

**AMENDMENTS TO THE AREA DESIGNATIONS
FOR STATE AMBIENT AIR QUALITY STANDARDS
WITH
MAPS OF AREA DESIGNATIONS FOR THE
STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS**

December 1994

California Environmental Protection Agency



Air Resources Board

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STAFF REPORT

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Air Resources Board
2020 "L" Street
Sacramento, California**

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**This document has been reviewed and approved by the staff of the
California Environmental Protection Agency, Air Resources Board.
Approval does not signify that the contents necessarily reflect
the views and policies of the California Air Resources Board.**

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OVERVIEW AND RECOMMENDATION

A. OVERVIEW

1. Introduction

The Health and Safety Code section 39607(e) requires the Air Resources Board (ARB or Board) to establish designation criteria. These criteria provide the basis for the Board to designate areas as nonattainment, attainment, or unclassified for the state ambient air quality standards, as required by the Health and Safety Code section 39608.

The Board is required by Health and Safety Code section 39608(c) to review the area designations annually. Based on the most recently available air quality data, the ARB staff recommends several amendments to the area designations. The proposed amendments are based on air quality data from 1991 through 1993. These amendments are summarized in subsection 2, which follows.

In addition to the recommendations for area redesignations, this report includes maps and tables of the area designations for both the state and national ambient air quality standards (refer to Attachment B). These maps and tables reflect the area redesignations proposed in this Staff Report.

2. Proposed Amendments to the Area Designations

The proposed amendments to the area designations (California Code of Regulations (CCR), Title 17, sections 60200 through 60209) would make the following changes to the regulations:

- Identify the redesignation of Mono County in the Great Basin Valleys Air Basin to nonattainment-transitional for ozone that occurred by operation of law. Currently, Mono County is designated as nonattainment for ozone.
- Redesignate Santa Clara County in the San Francisco Bay Area Air Basin as attainment for carbon monoxide. Currently, the San Jose Urbanized Area is designated as nonattainment-transitional, while the remainder of the County is designated as attainment for carbon monoxide.
- Redesignate Orange County in the South Coast Air Basin as attainment for carbon monoxide. Currently, Orange County is designated as nonattainment for carbon monoxide.
- Redesignate San Joaquin County in the San Joaquin Valley Air Basin as attainment for carbon monoxide. Currently, the Stockton Urbanized Area is designated as nonattainment, while the remainder of the County is designated as unclassified for carbon monoxide.

- Redesignate Stanislaus County in the San Joaquin Valley Air Basin as attainment for carbon monoxide. Currently, the Modesto Urbanized Area is designated as nonattainment, while the remainder of the County is designated as unclassified for carbon monoxide.
- Redesignate the Southeast Desert Air Basin (SEDAB) portion of Kern County as attainment for sulfur dioxide. Currently, the SEDAB portion of Kern County is designated as unclassified for sulfur dioxide.
- Redesignate the South Coast Air Basin as attainment for sulfates. Currently, the South Coast Air Basin is designated as nonattainment for sulfates.

B. RECOMMENDATION

The ARB staff recommends the Board adopt the proposed amendments to the area designations. The full text of the proposed amendments is given in Attachment C of this Staff Report.

CHAPTER I BACKGROUND

A. Introduction

This chapter gives some background information on the criteria used for making the area designations and also, the area designations themselves. The following sections describe the legal requirements, the criteria used for making the area designations, the implications of being redesignated, and the area designation review process.

B. Legal Requirements

Health and Safety Code (HSC) section 39607(e) (refer to Attachment A) requires the Board to establish and periodically review the criteria for designating areas as nonattainment or attainment for the state ambient air quality standards (state standards; refer to Attachment B). The Board originally adopted the required designation criteria in June of 1989. The Board subsequently amended the designation criteria in June 1990, May 1992, December 1992, and November 1993.

HSC section 39608 (refer to Attachment A) requires the Board to use the designation criteria in designating areas of California as nonattainment or attainment with respect to the state standards (refer to Attachment B). Areas that cannot be designated as nonattainment or attainment are designated as unclassified. The area designations are made on a pollutant-by-pollutant basis, for all pollutants listed in the CCR, Title 17, section 70200. The nine affected pollutants are ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulate matter or PM10, sulfates, lead, hydrogen sulfide, and visibility reducing particles. The HSC requires the Board to review the area designations each year and update them as new information becomes available.

HSC section 40718 (refer to Attachment A) requires the Board to publish maps that identify areas where one or more violations of any state or national ambient air quality standard have been measured. Attachment B contains maps and tables which summarize the areas designated as nonattainment, nonattainment-transitional, attainment, or unclassified for the state standards, and reflects the proposed redesignations. These maps and tables reflect the area redesignations proposed in this Staff Report. Attachment B also contains maps and tables which summarize areas designated as nonattainment, attainment, or unclassified for the national standards as promulgated by the United States Environmental Protection Agency.

C. Summary of the Designation Criteria

1. General Provisions

The current designation criteria comprise CCR, Title 17, sections 70300 through 70306, including Appendices 1 through 4, thereof (refer to Attachment D). The designation criteria describe the procedures the Board must use to determine an area's designation status with respect to the state standards. In summary, the designation criteria specify:

- The data the Board will use for making the area designations;
- How the Board will determine the size of the designated areas;
- How the Board will determine whether an area qualifies for designation as nonattainment, attainment, or unclassified; and
- The requirement for an annual review of the area designations by the Board's Executive Officer.

2. Data to Use

To the extent possible, the Board makes area designations for each pollutant based on recent ambient air quality data. The air quality data must be "data for record," which are those air quality data that satisfy specified siting and quality assurance procedures established by the United States Environmental Protection Agency. Generally, data for record are those data collected by or under the direction of the Board and the air pollution control or air quality management districts (districts). When adequate recent air quality data are not available, the Board may use other types of information to determine an appropriate area designation. These other types of information may include historical air quality data, emissions data, meteorological or topographical data, and data relating to the amounts and distributions of population or emissions.

3. Highly Irregular or Infrequent Events

When area designations for state standards are based on ambient air quality data, the designation criteria provide for excluding unusual values. In particular, the designation criteria provide for excluding exceedances affected by highly irregular or infrequent events because it is not reasonable to mitigate these exceedances through the regulatory process. Appendix 2 to the designation criteria (refer to Attachment D) defines two types of highly irregular or infrequent events:

- 1) Exceptional Events, and
- 2) Extreme Concentration Events.

An **exceptional event** is a specific, identifiable event that causes or contributes significantly to an exceedance of a state standard. An exceptional event may be caused by an act of nature (for example, a severe

wind storm, volcanic eruption, or stratospheric ozone intrusion) or it may be of human origin (for example, a chemical spill or industrial accident).

In contrast, an **extreme concentration event** does not have a specific, identifiable cause but is based on a statistical procedure which calculates the concentration that is not expected to recur more frequently than once per year. This value is often referred to as the Expected Peak Day Concentration. Adverse meteorology is one potential cause of an extreme concentration event. Measured concentrations that are higher than the Expected Peak Day Concentration are excluded as extreme concentrations.

The Expected Peak Day Concentration is calculated on a site-by-site basis, using data for a three-year period. The Expected Peak Day Concentrations for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, PM10, sulfates, and hydrogen sulfide are listed in Attachment E. The Expected Peak Day Concentrations listed in Attachment E are based on air quality data for 1991 through 1993. This is the most recent three-year period for which data are available and the same three-year period used in reviewing the area designations discussed in this Staff Report. Note that the Expected Peak Day Concentrations are not given for lead because all areas in California are currently designated as attainment for the state lead standard. Furthermore, the Expected Peak Day Concentrations also are not given for visibility reducing particles because the available data are not sufficient for calculating the Expected Peak Day Concentrations for this pollutant.

4. Size of the Designated Area

The size of the area designated for a pollutant may vary depending on the nature of the pollutant, the location of contributing emission sources, the meteorology, and the topographic features. Generally, an air basin is the area designated for ozone, nitrogen dioxide, PM10, sulfates, and visibility reducing particles. A county (or the portion of a county located within an air basin) generally is the area designated for carbon monoxide, sulfur dioxide, lead, and hydrogen sulfide. In both cases, however, the Board may designate a smaller area if the Board finds that the smaller area has distinctly different air quality, resulting from sources and conditions that do not affect the entire air basin or county. To the extent practical, the designation criteria require the Board to define the designated areas using political boundary lines.

5. Designation Categories

The designation criteria specify three major categories of designation: nonattainment, attainment, and unclassified. The Board will designate an area as nonattainment for a pollutant if air quality data show that a state standard for that pollutant was violated at least once during the previous

three calendar years.¹ Exceedances that are affected by highly irregular and infrequent events are not considered to be violations of a state standard and are not used as a basis for designating areas as nonattainment.

The designation criteria specify a subcategory of nonattainment which is called nonattainment-transitional. The Board will designate an area as nonattainment-transitional for a pollutant other than ozone if air quality data show that a state standard for that pollutant was violated two or fewer times at each of the sites in the area during the previous calendar year. In addition, an evaluation of recent air quality data trends and meteorological and emissions data must show that air quality either has stabilized or improved. Finally, the area must be expected to reach attainment for the pollutant within three years.

The nonattainment-transitional designation can also apply for ozone. Under HSC section 40925.5 (refer to Attachment A), the nonattainment-transitional designations for ozone are made by operation of law. Specifically, an area is designated as nonattainment-transitional for ozone, by operation of law, if air quality data show that the state ozone standard was exceeded three or fewer times at each of the sites in the air basin during the most recent year for which air quality data are available.

The Board will designate an area as attainment for a pollutant if the data show that the state standard for that pollutant was not violated during the previous three calendar years. Again, exceedances affected by highly irregular or infrequent events are not considered violations. As a result, an area may have measured concentrations that exceed a state standard and still be designated as attainment. Finally, the Board will designate an area as unclassified for a pollutant if the available data do not support a designation of nonattainment or attainment.

D. Implications of the Redesignations

1. Areas Redesignated as Nonattainment

A district that includes an attainment or unclassified area that is redesignated as nonattainment (a nonattainment district) experiences two principal consequences under the law. First, state law requires the nonattainment districts for ozone, carbon monoxide, nitrogen dioxide, and

1. The terms "exceedance" and "violation" are used throughout this Staff Report. Because the two terms are closely related, they can be confusing. In this report, the term "exceedance" refers to a measured pollutant concentration that is higher than the level of the state standard. The term "violation" refers to an exceedance that was not significantly affected by a highly irregular or infrequent event (refer to Attachment D). Violations are considered in the area designation process.

sulfur dioxide to develop plans for attaining the state standards for these pollutants. The nonattainment districts must submit these attainment plans to the Board for approval (HSC section 40911). Ozone nonattainment districts that are impacted by overwhelming transport from upwind areas (in other words, all of the ozone violations are determined to be caused by emissions transported from an upwind area located outside the district) are not required to develop ozone attainment plans. In this case, the responsible upwind district(s) would be responsible for mitigating the ozone violations in the downwind nonattainment area (CCR, Title 17, Subchapter 1.5, Article 6, Section 70600).

A district with an area that is redesignated as nonattainment for any of the remaining five pollutants--PM10, sulfates, lead, hydrogen sulfide, or visibility reducing particles--is not subject to any specific statutory planning requirements. However, such districts must adopt and enforce rules and regulations to expeditiously attain the state standards for these five pollutants. Furthermore, the nonattainment district may develop and implement an attainment plan (HSC section 40001).

The second consequence is that a nonattainment district for ozone, carbon monoxide, nitrogen dioxide, and sulfur dioxide is required to collect fees from large nonvehicular sources located in the nonattainment area (HSC section 39612 and CCR, Title 17, section 90620 et seq.). Only those sources which emit 500 tons per year or more of any of these four pollutants or their precursors are subject to the additional permit fees. The additional fees are used to help defray the costs of state programs related to nonvehicular sources and implemented under the California Clean Air Act of 1988 (Stats. 1988, ch. 1568).

2. Areas Redesignated as Nonattainment-Transitional

Nonattainment-transitional is a subcategory of the nonattainment designation. Therefore, a district with an area that is redesignated as nonattainment-transitional is subject to the same legal requirements as a nonattainment district (refer to discussion in subsection 1, above).

However, in contrast to the simple nonattainment designation, nonattainment-transitional status may signal a change in how these legal requirements are implemented. For example, a district that is currently implementing an approved attainment plan may determine that some of the additional control measures contained in the attainment plan are not needed to reach attainment by the earliest practical date. As a result, nonattainment-transitional status provides the district with a signal that it may be appropriate to review and perhaps modify its approved attainment plan. HSC section 40925.5 specifically allows a district with an area designated as nonattainment-transitional for ozone to shift some stationary source control measures from the rulemaking calendar to the contingency category if the district finds these control measures are no longer necessary to accomplish expeditious attainment of the state ozone standard. District actions in response to nonattainment-transitional status are subject to the Board's review and approval.

3. Areas Redesignated as Attainment

State law does not impose specific planning requirements upon districts with areas redesignated as attainment. However, state law does require that the state standards not only be attained but also, maintained. State law requires the districts and the Board to make a coordinated effort to protect and enhance the ambient air quality. As part of this effort, the districts must adopt rules and regulations sufficiently effective to attain and maintain the state standards (HSC sections 39001, 40001, and 41500).

E. The Area Designation Review Process

Both the HSC (section 39608(c)) and the designation criteria require the Board to review the area designations annually and to update them (redesignate areas) as new information becomes available. As part of this review process, the ARB staff distributed two notices. On April 13, 1994, the ARB staff sent a letter to all districts notifying them of the May 1, 1994, deadline for requesting a change in an area's designation, submitting information for consideration in the annual review process, or requesting a nonattainment-transitional designation for pollutants other than ozone. (Note that the nonattainment-transitional designations for ozone are made by operation of law, rather than by the Board.) On July 14, 1994, the ARB staff distributed a general announcement for a public consultation meeting held August 4, 1994. This announcement included a list of areas with the proposed redesignations the ARB staff was considering.

As required by the designation criteria, the ARB staff has reviewed the air quality data collected during the most recent three calendar years--1991 through 1993. Based on these data, the ARB staff proposes that a number of specific areas be redesignated. All of the proposed redesignations reflect changes toward better air quality, indicating the benefits of the ongoing emission control efforts.

CHAPTER II PROPOSED AMENDMENTS TO THE AREA DESIGNATIONS

A. Introduction

This chapter describes and explains the proposed amendments to the area designations. The proposed redesignations are consistent with the designation criteria established in CCR, Title 17, sections 70300 through 70306. The proposed redesignations are based on air quality data for record as defined in CCR, Title 17, section 70301 (refer to Attachment D). The air quality data used for redesignating an area as nonattainment must be representative of the averaging time specified in the state standard. The air quality data used for redesignating an area as attainment or nonattainment-transitional also must be representative and, in addition, the data must be complete. The specific requirements for evaluating data representativeness and data completeness are given in Appendices 1 and 3, respectively, of the designation criteria (refer to Attachment D).

As required by the designation criteria, the ARB staff reviewed the air quality data collected during the three-year period of 1991 through 1993. Based on these data, redesignations are appropriate only for four of the nine pollutants for which the Board makes area designations. The affected pollutants are: ozone, carbon monoxide, sulfur dioxide, and sulfates. Based on the 1991 through 1993 data, no action is proposed for the remaining five pollutants: nitrogen dioxide, PM10, lead, hydrogen sulfide, and visibility reducing particles. Therefore, the current area designations for these five pollutants would remain unchanged.

Sections B through E of this chapter discuss the areas for which the staff is proposing area redesignations. The last section of this chapter discusses the areas where air quality data appear to signal a change in the designation but for which the staff does not recommend a redesignation.

B. Proposed Area Redesignation for Ozone

The state standard for ozone is a one-hour concentration of 0.09 parts per million (ppm). Based on air quality data for 1991 through 1993, one area qualifies for redesignation for ozone.

Currently, Mono County in the Great Basins Valleys Air Basin is designated as nonattainment for ozone. The area now qualifies for redesignation as nonattainment-transitional, by operation of law. Section 40925.5(a) of the HSC (see Attachment A) provides that an ozone nonattainment area shall be redesignated as nonattainment-transitional, by operation of law, if there are three or fewer exceedances of the state ozone standard at any monitoring site in the air basin during the last calendar year. A change in designation that is carried out by operation of law does not require a formal action by the Air Resources Board. However, the staff

hereby acknowledges the change in the designation in this Staff Report. The reasons for the change are summarized, below.

The maximum hourly ozone concentration measured during the last three years in Mono County was 0.10 ppm, after excluding data affected by highly irregular or infrequent events. The 0.10 ppm concentration occurred during 1992. Since 0.10 ppm exceeds the state ozone standard, the area does not qualify for the attainment designation. However, the maximum measured ozone concentration in Mono County during 1993, the most recent calendar year, was 0.09 ppm. This concentration does not exceed the state ozone standard.

Therefore, the staff concludes that based on data for 1991 through 1993, Mono County qualifies for a change in designation from nonattainment to nonattainment-transitional for ozone, by operation of law.

C. Proposed Area Redesignations for Carbon Monoxide

The state carbon monoxide (CO) standards are expressed in two averaging times for any given area of the state: one-hour and eight-hour. A one-hour average CO standard of 20 ppm applies statewide. An eight-hour average CO standard of 9.0 ppm applies in all areas of the state except the Lake Tahoe Air Basin. In the Lake Tahoe Air Basin, a more stringent eight-hour average CO standard of 6 ppm, not to be equaled, applies.

The state eight-hour CO standard has been the more difficult standard to meet for all areas. With the exception of a single monitoring site in Los Angeles County, there were no exceedances of the state one-hour CO standard in any area of the state during 1991 through 1993.

Based on data from 1991 through 1993, four areas qualify for redesignation for CO. The areas are: the San Jose Urbanized Area of Santa Clara County in the San Francisco Bay Area Air Basin; Orange County in the South Coast Air Basin; the Stockton Urbanized Area of San Joaquin County and the Modesto Urbanized Area of Stanislaus County, both in the San Joaquin Valley Air Basin. All four areas qualify for redesignations as attainment.

1. Santa Clara County

Santa Clara County currently is divided into two CO designation areas. The San Jose Urbanized Area is designated as nonattainment-transitional, while the remainder of the County is designated as attainment.

During 1991 through 1993, there were four exceedances of the state eight-hour CO standard at the high CO site in the San Jose Area. All occurred during 1991. Because, all four exceedances are higher than the calculated Expected Peak Day Concentration of 9.0 ppm, they are excluded as extreme concentrations. As a result, these exceedances are not considered violations of the state eight-hour CO standard. There were also no CO violations at any site outside the San Jose Urbanized Area in Santa Clara

County. Furthermore, the staff has determined that the CO concentrations in the San Jose Urbanized Area reflect the highest CO concentrations expected in Santa Clara County.

Based on air quality data for 1991 through 1993 for Santa Clara County, the staff recommends that the entire Santa Clara County be designated as attainment for CO.

2. Orange County

Orange County is located entirely within the South Coast Air Basin. Currently, Orange County is designated as nonattainment for the state CO standards.

During 1991 through 1993, there was one exceedance of the state eight-hour CO standard at each of three monitoring sites in Orange County, and all occurred during 1992. Each of these exceedances is higher than the calculated Expected Peak Day Concentration for the respective site. Therefore, all the exceedances are excluded as extreme concentrations and are not considered as violations of the state CO standard.

Based on the data for 1991 through 1993 for Orange County, the staff recommends that Orange County in the South Coast Air Basin be redesignated from nonattainment to attainment. As a result of this redesignation, Los Angeles County would be the only county in the South Coast Air Basin designated as nonattainment for CO. The other three counties in the Basin -- Orange, Riverside, and San Bernardino Counties-- all would be designated as attainment for CO.

3. San Joaquin County

San Joaquin County in the San Joaquin Valley Air Basin, currently is divided into two designation areas for the state CO standards. The Stockton Urbanized Area is designated as nonattainment, while the remainder of the County is designated as unclassified.

During 1991 through 1993, there were two exceedances of the state eight-hour CO standard at the high CO site at Stockton, in the Stockton Urbanized Area. Both exceedances occurred during 1991, and both are higher than the calculated Expected Peak Day Concentration of 8.8 ppm for the site. As a result, the exceedances are excluded as extreme concentrations and are not considered violations of the state CO standard. Although there is no CO monitoring site outside the Stockton Urbanized Area, the staff has determined that the CO concentrations in the Stockton Urbanized Area reflect the highest CO concentrations expected in the County.

Based on air quality data for 1991 through 1993 for the Stockton Urbanized Area, the staff recommends that the entire San Joaquin County be designated as attainment for the state CO standards.

4. Stanislaus County

Stanislaus County in the San Joaquin Valley Air Basin, currently is divided into two designation areas for the state CO standards. The Modesto Urbanized Area is designated as nonattainment, while the remainder of the County is designated as unclassified.

During 1991 through 1993, there were two exceedances of the state eight-hour CO standard at the CO site at Modesto, in the Modesto Urbanized Area. Both exceedances occurred during 1991, and both are higher than the calculated Expected Peak Day Concentration of 8.7 ppm for the site. As a result, these exceedances are excluded as extreme concentrations and are not considered violations of the state CO standards. There also were no CO violations at the CO site outside the Modesto Urbanized Area in Stanislaus County. The staff has determined that the CO concentrations in the Modesto Urbanized Area reflect the highest CO concentrations expected in the County.

Based on air quality data for 1991 through 1993 for the CO monitoring sites in Stanislaus County, the staff recommends that the entire Stanislaus County be designated as attainment for the state CO standards.

D. Proposed Area Redesignation for Sulfur Dioxide

The state sulfur dioxide standards are expressed in two averaging times: one-hour concentration of 0.25 ppm and a 24-hour concentration of 0.04 ppm. Appendix 4 of the designation criteria (refer to Attachment D) provides the Board with screening procedures that will serve as a basis for making designation decisions when an area has no or incomplete air quality data for record. In order to redesignate an area for the state sulfur dioxide standards, the screening procedures require the areas's total point source emissions of oxides of sulfur (SO_x) not to exceed 1,700 tons per year and no single facility's annual SO_x emissions exceed 900 tons per year.

Currently, the Southeast Desert Air Basin (SEDAB) portion of Kern County is designated unclassified for the state sulfur dioxide standards. This area is the only area in the state that is not designated attainment for the state sulfur dioxide standards. The total SO_x emission inventory in the SEDAB portion of Kern County is 1,533 tons per year according to the 1991 Air Resources Board Emission Inventory. Of this, 949 tons per year come from point sources. This is well below the screening parameter of 1,700 tons per year. The maximum annual SO_x emissions from a single facility is 570 tons per year, (Cal Portland Cement Plant, based on 1991 ARB Emissions Inventory) which is also below the screening parameter of 900 tons per year.

Both local values are below the screening parameters. Based on the SO_x emissions in the SEDAB portion of Kern County which satisfies the screening procedures in Appendix 4 of the designation criteria, the staff recommends that the SEDAB portion of Kern County be designated as attainment for the state sulfur dioxide standards.

E. Proposed Area Redesignation for Sulfates

The state standard for sulfates is a 24-hour average concentration of 25 micrograms per cubic meter, not to be equaled. The size of the geographic area for sulfate designations generally is the air basin.

The South Coast Air Basin comprises of Orange County, and portions of Los Angeles, Riverside, and San Bernardino Counties. Currently, the entire South Coast Air Basin is designated as nonattainment for the state sulfates standard.

During 1991 through 1993, there were no exceedances of the state sulfates standard in the South Coast Air Basin. The highest measured sulfates concentration was 24.7 micrograms per cubic meter and occurred during 1991 at a site in Los Angeles County. This concentration is below the level of the state standard.

Based on sulfates air quality data for 1991 through 1993, the staff recommends that the entire South Coast Air Basin be redesignated as attainment for sulfates.

F. Areas Not Recommended for Redesignations

This section discusses three areas of the state where the air quality data for 1991 through 1993 appear to signal a change in the designation. However, the staff does not recommend a redesignation in each case. These areas are currently designated as attainment for a particular pollutant and showed measured exceedance(s) for that pollutant. However, the exceedance(s) were either determined to be or believed to be affected by highly irregular or infrequent events and, therefore, would not be violations of the state standards. The three areas and the pollutants for which there were exceedance(s) are: Southeast Desert Air Basin (nitrogen dioxide), San Luis Obispo County in the South Central Coast Air Basin (sulfur dioxide), and Los Angeles County in the South Coast Air Basin (lead).

The reasons that the staff does not recommend a redesignation for each of these areas are discussed below.

1. Southeast Desert Air Basin

The Southeast Desert Air Basin currently is designated as attainment for the state nitrogen dioxide standard. The state nitrogen dioxide standard is a one-hour average concentration of 0.25 ppm. In May 1993, a one-hour nitrogen dioxide concentration of 0.36 ppm was measured at the Trona-Athol monitoring site in the Southeast Desert Air Basin portion of San Bernardino County. This concentration is higher than the level of the state nitrogen dioxide standard. The Trona-Athol site was established in March 1993 by the Mojave Desert Air Quality Management District as a replacement for the Trona-Market site, which was scheduled for closure.

After a review of the data and relevant information, the staff identified this measured value of 0.36 ppm as highly anomalous among the nitrogen dioxide concentrations at the site. This hourly measurement was followed by a measurement of only 0.06 ppm. The next highest hourly nitrogen dioxide concentration at the site was 0.05 ppm, and a majority of the remaining nitrogen dioxide concentrations at the site ranged from 0 to 0.02 ppm. These values are substantially below the state nitrogen dioxide standard of 0.25 ppm. All information currently available to the staff indicates that this exceedance is a highly irregular or infrequent event, very likely an extreme concentration event. However, because the data for the Trona-Athol site do not meet the Board's completeness criteria, we cannot be positive at this time. If the monitoring site reports complete data through January 1995, we expect to be able to confirm the 0.36 ppm concentration as an extreme concentration event by early next year. During the time between now and the end of next January, the staff and the district will follow the monitoring data to check for any additional exceedances.

Since the staff believes that this exceedance would likely be excluded as a highly irregular or infrequent event, the staff does not currently consider it as a violation. Therefore, the staff does not recommend any change in the current attainment designation for the state nitrogen dioxide standard for the Southeast Desert Air Basin.

2. San Luis Obispo County

San Luis Obispo County, in the South Central Coast Air Basin, currently is designated as attainment for sulfur dioxide. There are two state standards for sulfur dioxide: a one-hour average sulfur dioxide standard of 0.25 ppm and a 24-hour average standard of 0.04 ppm.

In June 1993, a one-hour sulfur dioxide concentration of 0.57 ppm and a 24-hour sulfur dioxide concentration of 0.046 ppm were recorded. Both concentrations, measured at the Nipomo-1300 Guadalupe monitoring site in San Luis Obispo County, exceed the respective state sulfur dioxide standard. However, both the one-hour exceedance and the 24-hour exceedance are higher than the calculated Expected Peak Day Concentrations of 0.109 ppm and 0.021 ppm, respectively, for the site. Thus, both exceedances are excluded as extreme concentration events, which are one type of highly irregular or infrequent events.

Since the exceedances were affected by a highly irregular or infrequent event, they are not considered violations of the state sulfur dioxide standards. Therefore, the staff does not recommend any change in the attainment designation for sulfur dioxide for San Luis Obispo County or the South Central Coast Air Basin.

3. Los Angeles County

Los Angeles County in the South Coast Air Basin, currently is designated as attainment for the state lead standard, along with all other areas of the state. The state lead standard is a 30-day average concentration of 1.5 micrograms per cubic meter.

In March 1993, a 30-day average lead concentration of 1.83 micrograms per cubic meter was measured at the Commerce-L.A. Paper Box monitoring site in Los Angeles County. The measured concentration exceeds the state lead standard. There were no other exceedances of the state lead standard at this monitoring site during 1991 through 1993.

The Commerce-L.A. Paper Box site is one of eight source-oriented sites operated by the South Coast Air Quality Management District (AQMD) to monitor the air quality around a number of lead processing facilities in the Basin. Since early 1992, the South Coast AQMD has worked closely with the industrial facilities to reduce their lead emissions and prevent exceedances of the state lead standard. The Daelco lead oxide manufacturing plant at Commerce, the source upwind of the monitoring site in question, has been conducting equipment modifications and construction activities that are intended to reduce the plant's overall lead emissions. The District staff believes the lead exceedance was caused by these construction and modification activities (refer to Attachment F). The District has taken steps to prevent any further exceedances of the lead standard.

Additionally, in October 1992, the District adopted Rule 1420 (Emission Standard for Lead). This Rule, which became effective on July 1, 1994, contains a number of requirements for: equipment performance standards, housekeeping practices, record keeping, source testing, fence line air monitoring, and air quality modeling. The District staff believes that the Daelco plant is now in compliance with Rule 1420 and that an exceedance will not recur.

Because the lead exceedance at the Commerce-L.A. Paper Box monitoring site is not expected to recur, it is considered as being affected by an exceptional event, which is one type of highly irregular or infrequent events. As a result, the exceedance is not considered a violation of the state lead standard. Therefore, the staff does not recommend any change in the lead attainment designation for Los Angeles County or the South Coast Air Basin.

CHAPTER III ALTERNATIVES TO THE PROPOSED AMENDMENTS

State law (HSC section 39608) requires the Board to annually review the area designations. The proposed amendments to the area designations that are described in Chapter II of this Staff Report, reflect the application of the designation criteria set forth in CCR, Title 17, sections 70300 through 70306. Each proposed area redesignation is accompanied by a discussion of its basis and justification. The ARB staff has considered the potential alternatives to the proposed amendments to the area designations--namely, the no action alternative. However, based on the available data, the ARB staff finds the proposed amendments are more appropriate than the no action alternative.