

# NATIONAL AMBIENT AIR QUALITY STANDARDS

[Schedule VII]

[See rule 3(3B)]

Sr. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air		
			Industrial, Residential, Rural & Other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
1.	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Annual*	50	20	✓ Improved West & Gaeke
		24 hours**	80	80	✓ Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Annual*	40	30	✓ Modified Jacob & Hochheiser (Na-Arsenite)
		24 hours**	80	80	✓ Chemiluminescence
3.	Particulate Matter (size less than 10µg) or PM <sub>10</sub> µg/m <sup>3</sup>	Annual*	60	60	✓ Gravimetric
		24 hours**	100	100	✓ TOEM ✓ Beta attenuation
4.	Particulate Matter (size less than 2.5µg) or PM <sub>2.5</sub> µg/m <sup>3</sup>	Annual*	40	40	✓ Gravimetric
		24 hours**	60	60	✓ TOEM ✓ Beta attenuation
5.	Ozone (O <sub>3</sub> ) µg/m <sup>3</sup>	8 hours*	100	100	✓ UV photometric
		1 hour**	180	180	✓ Chemiluminescence ✓ Chemical Method
6.	Lead (Pb) µg/m <sup>3</sup>	Annual*	0.50	0.50	✓ AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
		24 hours**	1.0	1.0	✓ ED-XRF using Teflon filter
7.	Carbon Monoxide (CO) mg/m <sup>3</sup>	8 hours*	02	02	✓ Non Dispersive Infra Red (NDIR) spectroscopy
		1 hour**	04	04	
8.	Ammonia (NH <sub>3</sub> ) µg/m <sup>3</sup>	Annual*	100	100	✓ Chemiluminescence
		24 hours**	400	400	✓ Indophenol blue method

9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) µg/m <sup>3</sup>	Annual*	05	05	✓ Gas chromatography based continuous analyzer ✓ Adsorption & Desorption followed by GC analysis
10.	Benzo(a)Pyrene (BaP) - particulate phase only, ng/m <sup>3</sup>	Annual*	01	01	✓ Solvent extraction followed by HPLC /GC analysis
11.	Arsenic (As), ng/m <sup>3</sup>	Annual*	06	06	✓ AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12.	Nickel (Ni), ng/m <sup>3</sup>	Annual*	20	20	✓ AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\* 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

**Note:** Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation.