of the ozone data for the NCCAB that will include the data for Pinnacles, but the staff does not plan to publish a revised staff report.

2. Comment: The location of the Pinnacles site is inconsistent with the U.S. Environmental Protection Agency's (EPA) criteria used by ARB for siting State and Local Air Monitoring Stations (SLAMS). The site meets only two of the four EPA objectives for monitoring sites.

Agency Response: The Board staff has conducted a thorough review of the Pinnacles site and the ozone data collected at the site, and has concluded that the site fully meets all SLAMS siting and quality assurance criteria.

The four monitoring objectives referred to are established for the monitoring network, not for each site in the network. Each objective only has to be met by one or more sites in the network (Code of Federal Regulations, Title 40, Part 58.). That is, each site needs to meet at least one objective but does not need to meet all four objectives. The Pinnacles site is established for measuring the highest expected concentrations and for determination of general background concentration levels. Thus, the site meets two of the four objectives when it only needs to meet any one of them.

3. Comment: The data from the Pinnacles site do not meet the ARB's criteria for "data for record." Data from the site should not be used in determining the ozone attainment designation for the NCCAB.

Agency Response: The staff considers the data from Pinnacles as "data for record." The designation criteria provide that data collected by other entities such as the National Park Service can qualify as data for record. The Board has made this determination in accordance with the definition for "data for record" as stated in the California Code of Regulations (CCR), Title 17, section 70301(a), as follows:

"Data for record" are those data collected by or under the auspices of the state board or the districts for the purpose of measuring ambient air quality, and which the executive officer has determined comply with the siting and quality assurance procedures established in Part 58, Title 40, Code of Federal Regulations, as they existed on July 1, 1987, or other equivalent procedures.

The Board's Quality Assurance staff has verified that data from Pinnacles fully meet the above definition for "data for record." Therefore, the data are appropriate for regulatory use, including making designations with respect to the state air quality standards.

4. Comment: The Pinnacles site is located at a rural area on a mountaintop, and does not meet the siting criteria for being located in a populated area. According to Code of Federal Regulations (CFR) at 40 CFR Part 58, Appendix D, the site should be located in an urbanized area having a population of more than 200,000.

Agency Response: The commenter misunderstands the applicability of the criteria for National Air Monitoring Stations (NAMS) and State and Local Air Monitoring Stations (SLAMS) networks. The criterion of a site being located in a populated area is used for monitoring sites in the NAMS network. The NAMS is a network primarily designed to assess population exposure at urbanized areas, and is a smaller group of sites within the SLAMS network. The Pinnacles site is not a NAMS site but meets the criteria for being a SLAMS site. Sites that are not part of the NAMS network do not need to be located in populated areas, and they can still be used for making designations of an area's air quality status.

5. Comment: The Monterey Bay Unified Air Pollution Control District (MBUAPCD) recognizes that the Pinnacles site does not meet monitoring siting criteria. It did not use the data from Pinnacles in its 1989 or 1991 Air Quality Management Plan (AQMP).

Agency Response: The Board had not completed its review of the data from Pinnacles at the time of the last AQMP. As mentioned above, however, the Board's staff has since conducted a thorough review of the site. The Board has concluded that the Pinnacles site fully meets all SLAMS siting criteria, and data from the site are appropriate for regulatory use. The MBUAPCD has agreed with this conclusion and plans to use the data in the next submittal of the AQMP in 1994.

6. Comment: The Board recently agreed with the Bay Area Air Quality Management District (BAAQMD) to reclassify that District's site at Mt. Umunhum as a research station because it does not fully meet ARB's or EPA's siting criteria, and to exclude data from that site for federal attainment purposes. Thus, the Board has demonstrated that there are occasions when sites can be so designated, even though the data indicate high levels of ozone. The Pinnacles site is similar to the Mt. Umunhum site because both are located on mountaintops and measure ozone concentrations that are aloft of ground level populated areas.

Agency Response: The levels of review conducted for the two sites are very different. In contrast to the Pinnacles site which has received a detailed review, the Mt. Umunhum site has not yet been reviewed by the Board to determine if it conforms to the siting and quality assurance criteria. In its review of the BAAQMD's attainment request, the U.S. EPA has stated that the federal ozone violations at Mt. Umunhum may signal an ozone problem within the Bay Area. The U.S. EPA indicated that it will require the BAAQMD to continue to monitor at high ozone concentration sites on a long-term basis before it can designate the area as federal attainment.

7. Comment: It is recommended that the Pinnacles site be reclassified as a special purpose monitoring station, and the data from the site be excluded from determinations of ozone designations. It is further recommended that data from Pinnacles as a research station be used only in the analysis of long-range transport of ozone and ozone precursors.

Agency Response: As mentioned above, the Board staff considers the data from Pinnacles as "data for record" and therefore appropriate for use in the area designation process. The designation criteria specify that the highest measured air quality concentrations be used in the designations. The criteria only allow exclusions of data affected by highly irregular or infrequent events but not data attributable to long-range transport.

In addition, the data from Pinnacles are also appropriate for use in the attainment planning process. The Board staff will continue to use the data from Pinnacles in the analysis of long-range transport, which would help determine the design values for use by local agencies in the development of control strategies.

8. Comment: It is recommended that the NCCAB be re-evaluated with the Pinnacles data excluded, to determine whether it should remain designated as moderate nonattainment or be redesignated as nonattainment-transitional for ozone.

Agency Response: Based on the latest ozone data, the NCCAB may be redesignated as nonattainment-transitional only if data from Pinnacles are not considered. But as mentioned above, the staff considers the data from Pinnacles as data for record and does not plan to exclude the data in the designation process. In addition, data now available for 1993 for a new monitoring site at Scotts Valley show ozone violations. Therefore, the NCCAB would not qualify for the nonattainment-transitional designation even with Pinnacles data excluded.

In general, the nonattainment-transitional designation for ozone is assigned by operation of law. At the same time the Board's staff conducts the annual review of area designations, the staff will follow the

guidelines specified in the California Code of Regulations, Title 17, Section 70303.5, to evaluate whether a given area meets the requirements for nonattainment-transitional for ozone.

9. Comment: There are differences in the Pinnacles data reported by the MBUAPCD and the U.S. EPA. The ARB does not report data for Pinnacles. It is recommended that the ARB review the data and reconcile the differences.

Agency Response: The Board's staff will review the data reported by the District and the U.S. EPA, and will make an attempt to reconcile any differences found.

10. Comment: A study by Roberts, et. al. (1992) found that the high ozone readings at Pinnacles are possibly due to transport from upwind sources. Also, there may be additional transport trajectories into the NCCAB, such as from the BAAQMD over the Santa Cruz Mountains to Scotts Valley and from Pacific Palisades to the Monterey region. The ARB staff is encouraged to examine these possible routes of transport of ozone and ozone precursors.

Agency Response: A study conducted by the Stanford Research Institute (SRI) in 1980 included a review of possible transport along Highway 17 over the Santa Cruz Mountains, and found it not a significant route of transport into the NCCAB. The study is the only comprehensive study completed to-date for this route of transport.

The Roberts study as mentioned by the commenter employed surface measurement data to characterize the air flows in a complex terrain, which the Board staff believes to be an inadequate method. Therefore, the results of the study may be of limited validity.

Regarding possible transport from Southern California, the Board's staff includes all air basins of California and also other states and countries as possible sources of transport in the staff's assessment work. Therefore, Southern California has not been neglected in any transport assessment work performed to-date. The staff will continue to include all possible source areas in future assessments.

C. Population Exposure and the Area Designation Process

1. Comment: Population exposure should be incorporated in the area designations for a meaningful allocation of limited resources. The Board should calculate dose exposure (in terms of parts per hundred million-hours) and a population exposure index (dose exposure times the population) for use in the designating of areas. (Huber)

Agency Response: The staff agrees that population exposure information is useful in the analysis of air quality trends and in developing control strategies, but it should not be used in the designation process. The Board needs to inform citizens living in areas with poor air quality that the air they breathe does not meet the health-based standards, even in areas with a small population.

Once an area is designated as nonattainment, the local agencies will need to develop control strategies to achieve attainment. During this development process, the agencies would consider a number of factors, including population exposure as well as others such as available technologies and cost effectiveness. Thus, population exposure is more appropriately taken into account in the planning process instead of the designation process.