

**NATIONAL AMBIENT AIR QUALITY STANDARDS  
CENTRAL POLLUTION CONTROL BOARD  
NOTIFICATION**

**New Delhi, the 18<sup>th</sup> November, 2009**

No.B-29016/20/90/PCI-L—In exercise of the powers conferred by Sub-section (2) (h) of section 16 of the Air (Prevention and Control of Pollution) Act, 1981 (Act No. 14 of 1981), and in super session of the Notification No(s). S.O. 384(E), dated 11<sup>th</sup> April, 1994 and S.O. 935(E), dated 14<sup>th</sup> October, 1998, the Central Pollution Control Board hereby notify the National Ambient Air Quality Standards with immediate effect, namely:-

**NATIONAL AMBIENT AIR QUALITY STANDARDS**

S. No.	Pollutant	Time Weighted average	Concentration in Ambient Air		Methods of Measurement
			Industrial, Residential, Rural and Other Area	Ecologically sensitive area (notified by Central Govt.)	
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Annual*	50	20	<ul style="list-style-type: none"> <li>• Improved West and Geake</li> <li>• Ultraviolet fluorescence</li> </ul>
		24 hours**	80	80	
2	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Annual*	40	30	<ul style="list-style-type: none"> <li>• Modified Jacob &amp; Hochheiser (Na-Arsenite)</li> <li>• Chemiluminescence</li> </ul>
		24 hours**	80	80	
3	Particulate Matter (size less than 10 µm) or PM <sub>10</sub> µg/m <sup>3</sup>	Annual*	60	60	<ul style="list-style-type: none"> <li>• Gravimetric</li> <li>• TOEM</li> <li>• Beta attenuation</li> </ul>
		24 hours**	100	100	
4	Particulate Matter (size less than 2.5 microns) or PM <sub>2.5</sub> µg/m <sup>3</sup>	Annual*	40	40	<ul style="list-style-type: none"> <li>• Gravimetric</li> <li>• TOEM</li> <li>• Beta attenuation</li> </ul>
		24 hours**	60	60	
5	Ozone (O <sub>3</sub> ) µg/m <sup>3</sup>	8 hours **	100	100	<ul style="list-style-type: none"> <li>• UV photometric</li> <li>• Chemiluminescence</li> <li>• Chemical method</li> </ul>
		1 hour **	180	180	
6	Lead (Pb) µg/m <sup>3</sup>	Annual*	0.5	0.5	<ul style="list-style-type: none"> <li>• ASS / ICP method after sampling on EPM 2000 or equivalent filter paper</li> <li>• ED – XRF using Teflon filter</li> </ul>
		24 hours**	1.0	1.0	

(1)	(2)	(3)	(4)	(5)	(6)
7	Carbon Monoxide (CO) mg/m <sup>3</sup>	8 hours**	2	2	Non Dispersive Infra RED (NDIR) Spectroscopy
		1 hour**	4	4	
8	Ammonia (NH <sub>3</sub> ) μg/m <sup>3</sup>	Annual*	100	100	<ul style="list-style-type: none"> <li>• Chemiluminescence</li> <li>• Indophenol blue method</li> </ul>
		24 hours**	400	400	
9	Benzene (C <sub>6</sub> H <sub>6</sub> ) μg/m <sup>3</sup>	Annual*	5	5	<ul style="list-style-type: none"> <li>• Gas chromatography based continuous analyser</li> <li>• Adsorption and desorption followed by GC analysis</li> </ul>
10	Benzo (a) Pyrene (BaP) – particulate phase only ng/m <sup>3</sup>	Annual*	1	1	Solvent extraction followed by HPLC / GC analysis
11	Arsenic (As) ng/m <sup>3</sup>	Annual*	6	6	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 8 hourly or 1 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.