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Center for Agricultural Air Quality Engineering & Science

NATIONAL AMBIENT AIR QUALITY STANDARDS

FACT SHEET

What are NAAQS?

National Ambient Air Quality Standards (NAAQS) apply to six criteria pollutants established under the current federal law (40 CFR 50), that may pose a risk to human health and the environment. Two sets of standards have been established: Primary and Secondary.

Primary (P) standards are the limits set for maximum exposure to a pollutant by sensitive public groups including asthmatics, children and the elderly. Primary standards may be more stringent than Secondary standards.

Secondary (S) standards are limits set for maximum exposure to a pollutant by the general public and include protection against decreased visibility, damage to animals, crops, vegetation and buildings.

Table 1. National Ambient Air Quality Standards (NAAQS)

Pollutant	Averaging Time	Standard Value and Type ^a
Particulate Matter (PM ₁₀)	Annual arithmetic mean	50 µg/m ³ (P&S)
	24-hour average	150 µg/m ³ (P&S)
Particulate Matter (PM _{2.5})	Annual arithmetic mean	15 µg/m ³ (P&S)
	24-hour average	65 µg/m ³ (P&S)
Carbon Monoxide (CO)	8-hour average	9 ppm (P)
	1-hour average	35 ppm (P)
Sulfur Dioxide (SO ₂)	Annual arithmetic mean	0.03 ppm (P)
	24-hour average	0.14 ppm (P)
	3-hour average	0.50 ppm (S)
Nitrogen Dioxide	Annual arithmetic mean	0.053 ppm (P&S)
Ozone (O ₃)	8-hour maximum	0.08 ppm (P&S)
	1-hour average	0.12 ppm (P&S)
Lead (Pb)	Quarterly average	1.5 µg/m ³ (P&S)

^aType of standard: P = primary, S = secondary

A network of about 4,000 State and Local Air Monitoring Stations (SLAMS) is used to determine if geographic areas are meeting or exceeding the NAAQS. Attainment areas are those geographic areas that stay at or below the NAAQS. Nonattainment areas are areas in which the NAAQS for a criteria pollutant are being exceeded.

The NAAQS were originally intended to be monitored in areas that are not influenced by any one particular source (i.e. reflecting ambient air quality.) However, some state air pollution regulatory agencies (SAPRAS) are applying the NAAQS as industry property line limits for each pollutant, whether or not that was the original intent.



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