

National Ambient Air Quality Standards

The Clean Air Act, which was last amended in 1990, requires EPA to set **National Ambient Air Quality Standards** (NAAQS) 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, 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^3), and micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$). Note that the standards are updated periodically so check <http://www.epa.gov/air/criteria.html> for the most current standards.

National Ambient Air Quality Standards

Pollutant	Primary Stds.	Averaging Times	Secondary Stds.	
Carbon Monoxide	9 ppm (10 mg/m^3)	8-hour	None	
	35 ppm (40 mg/m^3)	1-hour	None	
Lead	0.15 $\mu\text{g}/\text{m}^3$	Rolling 3-Month Average	Same as Primary	
Nitrogen Dioxide	53 ppb	Annual (Arithmetic Average)	Same as Primary	
	100 ppb	1-hour	None	
Particulate Matter (PM_{10})	150 $\mu\text{g}/\text{m}^3$	24-hour	Same as Primary	
Particulate Matter ($\text{PM}_{2.5}$)	15 $\mu\text{g}/\text{m}^3$	Annual (Arithmetic Average)	Same as Primary	
	35 $\mu\text{g}/\text{m}^3$	24-hour	Same as Primary	
Ozone	0.075 ppm (2008 Std)	8-hour	Same as Primary	
	0.12 ppm	1-hour	Same as Primary	
Sulfur Dioxide	0.03 ppm	Annual (Arithmetic Average)	0.5 ppm	3-hour
	0.14 ppm	24-hour		
	75 ppb	1-hour	None	

Source: U.S. Environmental Protection Agency. *National Ambient Air Quality Standards*. Retrieved June 2, 2011, from <http://www.epa.gov/air/criteria.html>.