APPENDIX A

AREA DESIGNATION CRITERIA

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AREA DESIGNATION CRITERIA

CALIFORNIA CODE OF REGULATIONS
Title 17. Public Health
Division 3. Air Resources Board
Chapter 1. Air Resources Board
Subchapter 1.5. Air Basins and Air Quality Standards
Article 3. Criteria for Determining Area Designations
Sections 70300 through 70306, and Appendices 1 through 3, thereof

§ 70300. General Statement of Purpose.

The objective of these criteria is to guide the Executive Officer or his or her delegate in making designations of areas as attainment, nonattainment, nonattainment-transitional, or unclassified for each of the pollutants for which state ambient air quality standards have been established in Section 70200.

NOTE: Authority cited: Sections 39600, 39601, 39607, 39608 and 40925.5, Health and Safety Code. Reference: Sections 39607, 39608 and 40925.5, Health and Safety Code.

§ 70301. Air Quality Data Used for Designations.

(a) Except as otherwise provided in this article, designations shall be based on "data for record."

(1) 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 or his or her delegate has determined comply with the siting and quality assurance procedures established in Part 58, Title 40, Code of Federal Regulations or other equivalent procedures.

(2) Any other data which are provided by a district or by any other person will be data for record if the Executive Officer or his or her delegate determines within 90 days of submittal of complete supporting documentation that the data comply with the siting and quality assurance procedures established in Part 58, Title 40, Code of Federal Regulations or other equivalent procedures. If the Executive Officer or his or her delegate finds there is good cause that 90 days is insufficient time to make a determination, he or she may after notification of the person requesting the data review extend the deadline for completion of the data review.

(b) Except as otherwise provided in this article, designations and reviews of designations will be based on data for record for the three calendar years prior to the year in which the designation is made or the annual review of the designation is conducted.

(c) Data as described in section 70301(a)(1) and (2) become data for record upon completion of the Executive Officer's or his or her delegate's review.

NOTE: Authority cited: Sections 39600, 39601, 39607 and 39608, Health and Safety Code. Reference: Sections 39607 and 39608, Health and Safety Code.

§ 70302. Geographic Extent of Designations.

(a) An air basin will be the area designated for ozone, nitrogen dioxide, suspended particulate matter (PM10), fine suspended particulate matter (PM2.5), sulfates, and visibility reducing particles. Provided, however, if the Executive Officer or his or her delegate finds (based on air quality data, meteorology, topography, or the distribution of population and emissions) that there are areas within an air basin with distinctly different air quality deriving from sources and conditions not affecting the entire air basin, the Executive Officer or his or her delegate may designate an area smaller than an air basin using political boundary lines to the extent practicable. In designating an area smaller than an air basin as nonattainment, the Executive Officer or his or her delegate will include within the area those sources whose emissions contribute to a violation of a state standard for that pollutant. Contiguous areas which would have the same designation within an air basin will be one designated area.

(b) A county or the portion of a county which is located within an air basin will be the area designated for carbon monoxide, sulfur dioxide, lead (particulate), and hydrogen sulfide. Provided, however, if the Executive Officer or his or her delegate finds (based on air quality data, meteorology, topography, or the distribution of population and emissions) that there are areas within the county with distinctly different air quality, it may designate a smaller area. In designating an area smaller than a county as nonattainment, the Executive Officer or his or her delegate will include within the area those sources whose emissions contribute to a violation of a state standard for that pollutant.

NOTE: Authority cited: Sections 39600, 39601, 39607 and 39608, Health and Safety Code. Reference: Sections 39607 and 38608, Health and Safety Code.

§ 70303. Criteria for Designating an Area as Nonattainment.

(a) The Executive Officer or his or her delegate will designate an area as nonattainment for a pollutant if:

(1) Data for record show at least one violation of a state standard for that pollutant in the area, and the measurement of the violation meets the representativeness criteria set forth in "Criteria for Determining Data Representativeness" contained in Appendix 1 to this article; or
(2) Limited or no air quality data were collected in the area, but the Executive Officer or his or her delegate finds, based on meteorology, topography, and air quality data for an adjacent nonattainment area, that there has been at least one violation of a state standard for that pollutant in the area being designated.

(b) An area will not be designated as nonattainment if the only recorded exceedance(s) of that state standard were based solely on data for record determined to be affected by a highly irregular or infrequent event. Data affected by a highly irregular or infrequent event will be identified as such by the Executive Officer or his or her delegate in accordance with the "Air Resources Board Procedure for Reviewing Air Quality Data Possibly Affected by a Highly Irregular or Infrequent Event," set forth in Appendix 2 to this article.

NOTE: Authority cited: Sections 39600, 39601, 39607 and 39608, Health and Safety Code. Reference: Sections 39607 and 39608, Health and Safety Code.

§ 70303.1. Criteria for Designating an Area as Nonattainment-Transitional for Pollutants Other than Ozone.

(a) Nonattainment-transitional is a subcategory of the nonattainment designation. The Executive Officer or his or her delegate will identify that portion of a designated area within the district as nonattainment-transitional for a pollutant other than ozone with a state standard averaging time less than or equal to 24 hours and for which samples are routinely collected every day if it finds that:

(1) Data for record for the previous calendar year are consistent with the criteria established in section 70304(a)(2) and show two or fewer days at each site in the area with violations of a state standard for that pollutant (not including exceedances found to be affected by a highly irregular or infrequent event under the procedure set forth in Appendix 2 to this article);

(2) Evaluation of multi-year air quality, meteorological and emission data indicates that ambient air quality either has stabilized or is improving and that every site in the area is expected to reach attainment within three years; and

(3) The geographic extent of the area is consistent with the criteria established in

section 70302.

(b) An area designated as nonattainment-transitional for a pollutant is close to attaining the state standard(s) for that pollutant. The nonattainment-transitional designation provides an opportunity for a district to review and potentially to modify its attainment plan. Any modification to an attainment plan must be consistent with state and federal regulations and statutes.

NOTE: Authority cited: Sections 39600, 39601, 39607 and 39608, Health and Safety Code. Reference: Sections 39607 and 39608, Health and Safety Code.

§ 70303.5. Requirements for Ozone Nonattainment-Transitional.

(a) If an area within an air basin is designated as nonattainment for ozone, that area is designated as nonattainment-transitional for ozone if the following conditions are met:

(1) The area is an entire district within an air basin, or the area is the entire portion of a district within an air basin consistent with the criteria established in section 70302(a);

(2) Data for record consistent with the criteria established in section 70304(a)(2) are used to determine the number of exceedances for the previous calendar year at each monitoring location in the area;

(3) All data collected during the previous calendar year are considered in the evaluation, including data possibly affected by a highly irregular or infrequent event under the procedure set forth in Appendix 2 to this article;

(4) Each day with concentration(s) that exceed the state ozone standard is counted as one exceedance day; and

(5) No monitoring location in the area has more than three exceedance days during the previous calendar year.

(b) If an area qualifies for designation as nonattainment-transitional for ozone for the previous calendar year under section 70303.5(a), and the Executive Officer or his or her delegate has determined that data for the current calendar year indicate more than three exceedance days at any one monitoring location, that area is designated as nonattainment.

NOTE: Authority cited: Sections 39600, 39601, 39607 and 40925.5, Health and Safety Code. Reference: Sections 39607 and 40925.5, Health and Safety Code.

§ 70304. Criteria for Designating an Area as Attainment.

(a) The Executive Officer or his or her delegate will designate an area as attainment for a pollutant if:

(1) Data for record show that no state standard for that pollutant was violated at any site in the area; and

(2) Data for record meet representativeness and completeness criteria for a location at which the pollutant concentrations are expected to be high based on the spatial distribution of emission sources in the area and the relationship of emissions to air quality. Data representativeness criteria are set forth in "Criteria for Determining Data Representativeness" contained in Appendix 1 to this article. Data completeness criteria are set forth in "Criteria for Determining Data Completeness" contained in Appendix 3 to this article.

(b) Where there are limited or no air quality data for an area, the Executive Officer or his or her delegate will designate the area as attainment for a pollutant if it finds that no state standard for that pollutant has been violated in that area based on:

(1) Air quality data collected in the area during the most recent period since 1980 which meet the conditions in (a) above;

(2) Emissions of that pollutant or its precursors in the area have not increased since that period to a level at which the state standard might be exceeded; and

(3) Air quality data collected in the area since the time period in (1) above do not show a violation of the state standard.

(c) If an area is designated as attainment and now has limited or no air quality data for record for carbon monoxide, nitrogen dioxide, sulfur dioxide, sulfates, or lead (particulate), the Executive Officer or his or her delegate shall continue to designate that area attainment for the respective pollutant if:

(1) Emissions of that pollutant or its precursors in the area have not increased since the area was most recently designated as attainment to a level at which the state standard might be exceeded.

(d) A nonattainment area will not be redesignated as attainment for a pollutant if:

(1) Data for record for the monitoring site showing the greatest violation of a state standard for that pollutant no longer are available; and

(2) No other site has been identified as equivalent by the Executive Officer or his or her delegate.

NOTE: Authority cited: Sections 39600, 39601, 39607 and 39608, Health and Safety Code. Reference: Sections 39607 and 39608, Health and Safety Code.

§ 70305. Criteria for Designating an Area as Unclassified.

The Executive Officer or his or her delegate will designate an area as unclassified for a pollutant if it finds that, except as otherwise provided in this article, the data do not support a designation of attainment or nonattainment.

NOTE: Authority cited: Sections 39600, 39601, 39607 and 39608, Health and Safety Code. Reference: Sections 39607 and 39608, Health and Safety Code.

§ 70306. Annual Review of Designations.

(a) The Executive Officer or his or her delegate will conduct annual reviews of all designations and will hold a public hearing if requested pursuant to Government Code section 11346.8(a).

(b) Any request for a change in a designation and any submittal of information for purposes of the Executive Officer's or his or her delegate's consideration in the annual review of a designation shall be provided in writing to the Executive Officer no later than May 1 of each year.

NOTE: Authority cited: Sections 39600, 39601, 39607 and 39608, Health and Safety Code. Reference: Sections 39607 and 39608, Health and Safety Code.

Appendix 1

Criteria for Determining Data Representativeness

This Appendix describes the criteria to be used in determining the representativeness of individual air quality measurements and statistics for the purpose of designating areas as described in this article. Data representativeness, as that term is used herein, relates to the determination of whether the amount of data reflected in an individual air quality measurement or statistic is sufficient to characterize reliably air quality during the respective averaging time of a state standard. The criteria for determining data representativeness are summarized in the accompanying table and discussed further, below.

Air quality measurements and statistics are usually computed from short term observed values. If all the short term values for the statistical time period are available, the calculated statistic is representative. However, because all the short term values for a given period often are not available, a minimum number of observations are needed to provide reasonable assurance that the calculated measurement or statistic is a reliable estimate for the averaging time specified in the state standard.

In general, air quality measurements and statistics are considered representative if a minimum of 75 percent of all the potential short term values are included and are distributed throughout the entire statistical time period. This 75 percent criteria must be met from the averaging time of the initial measurement, up to and including, the final averaging time reflected by the air quality measurement or statistic. For example, a maximum daily statistic must meet the representativeness criteria specified for a “Day.” Because a daily statistic reflects a single day, it does not need to meet the representativeness criteria for any other level (Month, Quarter, or Year). In evaluating data representativeness, all measurements are considered, including those identified as affected by a highly irregular or infrequent event under the "Air Resources Board Procedure for Reviewing Air Quality Data Possibly Affected by a Highly Irregular or Infrequent Event," set forth in Appendix 2 to this article.

Individual air quality measurements and statistics used for designating an area as attainment, nonattainment-transitional, or nonattainment must be representative. Furthermore, to ensure that the the group of air quality measurements or statistics used for designating an area as attainment or nonattainment-transitional reflect the time of day and the season of expected high concentrations, these data must also be complete under the “Criteria for Determining Data Completeness” set forth in Appendix 3 to this article. In contrast, the air quality measurements or statistics used for designating an area as nonattainment are not required to be complete.

Criteria for Representativeness of Air Quality Measurements and Statistics

Representative Calendar Statistic	Sampling Time Period	Basis of Statistic or Requirement	Number of Representative Periods Required
Year	Any		4 representative calendar quarters
Quarter	24-hour	Based on a daily sample	3 representative months
	<24-hours<	Based on a daily statistic; or	69 or more representative calendar days
		Based on hourly samples	1,643 or more hours
Month	24-hour	Based on infrequent sampling (1-in-6 day, 1-in-3 day, 1-in-2 day)	75% of all potential samples
	<24-hours<	Based on a daily statistic; or	23 or more representative calendar days
		Based on all hourly samples; or	548 or more hours
		Based on all 2-hour samples; or	274 or more 2-hour samples
		Based on all 3-hour samples	183 or more 3-hour samples
Day	1-hour		6 or more hours in each 1/3 day (hours 0 thru 7, 8 thru 15, 16 thru 23), & missing no more than 2 consecutive hourly samples
	2-hour	Based on all 2-hour samples	9 or more samples
	3-hour	Based on all 3-hour samples	6 or more samples
	24-hour	Based on daily sample	22 but not more than 26 hours of sampling

Mean of N Hour Period	N	Number of Samples Needed
	24	18 or more hourly samples
	8	6 or more hourly samples
	6	5 or more hourly samples
	4	3 hourly samples
	3	3 hourly samples
	2	2 hourly samples
	1	30 minutes or more of sampling

Appendix 2

Air Resources Board Procedure for Reviewing Air Quality Data Possibly Affected by a Highly Irregular or Infrequent Event

This Appendix describes the procedures that the Air Resources Board will use for reviewing air quality data possibly affected by a highly irregular or infrequent event with regard to the state ambient air quality standards. All decisions regarding the identification of data as being affected by a highly irregular or infrequent event will be made by the Executive Officer or his or her delegate.

The Executive Officer or his or her delegate will review air quality data for possible identification as affected by a highly irregular or infrequent event if the data are the only exceedances of a state ambient air quality standard in the area or if such identification would otherwise affect the designation of the area.

Three types of highly irregular or infrequent events may be identified:

1. Extreme Concentration Event.
2. Exceptional Event.
3. Unusual Concentration Event.

Extreme Concentration Events

An extreme concentration event is an event beyond reasonable regulatory control which causes an exceedance of a state standard. An extreme concentration event is based on a statistical procedure and may not always be linked to a specific identifiable cause. The causes of an extreme concentration event include but are not limited to unusual meteorology.

The steps for identifying an extreme concentration event are:

1. A district (or the Executive Officer or his or her delegate) identifies questionable data.

2. In evaluating a possible extreme concentration event, the Executive Officer or his or her delegate will use the data for the site at which the event is suspected to determine a limit for concentrations expected to recur no more frequently than once in one year. The limit will be determined using the “exponential tail method” described in Procedure for Computing the Values Used in Identifying Extreme Concentration Events (August 1998), which is incorporated by reference herein.

   Using conventional rounding procedures, the limit will be consistent with the level of precision in which the state standard is expressed. If the possible extreme

concentration exceeds the concentration expected to recur no more frequently than once in one year, the Executive Officer or his or her delegate will consult with the district in identifying the data as affected by an extreme concentration event.

3. When an extreme concentration event is identified, the Executive Officer or his or her delegate will review other information, including but not limited to meteorological data, to determine whether air quality data for other sites in the area were affected by the extreme concentration event.

Exceptional Events

An exceptional event is an event beyond reasonable regulatory control which causes an exceedance of a state standard. An exceptional event must be linked to a specific cause such as an act of nature or unusual human activity. The federal Environmental Protection Agency (EPA) has published guidelines and rules to assist the states in determining exceptional and natural events. These EPA guidelines and rules provide overall criteria for determining whether an event is exceptional with regard to the national standards. The Executive Officer or his or her delegate will use the EPA guidelines and rules as a general basis for reviewing ambient data, but will not be bound by the specific definitions in the EPA guidelines and rules for the various types of exceptional events because those definitions are made on a national basis. In addition, since what may be exceptional in one part of the state may be common in another, each possible event will be evaluated on a case-by-case basis.

The steps for identifying an exceptional event are:

1. A district (or the Executive Officer or his or her delegate) identifies questionable data.

2. If a known exceptional event has occurred, the district gathers relevant data to document the occurrence.

3. If an exceptional event is only suspected, the district investigates available data for the possible event.

4. The district submits to the Executive Officer or his or her delegate a request for identifying the data as affected by an exceptional event and also provides supporting documentation.

5. If the Executive Officer or his or her delegate concurs with the district, he or she will identify the data as affected by an exceptional event.

6. If the district's request for identifying data as affected by an exceptional event cannot be supported, the district will be notified of the reasons. The Executive

Officer or his or her delegate will consider any additional data to support the request, but in the absence of any new evidence, will disapprove the request.

Unusual Concentration Events

An unusual concentration event is an event which causes an anomalous exceedance of a state standard and which does not qualify as an extreme concentration event or an exceptional event. An exceedance affected by an unusual concentration event may be identified only for an area designated as attainment or unclassified at the time of the exceedance.

The steps for identifying an unusual concentration event are:

1. A district (or the Executive Officer or his or her delegate) identifies a questionable exceedance(s).

2. If the exceedance(s) has not been identified as having been affected by an extreme concentration event or an exceptional event, and if the area was designated as attainment or unclassified at the time of the exceedance(s), the Executive Officer or his or her delegate will review the exceedance(s) to determine whether it was affected by an unusual concentration event.

3. In evaluating a possible unusual concentration event, the Executive Officer or his or her delegate will consider all relevant information, including but not limited to the amount and characteristics of air quality data, emission data, meteorological data, potential public health and welfare impacts, and any applicable state, district, and federal rules and regulations. To identify the exceedance(s) as affected by an unusual concentration event, the Executive Officer or his or her delegate must find, based on the relevant information, that the impact of the exceedance(s) is limited to the local area, the exceedance(s) is not expected to recur, and that the data do not support a nonattainment designation.

4. If the exceedance(s) qualifies as possibly affected by an unusual concentration event, the Executive Officer or his or her delegate will consult with the district in identifying the exceedance(s) as affected by an unusual concentration event.

5. An area may retain its attainment or unclassified designation based on the identification and exclusion of an exceedance(s) affected by an unusual concentration event for no more than three consecutive years. If the Executive Officer or his or her delegate identifies an exceedance(s) affected by an unusual concentration event in the area in the fourth consecutive year, the area will be redesignated as nonattainment.

NOTE: Authority cited: Sections 39600, 39601, 39607 and 39608, Health and Safety Code. Reference: Sections 39607 and 39608, Health and Safety Code.

Appendix 3

Criteria for Determining Data Completeness

This Appendix describes the criteria to be used in determining data completeness for the purpose of designating areas as described in this article. These Criteria for Determining Data Completeness (Completeness Criteria) apply only to air quality data used in designating an area as attainment or nonattainment-transitional. Air quality data used in designating an area as nonattainment do not need to be complete. The purpose of these Completeness Criteria is to specify the minimum amount of data deemed necessary to ensure that sampling occurred at times when a violation is most likely to occur.

After a set or group of air quality measurements or statistics are deemed representative under the Criteria for Determining Data Representativeness set forth in Appendix 1 to this article, they are then evaluated under these Completeness Criteria to ensure that the group of representative measurements or statistics reflect the time of day and the season of the year during which high concentrations are likely to occur.

Complete Data

Data for a site will be complete if there are representative data (as determined in accordance with the Representativeness Criteria in Appendix 1 to this article) during the required hours (see below) of the day during the required months (see below) for the required years (see below).

Required Hours

The hours of potentially high concentration must be included. Unless a detailed evaluation determines different hours to be appropriate for a specific site, these hours are:

Pollutant	*Hours (PST)*
Ozone	9 am - 5 pm
Carbon Monoxide	3 pm - 9 am (next day)
Nitrogen Dioxide	8 am - 8 pm
Visibility Reducing Particles	10 am - 6 pm
Other Pollutants	Throughout day

Required Months

The months of potentially high concentrations must be included. Unless a detailed evaluation determines different months to be appropriate for a specific site, these months are:

Pollutant	*Months*
Ozone	July - September
Carbon Monoxide	January, November - December
Sulfur Dioxide	September - December
Sulfates	January, June - December
Lead (Particulate)	January, November - December
Other Pollutants	January – December

Required Years for an Attainment Designation

The number of years to be included for an attainment designation is:

a) Three; or
b) Two, if during these years the maximum pollutant concentration (not including data found to be affected by a highly irregular or infrequent event under the procedure set forth in Appendix 2 to this article) is less than three-fourths the applicable state ambient air quality standard; or
c) One, if during this year the maximum pollutant concentration (not including data found to be affected by a highly irregular or infrequent event under the procedure set forth in Appendix 2 to this article) is less than one-half the applicable state ambient air quality standard.

NOTE: Authority cited: Sections 39600, 39601, 39607 and 39608, Health and Safety Code. Reference: Sections 39607 and 39608, Health and Safety Code.