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

Delhi, the 18th November, 2009

**No. B-29016/20/90/PCI-I.**— 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 supersession 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.	Pollutant	Time	Concentration in Ambient Air			
No.		Weighted average	Industrial, Residential, Rural and Other Area	Ecologically sensitive area (notified by Central Government)	Methods of Measurement	
(1)	(2)	(3)	(4)	(5)	(6)	
1	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Annual*	50	20	<ul><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> <li>Modified Jacob &amp;</li> <li>Hochheiser (Na-Arsenite)</li> <li>Chemiluminescence</li> </ul>	
		24 hours**	80	80		
3	Particulate Matter	Annual*	60	60	<ul><li>Gravimetric</li><li>TOEM</li><li>Beta attenuation</li></ul>	
	(size less than 10 $\mu$ m) or PM <sub>10</sub> $\mu$ g/m <sup>3</sup>	24 hours**	100	100		
4	Particulate Matter	Annual*	40	40	<ul><li>Gravimetric</li><li>TOEM</li><li>Beta attenuation</li></ul>	
	(size less than 2.5 μm) or PM <sub>2.5</sub> μg/m <sup>3</sup>	24 hours**	60	60		
5	Ozone (O <sub>3</sub> ) μg/m <sup>3</sup>	8 hours **	100	100	<ul><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> <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		
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> )	Annual*	100	100	- Chemiluminescence	

	μg/m <sup>3</sup>	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 analyser
					<ul><li>Adsorption and desorption followed by GC analysis</li></ul>
10	Benzo (a) Pyrene (BaP) - particulate phase only, ng/m <sup>3</sup>	Annual*	01	01	<ul><li>Solvent extraction followed by HPLC / GC analysis</li></ul>
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.

SANT PRASAD GAUTAM, Chairman [ADVT-III/4/184/09/Exty.]

**Note**: The notifications on National Ambient Air Quality Standards were published by the Central Pollution Control Board in the Gazette of India, Extraordinary vide 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.