

## **West Bengal Pollution Control Board**

### **Report of assessment of Noise Pollution survey in Kolkata during Kali puja & Diwali Festivals- 2006**

#### ***Introduction:***

The use of loudspeakers is regulated in terms of the Rules under the Environment Protection Act (1986) as well as the orders of the Supreme Court and the Calcutta High Court. The Police is empowered to enforce these rules and the orders. While the legal restrictions are mostly known by and large, special vigilance becomes necessary during festivals such as the Durga Puja, Kali Puja & Diwali. To have a clear idea about the increase of ambient noise level in residential areas in the city of Calcutta and other district town during the festivals, the West Bengal Pollution Control Board (WBPCB) undertook a noise monitoring survey during those days in the year 2006 as in previous years.

#### ***Noise Pollution Survey procedure:***

Firecrackers generate instantaneous impulsive noise, which when measured in free field condition in impulsive mode, gives peak sound pressure level. It is quite obvious that a number of crackers when bursting serially can easily form a band of continuous noise in the presence of reflecting surfaces. The reverberation of sound wave due to repeated reflection in the surfaces prolongs the time interval of prevailing sound intensity. The continuous band of noise, thus formed, definitely affects the ambient level in close proximity.

The monitoring was conducted at the twenty select locations in Kolkata and Howrah cities:- such as Salt Lake, Lake Town, Kankurgachi, Beliaghta, Behala, Minto Park, Burrabazar, Jadavpur, rabindra Sarani, Talapark and Howrah Maidan, Howrah-Kadamtala, Howrah-mandirtala, Baranagar, Nagerbazer, Baguihati-jangra, Kasba-Bosepukur, ballygunge place, Tollygunge-Golf Club Road and New Alipur B Block, on a normal working day, between 6.00 p.m. and 10.00 p.m. The microphone of the Sound Level Meter fitted with windscreen was placed 1.5m above the ground and at least 1m from the façade of the building at each location. Data recorded at each location were used to compute the one-hour equivalent continuous noise level  $L_{eq}$ . On the same locations, the above procedure was repeated on the Kali puja day (21.10.06) as well as Diwali day (22.10.06).

#### ***Results of noise pollution survey:***

The noise survey results in 2006 (Table-I) reveal slightly increase in the ambient noise level in various residential areas in the city of Kolkata and Howrah on the Kali puja day in comparison to any normal day. The main cause of increase in ambient noise level on festival days is bursting of crackers, whereas in normal days, the main contributions to the ambient noise level of any residential area are from trade activities, the transport system and various domestic activities.

The main observations are summarised below:

- i. The increase of the noise level at the select locations on the Kali puja day compared to a normal day in 2006 varies from 3% to 13% (Table-II)
- ii. Compared to last year (2005), there is wide variation of noise level in most of the sample locations, which varied from -10% to 13% (Table-III).

#### ***Analysis of Complaints:***

A central Control Room was set up at the Head Office of WBPCB at Paribesh Bhawan, Salt Lake, Kolkata on three days from pre-Kali Puja day (20.10.06) to Diwali day (22.10.06) during evening to late night to receive complaints. In addition, control rooms were set up in the Regional Offices of the Board at Haldia, Howrah, Hooghly, Barrackpore, Durgapur, Siliguri and Asansol Sub-Regional Office.

The details of complaints received in the years 2005 and 2006 in the WBPCB Control Room at Paribesh Bhawan are furnished below:

<b>Year</b>	<b>Kali Puja Day</b>	<b>Diwali Day</b>	<b>Total no. of complaints received in two days</b>
2005	60	24(till 12.30 a.m.)	84
2006	30	15(till 12.30 a.m.)	45

The nature of complaints received in 2006 are detailed below:

<b>Festival Days in 2005</b>	<b>Kolkata Police area</b>	<b>West Bengal Police area</b>	<b>Complaints against bursting of crackers</b>	<b>Complaints against playing of loudspeakers</b>
Kali Puja Day (21.10.06)	14 (Jorasako, Kalighat, Lake, Bhawanipur, Ballygung, Gariahat, Burtolla, Muchipara etc.)	16 (Jadavpur, Rajarhat, Dum Dum, Kasba, Naihati, Bidhannagar-North, Lake Town, Baguihati, Sonarpur, Behala, Thakurpukur etc.)	26 (54)*	04 (06)*
Diwali Day (22.10.06)	04 (Lake, Gariahat, Entally, Jorasako etc.)	11 (Jadavpur, Kasba, Thakurpukur, Jagacha, Golabari, Chatterjeehat, Sreerampur, Patuli etc.)	11 (15)*	04 (09)*

\* Figure in the bracket for the year 2005

From the above, the following may be noted:-

1. Compared to 2005, the State Board received a lesser number of complaints on both the Kali Puja and Diwali days. These may be due to increased awareness among the public about the Board's direction and existence of Board's **toll free no 1800 345 3390, and less violation of noise pollution norms.**
2. During both the Kali Puja day and Diwali day, the maximum numbers of complaints were received from the West Bengal Police areas.

*Awareness campaign and specific measures:*

The WBPCB has given a wide publicity on norms of Loudspeaker and firecrackers through Electronic and Print Media. In addition, request made to the Cellular operators for sending an awareness message '**Say NO to CRACKERS. Celebrate Deepavali with lamps, candles and fireworks.**' to their customers. The WBPCB has arranged to display 10000 festoons in Kolkata, Howrah, Salt Lake as well as other district towns. The banners are displayed at various crowded places as well as near schools. The posters on noise pollution were distributed to the NGOs for public awareness. The State Board also issued request letters to 19000 Clubs all over West Bengal including 3000 Clubs in Kolkata city, on different pollution control norms during festive season. Four different short films on pollution due to idol immersion, loudspeakers and firecrackers were telecast in primetime in Doordarshan, E-TV, Tara Bangla, Aakash Bangla and Tazza Khabar for creating awareness among general public.

*Special campaign on Chhat Puja day:*

The WBPCB has communicated to all concerned about the Government of West Bengal notifications declaring an area of 100 metres around all Government Hospitals in Kolkata, in the Districts & in the Sub-divisions of the State along with High Court and Raj Bhawan as Silence Zone. The Board officials were patrolling in and around Government Hospitals in Kolkata and Raj Bhawan area on Chhat Puja day(28.10.06). No major violation on noise norms was noted, moreover, Kolkata and West Bengal Police Authorities undertook special vigil at those locations in this festival day.

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**Table-I**  
**Noise Level in Kalipuja & Diwali Festivals during 2006**

Location	Noise Level in $dB_{L_{Aeq}}$		
	Normal Day (before kali puja)	Kali Puja Day	Diwali Day
Salt Lake- Sector-III	63	69	65
Lake Town- B Block	67	70	68
Kankurgachi-Scheme VIIIM	71	73	69
Beliaghata CIT Building	72	74	70
Behala- Biren Roy Road	75	78	69
Minto Park- Sarat Bose Road	73	76	75
Kalakar Street- Burrabazer	76	78	71
Jadavpur 8B Bus Terminus	76	78	70
Rabindra Sarani- Ganesh Takie	75	78	73
Talapark- Belgachia	66	70	68
Howrah Maidan	72	76	69
Kadamtala	71	75	76
Mandirtala	72	77	75
Baranagar	67	72	68
Nagerbazer	70	73	69
Baguihati-Jagra	56	68	68
Kasba-Bosepukur	75	77	76
Ballygunge Place	69	76	78
Tollygunge-Golf Club Road	66	70	71
New Alipur B-Block	73	75	77

**Table-II**  
**Comparison of Noise Level in a normal day with Kalipuja day in 2006**

Location	Noise Level in $dB_{Leq}$		
	Normal Day (before kali puja)	Kali Puja Day	% Increase
Salt Lake- Sector-III	63	69	9
Lake Town- B Block*	67	70	4
Kankurgachi-Scheme VIIM	71	73	3
Beliaghata CIT Building	70	72	3
Behala- Biren Roy Road*	75	78	4
Minto Park- Sarat Bose Road	73	76	4
Kalakar Street- Burrabazer	76	78	3
Jadavpur 8B Bus Terminus*	76	78	3
Rabindra Sarani- Ganesh Takie	75	78	4
Talapark- Belgachia	66	70	6
Howrah Maidan	72	76	5
Kadamtala	71	75	6
Mandirtala	72	77	7
Baranagar	67	72	7
Nagerbazer	70	73	4
Baguihati-Jagra*	60	68	13
Kasba-Bosepukur*	75	77	3
Ballygunge Place*	69	76	10
Tollygunge-Golf Club Road*	66	70	6
New Alipur B-Block	73	75	3

**Table-III**  
**Comparison of Noise Level in Kalipuja Day during 2005 & 2006**

Location	Noise Level in $dB_{Leq}$		
	2005	2006	% Increase
Salt Lake- Sector-III	62	69	11
Lake Town- B Block	65	70	8
Kankurgachi-Scheme VIIM	66	73	10
Beliaghata CIT Building	67	72	7
Behala- Biren Roy Road	69	78	13
Minto Park- Sarat Bose Road	73	76	4
Kalakar Street- Burrabazer	70	78	11
Jadavpur 8B Bus Terminus	74	78	5
Rabindra Sarani- Ganesh Takie	71	78	9
Talapark- Belgachia	65	70	8
Howrah Maidan	71	76	7
Kadamtala	76	75	-1
Mandirtala	79	77	-2
Baranagar	71	72	1
Nagerbazer	70	73	4
Baguihati-Jagra	66	68	3
Kasba-Bosepukur	83	77	-7
Ballygunge Place	74	76	3
Tollygunge-Golf Club Road	78	70	-10
New Alipur B-Block	72	75	4