

West Bengal Pollution Control Board

Report of assessment of Noise Pollution survey in Kolkata during Kali puja & Diwali Festivals- 2007

Introduction:

The use of loudspeakers is regulated under rule 5 of The Noise Pollution (Regulation and Control) Rules 2000, issued under the Environment Protection Act, 1986. Prior to these rules, the West Bengal Pollution Control Board issued direction in conformity with the order of Hon'ble Calcutta High Court for mandatory use of Sound Limiter whenever the loudspeakers/public address system is being used in open air. The Hon'ble Supreme Court of India further issued direction dated 18.07.07 in restriction of use of loudspeakers and firecrackers. Further the use, sale and store of noisy fireworks that generate noise level more than 90 dB(AI) measured at a distance of 5m from the point of bursting is prohibited by law. Accordingly, chocolate bomb, chain crackers, loose crackers, kali patka, dhani patka, dodoma, seven shot, rocket bomb and similar any other noise making fireworks by any name are prohibited in the state of West Bengal. The Police is empowered to enforce these rules and the orders in controlling of noise pollution against indiscriminate use of loudspeakers and banned crackers. While the legal restrictions are mostly known by and large, special vigilance becomes necessary during major festivals such as the Durga Puja, Kali Puja & Diwali. To have a clear idea about the impact of loudspeaker and firecrackers noise on the ambient level in some preselected residential areas in Kolkata and Howrah in Kali Puja festival, the West Bengal Pollution Control Board (WBPCB) undertook a noise monitoring survey in the year 2007 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 (09.11.07).

Results of noise pollution survey:

The noise survey results in 2007 (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 kali puja day is bursting of prohibited crackers, whereas in normal days, the main contributions to the ambient noise level of any residential area are from road traffic, trade activities 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 varies from -3% to 18% (Table-I)
- ii. Compared to last year i.e.2006, there is decrease of noise level in most of the sample locations except in north suburban areas like Baranagar, Nagerbazar, Lake town. The variation of noise levels depicted from -9% to 11% (Table-II).

Analysis of Complaints:

The State Board had set up a Special Control Room at Head Office, Paribesh Bhawan, Bidhannagar in Kali Puja(09.11.07) and Diwali(10.11.07) festive days to receive complaints over phone against the violation of noise norms in case of loudspeakers and firecrackers. Similar Control Rooms were set up in Regional Offices- Howrah, Hooghly, Kankinara, Durgapur, Haldia, Malda and Siliguri as well as Asansol Sub-Regional office. The mobile teams from Head Office and other regional offices were patrolling in Kolkata, Howrah and other district towns in the State.

The details of complaints received in the years 2006 and 2007 in the WBPCB Special Control Room at Paribesh Bhawan, Bidhannagar are furnished below:

Year	Kali Puja Day	Diwali Day	Total no. of complaints received in two days
2006	30	15(till 12.30 a.m.)	45
2007	40	23(till 2.00 a.m.)	63

The nature of complaints received in 2007 are detailed below:

Festival Days in 2007	Complaints from the areas under Kolkata Police	Complaints from the areas under West Bengal Police	Complaints against bursting of crackers	Complaints against playing of loudspeakers
Kali Puja Day (09.11.07)	13 (Chitpur, Burtala, Amhers Street, Jorasanko, Lake, Gariahat, Posta, Tollugunge, Kalighat and Ballygunge)	27 (Arambagh, Kasba, Jadavpur, Kasba, Lake Town, Dum Dum, Uttara para, Sanskri l, Bidhannagar-North and BidhannagarSouth)	35 (26)*	05 (04)*
Diwali Day (10.11.07)	05 (Burtala, Chitpur Kareya and Watgunge)	18 (Tiljala, Kasba, Naihati, Burranagar, Purba Jadavpur, Utarpara, Titagar, Dum Dum and Bidhannagar South)	17 (11)*	06 (04)*

* Figure in the bracket for the year 2006

From the above, the following may be noted:-

1. Compared to 2006, the State Board received slightly higher number of complaints on both the Kali Puja and Diwali days. The general public become more aware of existence of toll free no. 1800 345 3390 (2335 8212) of State Board's Special Control Room during festive days and informed if there is any violation of noise pollution norms in their locality.
2. During both the Kali Puja day and Diwali day, the maximum numbers of complaints were received from the areas under West Bengal Police. This was due to use of prohibited fireworks in some residential pockets in north and south suburban of Kolkata.

Awareness campaign and specific measures:

The WBPCB has given a wide publicity on norms of loudspeakers and firecrackers through Electronic and Print Media. The 5000 festoons on various pollution norms were distributed to 60 enlisted NGOs of State Board prior to festive season. These banners are displayed at various crowded places in and around renowned Puja pandals as well as near schools and hospitals for creating awareness among general public. Apart from this, the members of puja organisers and NGOs distributed leaflets on noise pollution for public awareness.

The WBPCB has taken a major step to redress the noise and other pollution related problems of the people in the State through the nodal network that has been set up in the Board as well as in the Police departments. The nodal network comprises one official of the WBPCB and one official of the Police (Kolkata Police and West Bengal Police as applicable) to enhance interdepartmental coordination in Kolkata and districts.

The Board identified a total of 187 Barowaries/Puja Committees violated the provisions laid down under the Noise Pollution (Regulation and Control) Rules 2000 and its subsequent amendments as well as orders of Hon'ble Calcutta High Court. Out of these 187 violators, 87 Barowaries/Puja Committees appeared before the Board and submitted a written undertaking that they would abide by all the rules and regulations on noise pollution. Subsequently, the 100 number of puja committes were directed to submit pollution cost to the tune of Rs. 2000/- (Rupees two thousand) only each to be donated to any Voluntary Organisation and submit the compliance report to the Board. Finally, State Board issued direction to respective Police Stations under their jurisdictions not to issue necessary permission to 86 number of Puja committees/ Barowaries for organising Puja in 2007.

This year several hybrid type fireworks having both light emitting and sound emitting capabilities were available in the market. The joint raids with police were conducted prior to Kali puja festival at various storing and selling places of fireworks in and around Kolkata including two magazines at Barasat and uluberia. The information received regarding the seizer of prohibited fireworks, number of arrests and number of cases registered from police departments are summarised and furnished at Table-III.

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Table-I
Comparison of Noise Level in a normal day with Kalipuja day in 2007

Location	Noise Level in dB_{Leq}		
	Normal Day (before kali puja)	Kali Puja Day	% Increase
Salt Lake- Sector-III	60	65	8
Lake Town- B Block	67	76	13
Kankurgachi-Scheme VIIIM	64	67	4
Beliaghata CIT Building	70	68	-3
Behala- Biren Roy Road	74	75	1
Minto Park- Sarat Bose Road	74	79	7
Kalakar Street- Burrabazer	72	77	7
Jadavpur 8B Bus Terminus	74	79	7
Rabindra Sarani- Ganesh Takie	70	74	6
Talapark- Belgachia	62	68	10
Howrah Maidan	69	78	13
Kadamtala	71	78	10
Mandirtala	75	74	-1
Baranagar	69	80	16
Nagerbazer	68	80	18
Baguihati-Jagra	57	64	12
Kasba-Bosepukur	77	79	2
Ballygunge Place	64	75	17
Tollygunge-Golf Club Road	72	74	3
New Alipur B-Block	70	68	-3

Table-II
Comparison of Noise Level in Kalipuja Day during 2006 & 2007

Location	Noise Level in dB_{Leq}		
	2006	2007	% Increase
Salt Lake- Sector-III	69	65	-6
Lake Town- B Block	70	76	8
Kankurgachi-Scheme VIIM	73	67	-8
Beliaghata CIT Building	72	68	-5
Behala- Biren Roy Road	78	75	-4
Minto Park- Sarat Bose Road	76	79	4
Kalakar Street- Burrabazer	78	77	-1
Jadavpur 8B Bus Terminus	78	79	1
Rabindra Sarani- Ganesh Takie	78	74	-5
Talapark- Belgachia	70	68	-3
Howrah Maidan	76	78	3
Kadamtala	75	78	4
Mandirtala	77	74	-4
Baranagar	72	80	11
Nagerbazer	73	80	9
Baguihati-Jagra	68	64	-6
Kasba-Bosepukur	77	79	2
Ballygunge Place	76	75	-1
Tollygunge-Golf Club Road	70	74	6
New Alipur B-Block	75	68	-9

Table-III**District wise information of seizure and arrest against the use, sale and storage of banned crackers received from West Bengal Police and Kolkata Police authorities**

Name of Districts	Seizure	Arrest	Cases registered
South 24 Parganas	440 Kgs 30grms & 20965pcs of Crackers	56	22
North 24 Parganas	1093 Kg of Crackers	25	05
Nadia	87Kg, 395 packets & 494pcs of Crackers	13	Nil
Howrah	782 Kg & 41966 pcs of Crackers	51	14
Murshidabad	Nil	Nil	Nil
Hooghly	2935 Kg of Crackers	Nil	Nil
Burdwan	10Kgs & 2692 packets of Crackers	45	01
Birbhum	05Kgs of Crackers worth of Rs. 800/-	01	Nil
Bankura	Nil	Nil	Nil
Purulia	Crackers worth of Rs. 35,675/-	05	05
Purba Medinipur	Crackers worth of Rs. 6237/-	03	02
Paschim Medinipur	88 Kg & 40 packets of Crackers	07	01
Malda	Nil	Nil	Nil
Jalpaiguri	Nil	Nil	Nil
Coochbehar	152 packets of Crackers	01	01
Darjeeling	4800 packets of Crackers worth of Rs. 1,21,000/-	Nil	Nil
Uttar Dianjpur	04 Kg & 65 packets of crackers worth of Rs. 13000/-	02	02
Dakshin Dinajpur	Nil	Nil	Nil
Kolkata Police area	6102.3 Kgs of Crackers	76	65