

Press Release

Noise and air pollution levels Deepawali 2006

Central Pollution Control Board has conducted Ambient Noise and Air quality monitoring at various locations in Delhi on the occasion of Deepawali festival, 2006 to see the environmental impact of bursting crackers.

To see the impact of bursting of crackers etc. on Air quality also, the 24 Hourly continuous Ambient Air quality monitoring was carried out at BSZ Marg (ITO), Delhi college of Engineering, Siri Fort, Ashok Vihar and East Arjun Nagar from 20 to 22 October 2006. Round-the-clock Air quality monitoring was also carried out on October 21, 2006 (Deepawali day) at the monitoring stations of CPCB (BSZ Marg (ITO), Pitampura, Sirifort, Janakpuri, Nizamuddin, Shahzada Bagh, Shahdara) and East Arjun Nagar. The air quality data is presented in Table 1.

The Ambient noise monitoring was carried out for short duration (half an hour average) at 10 locations in Delhi namely Connaught Place, India Gate, Raja Garden, Pitampura, Model Town, Mayur Vihar Phase – II, Lajpat Nagar, AIIMS, New Friends Colony and East Arjun Nagar between 18.00 hours & 23.00 hours on October 21, 2006 during Deepawali celebration. Noise monitoring for long duration (six hour average, 1700 to 2300 hours) at three locations namely Kamla Nagar, BSZ Marg (ITO) and Dilshad Garden was also carried out during the same period. Pre-Deepawali background monitoring was carried out on October 17, 2006 during the same period for comparison. The noise level data is presented in Table 2.

Findings of Ambient Air Quality Monitoring

- **Sulphur dioxide (SO₂)**

Sulphur dioxide concentrations have increased at all locations except at BSZ Marg (ITO) during the year 2006 as compared to 2005. During Deepawali 2006 SO₂ ranged between 10 and 45 µg/m³ as compared to 7 and 24 µg/m³ during 2005. Although the trend of SO₂ is increasing but the values at all the locations are below prescribed standard.

- **Nitrogen dioxide (NO₂)**

Decrease in nitrogen dioxide levels observed at all the locations in 2006. The concentrations were found between 37 and 54 µg/m³ as compared to 46 and 83 µg/m³ in 2005. All the values of NO₂ are within prescribed standard.

- **Suspended Particulate Matter (SPM)**

SPM levels have shown substantial decrease at all the locations as compared to 2005. SPM values during Deepawali 2006 were ranging between 485 to 704 µg/m³ as compared to 723 to 1148 µg/m³ during Deepawali 2005.

- **Respirable Suspended Particulate Matter (RSPM ie PM₁₀)**

RSPM levels have shown decreasing trend at all the locations except one (Janakpuri) which has marginally increased as compared to 2005. RSPM values ranged between 265 and 440 µg/m³ during Deepawali 2006 as compared to 337 and 552 µg/m³ during Deepawali 2005.

Conclusion

Decrease in NO₂, SPM and RSPM values may be attributed to favorable meteorological conditions (increase in mixing height hence better dispersion of pollutants and rains on previous day of

Deepawali) and possibly lesser bursting of crackers in 2006 as compared to 2005.

Increase in SO₂ could possibly due to bursting of imported crackers containing chemicals of sulphur compounds

Findings of Ambient Noise Monitoring

- At all the locations, the Ambient noise level on Deepawali day has increased as compared to the normal day, i.e. October 17, 2006
- Noise level on Deepawali day, 2006 **decreased at eleven locations** whereas it has **increased at two locations** (Connaught Place and Pitampura) as compared to the Deepawali day, 2005
- The average ambient noise levels on normal day were ranging from 55 to 72 dB(A) Leq. and on Deepawali day 56 to 85 dB(A) Leq.
- Average noise values on Deepawali 2006 were ranging from 56 to 85 dB(A) Leq. against last year's average values of 63 to 89 dB(A)Leq.

Conclusion

Overall noise level during Deepawali 2006 was lower than Deepawali 2005 possibly due to bursting of lesser number of noisy crackers.

Overall Conclusion

Noise and air pollution levels during Deepawali 2006 were lower than Deepawali 2005 possibly because of bursting of lesser crackers due to anti-cracker campaigns launched by the regulatory/concerned authorities like MoEF, CPCB, Delhi Government, NGOs, schools, Newspapers and electronic media. Significant reduction in air pollution level is also attributed to favorable meteorological conditions.

For clarifications if required, any of the following officials may be contacted.

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Table 1 Ambient Air Quality at Various Locations during

Deepawali 2005 & 2006

(All Values are in microgram per cubic metre)

Parameter→		SO ₂		NO ₂		SPM		RSPM	
Year→		2005	2006	2005	2006	2005	2006	2005	2006
B.S.Z Marg (ITO) (R)		21	10↓	81	51↓	742	489↓	378	304↓
Pitampura (R)		-	27	-	42	-	687	-	388
Sirifort (R)		13	↑16	46	41↓	723	519↓	489	440↓
Janakpuri (R)		7	↑31	65	45↓	916	704↓	422	↑426
Nizamuddin (R)		9	↑19	54	54	1148	485↓	337	265↓
Shahazada Bagh (I)		11	↑26	83	53↓	1070	586↓	520	300↓
Shahdara (I)		24	↑45	75	37↓	761	625↓	407	395↓
<i>Concentration Range for Delhi</i>		<i>7 - 24</i>	<i>10 - 45</i>	<i>46 - 83</i>	<i>37 - 54</i>	<i>723 - 1148</i>	<i>485 - 704</i>	<i>337 - 552</i>	<i>265 - 440</i>
<i>Ambient Air quality Standards</i>	<i>Residential (R)</i>	<i>80</i>		<i>80</i>		<i>200</i>		<i>100</i>	
	<i>Industrial (I)</i>	<i>120</i>		<i>120</i>		<i>500</i>		<i>150</i>	

Table 2 Ambient Noise Level at different places in Delhi during Deepawali days in the year 2004-2006

S. No.	Location	Average Noise Level in dB (A) Leq.						Standard Limit
		Normal Day			Deepawali			
		2004	2005	2006	2004	2005	2006	
01.	All India Institute of Medical Sciences (AIIMS)	60	60	56	64	63	61↓	55
02.	Lajpat Nagar	66	62	65	74	78	73↓	55
03.	New Friends Colony	57	64	57	75	76	70↓	55
04.	East Arjun Nagar	71	66	69	83	88	79↓	55
05.	Connaught Place	54	66	72	73	68	↑73	65
06.	India Gate	54	65	67	67	63	56↓	50
07.	Mayur Vihar Phase - II	67	71	55	87	89	85↓	55
08.	Raja Garden	52	75	70	80	76	75↓	55
09.	Pitam Pura	59	74	67	82	77	↑80	55
10.	Model Town	52	65	59	88	85	81↓	55
11.	Kamla Nagar	69	62	63	79	77	76↓	55
12.	Dilshad Garden	56	60	60	80	81	72↓	55
13.	I.T.O	72	74	72	74	73	72↓	65

Noise Monitoring time from **1700 hours to 2300 hours**

Noise level comparison (↑ or ↓) with respect to 2005

Normal day 17th October 2006.