

NAAQS 2009

Pollutant	Time Weighted Average	Industrial, Residential, Rural & Other Areas	Ecologically Sensitive Area	Methods of Measurement
Sulphur Dioxide (SO₂) (µg/m ³)	Annual* 24 Hours**	50 80	20 80	Improved West and Gaeke Method, Ultraviolet Fluorescence
Nitrogen Dioxide (NO₂) (µg/m ³)	Annual* 24 Hours**	40 80	30 80	Jacob & Hochheiser modified (NaOH-NaAsO ₂) Method, Gas Phase Chemiluminescence
PM₁₀ (µg/m ³)	Annual* 24 Hours**	60 100	60 100	Gravimetric, TEOM, Beta attenuation
PM_{2.5} (µg/m ³)	Annual* 24 Hours**	40 60	40 60	Gravimetric, TEOM, Beta attenuation
Ozone (O₃) (µg/m ³)	8 Hours* 1 Hour**	100 180	100 180	UV Photometric, Chemiluminescence, Chemical Method (KI)
Lead (Pb) (µg/m ³)	Annual* 24 Hours**	0.50 1.0	0.50 1.0	AAS/ICP after sampling on EPM 2000 or equivalent filter ED-XRF using Teflon filter
<u>Carbon Monoxide (CO)</u> (mg/m ³)	8 Hours** 1 Hour**	2.0 4.0	2.0 4.0	Non-dispersive Infrared (NDIR) Spectroscopy

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Ammonia (NH₃) (µg/m ³)	Annual* 24 Hours**	100 400	100 400	Chemiluminescence Indophenol Blue Method
Benzene (C₆H₆) (µg/m ³)	Annual*	5.0	5.0	Gas Chromatography (GC) based continuous analyzer Adsorption & desorption followed by GC
Benzo(a)Pyrene (BaP) (ng/m ³)	Annual*	1.0	1.0	Solvent extraction followed by HPLC/GC analysis
Arsenic (As) (ng/m ³)	Annual*	6.0	6.0	AAS/ICP after sampling on EPM 2000 or equivalent filter
Nickel (Ni) (ng/m ³)	Annual*	20.0	20.0	AAS/ICP after sampling on EPM 2000 or equivalent filter

Key Notes:

- Annual averages (*)** are based on 104 measurements/year (twice weekly, 24-hour sampling).
- Short-term averages (**)** (24h/8h/1h) apply to 98% of annual data; exceedances allowed ≤ 2 consecutive days.
- Units:** µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; ng/m³ = nanograms per cubic meter.