



**U.S. Environmental Protection Agency**

**Air & Radiation**

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**National Ambient Air Quality Standards (NAAQS)**

The Clean Air Act, which was last amended in 1990, requires EPA to set **National Ambient Air Quality Standards** for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. **Primary standards** set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. **Secondary standards** set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards for six principal pollutants, which are called "criteria" pollutants. They are listed below. Units of measure for the standards are parts per million (ppm) by volume, milligrams per cubic meter of air (mg/m<sup>3</sup>), and micrograms per cubic meter of air (µg/m<sup>3</sup>).

**National Ambient Air Quality Standards**

Pollutant	Primary Stds.	Averaging Times	Secondary Stds.
Carbon Monoxide	9 ppm (10 mg/m <sup>3</sup> )	8-hour <sup>1</sup>	None
	35 ppm (40 mg/m <sup>3</sup> )	1-hour <sup>1</sup>	None
Lead	1.5 µg/m <sup>3</sup>	Quarterly Average	Same as Primary
Nitrogen Dioxide	0.053 ppm (100 µg/m <sup>3</sup> )	Annual (Arithmetic Mean)	Same as Primary
Particulate Matter (PM <sub>10</sub> )	50 µg/m <sup>3</sup>	Annual <sup>2</sup> (Arith. Mean)	Same as Primary
	150 µg/m <sup>3</sup>	24-hour <sup>1</sup>	
Particulate Matter (PM <sub>2.5</sub> )	15.0 µg/m <sup>3</sup>	Annual <sup>3</sup> (Arith. Mean)	Same as Primary
	65 µg/m <sup>3</sup>	24-hour <sup>4</sup>	
Ozone	0.08 ppm	8-hour <sup>5</sup>	Same as Primary
	0.12 ppm	1-hour <sup>6</sup>	Same as Primary
Sulfur Oxides	0.03 ppm	Annual (Arith. Mean)	-----
	0.14 ppm	24-hour <sup>1</sup>	-----
	-----	3-hour <sup>1</sup>	0.5 ppm (1300 µg/m <sup>3</sup> )

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<sup>1</sup> Not to be exceeded more than once per year.

<sup>2</sup> To attain this standard, the expected annual arithmetic mean PM10 concentration at each monitor within an area must not exceed 50 ug/m<sup>3</sup>.

<sup>3</sup> To attain this standard, the 3-year average of the annual arithmetic mean PM<sub>2.5</sub> concentrations from single or multiple community-oriented monitors must not exceed 15.0 ug/m<sup>3</sup>.

<sup>4</sup> To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 65 ug/m<sup>3</sup>.

<sup>5</sup> To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

<sup>6</sup> (a) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is  $\leq 1$ , as determined by appendix H.

(b) The 1-hour NAAQS will no longer apply to an area one year after the effective date of the designation of that area for the 8-hour ozone NAAQS. The effective designation date for most areas is June 15, 2004. (40 CFR 50.9; see Federal Register of April 30, 2004 (69 FR 23996).)

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