

## Air Quality Standards and Attainment Status

Ambient air quality standards are set to protect public health. There are currently both Federal and State ambient air quality standards by USEPA and state air quality agencies, CALEPA for California. California air quality standards are generally more stringent than federal standards. Continuous air monitoring by these agencies and BAAQMD ensure that air quality standards are being met and improved.

Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>	
		Concentration	Attainment Status	Concentration <sup>3</sup>	Attainment Status
Ozone	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )	N <sup>9</sup>	0.075 ppm	N <sup>4</sup>
	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	N		See footnote # 5
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	A	9 ppm (10 mg/m <sup>3</sup> )	A <sup>6</sup>
	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	A	35 ppm (40 mg/m <sup>3</sup> )	A
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	A	0.100 ppm (see footnote 11)	U
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )	A
Sulfur Dioxide (See Footnote #12)	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )	A	0.14 ppm (365 µg/m <sup>3</sup> )	A
	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	A	0.075 ppm (196 µg/m <sup>3</sup> )	A
	Annual Arithmetic Mean			0.030 ppm (80 µg/m <sup>3</sup> )	A
Particulate Matter (PM10)	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	N <sup>7</sup>		
	24 Hour	50 µg/m <sup>3</sup>	N	150 µg/m <sup>3</sup>	U
Particulate Matter - Fine (PM2.5)	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	N <sup>7</sup>	15 µg/m <sup>3</sup>	A
	24 Hour			35 µg/m <sup>3</sup> See Footnote 10	N
Sulfates	24 Hour	25 µg/m <sup>3</sup>	A		
Lead (See	30 day Average	1.5 µg/m <sup>3</sup>		-	A
	Calendar			3	

<a href="#">Footnote 13)</a>	Quarter	-		1.5 µg/m	A
	Rolling 3 Month Average <sup>14</sup>	-		0.15 µg/m <sup>3</sup>	<a href="#">(See Footnote 14)</a>
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	U		
Vinyl Chloride (chloroethene)	24 Hour	0.010 ppm (26 µg/m <sup>3</sup> )	No information available		
Visibility Reducing particles	8 Hour (10:00 to 18:00 PST)	<a href="#">See Footnote 8</a>	U		
<b>A=Attainment N=Nonattainment U=Unclassified</b>					
mg/m <sup>3</sup> =milligrams per cubic meter		ppm=parts per million		µg/m <sup>3</sup> =micrograms per cubic meter	

**NOTES**

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM10, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM10 annual standard), then some measurements may be excluded. In particular, measurements are excluded that ARB determines would occur less than once per year on the average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.

2. National standards shown are the "primary standards" designed to protect public health. National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.075 ppm (75 ppb) or less. The 24-hour PM10 standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m<sup>3</sup>. The 24-hour PM2.5 standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m<sup>3</sup>.

Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM10 is met if the 3-year average falls below the standard at every site. The annual PM2.5 standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.

3. National air quality standards are set by US EPA at levels determined to be protective of public health with an adequate margin of safety.

4. Final designations effective July 20, 2012.

5. The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.

6. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.

7. In June 2002, CARB established new annual standards for PM2.5 and PM10.

8. Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

9. The 8-hour CA ozone standard was approved by the Air Resources Board on April 28, 2005 and became effective on May 17, 2006.

10. On January 9, 2013, EPA issued a [final rule](#) to determine that the Bay Area attains the 24-hour PM2.5 national standard. This EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area will continue to be designated as "non-attainment" for the national 24-hour PM2.5 standard until such time as the Air District submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation.

11. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010).

12. On June 2, 2010, the U.S. EPA established a new 1-hour SO<sub>2</sub> standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO<sub>2</sub> NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new

1-hour SO2 NAAQS. EPA expects to designate areas by June 2012.

13. ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.

14. National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.

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