

Board Administration and Regulatory Coordination Unit

Division 3. Air Resources Board

Chapter 1. Air Resources Board

Subchapter 1.5. Air Basins and Air Quality Standards

Article 2. Ambient Air Quality Standards

§ 70100. Definitions.

(a) Ambient Air Quality Standards. Ambient air quality standards are specified concentrations and durations of air pollutants which reflect the relationship between the intensity and composition of pollution to undesirable effects.

(b) Most Relevant Effects. "Most Relevant Effects," shown in the Table of Ambient Air Quality Standards, are the effects which the standards are intended to prevent or abate.

(c) Parts Per Million (ppm). Parts per million is a volumetric unit of gas concentration, which is numerically equal to the volume of a gaseous contaminant present in one million volumes of air.

(d) Micrograms Per Cubic Meter (g/m^3). Micrograms per cubic meter is a unit of concentration which is numerically equal to the mass of a contaminant (in micrograms) present in a one cubic meter sample of air, measured at EPA reference conditions (corrected to 25 degrees Celsius, 760 torr). (40 CFR Part 50.3, November 25, 1971).

(e) Equivalent Method. "Equivalent Method" is any procedure for measuring the concentration of a contaminant, other than that specified in the air quality standard for the contaminant, which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard.

(f) Visual Range. "Visual Range" is the distance at which a black object on the horizon has a 2 percent contrast with the horizon sky. This distance can be calculated from a measured light extinction coefficient, B_{ext} , by the formula: $V_r = 3.912$ divided by B_{ext} .

(g) Oxidant. Oxidant is a substance that oxidizes a selected reagent that is not oxidizable by oxygen under ambient conditions. For the purposes of this section, oxidant includes ozone, organic peroxides, and peroxyacyl nitrates but not nitrogen dioxide. Atmospheric oxidant concentrations are to be measured with ozone as a surrogate by ultraviolet photometry, or by an equivalent method.

(h) Carbon Monoxide (CO). Carbon Monoxide is a colorless gas, odorless under atmospheric conditions, having the molecular form CO.

(i) Sulfur Dioxide (SO₂). Sulfur dioxide is a colorless, irritating gas under atmospheric conditions, having the molecular form SO₂.

(j) Suspended Particulate Matter (PM₁₀). Suspended particulate matter (PM₁₀) refers to atmospheric particles, solid and liquid, except uncombined water as measured by a PM₁₀ sampler which collects 50 percent of all particles of 10 μm aerodynamic diameter and which collects a declining fraction of particles as their diameter increases and an increasing fraction of particles as their diameter decreases, reflecting the characteristic of lung deposition. Suspended particulate matter (PM₁₀) is to be measured by the size selective inlet high volume (SSI) PM₁₀ sampler method in accordance with ARB Method P, as adopted on August 22, 1985, or by an equivalent PM₁₀ sampler method, for purposes of monitoring for compliance with the Suspended Particulate Matter (PM₁₀) standards.

(k) Total Suspended Particulate Matter. Total suspended particulate matter refers to suspended atmospheric particles of any size, solid and liquid, except uncombined water. Total suspended particulate matter is to be measured by the high volume sampler method or by an equivalent method.

(l) Visibility Reducing Particles. Visibility reducing particles are atmospheric particles which significantly scatter or absorb light. The effect of these particles on light extinction is to be determined by instrumental monitoring of light scattering and absorption by ARB Method V, as adopted August 18, 1989, or by an equivalent method.

(m) Hydrogen Sulfide (H₂S). Hydrogen sulfide is a colorless gas having the molecular form H₂S.

(n) Nitrogen Dioxide (NO₂). Nitrogen dioxide is a red-brown gas, odorless under atmospheric conditions, having the molecular form NO₂.

(o) Lead (particulate). Lead (particulate) is suspended particulate matter containing lead (Pb).

(p) Sulfates. Sulfates are the water soluble fraction of suspended particulate matter containing the sulfate radical (SO₄) including but not limited to strong acids and sulfate salts, as measured by AIHL Method No. 61 (Turbidimetric Barium Sulfate) (December 1974, as revised April 1975 and February 1976) or equivalent method.

(q) Vinyl Chloride. Vinyl chloride is a colorless gas with the molecular form CH₂-CHCl; chloroethene.

(r) Ozone. Ozone is a colorless gas with a pungent odor, having the molecular form O₃.

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(s) Extinction Coefficient. The “Extinction Coefficient” of a homogenous air mass is the natural logarithm of the fractional transmission of a beam of light per kilometer along the beam's path.

NOTE: Authority cited: Sections 39600 and 39601, Health and Safety Code. Reference: Sections 39602 and 39606(b), Health and Safety Code.

REFERENCE