

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA
Original Application NO. 218 OF 2024 / EZB**

Sanjay Kumar Nayak

...Applicant

VERSUS

State of Odisha & Others

...Respondents

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4.	Photocopy of the letter No. 18896 dtd.30.11.2023 forwarding the report for the year 2023. (ANNEXURE – R3/3 Colly)	
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SPCB Odisha, R.No.3

Kolkata

Through

Date:

Sri Dipanjan Ghosh,
Advocates for the Respondent No.3
(State Pollution Control Board, Odisha)
e-mail: dpnjnghsh0@gmail.com
Phone No.:9903080977

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REPLY AFFIDAVIT ON BEHALF OF STATE
POLLUTION CONTROL BOARD, ODISHA,
R.NO. 3.

I, Dr. Kailasam Murugesan, IFS, son of late
Paramasivam Kailasam aged around 56 years, at present
working as Member Secretary, State Pollution Control Board,
having my office at Paribesh Bhawan, A/118, Nilakantha
Nagar, Unit-VIII, P.O. Nayapalli, Bhubaneswar, Dist – Khurda,
Odisha-751012, do hereby solemnly affirm and state as under:

1. That I am the Member Secretary of the Respondent No.3
Board and, as such, am well-acquainted with the facts



03 FEB 2025



and circumstances with the case and competent to swear this affidavit.

2. That I have gone through the OA and understood the contents thereof.
3. That this OA has been filed mainly with a prayer for issuance of direction to the State to produce the records of action taken so as to enforce the direction of Hon'ble Supreme Court of India and Hon'ble NGT in respect of use of fire crackers in the State. A prayer has also been made for issuance of appropriate direction to the R-3 Board for a report on the air quality and sound pollution in the State due to use of crackers on different occasions and action plan to combat the Air and Noise Pollution.

The para wise reply of the OA under the heading Brief Facts are given below:

4. That as regards the averments made in para-1 to 2 are concerned the R-3 Board has no comments to offer since the same are not relating to the R-3 Board.



5. That as regards the averments made in para-3 of the OA the R-3 Board as proactive measures every year has taken the following actions:

- i. In the year 2023, public notices were displayed in two Odia & one English dailies and in the year 2024 public notices were published in one English & one Odia dailies on adverse effects of noise and bursting of fire crackers. A copy of the public notice published on 14.10.2023 in the English daily, The Times of India is annexed to this affidavit and marked as **ANNEXURE-R3/1**.
- ii. The R-3 Board issued letter to all Collector & District Magistrates / Superintendent of Police vide letter No.3132 dtd.02.03.2021 for implementation of Noise Rules for maintenance of ambient air quality standard with respect to Noise. A copy of the letter dtd.02.03.2021 is annexed to this affidavit and marked as **ANNEXURE – R3/2**.



iii. As per CPCB direction in compliance to Hon'ble Supreme Court of India order on dtd.18.07.2005, every year SPCB is conducted Ambient Noise and Ambient Air Quality Monitoring on eve of Deepawali to see the impact of bursting of firecrackers, on noise as well as on air quality. The monitoring results are submitted to CPCB to place before Hon'ble Supreme Court of India. The report for the year 2023 forwarded to the CPCB vide Board's letter No. 18896 dtd.30.11.2023 is annexed to this affidavit and marked as ANNEXURE – R3/3 Colly and the report for the year 2024 forwarded to the CPCB vide Board's letter No.56 dtd.02.01.2025 is annexed to this affidavit and marked as ANNEXURE – R3/4 Colly.

iv. Ambient Air Quality parameters like SO₂, NO₂, PM₁₀ and PM_{2.5} were monitored by the R. No. 3 Board continuously from 5th to 19th November in the year 2023 at 40 locations in 17 towns/cities and 24th October to 7th November in the year 2024 at 45 locations in 19 towns/cities in state of Odisha during



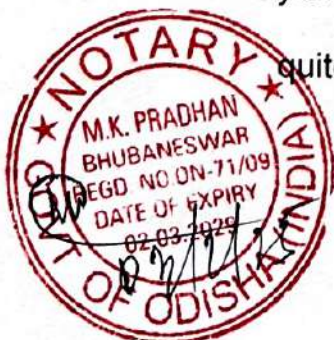
Deepawali period. From the result, it was well observed that so far as the parameter of SO₂ & NO₂ concentrations are concerned it reveals both are quite below the 24-Hr prescribed limit i.e. 80µg/m³. So they have no impact on human health. The comparative results of the above referred parameters for the year 2023 and 2024 are stated bellow:

Range of SO₂ & NO₂ on the day of Deepawali

Year	SO ₂ µg/m ³	NO ₂ µg/m ³
	Range on the Day of Deepawali	
2023	BDL-31.8	11.2-45.3
2024	BDL-34.3	9.2-41.5
24 hourly Standard for both SO ₂ & NO ₂ - 80µg/m ³		

(*BDL :- Below Detection Limit)

However, the Particulate matter of size less than equal to 10µ(PM₁₀) and size less than equal to 2.5 µ (PM_{2.5}) are exceeded the 24-Hr prescribed limit of 100 µg/m³ for PM₁₀ and 60 µg/m³ for PM_{2.5} on the day of Deepawali in the both the year 2023 & 2024. But the concentration in the year 2024 is quite less as comparison to the year 2023 due to large bursting



of Green Crackers over the normal crackers. The comparative range of PM₁₀ & PM_{2.5} on the day of Deepawali of the year 2023 and 2024 is stated below:

Range of PM₁₀ & PM_{2.5} on the day of Deepawali

Year	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³
	Range on the Day of Deepawali	
2023	138-428	42-232
2024	88-274	39-118
24 hourly Standard	100 µg/m ³	60 µg/m ³

- v. Similarly Ambient Noise level was measured at 53 locations in 14 cities/ towns in Odisha in the year - 2023 and at 56 locations in 15 cities/towns in the year 2024. During day and night time in four zone i.e (i) Residential (ii) Commercial (iii) Industrial (iv) Silence zone. From the result it is reveal that there is no such high deviation from their respective standards occurred due to bursting of fire crackers. The details are stated bellow.



Range of Noise level on the day of Deepawali in the year-2023

Zones	Day time	Standard	Night time	standard
Residential	58-82.1	55	47.9-76.1	45
Commercial	65.8-83.7	65	58.8-79.1	55
Industrial	65.3-74.3	75	57.2-79.4	70
Silence	52.4-75.2	50	49.0-76.3	40

Range of Noise level on the day of Deepawali in the year-2024

Zones	Day time	Standard	Night time	standard
Residential	56.3-79.6	55	46.8-80.6	45
Commercial	62.5-81.3	65	54.1-90.3	55
Industrial	54.9-79.6	75	49.9-80.2	70
Silence	45.1-79.9	50	38.3-80.7	40

6. That as regards the averments made in para-4 to 5 are concerned the R-3 Board has no comments to offer since the same are not relating to the R-3 Board.
7. That as regards the averments made in para-6 of the OA it is humbly submitted that the R-3 Board does not have any information relating to the storage of the fire cracker at Puri town nor the district administration, Puri had



provided any information regarding the matter. The State Govt. in the Forest & Env. Department vide their Notification published in Odisha Gazettee No.290 dtd.02.03.2002 in exercise of power conferred by Clause-© of rule-2 of the Noise Pollution (Regulation & Control) Rules, 2000 designate the District Magistrate, Addl. District Magistrate, Sub-Divisional Magistrate, Superintendent of Police, Addl. Superintendent Police, Deputy Superintendent of Police and the Sub-Divisional Police Officers of the concerned districts and sub-divisions respectively as the Authority for maintenance of Ambient Air Quality standards in respect of noise. Hence, the District Administration and the Police Personnel of the State are the Authority to enforce the Noise Rules, 2000. A copy of the Notification published in Odisha Gazettee No.290 dtd.02.03.2002 is annexed to this affidavit and marked as **ANNEXURE- R3/5**.



8. That as regards the averments made in para-7 of the OA, it is humbly submitted that the same is not pertaining to the R-3 Board and hence no comments.

9. That as regards the averments made in para-8 of the OA, it is humbly submitted that as per the information received from the Regional Officer, Berhampur of the R-3 Board, no fire cracker manufacturing unit is operational in the district of Ganjam, Odisha and the concerned authorities designated to maintain the Ambient Air Quality standard in respect of noise have not informed the R-3 Board regarding illegal manufacturing of fire crackers in the district of Ganjam and also no sought for any technical support from the Board during any festive season in recent past.
10. That as regards the averments made in para-9 of the OA, it is humbly submitted that since the allegation is not pertaining to the R-3 Board, it needs no comments.
11. That as regards the averments made in para-10 of the OA, it is humbly submitted that as per the standards prescribed by the Central Pollution Control Board (National Ambient Air Quality Standards), concentrations of PM10 and PM2.5 are reported as 24-hr average and



annual average. During Diwali 2023, 24-hr average values of PM10 and PM2.5 were reported to be 301 $\mu\text{g}/\text{m}^3$ and 272 $\mu\text{g}/\text{m}^3$ respectively at the Continuous Ambient Air Quality Monitoring Station (CAAQMS) operating near the Lingaraj Temple, Bhubaneswar against the prescribed standard of 100 $\mu\text{g}/\text{m}^3$ and 60 $\mu\text{g}/\text{m}^3$. However, it is a fact that the CAAQMS records 1-hr average values of PM10 and PM2.5, and the day average is calculated by taking an average of 24 values. It is a fact that PM10 showed beyond 900 $\mu\text{g}/\text{m}^3$ at 9 PM and 10 PM (peak of cracker busting time) on Diwali 2023 though the day average value was recorded 301 $\mu\text{g}/\text{m}^3$. However, post-Diwali data revealed a decline in particulate matter concentration in Bhubaneswar. The 24-hour average concentration of PM10 and PM2.5 in pre-Diwali, during Diwali and post-Diwali is listed below for reference.



Bhubaneswar (Lingaraj Temple Market Complex Station)	24-hour Average Concentration	
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
10.11.2023 (Pre-Diwali)	212	108
11.11.2023 (Pre-Diwali)	271	130
12.11.2023 (Diwali)	302	272
13.11.2023 (Post-Diwali)	288	224
14.11.2023 (Post-Diwali)	192	115

12. That as regards the averments made in para-11 of the OA, it is humbly submitted that the 7 cities mentioned in the para have been identified as Non-Attainment Cities by the Central Pollution Control Board in the State of Odisha. The bursting of fire crackers contributes air pollution temporarily and keeping this the R-3 Board has issued an Advisory Guidelines which is published widely through the newspaper. A copy of the Advisory Guidelines No.17408 dtd.29.10.2024 is annexed to this affidavit and marked as ANNEXURE- R3/6.



13. That as regards the averments made in para-12 & 13 of the OA it is humbly submitted that this aspect has already been dealt in para-5 of this present affidavit.
14. That as regards the averments made in para-14 & 15 of the OA it is humbly submitted that the R-3 Board has no comments to offer.
15. That as regards the averments made in para-16 of the OA it is humbly submitted that it is a matter of record and the R-3 Board has no comments to offer.
16. That as regards the averments made in para-17 of the OA it is humbly submitted that the R-3 Board is not the enforcing authority of the Noise Rules and the Orissa Fire Crackers and Loudspeakers (Regulation) Act, 1958.
17. That as regards the averments made in para-18 & 19 of the OA it is humbly submitted that the R-3 Board is monitoring the Ambient Air Quality of the noise during Deepavali and Dusshera and submitting the reports to



CPCB, which has been narrated in para-5 of this present affidavit and copy of the reports for the year 2023 and 2024 have also been annexed thereto as Annexure – R3/3 Colly and R3/4 Colly respectively.

18. That the Respondent No.3 Board craves the leave of this Hon'ble Tribunal to file further affidavit if necessary for effective adjudication of this case.
19. That the annexures annexed to the present affidavit are true and correct copies of their originals.
20. That the contents of the above paragraphs are true and correct to the best of my knowledge, as derived from the official records, and that nothing material has been concealed therefrom.




DEPONENT
Member Secretary
State Pollution Control Board
Odisha, Bhubaneswar

MANJULA KUMAR PRADHAN
NOTARY PUBLIC
BHUBANESWAR
REGD NO ON-71/2009
PH -9437627119 (M)

[Handwritten signature]

VERIFICATION:

I, the above named deponent, do hereby verify that the contents of the above affidavit are true and correct to the best of my knowledge, as derived from official records, and that nothing material has been concealed therefrom.

Verified at Bhubaneswar on this the 3rd day of February, 2025.

SWORN BEFORE ME

[Handwritten signature]
DEPONENT
Member Secretary
State Pollution Control Board
Odisha, Bhubaneswar



MANJULA KUMAR PRADHAN
NOTARY PUBLIC
BHUBANESWAR
REGD NO ON-71/2009
PH -9437627119 (M)

[Handwritten signature]

1747

ANNEXURE-R3/1

CAD-3605

SPARE: 202009
TBU: 202009201000
E-mail: pccbc@odisha.gov.in
Website: www.odisha.gov.in



STATE POLLUTION CONTROL BOARD, ODISHA

(FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT GOVERNMENT OF ODISHA)
Parabesh Bhawan, A-118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012

No. 16204/ VI-SC(LEM)Pro].08/2023-24

Date: 13.10.2023

PUBLIC NOTICE

It is informed to all concerned that high levels of noise produced from the loud speakers or sound producing instruments or a musical instrument or sound amplifier during festive occasion not only cause annoyance but also cause health hazard. Further bursting of sound producing fire crackers is also a major environmental concern and poses not only fire and explosion but also health hazard due to emission of particulate matters, toxic gas and high level of noise. Hon'ble Supreme Court of India in Writ Petition No. 72/1998 and in Civil Appeal No. 3735/2006 have passed orders on 18-07-2005 on implementation of laws for restricting bursting of fire crackers, use of loud speakers and high volume producing sound systems. It is therefore requested to celebrate the ensuing festive occasion Deepavali more responsibly with a special concern for the children, elders and sick persons and well-being of public and environment by adhering of the following:

- Uses of loud speaker or a public address system or any sound producing instrument or a musical instrument or an amplifier producing sound are prohibited during night time i.e., 10.00 PM to 6.00 A.M. Further sound emitting fire crackers shall not be burst during night time.
- Sound emitting fire crackers shall not be burst in silence zone such as area comprising not less than 100 meters around hospitals, educational institutions, courts, religion places etc. as declared by the competent authority.
- Bursting of fire crackers should be restricted to open areas only.
- The manufacture, sale or use of fire crackers generating noise level exceeding 125 dB (A) are prohibited.
- As per the direction of the Hon'ble High Court, Odisha in Miso. Case No. 60/2008, the sound producing instruments using amplifiers along with some boxes and various musical instruments as well as DJs shall install sound limiters connected to the amplifiers so that the sound produced by such amplifiers should not exceed 85 dB (A).
- Any non-compliance to the above will attract penal provision of Orissa Fire Crackers & Loud Speakers (Regulation) Act, 1958 and Noise Pollution (Regulation and Control) Rules, 2000.
- Any complaint in this regard may be filed with the District Magistrate, ADM, SDM, SP, ASP, DSP & SDPO of the concerned district and sub-division.

**LET US CELEBRATE A SAFE AND POLLUTION FREE
DUSHERA AND DEEPAVALI.**

P-6

The Times of India 21/10/23 Member Secretary

SD/-
OFR-08012/1591723-24

Central Library
S.P.C. Board
A/118, Nilakantha Nagar
Unit-VIII, Bhubaneswar-12

ANNEXURE-R3/2



STATE POLLUTION CONTROL BOARD, ODISHA

(DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA)

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit - VIII

Bhubaneswar - 751 012, INDIA

No. 3132

IND-IV-SW-1410 Dt. 02.03.2021

By Speed Post/E-mail

To

All Collector & District Magistrates / Superintendents of Police

Sub: Implementation of Noise Rules for maintenance of ambient air quality standards with respect to noise.

Sir,

In inviting a reference to the above cited subject this is to intimate that during the 2nd Meeting of Environment Monitoring Cell held on 19.02.2021, Chief Secretary expressed his displeasure regarding noise menace prevalent in different areas of the State. It may be mentioned here that State Govt. in F&E Deptt. vide Notification No. 2849, dt. 12.02.2002 has designated District Magistrates, Superintendents of Police and other functionaries to be the prescribed authorities for maintenance of ambient air quality standards in respect of noise in their respective jurisdiction. But it has been observed that some times high volume music system including DJ systems etc. are played which is unbearable and no proper action is being taken in controlling the noise. Such inaction results in increase in public resentment day by day. It may be mentioned here that excessive noise causes adverse impact on health of elderly people, sick as well as children.

It is therefore requested that proper action may please be taken at your level including insuance of suitable instruction to the field level functionaries to be more alert and effective for control of noise caused during marriage processions, religious functions, cultural programmes as well as public meetings etc. held in their jurisdiction. Several advisories have been issued by the Govt. for enforcement of noise pollution control rules in respective jurisdiction which may be scrupulously followed. Further, playing of loudspeaker with sound level more than 65 decibel should not be allowed. Without approval from concerned police station, no one can use loud speakers / DJ systems. Audio system with sound limiter shall only be allowed. Punitive action as per law may be taken which would act as a deterrent against the violators.

Action taken in this regard may please be intimated within 4 weeks for kind appraisal of the Chief Secretary.

Yours faithfully,

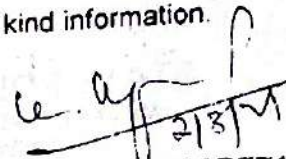


MEMBER SECRETARY

P.T.O.

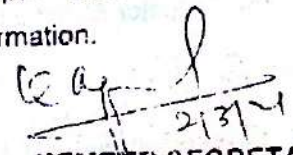
Memo No. 3133 / Dt. 02.03.2021 /

Copy forwarded to the Chief Secretary, Govt. of Odisha for kind information.


MEMBER SECRETARY

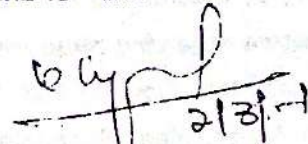
Memo No. 3134 / Dt. 02.03.2021 /

Copy forwarded to the Addl. Chief Secretary, F&E Deptt. Govt. of Odisha, /
Addl. Chief Secretary, Home Deptt. Govt. of Odisha for kind information.


MEMBER SECRETARY

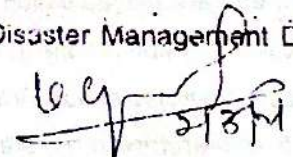
Memo No. 3135 / Dt. 02.03.2021 /

Copy forwarded to the Director General of Police, Odisha for kind information and
necessary action.


MEMBER SECRETARY

Memo No. 3136 / Dt. 02.03.2021 /

Copy forwarded to the Pncipal Secretary, Revenue & Disaster Management Dept.
for kind information and necessary action.


MEMBER SECRETARY



TEL : 2564033/2563294
 EPABX : 2561909/2562847
 E-mail : paribesh1@ospboard.org
 Website : www.ospcbboard.org

STATE POLLUTION CONTROL BOARD, ODISHA

[FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,

Bhubaneswar - 751 012

VI-SC (LEM) Proj - 96 /23-24

Date 30/11/2023

No. 18896

By mail: krishnacpcb@yahoo.co.in / sks.cpcb@nic.in

To

Sri S.K Sharma,
 Addl. Director & DH-Air Laboratory,
 Central Pollution Control Board,
 Parivesh Bhawan, East Arjun Nagar,
 Delhi-110032

Sub: **Special Monitoring of Ambient air and Noise level during Deepawali Festival, 2023**

Ref.- CPCB Letter No.LB-11/5/2021-AIR_LAB-HO-CPCB-HO-5299, dt.17.10.2023

Sir,

With reference to the above, enclosed please find herewith the ambient air quality monitoring data of 17 cities/towns of 40 monitoring locations and noise monitoring data of 14 cities/towns in 53 monitoring locations of Odisha from November 5th to 19th, 2023 during Deepawali festival. The noise level monitoring was conducted on the pre - Deepawali day on 6th November, 2023 and Deepawali day on 12th November, 2023. The results are furnished as per the CPCB format.

Yours faithfully,

Encl.- As above

W. Walli (M) 30/11/23
 Chief. Env. Scientist (L)

Memo No. 18897 / Dt. 30/11/2023

Copy along with above mentioned monitoring data forwarded to the Director, Environment-cum-Special Secretary to Govt., Forest, Environment & Climate Change Dept., Govt. Of Odisha, Bhubaneswar for kind information and necessary action

Encl.- As above

W. Walli (M) 30/11/23
 Chief. Env. Scientist (L)

Memo No. 18898 / Dt. 30/11/2023

Copy forwarded to the Sr. Law. Officer- L (II) SPC Board, Odisha for information and requested to submit a copy of the report to the Hon'ble Supreme Court as per the instruction of CPCB.

Encl.- As above

W. Walli (M) 30/11/23
 Chief Env. Scientist (L)



Report on Status of Ambient Noise Level and Ambient Air Quality during Dasshera & Deepawali-2023



State Pollution Control Board, Odisha has taken pro-active measures to notify public notices in English and Odia (regional / vernacular) newspapers on 14.10.2023 (Pre-Dasshera) & on 11.11.2023 (Pre-Deepawali) to create public awareness on ill effects of noise and bursting of fire crackers. Copies of the public notices are enclosed as annexures I, II, III & IV.

To assess the impact of Dasshera and Deepawali on ambient air quality, the Board has conducted monitoring of Noise Level on pre, during and post Dasshera and Deepawali at 14 towns/cities of the State as well as ambient air quality monitoring with respect to PM₁₀, PM_{2.5}, SO₂ & NO₂ in 17 towns/cities on pre, during and post Deepawali along with continuous ambient air quality monitoring at 15 cities/town in 15 locations of the state.

Monitoring results of both Dasshera and Deepawali are summarized below and presented in Tables 1 to 3. The continuous ambient air quality monitoring of pre, during & post Deepawali are shown in Table-4.

STATUS OF NOISE LEVEL DURING DASSHERA CELEBRATION:

Ambient noise level monitoring at 52 locations in 14 towns/cities, i.e. Angul, Balasore, Berhampur, Bhubaneswar, Cuttack, Jharsuguda, Kalinganagar, Keonjhar, Konark, Paradeep, Puri, Raygada, Rourkela and Sambalpur covering Industrial, Commercial, Residential and Silence zones during day and night time in pre, during and post Dasshera respectively on 18.10.2023, 24.10.2023 and 06.11.2023 to assess the impact of Dasshera festival on ambient noise level. Out of 52 locations, 10 are in Industrial and 14 each are in commercial, residential and silence zones. Monitoring results are prescribed in Tables -1 & 1(i) to 1(iv).

Ambient noise level in industrial zones mostly comply prescribed standard values though higher on the Dasshera day when it exceeded prescribed limit only at 2 locations. It was beyond limit during day and night of Dasshera only at Rasulgarh, Bhubaneswar. Maximum values of 83.1 dB(A) Leq was only at Khapuria, Cuttack during night time.

In residential zones, ambient noise level mostly did not comply prescribed standard values except at Cox-colony, Jharsuguda though the values increase on the Dasshera day. Highest values were at Surya Vihar, Cuttack during day (78.3 dB(A) Leq) and night (78.9 dB(A) Leq) on the day of Dasshera.

In commercial zone, ambient noise levels did not comply prescribed standard values except at Jhandachowk, Jharsuguda though increased during Dasshera day.

In silence zone, ambient noise levels did not comply the prescribed standard values except at Urban PHC, Jharsuguda and increase in level on the Dasshera day was also found. Maximum values at SCB Medical College & Hospital, Cuttack were 74.2 dB(A) Leq during day and 73.9 dB(A) Leq during night time on the Dasshera day.

Table-1: Ambient Noise level in dB(A) Leq at different locations on pre during and post Dasshera 2023

Sl.No.	Town/Cities	Monitoring Locations	Pre Dasshera (18.10.2023)		Dasshera (24.10.2023)		PostDasshera (06.11.2023)	
			D	N	D	N	D	N
1.	Angul	1.Amalapada(R)	56.7	47.5	63.1	47.7	65.6	61.6
		2.Bazar chhak(C)	65.4	55.4	65.0	50.2	68.8	50.3
		3.District Head Quarter Hospital(S)	59.2	51.0	60.4	46.8	64.8	62.8
		4.Hakimpada(I)	61.7	53.6	62.3	54.5	60.0	61.7
2.	Balasore	5.Sahadevkhunta(R)	57.3	44.8	60.9	50.6	61.1	45.4
		6.Motiganj Bazar(C)	64.3	59.0	73.3	67.7	69.5	61.4
		7.District Head Quarter Hospital(S)	57.4	47.1	57.2	56.8	57.2	42.9
		8.Balasore Industrial Estate(I)	62.5	45.9	60.7	50.3	54.8	39.0
3.	Berhampur	9.Brahmanagar(R)	65.6	52.9	65.5	55.4	70.5	69.0
		10.Girija market square(C)	76.0	60.6	76.8	65.3	84.6	79.7
		11.MKCG Medical & Hospital(S)	59.1	46.9	63.8	48.3	70.7	69.4
		12.Ankuli(I)	56.7	45.8	53.8	50.2	69.9	60.5
4.	Bhubaneswar	13.Nayapalli(R)	55.9	51.9	71.2	66.8	57.4	51.2
		14.Sahidnagar(C)	66.5	58.7	77.1	62.1	66.0	53.2
		15.Capital Hospital(S)	58.8	44.6	62.5	62.4	51.7	44.9
		16.Rasulgarh(I)	63.6	52.3	79.0	71.4	66.4	53.5
5.	Cuttack	17.Suryavihar(R)	63.8	69.7	78.3	78.9	68.8	60.8
		18.Badambadi(C)	69.2	65.4	77.1	72.7	70.6	62.4
		19.SCB Medical College & Hospital(S)	68.4	65.1	74.2	73.9	64.2	66.1
		20.Khapuria(I)	61.0	72.4	74.5	83.1	70.4	65.4
6.	Jharsuguda	21.Cox Colony(R)	51.9	42.2	53.5	44.1	47.9	39.5
		22.Jhanda Chowk(C)	62.3	51.4	63.3	53.9	56.0	51.3
		23. Urban PHC ,Mangalbazar (S)	47.7	38.3	47.6	38.9	45.5	33.5
		24.Bombay Chowk(I)	70.8	66.6	72.6	68.7	55.1	54.5
7.	Kalinganagar	25.Sapagadia(R)	62.9	59.4	66.4	64.1	71.4	67.1
		26.Gopabandhu Chowk(C)	72.9	68.9	75.0	73.5	71.9	70.9
		27.CHC Hospital, Jajpur Road(S)	62.2	58.5	62.9	69.7	58.7	64.5
		28.Kalinganagar Industrial Complex (I)	74.1	73.3	72.6	75.6	73.9	68.8
8.	Keonjhar	29.Baniapat Chowk(R)	66.9	52.8	68.2	57.6	70.0	54.9
		30.Punjabi Chowk(C)	75.2	55.7	79.0	58.4	71.2	61.8
		31. District Head Quarter Hospital (S)	64.3	47.2	63.7	50.1	61.3	46.9
9.	Konark	32.Madhipur(R)	57.7	47.2	58.3	52.8	56.8	52.6
		33.NAC Market(c)	60.8	51.3	67.7	52.8	65.0	54.7
		34.Public Health Centre(S)	53.4	46.2	57.5	49.0	46.5	41.7
10.	Paradeep	35.Near Police Colony(R)	52.4	51.8	54.5	56.7	61.9	51.5
		36.LIC Building Jagatsinghpur(C)	58.4	58.0	72.6	64.2	64.9	56.0
		37.District Head Quarter Hospital(S)	54.7	49.8	59.4	50.3	55.1	50.9
11.	Puri	38.Kumutisahi, Old Sadar lane(R)	52.2	49.2	70.3	57.9	66.8	59.4
		39.Gundica Mandir, Bus Stand(C)	65.1	54.1	68.8	60.8	74.3	65.0
		40.District Head Quarter Hospital(S)	50.9	45.3	55.8	45.2	60.3	56.6
12.	Rayagada	41.Indira Nagar(R)	69.8	58.5	64.7	65.6	68.6	54.6
		42.Near Main Market(C)	67.9	65.4	66.8	67.0	74.5	62.6
		43. District Head Quarter Hospital (S)	63.8	61.8	63.1	52.4	64.4	56.2
		44.Near Jesco(I)	67.8	61.0	66.1	57.7	70.4	56.5
13.	Rourkela	45.Sector-6(R)	61.9	49.7	64.4	65.5	52.3	52.4
		46.Amwargan(C)	74.8	61.5	74.5	73.7	69.5	65.9
		47.IGH steel Township(S)	47.3	51.1	51.8	52.7	52.6	43.2
		48.RSPL Sail(I)	75.7	77.7	59.4	61.4	72.1	72.7
14.	Sambalpur	49.Ainthapali(R)	52.1	44.9	49.8	49.3	53.8	49.0
		50.Golebazar(C)	70.1	55.0	72.8	61.9	70.7	78.2
		51.District Head Quarter Hospital(S)	52.5	40.0	53.0	44.7	50.9	46.0
		52.Bareipali(I)	59.6	54.1	51.8	45.1	58.8	50.3

Prescribed Standards (In Leq dB(A))

Category of area / zone	Day Time (6AM to 10PM)	Night Time (10PM to 6AM)
Industrial zone (I)	75	70
Commercial zone (C)	65	55
Residential zone (R)	55	45
Silence zone (S)	50	40

Table-1(i) Residential Zones

Ambient Noise level in dB(A) Leq at different locations on pre during and post Dasshera 2023								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Dasshera (18.10.2023)		Dasshera (24.10.2023)		PostDasshera (06.11.2023)	
			D	N	D	N	D	N
1.	Angul	Amalapada(R)	56.7	47.5	63.1	47.7	65.6	61.6
2.	Balasore	Sahadevkhunta(R)	57.3	44.8	60.9	50.6	61.1	45.4
3.	Berhampur	Brahmanagar(R)	65.6	52.9	65.5	55.4	70.5	69.0
4.	Bhubaneswar	Nayapalli(R)	55.9	51.9	71.2	66.8	57.4	51.2
5.	Cuttack	Suryavihar(R)	63.8	69.7	78.3	78.9	68.8	60.8
6.	Jharsuguda	Cox Colony(R)	51.9	42.2	53.5	44.1	47.9	39.5
7.	Kalinganagar	Sapagadia(R)	62.9	59.4	66.4	64.1	71.4	67.1
8.	Keonjhar	BaniapatChowk(R)	66.9	52.8	68.2	57.6	70.0	54.9
9.	Konark	Madhipur(R)	57.7	47.2	58.3	52.8	56.8	52.6
10.	Paradeep	Near Police Colony(R)	52.4	51.8	54.5	56.7	61.9	51.5
11.	Puri	Kumutisahi, Old Sadar lane(R)	52.2	49.2	70.3	57.9	66.8	59.4
12.	Rayagada	Indira Nagar(R)	69.8	58.5	64.7	65.6	68.6	54.6
13.	Rourkela	Sector-6(R)	61.9	49.7	64.4	65.5	52.3	52.4
14.	Sambalpur	Ainthapali(R)	52.1	44.9	49.8	49.3	53.8	49.0
Prescribed Standard (In Leq dB(A))			55	45	55	45	55	45

Table-1(ii) Commercial Zones

Ambient Noise level in dB(A) Leq at different locations on pre during and post Dasshera 2023								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Dasshera (18.10.2023)		Dasshera (24.10.2023)		PostDasshera (06.11.2023)	
			D	N	D	N	D	N
1.	Angul	Bazar chhak(C)	65.4	55.4	65.0	50.2	68.8	50.3
2.	Balasore	Motiganj Bazar(C)	64.3	59.0	73.3	67.7	69.5	61.4
3.	Berhampur	Girija market square(C)	76.0	60.6	76.8	65.3	84.6	79.7
4.	Bhubaneswar	Sahidnagar(C)	66.5	58.7	77.1	62.1	66.0	53.2
5.	Cuttack	Badambadi(C)	69.2	65.4	77.1	72.7	70.6	62.4
6.	Jharsuguda	JhandaChowk(C)	62.3	51.4	63.3	53.9	56.0	51.3
7.	Kalinganagar	GopabandhuChowk(C)	72.9	68.9	75.0	73.5	71.9	70.9
8.	Keonjhar	Punjabi Chowk(C)	75.2	55.7	79.0	58.4	71.2	61.8
9.	Konark	NAC Market(C)	60.8	51.3	67.7	52.8	65.0	54.7
10.	Paradeep	LIC Building Jagatsinghpur(C)	58.4	58.0	72.6	64.2	64.9	56.0
11.	Puri	GundicaMandir, Bus Stand(C)	65.1	54.1	68.8	60.8	74.3	65.0
12.	Rayagada	Near Main Market(C)	67.9	65.4	66.8	67.0	74.5	62.6
13.	Rourkela	Amwargan(C)	74.8	61.5	74.5	73.7	69.5	65.9
14.	Sambalpur	Golebazar(C)	70.1	55.0	72.8	61.9	70.7	78.2
Prescribed Standard (In Leq dB(A))			65	55	65	55	65	55

Table-1(iii) Silence Zones

Ambient Noise level in dB(A) Leq at different locations on pre during and post Dasshera 2023								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Dasshera (18.10.2023)		Dasshera (24.10.2023)		PostDasshera (06.11.2023)	
			D	N	D	N	D	N
1.	Angul	District Head Quarter Hospital(S)	59.2	51.0	60.4	46.8	64.8	62.8
2.	Balasore	District Head Quarter Hospital(S)	57.4	47.1	57.2	56.8	57.2	42.9
3.	Berhampur	MKCG Medical & Hospital(S)	59.1	46.9	63.8	48.3	70.7	69.4
4.	Bhubaneswar	Capital Hospital(S)	58.8	44.6	62.5	62.4	51.7	44.9
5.	Cuttack	SCB Medical College & Hospital(S)	68.4	65.1	74.2	73.9	64.2	66.1
6.	Jharsuguda	Urban PHC ,Mangalbazar (S)	47.7	38.3	47.6	38.9	45.5	33.5
7.	Kalinganagar	CHC Hospital, Jajpur Road(S)	62.2	58.5	62.9	69.7	58.7	64.5
8.	Keonjhar	District Head Quarter Hospital (S)	64.3	47.2	63.7	50.1	61.3	46.9
9.	Konark	Public Health Centre(S)	53.4	46.2	57.5	49.0	46.5	41.7
10.	Paradeep	District Head Quarter Hospital(S)	54.7	49.8	59.4	50.3	55.1	50.9
11.	Puri	District Head Quarter Hospital(S)	50.9	45.3	55.8	45.2	60.3	56.6
12.	Rayagada	District Head Quarter Hospital (S)	63.8	61.8	63.1	52.4	64.4	56.2
13.	Rourkela	IGH steel Township(S)	47.3	51.1	51.8	52.7	52.6	43.2
14.	Sambalpur	District Head Quarter Hospital(S)	52.5	40.0	53.0	44.7	50.9	46.0
Prescribed Standard (In Leq dB(A))			50	40	50	40	50	40

Table-1(iv) Industrial Zones

Ambient Noise level in dB(A) Leq at different locations on pre during and post Dasshera 2023								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Dasshera (18.10.2023)		Dasshera (24.10.2023)		PostDasshera (06.11.2023)	
			D	N	D	N	D	N
1.	Angul	Hakimpada(I)	61.7	53.6	62.3	54.5	60.0	61.7
2.	Balasore	Balasore Industrial Estate(I)	62.5	45.9	60.7	50.3	54.8	39.0
3.	Berhampur	Ankuli(I)	56.7	45.8	53.8	50.2	69.9	60.5
4.	Bhubaneswar	Rasulgarh(I)	63.6	52.3	79.0	71.4	66.4	53.5
5.	Cuttack	Khapuria(I)	61.0	72.4	74.5	83.1	70.4	65.4
6.	Jharsuguda	Bombay Chowk(I)	70.8	66.6	72.6	68.7	55.1	54.5
7.	Kalinganagar	Kalinganagar Industrial Complex (I)	74.1	73.3	72.6	75.6	73.9	68.8
8.	Rayagada	Near Jesco(I)	67.8	61.0	66.1	57.7	70.4	56.5
9.	Rourkela	RSPL Sail(I)	75.7	77.7	59.4	61.4	72.1	72.7
10.	Sambalpur	Bareipali(I)	59.6	54.1	51.8	45.1	58.8	50.3
Prescribed Standard (In Leq dB(A))			75	70	75	70	75	70

STATUS OF AMBIENT NOISE LEVEL DURING DEEPAWALI CELEBRATION

Ambient noise level monitoring at 53 locations in 14 towns/cities, i.e. Angul, Balasore, Berhampur, Bhubaneswar, Cuttack, Jharsuguda, Kalinganagar, Keonjhar, Konark, Paradeep, Puri, Rayagada, Rourkela and Sambalpur of Odisha covering Industrial, Commercial, Residential and Silence Zones were conducted in the day and night time of pre, During & Post Deepawali to assess the status of ambient noise level respectively on 06.11.2023, 12.11.2023 and 20.11.2023. Out of 53 locations, 11 locations were in Industrial zones, 14 locations were in all commercial, residential and silence zone. Monitoring results are summarized in **Tables - 2 & 2(i) to 2(iv)**.

It was observed that ambient noise level mostly does not remain in prescribed limits at Commercial, Residential and Silence zones on pre and post days and night times except in Industrial zones where noise level mostly remain within prescribed limits. On the Deepawali day, it was likewise observed that ambient noise level increased and mostly did not remain within prescribed limit values except in all industrial zones (excluding Ankuli, Berhampur in the night time).

Range of ambient noise levels observed during the Deepawali day is mentioned below for all zones. Highest values are found in Berhampur city for all zones except at SCB Medical College & Hospital in Cuttack city for Silence zone.

Zone	Range(dB(A) Leq)	Highest Value (dB(A) Leq)
Residential	47.9 - 82.2	Brahmanagar, Berhampur
Commercial	58.8–83.7	Girija Market, Berhampur
Silence	44.8-76.3	SCB MC&H, Cuttack
Industrial	57.2-79.4	Ankuli, Berhampur

Table-2: Noise level in dB(A) Leq at different locations of Odisha in Pre , During and postDeepawali 2023

Sl. No.	Towns/Cities	Monitoring Locations	Pre Deepawali (06.11.2023)		Deepawali (12.11.2023)		PostDeepawali (20.11.2023)	
			D	N	D	N	D	N
1	Angul	1.Amalapada(R)	65.6	61.6	72.7	66.9	59.6	45.7
		2.Bazar chhak(C)	68.8	50.3	75.6	66.1	67.5	52.0
		3.District Head Quarter Hospital(S)	64.8	62.8	61.9	44.8	59.3	46.8
		4.I.E., Hakimpada(I)	60.0	61.7	65.7	57.2	58.3	53.2
2	Balasore	5.Sahadevkhunta(R)	61.1	45.4	75.0	75.0	56.1	49.8
		6.Motiganj Bazar(C)	69.5	61.4	80.3	78.2	72.5	67.0
		7.District Head Quarter Hospital(S)	57.2	42.9	64.4	59.4	61.5	50.3
		8.Balasore I.E. (I)	54.8	39.0	65.7	63.7	59.8	59.4
3	Berhampur	9.Brahmanagar(R)	70.5	69.0	82.2	70.7	66.6	67.1
		10.Girija market square(C)	84.6	79.7	83.7	79.2	83.7	67.9
		11.MKCG MCH (S)	70.7	69.4	75.2	75.2	61.1	59.4
		12.Ankuli(I)	69.9	60.5	74.3	79.4	70.3	58.5
4	Bhubaneswar	13.Nayapalli(R)	57.4	51.2	72.4	64.4	63.4	46.7
		14.Sahidnagar Market area(C)	66.0	53.2	73.9	64.8	66.5	47.7
		15.Capital Hospital(S)	51.7	44.9	57.5	56.1	54.6	40.7
		16.Mancheswar,I.E(I)	66.4	53.5	72.4	67.0	67.2	46.1
5	Cuttack	17.Suryavihar(R)	68.8	60.8	70.6	68.4	71.7	71.7
		18.Badambadi(C)	70.6	62.4	76.6	74.5	73.4	69.9
		19.SCB MCH (S)	64.2	66.1	73.2	76.3	71.5	72.5
		20.I.E., Khapuria(I)	70.4	65.4	72.4	70.8	74.9	67.2
6	Jharsuguda	21.Cox colony(R)	47.9	39.5	66.9	54.6	48.3	41.4
		22.Jhanda Chowk(C)	56.0	51.3	65.8	64.5	61.4	63.0
		23.Urban PHC ,Mangalbazar(S)	45.5	33.5	66.6	63.7	47.5	35.9
		24.I.E., Bombay Chowk(I)	55.1	54.5	67.6	74.7	57.0	56.9
7	Kalinganagar	25.Sapagadia(R)	71.4	67.1	77.1	72.0	62.7	58.2
		26.Gopabandhu Chowk(C)	71.9	70.9	80.4	71.0	82.3	77.7
		27.CHC Hospital(S)	58.7	64.5	68.2	65.5	59.5	58.5
		28.Kalinga nagar industrial complex (I)	73.9	68.8	72.0	65.1	77.6	73.6
8	Keonjhar	29.Baniapat (R)	70.0	54.9	81.6	76.1	70.6	58.0
		30.Punjabi Chowk(C)	71.2	61.8	78.3	69.1	73.2	60.2
		31.DHH Hospital(S)	61.3	46.9	69.8	56.6	65.2	50.3
9	Konark	32.Madhipur(R)	56.8	52.6	58.0	54.9	51.4	42.0
		33.NAC Market(C)	65.0	54.7	71.9	64.7	63.5	54.2
		34.Public Health Centre(S)	46.5	41.7	52.4	49.8	46.2	38.8
10	Paradeep	35.Madhuban(R)	61.9	51.5	78.0	54.6	54.3	45.4
		36.Badapadia Market(C)	64.9	56.0	78.9	62.3	66.7	40.1
		37.Atharabanki Medical(S)	55.1	50.9	67.0	63.8	52.2	44.1
		38.Premises of IFFCO Ltd(I)	68.8	55.3	69.7	59.4	58.4	50.5
11	Puri	39.Kumutisahi, Old Sadar lane(R)	66.8	59.4	76.3	72.6	66.0	53.0
		40.Near GundichaMandir(Bus stand) (C)	74.3	65.0	77.3	71.4	67.0	56.0
		41.DHH(S)	60.3	56.6	73.3	67.8	62.0	50.0
12	Rayagada	42.Indiranagar(R)	68.6	54.6	69.9	56.9	65.9	44.1
		43.Main market(C)	74.5	62.6	74.9	58.8	65.6	42.3
		44.District Headquarter Hospital(S)	64.4	56.2	68.8	52.2	59.9	41.7
		45.I.E., Jesco(I)	70.4	56.5	72.4	58.1	67.1	51.0
13	Rourkela	46.Sector-6(R)	52.3	52.4	65.5	47.9	70.0	59.3
		47.Ambagaan(C)	69.5	65.9	73.3	66.4	70.3	64.4
		48.IGH steel Township(S)	52.6	43.2	61.3	50.3	46.7	43.0
		49.RSPL Premises(I)	72.1	72.7	67.8	68.2	68.7	62.6
14	Sambalpur	50.Ainthapali(R)	53.8	49.0	69.7	64.4	53.8	49.0
		51.Golebazar(C)	70.7	78.2	78.9	77.8	70.7	78.2
		52.DHH(S)	50.9	46.0	70.9	62.2	50.8	46.0
		53.I.E., Bareipali(I)	58.8	50.3	65.3	60.1	60.3	51.2

Prescribed Standards (In Leq dB(A))

Category of area / zone	Day Time (6AM to 10PM)	Night Time (10PM to 6AM)
Industrial area(I)	75	70
Commercial area(C)	65	55
Residential area(R)	55	45
Silence area(S)	50	40

Table-2(i) Residential Zones

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Ambient Noise level in dB(A) Leq at different locations on pre, during and post Deepawali for the year 2023								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Deepawali		Deepawali		Post Deepawali	
			D	N	D	N	D	N
1.	Angul	Amalapada(R)	65.6	61.6	72.7	66.9	59.6	45.7
2.	Balasore	Sahadevkhunta(R)	61.1	45.4	75.0	75.0	56.1	49.8
3.	Berhampur	Brahmanagar(R)	70.5	69.0	82.2	70.7	66.6	67.1
4.	Bhubaneswar	Nayapalli(R)	57.4	51.2	72.4	64.4	63.4	46.7
5.	Cuttack	Suryavihar(R)	68.8	60.8	70.6	68.4	71.7	71.7
6.	Jharsuguda	Cox Colony(R)	47.9	39.5	66.9	54.6	48.3	41.4
7.	Kalinganagar	Sapagadia(R)	71.4	67.1	77.1	72.0	62.7	58.2
8.	Keonjhar	BaniapatChowk(R)	70.0	54.9	81.6	76.1	70.6	58.0
9.	Konark	Madhipur(R)	56.8	52.6	58.0	54.9	51.4	42.0
10.	Paradeep	Near Police Colony(R)	61.9	51.5	78.0	54.6	54.3	45.4
11.	Puri	Kumutisahi, Old Sadar lane(R)	66.8	59.4	76.3	72.6	66.0	53.0
12.	Rayagada	Indira Nagar(R)	68.6	54.6	69.9	56.9	65.9	44.1
13.	Rourkela	Sector-6(R)	52.3	52.4	65.5	47.9	70.0	59.3
14.	Sambalpur	Ainthapali(R)	53.8	49.0	69.7	64.4	53.8	49.0
Prescribed Standard (In Leq dB(A))			55	45	55	45	55	45

Table-2(ii) Commercial Zones

Ambient Noise level in dB(A) Leq at different locations on pre during and post Deepawali for the year 2023								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Deepawali		Deepawali		Post Deepawali	
			(06.11.2023)	(06.11.2023)	(12.11.2023)	(12.11.2023)	(20.11.2023)	(20.11.2023)
1.	Angul	Bazar chhak(C)	68.8	50.3	75.6	66.1	67.5	52.0
2.	Balasore	Motiganj Bazar(C)	69.5	61.4	80.3	78.2	72.5	67.0
3.	Berhampur	Girija market square(C)	84.6	79.7	83.7	79.2	83.7	67.9
4.	Bhubaneswar	Sahidnagar(C)	66.0	53.2	73.9	64.8	66.5	47.7
5.	Cuttack	Badambadi(C)	70.6	62.4	76.6	74.5	73.4	69.9
6.	Jharsuguda	JhandaChowk(C)	56.0	51.3	65.8	64.5	61.4	63.0
7.	Kalinganagar	GopabandhuChowk(C)	71.9	70.9	80.4	71.0	82.3	77.7
8.	Keonjhar	Punjabi Chowk(C)	71.2	61.8	78.3	69.1	73.2	60.2
9.	Konark	NAC Market(C)	65.0	54.7	71.9	64.7	63.5	54.2
10.	Paradeep	Badapadia Market (C)	64.9	56.0	78.9	62.3	66.7	40.1
11.	Puri	GundicaMandir,Bus Stand(C)	74.3	65.0	77.3	71.4	67.0	56.0
12.	Rayagada	Near Main Market(C)	74.5	62.6	74.9	58.8	65.6	42.3
13.	Rourkela	Amwargan(C)	69.5	65.9	73.3	66.4	70.3	64.4
14.	Sambalpur	Golebazar(C)	70.7	78.2	78.9	77.8	70.7	78.2
Prescribed Standard (In Leq dB(A))			65	55	65	55	65	55

Table-2(iii) Silence Zones

Ambient Noise level in dB(A) Leq at different locations on pre during and post Deepawali for the year 2023								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Deepawali		Deepawali		Post Deepawali	
			(06.11.2023)	(06.11.2023)	(12.11.2023)	(12.11.2023)	(20.11.2023)	(20.11.2023)
1.	Angul	District Head Quarter Hospital(S)	64.8	62.8	61.9	44.8	59.3	46.8
2.	Balasore	District Head Quarter Hospital(S)	57.2	42.9	64.4	59.4	61.5	50.3
3.	Berhampur	MKCG Medical & Hospital(S)	70.7	69.4	75.2	75.2	61.1	59.4
4.	Bhubaneswar	Capital Hospital(S)	51.7	44.9	57.5	56.1	54.6	40.7
5.	Cuttack	SCB Medical College & Hospital(S)	64.2	66.1	73.2	76.3	71.5	72.5
6.	Jharsuguda	Urban PHC ,Mangalbazar (S)	45.5	33.5	66.6	63.7	47.5	35.9
7.	Kalinganagar	CHC Hospital, Jajpur Road(S)	58.7	64.5	68.2	65.5	59.5	58.5
8.	Keonjhar	District Head Quarter Hospital (S)	61.3	46.9	69.8	56.6	65.2	50.3
9.	Konark	Public Health Centre(S)	46.5	41.7	52.4	49.8	46.2	38.8
10.	Paradeep	Atharabanki Medical(S)	55.1	50.9	67.0	63.8	52.2	44.1
11.	Puri	District Head Quarter Hospital(S)	60.3	56.6	73.3	67.8	62.0	50.0
12.	Rayagada	District Head Quarter Hospital (S)	64.4	56.2	68.8	52.2	59.9	41.7
13.	Rourkela	IGH steel Township(S)	52.6	43.2	61.3	50.3	46.7	43.0
14.	Sambalpur	District Head Quarter Hospital(S)	50.9	46.0	70.9	62.2	50.8	46.0
Prescribed Standard (In Leq dB(A))			50	40	50	40	50	40

Table-2(iv) Industrial Zones

Ambient Noise level in dB(A) Leq at different locations on pre during and post Deepawali for the year 2023								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Deepawali		Deepawali		Post Deepawali	
			(06.11.2023)	(06.11.2023)	(12.11.2023)	(12.11.2023)	(20.11.2023)	(20.11.2023)
1.	Angul	Hakimpada(I)	60.0	61.7	65.7	57.2	58.3	53.2
2.	Balasore	Balasore Industrial Estate(I)	54.8	39.0	65.7	63.7	59.8	59.4
3.	Berhampur	Ankuli(I)	69.9	60.5	74.3	79.4	70.3	58.5
4.	Bhubaneswar	Mancheswar(I)	66.4	53.5	72.4	67.0	67.2	46.1
5.	Cuttack	Khapuria(I)	70.4	65.4	72.4	70.8	74.9	67.2
6.	Jharsuguda	Bombay Chowk(I)	55.1	54.5	67.6	74.7	57.0	56.9
7.	Kalinganagar	Kalinganagar Industrial Complex (I)	73.9	68.8	72.0	65.1	77.6	73.6
8.	Paradeep	Premises of IFFCO Ltd(I)	68.8	55.3	69.7	59.4	58.4	50.5
9.	Rayagada	I.E. Jesco(I)	70.4	56.5	72.4	58.1	67.1	51.0
10.	Rourkela	RSPL Sail(I)	72.1	72.7	67.8	68.2	68.7	62.6
11.	Sambalpur	I.E.Bareipali(I)	58.8	50.3	65.3	60.1	60.3	51.2
Prescribed Standard (In Leq dB(A))			75	70	75	70	75	70

STATUS OF AMBIENT AIR QUALITY DURING DEEPAWALI CELEBRATION

Ambient Air Quality was monitored continuously from 5th to 19th November, 2023 including pre and Deepawali days respectively on 06.11.2023 and 12.11.2023 at 40 locations in 17 towns/cities of the state, i.e. Angul, Balasore, Berhampur, Bhubaneswar, Bonaigarh, Cuttack, Jharsuguda, Kalinganagar, Keonjhar, Konark, Paradeep, Puri, Rayagada, Rajgangpur, Rourkela, Sambalpur & Talcher with respect to parameters like SO₂, NO₂, PM₁₀ & PM_{2.5} to assess the status of ambient air quality for bursting of fire crackers during the celebration.

The SO₂ & NO₂ values on pre and Deepawali days remained below their respective prescribed limits, i.e. 80 µg/m³ (on 24 hourly average basis) at all 40 locations. The respirable dust particle matters (PM₁₀) values were above the prescribed limit of 100 µg/m³ (on 24 hourly average basis) at all 40 locations on the day of Deepawali and at 30 locations on pre Deepawali day. Monitoring results are given in Table-3.

On the day of Deepawali, results of PM₁₀ and PM_{2.5} exceeded prescribed limits of 100 µg/m³ and 60 µg/m³ respectively except PM_{2.5} at few locations of (1) Govt. Hospital, Bonai; (2) IFFCO, Paradeep and (3) IDC Kalunga, Rourkela. Very high results of PM_{2.5} above 120 µg/m³ were observed at 18 locations and results at 10 locations were above 150 µg/m³ and above 180 µg/m³ at 7 locations. It is observed that PM₁₀ values of all locations mostly remain within 52-168 µg/m³ on the pre Deepawali day and during Deepawali the values at 24 locations exceeded above 200 µg/m³ and above 300 µg/m³ at 10 locations.

Table-3: AMBIENT AIR QUALITY STATUS OF MAJOR CITIES/TOWNS IN PRE & DURING DEEPAWALI FESTIVAL 2023

Sl. no.	Towns/cities	Monitoring Locations	Parameters Monitored							
			SO ₂		NO ₂		PM ₁₀		PM _{2.5}	
			Values in microgram per cubic meter							
			PRE	DURING	PRE	DURING	PRE	DURING	PRE	DURING
1	Angul	1. Ankuli I.E.	10.4	22.3	22.3	33.5	96	243	45	133
		2. Nalco Township	10.6	18.1	27.7	32.2	103	177	46	83
		3. Sikhyakapada	15.3	19.8	19.2	26.7	83	253	43	115
2	Balasore	4. Ganeswarpur	BDL	9.4	11.2	14.1	110	290	61	120
		5. Oriplast, OT Road	BDL	8.4	11.0	13.8	90	220	42	116
		6. Rasalpur. E.	8.6	10.6	12.0	17.5	115	256	65	132
3	Berhampur	7. Brahmanagar	5.1	26.7	15.5	37.3	68	410	38	223
4	Bhubaneswar	8. Unit-8, Bhubaneswar	BDL	13.6	18.3	40.7	151	428	68	232
		9. IRC Village, Nayapalli	BDL	17.8	13.9	45.3	101	192	43	79
		10. Capital P. S.	BDL	18.1	18.7	45.0	123	424	64	232
		11. Khandagiri P. S.	BDL	18.4	22.3	44.1	149	405	72	183
		12. Patia, Bhubaneswar	BDL	20.5	15.9	29.1	168	357	73	201
5	Bonaigarh	13. Palasuni water works	BDL	14.3	15.3	35.9	145	368	53	219
		14. Govt. Hospital, Bonai	10.9	17.1	13.1	20.0	120	138	40	55
6	Cuttack	15. SPCB, Suryavihar	5.3	7.6	23.0	32.3	129	360	52	147
		16. PHD office, Barabati	4.6	7.5	19.6	30.0	116	230	46	133
		17. Hotel Bishal, Badambadi	5.7	10.2	17.2	31.5	114	260	47	169
7	Jharsuguda	18. SPCB, Babubagicha	8.1	31.8	12.9	25.4	102	185	60	89
		19. TRL colony	8.9	30.7	14.3	23.0	111	180	57	82
		20. Maa Smaleswari Nagar	7.4	28.2	14.3	23.2	109	172	55	89
8	Kalinganagar	21. RO, SPCB	9.2	11.8	13.7	17.5	105	163	54	70
		22. DET Hostel	7.4	9.0	13.8	13.0	116	187	64	74
9	Keonjhar	23. RO, SPCB	BDL	5.8	11.4	21.8	110	265	55	191
10	Konark	24. Konark P.S.	BDL	8.3	12.0	28.7	67	286	37	112
11	Paradeep	25. STP Building, IFFCO	11.4	26.0	14.2	17.3	115	157	47	42
		26. PPL Guest House	18.2	23.8	20.0	10.5	119	229	45	92
		27. PPT Staff Quarters	14.9	29.4	12.7	21.7	111	276	42	118
12	Puri	28. Town Police Station	BDL	8.3	11.5	26.8	92	329	23	135
		29. Sadar Police Station	BDL	8.7	11.7	27.1	95	346	25	151
13	Rayagada	30. RO, SPCB	4.9	17.7	17.3	27.9	52	187	27	81
		31. LPS High School	19.1	28.0	23.1	32.3	68	164	32	77
14	Rajgangpur	32. DISIR, Rajgangpur	12.2	29.1	18.2	32.2	124	167	37	80
15	Rourkela	33. SPCB, Steel Township	10.4	17.5	12.4	21.5	93	191	38	178
		34. IDL Police Outpost	12.3	18.1	14.2	21.6	124	195	44	68
		35. IDC, Kalunga	10.4	10.8	12.4	12.4	136	168	43	57
		36. Kuanarmunda	9.4	12.6	12.2	14.0	133	245	61	147
16	Sambalpur	37. Modipara	7.5	28.4	28.0	43.9	108	344	41	114
17	Talcher	38. Talcher Thermal	10.5	21.2	27.2	35.0	109	170	48	93
		39. MCL area	10.8	26.7	30.2	35.4	116	257	42	148
		40. Champaposi village	17.1	23.3	21.3	32.0	102	234	53	129
Prescribed Standard (on 24hrly avg. Basis)			80		80		100		60	

N.B. : BDL-Below Detection Limit; BDL value for SO₂ ≤4 µg/m³

PTO

Continuous Ambient ²⁷⁷Air Quality Monitoring Reports of different towns / cities on the eve of Deepawali 2023.



Continuous online ambient air quality monitoring has been carried out at one location of each 14 cities/towns of Odisha and at two locations in the capital city of Bhubaneswar i.e., at SPCB building in Unit-8, Nayapalli and Patia, Chandrasekharpur on the occasion of Deepawali 2023 from 05.11.2023 to 19.11.2023 (15 days) covering pre and post days of Deepawali on 12.11.2023 to assess the status of ambient air quality in pre, during and post Deepawali days on parameters like PM₁₀, PM_{2.5}, SO₂ & NO₂. The monitoring results of the year 2023 are reflected in Tables 4(i) to 4(xv).

Ambient Air Quality on Pre, During and Post Deepawali period shows that the pollutants like PM₁₀, PM_{2.5}, SO₂ & NO₂, at most of the locations on the day of Deepawali sharply increases in comparison to Pre and Post Deepawali day values. However, the gaseous pollutants like SO₂ & NO₂ are observed mostly within their respective prescribed limits while PM₁₀ & PM_{2.5} values are observed not within prescribed limits of 100 and 60 µg/m³ respectively at all cities/towns. Observed values of PM₁₀ & PM_{2.5} were highest at Bhubaneswar on the Deepawali day. Range of values with max values observed on the Deepawali day at different cities/towns areas on the table below.

Cities/Towns	PM ₁₀		PM _{2.5}	
	Range of values	Deepawali day (max)	Range of values	Deepawali day (max)
Angul	90-243	243	41-133	133
Berhampur	61 - 410	410	23 - 223	223
Balasore	96 - 290	290	46-120	120
Unit-8, Bhubaneswar	71 - 428	428	35 - 232	232
Patia, Bhubaneswar	80-357	357	32 - 201	201
Cuttack	116 -360	360	46 - 147	147
Jharsuguda	93 - 188	188	47 - 93	93
Kalinganagar	72-163	163	39 - 70	70
Keonjhar	95 - 265	265	46 - 191	191
Konark	45 - 286	286	20 - 112	112
Paradeep	93 - 276	276	33 - 118	118
Puri	93 - 346	346	23 - 151	151
Rayagada	52 - 187	187	27 - 81	81
Rourkela	72 - 191	191	31 - 178	178
Sambalpur	105 - 344	344	39 - 114	114
Talcher	88 - 170	170	39 - 93	93

**Ambient Air Quality Monitoring Data during Deepawali Festival
from 05.11.2023 to 19.11.2023 at different towns/ cities of Odisha
(Pre- Deepawali on 06.11.2023 & Deepawali on 12.11.2023)**

(i) Angul

Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	9.7	24.7	90	41
2.	06.11.2023	10.4	22.3	96	45
3.	07.11.2023	11.4	20.8	100	48
4.	08.11.2023	12.5	28.1	103	45
5.	09.11.2023	13.1	27.2	99	50
6.	10.11.2023	14.4	23.2	105	49
7.	11.11.2023	14.4	31.4	164	72
8.	12.11.2023	22.3	33.5	243	133
9.	13.11.2023	17.6	27.5	171	85
10.	14.11.2023	10.9	28.7	155	72
11.	15.11.2023	14.7	25.0	138	79
12.	16.11.2023	13.0	21.9	131	63
13.	17.11.2023	10.1	26.9	117	52
14.	18.11.2023	12.6	23.8	122	65
15.	19.11.2023	14.2	22.4	119	55

(ii) Berhampur

Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	4.6	14.3	73	23
2.	06.11.2023	5.1	15.5	68	38
3.	07.11.2023	4.9	15.4	176	72
4.	08.11.2023	5.1	14.2	62	51
5.	09.11.2023	5.4	16.2	181	71
6.	10.11.2023	6.0	15.3	117	95
7.	11.11.2023	7.7	18.4	119	75
8.	12.11.2023	26.7	37.3	410	223
9.	13.11.2023	11.6	19.0	183	125
10.	14.11.2023	8.3	16.7	133	62
11.	15.11.2023	6.3	15.3	113	65
12.	16.11.2023	5.1	14.5	97	53
13.	17.11.2023	4.5	15.7	61	39
14.	18.11.2023	5.3	14.6	70	41
15.	19.11.2023	4.6	15.2	81	56

(iii) Balasore

Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	BDL	11.1	96	46
2.	06.11.2023	BDL	11.2	110	61
3.	07.11.2023	BDL	11.6	101	48
4.	08.11.2023	BDL	11.9	146	64
5.	09.11.2023	BDL	11.1	98	56
6.	10.11.2023	4.9	11.8	160	82
7.	11.11.2023	5.0	12.0	170	86
8.	12.11.2023	9.4	14.1	290	120
9.	13.11.2023	7.9	13.6	233	106
10.	14.11.2023	6.6	12.3	147	82
11.	15.11.2023	5.7	11.6	103	60
12.	16.11.2023	5.9	11.4	104	56
13.	17.11.2023	5.2	11.6	91	48
14.	18.11.2023	6.2	12.6	113	69
15.	19.11.2023	6.8	12.6	133	67

(iv) Bhubaneswar

(IVA) Unit-8, Nayapalli

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	BDL	15.6	71	35
2.	06.11.2023	BDL	18.3	151	68
3.	07.11.2023	BDL	16.7	161	70
4.	08.11.2023	BDL	16.6	251	82
5.	09.11.2023	BDL	18.6	252	78
6.	10.11.2023	BDL	19.4	219	73
7.	11.11.2023	BDL	22.5	212	77
8.	12.11.2023	13.6	40.7	428	232
9.	13.11.2023	11.0	22.0	214	84
10.	14.11.2023	9.3	21.5	192	79
11.	15.11.2023	7.1	19.2	165	75
12.	16.11.2023	6.2	17.7	157	65
13.	17.11.2023	BDL	18.4	136	45
14.	18.11.2023	BDL	20.2	120	51
15.	19.11.2023	BDL	19.0	131	58

(IVB) Patia, Chandrasekharpur

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	BDL	14.0	80	41
2.	06.11.2023	BDL	15.9	168	73
3.	07.11.2023	BDL	14.5	166	65
4.	08.11.2023	BDL	15.7	178	78
5.	09.11.2023	BDL	16.5	156	69
6.	10.11.2023	BDL	16.6	190	76
7.	11.11.2023	BDL	15.3	217	81
8.	12.11.2023	20.5	29.1	357	201
9.	13.11.2023	7.1	18.5	199	70
10.	14.11.2023	BDL	13.8	145	69
11.	15.11.2023	BDL	16.8	115	61
12.	16.11.2023	BDL	14.8	112	32
13.	17.11.2023	BDL	14.8	115	59
14.	18.11.2023	BDL	14.1	86	46
15.	19.11.2023	BDL	14.1	110	61

(V) Cuttack

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	4.9	21.6	131	48
2.	06.11.2023	5.3	23	129	52
3.	07.11.2023	5.7	20.9	130	51
4.	08.11.2023	5.3	22.3	132	47
5.	09.11.2023	5.0	23.7	142	80
6.	10.11.2023	5.8	23.9	146	84
7.	11.11.2023	4.9	25.7	164	92
8.	12.11.2023	7.6	32.3	360	147
9.	13.11.2023	6.3	24.2	195	96
10.	14.11.2023	6.9	24.2	154	67
11.	15.11.2023	5.0	21.5	157	63
12.	16.11.2023	5.3	23.3	139	59
13.	17.11.2023	5.0	22.6	132	56
14.	18.11.2023	4.5	21.3	116	54
15.	19.11.2023	4.9	20.9	122	46

(VI) Jharsuguda

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	8.6	12.9	93	55
2.	06.11.2023	8.9	14.0	104	59
3.	07.11.2023	9.0	12.7	112	60
4.	08.11.2023	9.2	12.7	113	63
5.	09.11.2023	9.0	13.5	118	68
6.	10.11.2023	11.0	14.5	135	76
7.	11.11.2023	13.6	15.1	146	72
8.	12.11.2023	33.1	26.2	188	93
9.	13.11.2023	22.7	17.9	175	76
10.	14.11.2023	11.5	14.1	168	72
11.	15.11.2023	10.3	14.4	156	68
12.	16.11.2023	9.4	14.0	162	64
13.	17.11.2023	9.5	13.4	145	55
14.	18.11.2023	9.0	13.3	137	51
15.	19.11.2023	9.2	13.8	139	47

(VII) Kalinganagar

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	5.9	13.2	92	56
2.	06.11.2023	9.2	13.7	105	54
3.	07.11.2023	5.7	11.4	100	58
4.	08.11.2023	6.4	13.2	109	65
5.	09.11.2023	6.6	13.8	125	66
6.	10.11.2023	6.3	12.6	105	58
7.	11.11.2023	13.4	17.5	236	96
8.	12.11.2023	11.8	17.5	163	70
9.	13.11.2023	7.0	13.2	121	63
10.	14.11.2023	6.3	10.8	93	59
11.	15.11.2023	6.5	13.1	98	55
12.	16.11.2023	8.1	13.2	72	39
13.	17.11.2023	8.7	14.4	75	41
14.	18.11.2023	8.8	13.9	85	36
15.	19.11.2023	5.9	13.2	92	56

(VIII) Keonjhar

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	BDL	10.5	100	53
2.	06.11.2023	BDL	11.4	110	55
3.	07.11.2023	BDL	11.3	107	71
4.	08.11.2023	BDL	11.8	126	60
5.	09.11.2023	BDL	12.6	114	63
6.	10.11.2023	BDL	13.9	118	80
7.	11.11.2023	BDL	14.2	125	78
8.	12.11.2023	5.8	21.8	265	191
9.	13.11.2023	4.2	18.5	160	106
10.	14.11.2023	BDL	16.9	137	74
11.	15.11.2023	BDL	12.4	116	55
12.	16.11.2023	BDL	12.6	109	51
13.	17.11.2023	BDL	12.4	106	49
14.	18.11.2023	BDL	13.3	95	50
15.	19.11.2023	BDL	11.3	97	46

(IX) Konark

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	BDL	11.4	69	30
2.	06.11.2023	BDL	12.0	67	37
3.	07.11.2023	BDL	11.7	103	49
4.	08.11.2023	BDL	11.7	80	36
5.	09.11.2023	BDL	11.0	45	20
6.	10.11.2023	BDL	11.1	65	25
7.	11.11.2023	BDL	11.3	101	48
8.	12.11.2023	8.3	28.7	286	112
9.	13.11.2023	BDL	12.0	118	48
10.	14.11.2023	BDL	10.5	71	31
11.	15.11.2023	BDL	9.6	80	36
12.	16.11.2023	BDL	10.7	87	43
13.	17.11.2023	BDL	12.0	48	22
14.	18.11.2023	BDL	11.8	51	38
15.	19.11.2023	BDL	10.0	49	25

(X) Puri

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	BDL	12.0	95	26
2.	06.11.2023	BDL	11.7	95	25
3.	07.11.2023	BDL	11.7	93	24
4.	08.11.2023	BDL	12.1	94	24
5.	09.11.2023	BDL	12.0	97	26
6.	10.11.2023	BDL	11.6	95	24
7.	11.11.2023	BDL	11.7	99	26
8.	12.11.2023	8.7	27.1	346	151
9.	13.11.2023	8.4	25.5	207	124
10.	14.11.2023	BDL	15.7	133	56
11.	15.11.2023	BDL	12.4	117	33
12.	16.11.2023	BDL	12.3	105	29
13.	17.11.2023	BDL	12.3	96	27
14.	18.11.2023	BDL	12.4	99	24
15.	19.11.2023	BDL	12.7	95	23

(XI) Paradeep

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	9.9	11.3	103	38
2.	06.11.2023	14.9	12.7	111	42
3.	07.11.2023	12.3	11.9	97	39
4.	08.11.2023	14.0	10.1	118	46
5.	09.11.2023	15.9	10.5	134	47
6.	10.11.2023	8.6	12.1	189	54
7.	11.11.2023	10.9	11.9	194	84
8.	12.11.2023	29.4	21.7	276	118
9.	13.11.2023	28.3	20.7	198	96
10.	14.11.2023	17.8	13.8	129	85
11.	15.11.2023	16.2	12.4	93	46
12.	16.11.2023	Not monitored for heavy rain			
13.	17.11.2023	12.3	13.7	67	33
14.	18.11.2023	12.0	10.6	71	36
15.	19.11.2023	9.2	10.5	76	40

(XII) Rayagada

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	6.8	18.9	74	34
2.	06.11.2023	4.9	17.3	52	27
3.	07.11.2023	6.4	19.6	67	31
4.	08.11.2023	6.6	20.4	69	35
5.	09.11.2023	8.0	22.6	78	38
6.	10.11.2023	8.1	22.5	83	40
7.	11.11.2023	9.5	24.1	94	46
8.	12.11.2023	17.7	27.9	187	81
9.	13.11.2023	11.6	24.8	95	53
10.	14.11.2023	9.9	24.5	87	45
11.	15.11.2023	9.0	23.9	84	41
12.	16.11.2023	8.7	22.3	76	35
13.	17.11.2023	7.4	22.4	73	38
14.	18.11.2023	6.8	20.4	79	43
15.	19.11.2023	6.8	22.7	75	36

(XIII) Rourkela

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	10.2	11.3	84	31
2.	06.11.2023	10.4	12.4	93	38
3.	07.11.2023	11.6	12.2	128	43
4.	08.11.2023	10.7	12.5	135	48
5.	09.11.2023	11.4	12.3	157	48
6.	10.11.2023	11.9	12.0	157	56
7.	11.11.2023	11.0	12.6	158	66
8.	12.11.2023	17.5	21.5	191	178
9.	13.11.2023	12.2	13.6	175	143
10.	14.11.2023	11.5	12.4	110	82
11.	15.11.2023	11.3	11.6	72	61
12.	16.11.2023	11.2	13.7	76	39
13.	17.11.2023	11.5	12.3	81	43
14.	18.11.2023	10.6	11.5	102	47
15.	19.11.2023	10.2	11.7	82	48

(XIV) Sambalpur

3X

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	7.4	27.2	105	39
2.	06.11.2023	7.5	28.0	108	41
3.	07.11.2023	7.3	27.5	116	48
4.	08.11.2023	8.1	27.8	127	54
5.	09.11.2023	8.8	28.5	172	65
6.	10.11.2023	8.5	28.1	176	71
7.	11.11.2023	11.8	31.6	220	83
8.	12.11.2023	28.4	43.9	344	114
9.	13.11.2023	21.7	38.6	229	87
10.	14.11.2023	19.5	36.1	186	79
11.	15.11.2023	18.4	34.6	182	74
12.	16.11.2023	17.6	33.4	171	72
13.	17.11.2023	15.2	31.8	148	61
14.	18.11.2023	13.8	31.5	141	64
15.	19.11.2023	13.6	30.5	123	60

(XV) Talcher

Sl. No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
		(values expressed in Microgram per cubic meter)			
1.	05.11.2023	9.1	27.2	88	39
2.	06.11.2023	8.9	25.8	94	44
3.	07.11.2023	10.5	27.2	109	48
4.	08.11.2023	8.4	26.3	109	46
5.	09.11.2023	10.3	30.0	108	52
6.	10.11.2023	10.9	27.7	103	43
7.	11.11.2023	13.3	30.4	146	65
8.	12.11.2023	21.2	35.0	170	93
9.	13.11.2023	12.6	29.8	162	78
10.	14.11.2023	11.3	28.2	154	73
11.	15.11.2023	10.8	27.4	130	57
12.	16.11.2023	11.6	27.0	126	61
13.	17.11.2023	9.7	26.7	132	54
14.	18.11.2023	11.3	28.0	134	58
15.	19.11.2023	10.0	26.8	123	51

N.B:BDL- Below Detectable Limit; BDL Valuefor SO₂ ≤4 µg/m³



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STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]
 Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,
 Bhubaneswar - 751012

(CENTRAL LABORATORY)

No 56 /VISc(LEM) Proj/96/2024-25 Date 02.01.2025 /

To

Mr S.K. Sharma,
 Addl. Director & DH-Air Laboratory
 Central Pollution Control Board
 Parivesh Bhawan, East Arjun Nagar
 Delhi-110032

Sub- Special Monitoring of Ambient air and Noise during Deepawali festival-2024.

Sir,

With reference to above cited letter, please find enclosed, the ambient air quality monitoring data of 19 cities/towns and noise monitoring data of 15 cities/towns of Odisha during Deepawali festival and Ambient noise level report on pre, during and post Dushera. The ambient air & noise level monitoring were conducted on the pre Deepawali day on 24th October, 2024 and Deepawali day on 31st October, 2024. Further continuous ambient air quality monitoring was conducted from 24th October to 7th November 2024 at 16 cities/ towns of Odisha. The results are furnished as per the CPCB format.

The continous monitoring results has already been submitted on 19th November through E-Mail krishnacpcb@yahoo.co.in & apathak.cpcb@nic.in

This is for your kind information and necessary action.

Enclosed As Above

Yours faithfully


 Member Secretary

Memo No. 57 /Dt. 02.01.2025

Copy forwarded to the Director, Environment cum Special Secretary to Govt. Forest and Environment Dept. Govt. of Odisha for kind information and necessary action.

Encl: - As above


 Member Secretary



Report on Impact of Dashera & Deepawali festival on Noise and Air quality in the state of Odisha for the year-2024

State Pollution Control Board, Odisha has taken pro-active measures to published public notices in one English and one Odia newspaper on dtd:-30.10.2024 to create public awareness on ill effects of noise and bursting of fire crackers. Copies of the public notices are enclosed as annexure I.

This year Govt. of Odisha had allowed the sale and use of green fire crackers instead of traditional crackers in the public interest considering the potentially harmful consequences of burning of normal crackers as the people usually burn fire crackers on the occasion of Deepawali & Kartika Purnima Festival.

To assess the impact of Dashera and Deepawali on ambient air quality, the Board has conducted monitoring of Noise Level on pre, during and post Dashera and Deepawali at 15 towns/cities of the State as well as ambient air quality monitoring with respect to PM₁₀, PM_{2.5}, SO₂ & NO₂ in 19 towns/cities on pre and during Deepawali along with continuous ambient air quality monitoring at 16cities/town in 17 locations of the state with respect to parameters like PM₁₀, PM_{2.5}, SO₂ & NO₂ and Heavy metals like, Pb & Ni in PM₁₀& Fe in PM_{2.5}as requested by CPCB vide Letter No.LB-11/5/2021-AIR_LAB-HO-CPCB-HO/5297-5332, dt.03.10.2024. The ambient air quality and Noise level data of Deepawali has already been submitted to CPCB in scheduled time fixed by CPCB for onward submission before Hon'ble Supreme court of India.

The findings of the monitoring results of both Dushera and Deepawali are summarized below and are presented in Tables 1 to 3.The continuous ambient air quality monitoring on eve of Deepawali for pre, during & post are shown in table-4. Detail report are stated below.

A. IMPACT ONNOISE LEVEL DURINGDASHERA CELEBRATION

State Pollution Control Board, Odisha has conducted ambient noise level monitoring at 56 locations in 15 towns/cities i.e. Angul, Balasore, Bolangir, Berhampur, Bhubaneswar, Cuttack, Jharsuguda, Kalinganagar, Keonjhar, Konark, Paradeep, Puri, Rayagada, Rourkela and Sambalpur covering Industrial, Commercial, Residential and Silence zone during day and night time in pre, during and post Dashera respectively on 07.10.2024, 13.10.2024 and 24.10.2024 to assess the impact of Dasshera festival on ambient noise level. Out of 56 locations, 11 are in Industrial and 15 each are in commercial, residential and silence zones. Monitoring results are prescribed in Tables-1 & 1(i) to 1(iv).

The noise level in the day time exceed the limit i.e. 55 dB (A) Leq at 11 locations in pre Dushera , at 13 locations on the day of Dushera and at 08 locations on post Dushera out of 15 locations .The maximum noise level occurred at Brahmanagar, Berhampur i.e. 77.9 dB (A) Leq on post Dasher.

During night time the noise level in pre, during& post Dasher were more than the limit i.e. 45 dB (A) Leq at all locations except at 04 locations in post Dushera out of 15 locations. The maximum noise level i.e. 74.8 occurred at Brahmanagar, Berhampur.

II. Commercial Zone

The noise level in day time on pre Dushera at 07 locations, on the day of Dushera at 11 locations & post Dushera at 08 locations out of 15 monitored locations were above the limit i.e. 65 dB(A).The maximum noise level occurred at Gopabandhu Chowk, Kalinganagar i.e. 86.5 dB (A) Leq on the day of Dasher.

The noise level in night time exceed the limit i.e.,55 dB (A) Leq at 10 locations in pre Dasher, 13 locations on the day of Dushera and 07 locations on post Dasher. The maximum noise level occurred i.e., 78.7 dB (A) on the day of Dasher at Gopabandhu Chowk, Kalinganagar.

III. Silence Zone

The noise level in day time at all locations(out of 15 locations) were above the limit i.e 50 dB (A) Leq except at 03 locations each in pre, during and post Dasher, similarly in night time the noise level exceed the limit i.e 40 dB(A) Leq at all locations except at 01 location on the day of Dasher and two locations each in pre and on post Dasher. The Maximum noise level i.e., 72.8 dB (A)Leq in day time & 71.1 dB (A)Leq at night time occurred at MKCG Medical college & Hospital, Berhampur on post Dasher.

IV. Industrial Zone

The noise level in day time at all locations in pre, during & post Dasher were below the prescribed limit i.e.,75 dB (A).Except at Mancheswar I.E, Bhubaneswar on the day of Dasher and Ankuli, Berhampur on post Dasher with maximum noise level 75.3 dB(A)Leq at Ankuli , Berhampur.

During night time the noise level in pre,during & post Dasher were below the limit i.e.70 dB (A) Leq at all locations except at Ankuli, Berhampur in both the on the day and on post Dasher and at Kalinganagar Industrial Complex, Kalinganagar on the day of Dasher. Maximum noise level occurs at Ankuli(I.E), Berhampur on post Dasher i.e 75.4 dB(A)Leq

Table-1: Ambient Noise level in dB(A) Leq at different locations on pre, during and post Dasshera 2024

Sl. No.	Towns/Cities	Monitoring Locations	Pre Dasshera (07.10.2024)		Dasshera (13.10.2024)		Post Dasshera (24.10.2024)	
			D	N	D	N	D	N
			1.	Angul	1.Amalapada(R)	55.8	58.1	62.4
		2.Bazar chhak(C)	67.3	56.3	70.8	65.0	70.8	57.3
		3.District Head Quarter Hospital(S)	56.7	49.7	62.2	56.3	55.5	52.6
		4.Hakimpada(I)	59.4	53.1	64.5	55.9	59.0	54.2
2.	Bolangir	5.Bolangir Palace line(R)	50.6	51.8	57.4	53.0	53.0	48.5
		6.Near New Bus Stand(C)	58.2	51.1	59.2	53.7	56.6	51.3
		7.Near BhimaBhoi MCH(S)	51.7	44.3	59.5	55.4	50.7	44.4
		8.Near Growth Phase-II(I)	48.3	44.9	53.7	47.6	46.0	47.3
3.	Balasore	9.Sahadevkhunta(R)	53.8	45.6	59.5	49.3	50.9	46.5
		10.Motiganj Bazar(C)	59.2	50.3	68.2	60.3	50.3	43.5
		11.District Head Quarter Hospital(S)	48.1	37.2	52.9	48.9	51.6	39.9
		12.Balasore Industrial Estate(I)	55.7	46.2	60.9	48.2	49.9	40.1
4.	Berhampur	13.Brahmanagar(R)	71.7	61.1	74.3	69.2	77.9	74.8
		14.Girija market square(C)	72.5	70.0	78.7	69.5	80.2	76.4
		15.MKCG Medical & Hospital(S)	68.2	61.9	70.5	70.6	72.8	71.1
		16.Ankuli(I)	61.8	63.9	68.7	70.1	75.3	75.4
5.	Bhubaneswar	17.Nayapalli(R)	57.5	45.4	67.3	63.0	53.5	42.4
		18.Sahidnagar(C)	63.8	53.5	77.2	72.9	61.5	48.3
		19.Capital Hospital(S)	51.8	43.4	60.3	53.6	52.8	48.7
		20.Mancheswar(I)	62.7	57.4	75.2	68.2	65.7	49.8
6.	Cuttack	21.Suryavihar(R)	65.2	65.3	58.9	60.8	56.1	51.5
		22.Badambadi(C)	77.6	57.2	76.2	67.1	59.1	52.3
		23.SCB Medical College & Hospital(S)	52.5	47.1	55.1	58.3	55.0	50.5
		24.Khapuria(I)	65.0	57.9	65.6	62.5	53.5	54.0
7.	Jharsuguda	25.Cox Colony(R)	51.8	44.0	52.9	50.2	51.5	42.7
		26.Jhanda Chowk(C)	50.5	42.0	53.4	41.3	52.2	52.9
		27. Urban PHC ,Mangalbazar (S)	46.3	38.6	52.3	40.2	49.7	37.9
		28.Bombay Chowk(I)	66.8	61.8	68.6	60.8	68.8	67.9
8.	Kalinganagar	29.Sapagadia(R)	62.9	61.4	65.5	70.2	66.8	60.8
		30.Gopabandhu Chowk(C)	73.7	68.7	86.5	78.7	71.8	44.5
		31.CHC Hospital, Jajpur Road(S)	53.9	49.3	61.5	63.8	63.4	58.3
		32.Kalinganagar Industrial Complex (I)	72.1	68.2	69.5	72.5	71.0	68.8
9.	Keonjhar	33.Baniapat Chowk(R)	68.7	55.1	71.2	55.6	68.4	54.2
		34.Punjabi Chowk(C)	73.3	63.2	75.6	69.3	72.9	67.6
		35. District Head Quarter Hospital (S)	56.4	46.6	64.3	52.3	62.4	51.7
10.	Konark	36.Madhipur(R)	54.4	46.0	53.8	44.3	49.2	44.0
		37.NAC Market(c)	58.5	45.2	60.7	56.6	56.1	49.8
		38.Public Health Centre(S)	40.8	35.8	41.5	35.3	40.7	35.1
		39.Near Police Colony(R)	56.6	53.6	63.9	55.3	58.9	52.3
11.	Paradeep	40.LIC Building Jagatsinghpur(C)	64.5	61.4	83.1	63.8	66.3	52.3
		41.District Head Quarter Hospital(S)	58.6	50.7	63.0	51.9	63.2	46.2
12.	Puri	42.Kumutisahi, Old Sadar lane(R)	68.1	61.6	71.3	64.5	66.9	64.1
		43.Gundica Mandir,Bus Stand(C)	73.0	66.6	78.9	70.6	76.0	70.8
		44.District Head Quarter Hospital(S)	61.7	56.9	63.2	59.6	57.7	53.8
13.	Rayagada	45.Indira Nagar(R)	61.8	57.7	61.9	62.3	63.7	55.7
		46.Near Main Market(C)	60.1	58.0	62.0	59.5	65.9	56.2
		47. District Head Quarter Hospital (S)	61.5	56.0	59.3	54.3	60.2	53.6
		48.Near Jesco(I)	63.5	59.1	60.4	58.5	63.3	57.7
14.	Rourkela	49.Cheend(R)	68.2	58.6	64.8	56.5	51.8	46.8
		50.Amwargan(C)	61.0	55.8	69.0	58.7	60.1	57.1
		51.IGH steel Township(S)	50.8	49.1	48.8	43.2	52.5	51.9
		52.RSPL Sail(I)	63.9	58.9	60.9	58.7	59.6	56.4
15.	Sambalpur	53.Ainthapali(R)	50.6	47.8	51.8	48.5	51.2	51.3
		54.Golebazar(C)	67.2	57.8	68.8	64.3	68.6	62.6
		55.District Head Quarter Hospital(S)	48.6	45.6	45.9	40.5	47.0	46.9
		56.Bareipali(I)	55.3	46.4	50.8	42.5	51.0	54.0

Prescribed Standards (In Leq dB(A))

Category of area / zone	Day Time (6AM to 10PM)	Night Time (10PM to 6AM)
Industrial zone (I)	75	70
Commercial zone (C)	65	55
Residential zone (R)	55	45
Silence zone (S)	50	40

N.B:-D-Day Time monitoring period (6PM to 10PM), N-Night Time monitoring period (10PM to 12.00 AM) as per direction of CPCB.

Table-1(i) Residential Zones

Ambient Noise level in dB(A) Leq at different locations on pre, during and post Dasshera 2024								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Dasshera (07.10.2024)		Dasshera (13.10.2024)		Post Dasshera (24.10.2024)	
			D	N	D	N	D	N
1.	Angul	Amalapada	55.8	58.1	62.4	58.3	65.2	59.3
2.	Bolangir	Bolangir Palace line	50.6	51.8	57.4	53.0	53.0	48.5
3.	Balasure	Sahadevkhunta	53.8	45.6	59.5	49.3	50.9	46.5
4.	Berhampur	Brahmanagar	71.7	61.1	74.3	69.2	77.9	74.8
5.	Bhubaneswar	Nayapalli	57.5	45.4	67.3	63.0	53.5	42.4
6.	Cuttack	Suryavihar	55.2	55.3	58.9	60.8	56.1	51.5
7.	Jharsuguda	Cox Colony	55.8	54.0	52.9	50.2	51.5	42.7
8.	Kalinganagar	Sapagadia	62.9	61.4	65.5	70.2	66.8	60.8
9.	Keonjhar	BaniapatChowk	68.7	55.1	71.2	55.6	68.4	54.2
10.	Konark	Madhipur	54.4	46.0	53.8	54.3	49.2	44.0
11.	Paradeep	Near Police Colony	56.6	53.6	63.9	55.3	58.9	52.3
12.	Puri	Kumutisahi, Old Sadar lane	68.1	61.6	71.3	64.5	66.9	64.1
13.	Rayagada	Indira Nagar	61.8	57.7	61.9	62.3	63.7	55.7
14.	Rourkela	Chhend	68.2	58.6	64.8	56.5	51.8	46.8
15.	Sambalpur	Ainthapali	50.6	47.8	51.8	48.5	50.2	41.3
Prescribed Standard (In Leq dB(A))			55	45	55	45	55	45

Table-1(ii) Commercial Zones

Ambient Noise level in dB(A) Leq at different locations on pre, during and post Dasshera 2024								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Dasshera (07.10.2024)		Dasshera (13.10.2024)		Post Dasshera (24.10.2024)	
			D	N	D	N	D	N
1.	Angul	Bazar chhak	67.3	56.3	70.8	65.0	70.8	57.3
2.	Bolangir	Near New Bus Stand	58.2	51.1	59.2	53.7	56.6	51.3
3.	Balasure	Motiganj Bazar	59.2	50.3	68.2	60.3	50.3	43.5
4.	Berhampur	Girija market square	72.5	70.0	78.7	69.5	80.2	76.4
5.	Bhubaneswar	Sahidnagar	63.8	53.5	77.2	72.9	61.5	48.3
6.	Cuttack	Badambadi	77.6	57.2	76.2	67.1	59.1	52.3
7.	Jharsuguda	JhandaChowk	50.5	42.0	53.4	41.3	52.2	42.9
8.	Kalinganagar	GopabandhuChowk	73.7	68.7	86.5	78.7	71.8	44.5
9.	Keonjhar	Punjabi Chowk	73.3	63.2	75.6	69.3	72.9	67.6
10.	Konark	NAC Market	58.5	45.2	60.7	56.6	56.1	49.8
11.	Paradeep	LIC Building Jagatsinghpur	64.5	61.4	83.1	63.8	66.3	52.3
12.	Puri	GundicaMandir, Bus Stand	73.0	66.6	78.9	70.6	76.0	70.8
13.	Rayagada	Near Main Market	60.1	58.0	62.0	59.5	65.9	56.2
14.	Rourkela	Amwargan	61.0	55.8	69.0	58.7	60.1	57.1
15.	Sambalpur	Golebazar	67.2	57.8	68.8	64.3	68.6	62.6
Prescribed Standard (In Leq dB(A))			65	55	65	55	65	55

Table-1(iii) Silence Zones

Ambient Noise level in dB(A) Leq at different locations on pre, during and post Dasshera 2024								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Dasshera (07.10.2024)		Dasshera (13.10.2024)		Post Dasshera (24.10.2024)	
			D	N	D	N	D	N
1.	Angul	District Head Quarter Hospital	56.7	49.7	62.2	56.3	55.5	52.6
2.	Bolangir	Near BhimaBhoi MCH	51.7	44.3	59.5	45.4	50.7	44.4
3.	Balasure	District Head Quarter Hospital	58.1	37.2	52.9	48.9	51.6	39.9
4.	Berhampur	MKCG Medical & Hospital	68.2	61.9	70.5	70.6	72.8	71.1
5.	Bhubaneswar	Capital Hospital	51.8	43.4	60.3	53.6	52.8	48.7
6.	Cuttack	SCB Medical College & Hospital	52.5	47.1	55.1	58.3	55.0	50.5
7.	Jharsuguda	Urban PHC, Mangalbazar	46.3	38.6	52.3	40.2	49.7	37.9
8.	Kalinganagar	CHC Hospital, Jajpur Road	53.9	49.3	61.5	63.8	63.4	58.3
9.	Keonjhar	District Head Quarter Hospital	56.4	46.6	64.3	52.3	62.4	51.7
10.	Konark	Public Health Centre	40.8	35.8	41.5	35.3	40.7	35.1
11.	Paradeep	District Head Quarter Hospital	58.6	50.7	63.0	51.9	63.2	46.2
12.	Puri	District Head Quarter Hospital	61.7	56.9	63.2	59.6	57.7	53.8
13.	Rayagada	District Head Quarter Hospital	61.5	56.0	59.3	54.3	60.2	53.6
14.	Rourkela	IGH steel Township	50.8	49.1	48.8	43.2	52.5	51.9
15.	Sambalpur	District Head Quarter Hospital	48.6	45.6	45.9	40.5	47.0	46.9
Prescribed Standard (In Leq dB(A))			50	40	50	40	50	40

Table-1(iv) Industrial Zones

Ambient Noise level in dB(A) Leq at different locations on pre, during and post Dasshera 2024								
Sl.No.	Towns/Cities	Monitoring Locations	Pre Dasshera (07.10.2024)		Dasshera (13.10.2024)		Post Dasshera (24.10.2024)	
			D	N	D	N	D	N
1.	Angul	Hakimpada(I)	59.4	53.1	64.5	55.9	59.0	54.2
2.	Bolangir	Near Growth Phase-II(I)	48.3	44.9	53.7	47.6	46.0	47.3
3.	Balasure	Balasure Industrial Estate(I)	55.7	46.2	60.9	48.2	49.9	40.1
4.	Berhampur	Ankuli(I)	61.8	63.9	68.7	70.1	75.3	75.4
5.	Bhubaneswar	Mancheswar (I)	62.7	57.4	75.2	68.2	65.7	49.8
6.	Cuttack	Khapurja(I)	65.0	57.9	65.6	62.5	53.5	54.0
7.	Jharsuguda	Bombay Chowk(I)	66.8	61.8	68.6	60.8	68.8	67.9
8.	Kalinganagar	Kalinganagar Industrial Complex (I)	72.1	68.2	69.5	72.5	71.0	68.8
9.	Rayagada	Near Jesco(I)	63.5	59.1	60.4	58.5	63.3	57.7
10.	Rourkela	RSPL Sail(I)	63.9	58.9	60.9	58.7	59.6	56.4
11.	Sambalpur	Bareipali(I)	55.3	46.4	50.8	42.5	51.0	44.0
Prescribed Standard (In Leq dB(A))			75	70	75	70	75	70

B. IMPACT ON NOISE LEVEL DURING DEEPAWALI CELEBRATION

State Pollution Control Board, Odisha has conducted ambient noise level monitoring at 57 locations in 15 towns/cities i.e., Angul, Balasore, Bolangir, Berhampur, Bhubaneswar, Cuttack, Jharsuguda, Kalinganagar, Keonjhar, Konark, Paradeep, Puri, Rayagada, Rourkela and Sambalpur town/cities of Odisha covering Industrial, Commercial, Residential and Silence Zone in the day time and night time in Pre and During Deepawali to assess the impact of noise on ambient air quality. Out of 57 locations 12 locations were in Industrial zone, 15 locations were in commercial, residential and silence zone respectively. Monitored results are summarized in **Tables-2 & 2 (i) to (iv)**

I. Residential Zone

The day time noise level in residential zone exceeded the standard of 55 dB (A)Leq at 09 locations in pre and at all locations on the day of Deepawali. The maximum noise level observed at Baniapat, Keonjhar on the day of Deepawali i.e 79.6 dB(A)Leq.

The night time noise level in residential zone exceeded the standard of 45 dB (A)Leq at all locations in pre and on the day of Deepawali except at 03 locations below the limit on pre Deepawali. The maximum noise level observed at Nayapalli Bhubaneswar i.e., 80.6 dB(A) Leq on the day of Deepawali.

II. Commercial Zone

The day time noise level in pre and during Deepawali were remained above the prescribed standard of 65 dB(A) Leq at 07 locations in pre and at all locations except two on the day of Deepawali. The maximum noise level observed at Girija Market, Berhampur. e81.3 dB (A) Leq on the day of Deepawali.

In night time the noise level in pre and during Deepawali were above the prescribed standard of 55dB (A)Leq at 08 locations in pre and at all locations except at one location on the day of Deepawali. The maximum noise level was observed at Panjabi Chowk, Keonjhar on the day of Deepawali i.e.,90.3 dB(A)Leq.

III. Silence Zone

The day time noise level were found to be exceeded the prescribed standard of 50 dB (A) Leq at all locations in pre and on the day of Deepawali except at 03 loactions in pre and at one location on the day of Deepawali . The maximum noise level occurred at MKCG Medical & Hospital, Berhampur on the day of Deepawali i.e., 79.9 dB(A)Leq.

In night time noise level in pre and during Deepawali were found to be exceeded the prescribed standard of 40 dB (A) Leq at all locations except at 03 locations in pre and at one location on the day of Deepawali. The maximum noise level observed at MKCG Medical & Hospital, Berhampur i.e.,80.7 dB(A) Leq on the day of Deepawali.

IV. Industrial Zone

The day time noise levels in the pre and during Deepawali were found below the prescribed standard of 75dB (A) Leq at all locations except at four locations at Ankuli, Berhampur in both pre and during, Mancheswar, Bhubaneswar and Bareipali, Sambalpur and Kalinga nagar during Deepawali day. Highest noise level was 79.6dB(A) observed at Bareipali, Sambalpur.

In night time the noise level in pre and during Deepawali were within the prescribed standard of 70dB (A)Leq at all locations except atAnkuli, Berhampur in both Pre and on the day of Deepawali, Mancheswar, Bhubaneswar, Bombay chowk, Jharsuguda and Industrial complex Kalinganagar on the day of Deepawali The maximum noise level observed at Ankuli, Berhampur i.e.,80.2 LeqdB(A) on the day of Deepawali.

Table-2: Noise level in dB(A) Leq at different locations of Odisha in Pre and During Deepawali 2024

Sl. No.	Towns/Cities	Monitoring Locations	Pre Deepawali (24.10.2024)		Deepawali (31.10.2024)	
			D	N	D	N
1	Angul	1.Amalapada(R)	65.2	59.3	75.1	60.4
		2.Bazar chhak(C)	70.8	57.3	77.9	66.6
		3.District Head Quarter Hospital(S)	65.5	52.6	62.4	51.4
		4.I.E., Hakimpada(I)	59.0	54.2	63.9	56.8
2	Balasore	5.Sahadevkhunta(R)	50.9	46.5	63.4	54.6
		6.Motiganj Bazar(C)	50.3	43.5	63.7	57.6
		7.District Head Quarter Hospital(S)	51.6	39.9	54.4	45.8
		8.Balasore I.E. (I)	49.9	40.1	54.9	49.9
3	Bolangir	9.Bolangir Palace line(R)	59.0	48.5	70.1	61.5
		10.Near New Bus Stand(C)	56.6	51.3	65.5	60.2
		11.Near BhimaBhoi MCH(S)	50.7	44.4	59.2	62.8
		12.Near Growth Phase-II(I)	46.0	47.3	59.2	53.3
4	Berhampur	13.Brahmanagar(R)	77.9	74.8	79.0	79.4
		14.Girija market square(C)	80.2	76.4	81.3	87.2
		15.MKCG MCH (S)	72.8	71.1	79.9	80.7
		16.Ankuli(I)	75.3	75.4	77.2	80.2
5	Bhubaneswar	17.Nayapalli(R)	53.5	42.4	76.1	80.6
		18.Sahidnagar Market area(C)	61.5	48.3	78.7	78.5
		19.Capital Hospital(S)	52.8	48.7	67.9	67.7
		20.Mancheswar,I.E(I)	65.7	49.8	75.3	74.7
6	Cuttack	21.Suryavihar(R)	56.1	51.5	64.7	60.1
		22.Badambadi(C)	59.1	52.3	72.6	67.6
		23.SCB MCH (S)	55.0	50.5	64.2	56.2
		24.I.E., Khapuria(I)	53.5	54.0	64.6	63.4
7	Jharsuguda	25.Cox colony(R)	51.5	42.7	67.9	73.8
		26.Jhanda Chowk(C)	62.2	52.9	69.1	69.4
		27.Urban PHC ,Mangalbazar(S)	49.7	37.9	74.1	65.3
		28.I.E., Bombay Chowk(I)	68.8	67.9	71.2	72.3
8	Kalinganagar	29.Sapagadia(R)	66.8	60.8	70.1	64.3
		30.Gopabandhu Chowk(C)	77.5	71.8	78.8	77.6
		31.CHC Hospital(S)	63.4	58.3	66.4	58.7
		32.Kalinga nagar industrial complex (I)	71.0	68.8	76.5	72.3
9	Keonjhar	33.Baniapat (R)	68.4	54.2	79.6	60.2
		34.Punjabi Chowk(C)	72.9	67.6	80.5	90.3
		35.DHH Hospital(S)	62.4	51.7	69.9	62.1
10	Konark	36.Madhipur(R)	49.2	44.0	56.3	46.0
		37.NAC Market(C)	56.1	49.8	63.9	54.1
		38.Public Health Centre(S)	40.7	35.1	45.1	36.3
11	Paradeep	39.Madhuban(R)	58.9	52.3	75.1	61.0
		40.Badapadia Market(C)	66.3	52.3	76.0	63.2
		41.Atharabanki Medical(S)	63.2	46.2	75.8	62.7
		42.Premises of IFFCO Ltd(I)	63.0	46.2	70.4	58.0
12	Puri	43.Kumutisahi, Old Sadar lane(R)	66.9	64.1	75.1	73.9
		44.Near GundichaMandir(Bus stand) (C)	76.0	70.8	81.2	75.8
		45.DHH(S)	57.7	53.8	70.8	65.7
13	Rayagada	46.Indiranagar(R)	63.7	55.7	69.9	57.9
		47.Main market(C)	65.9	56.2	66.1	58.9
		48.District Headquarter Hospital(S)	60.2	53.6	61.7	54.6
		49.I.E, Jesco(I)	63.3	57.7	64.3	60.3
14	Rourkela	50.Sector-6(R)	51.8	46.8	64.9	69.1
		51.Ambagaan(C)	60.1	57.1	62.5	57.6
		52.IGH steel Township(S)	52.5	51.9	56.0	73.0
		53.RSPL Premises(I)	59.6	56.4	66.1	65.5
15	Sambalpur	54.Ainthapali(R)	51.2	51.3	67.5	73.5
		55.Golebazar(C)	68.6	62.6	74.9	73.3
		56.DHH(S)	47.0	46.9	67.6	65.5
		57.I.E., Bareipali(I)	51.0	54.0	79.6	65.8
Prescribed Standards (In Leq dB(A))						
Category of area / zone		Day Time (6AM to 10PM)		Night Time (10PM to 6AM)		
Industrial area(I)		75		70		
Commercial area(C)		65		55		
Residential area(R)		55		45		
Silence area(S)		50		40		

N.B:-D-Day Time monitoring period (6PM to 10PM),N-Night Time monitoring period (10PM to 12.00 AM)

Ambient Noise level in dB(A) Leq at different locations on pre and during Deepawali for the year 2024

Sl.No.	Towns/Cities	Monitoring Locations	Pre Deepawali (24.10.2024)		Deepawali (31.10.2024)	
			D	N	D	N
1.	Angul	Amalapada(R)	65.2	59.3	75.1	60.4
2.	Balasore	Sahadevkhunta(R)	50.9	46.5	63.4	54.6
3.	Bolangir	Palace line (R)	59.0	48.5	70.1	61.5
4.	Berhampur	Brahmanagar(R)	77.9	74.8	79.0	79.4
5.	Bhubaneswar	Nayapalli(R)	53.5	42.4	76.1	80.6
6.	Cuttack	Suryavihar(R)	56.1	51.5	64.7	60.1
7.	Jharsuguda	Cox Colony(R)	51.5	42.7	67.9	73.8
8.	Kalinganagar	Sapagadia(R)	66.8	60.8	70.1	64.3
9.	Keonjhar	BaniapatChowk(R)	68.4	54.2	79.6	60.2
10.	Konark	Madhipur(R)	49.2	44.0	56.3	46.0
11.	Paradeep	Madhuban(R)	58.9	52.3	75.1	61.0
12.	Puri	Kumutisahi, Old Sadar lane(R)	66.9	64.1	75.1	73.9
13.	Rayagada	Indira Nagar(R)	63.7	55.7	69.9	57.9
14.	Rourkela	Civil Township chhend (R)	51.8	46.8	64.9	69.1
15.	Sambalpur	Ainthapali(R)	51.2	51.3	67.5	73.5
Prescribed Standard (In Leq dB(A))			55	45	55	45

Table-2(ii) Commercial Zones

Ambient Noise level in dB(A) Leq at different locations on pre and during Deepawali for the year 2024

Sl.No.	Towns/Cities	Monitoring Locations	Pre Deepawali (24.10.2024)		Deepawali (31.10.2024)	
			D	N	D	N
1.	Angul	Bazar chhak(C)	70.8	57.3	77.9	66.6
2.	Balasore	Motiganj Bazar(C)	50.3	43.5	63.7	57.6
3.	Bolangir	Near New Busstand(C)	56.6	51.3	65.5	60.2
4.	Berhampur	Girija market square(C)	80.2	76.4	81.3	87.2
5.	Bhubaneswar	Sahidnagar(C)	61.5	48.3	78.7	78.5
6.	Cuttack	Badambadi(C)	59.1	52.3	72.6	67.6
7.	Jharsuguda	JhandaChowk(C)	62.2	52.9	69.1	69.4
8.	Kalinganagar	GopabandhuChowk(C)	44.5	71.8	78.8	77.6
9.	Keonjhar	Punjabi Chowk(C)	72.9	67.6	80.5	90.3
10.	Konark	NAC Market(C)	56.1	49.8	63.9	54.1
11.	Paradeep	Badapadia Market (C)	66.3	52.3	76.0	63.2
12.	Puri	GundicaMandir, Bus Stand(C)	76.0	70.8	81.2	75.8
13.	Rayagada	Near Main Market(C)	65.9	56.2	66.1	58.9
14.	Rourkela	Panposh(C)	60.1	57.1	62.5	57.6
15.	Sambalpur	Golebazar(C)	68.6	62.6	74.9	73.3
Prescribed Standard (In Leq dB(A))			65	55	65	55

Table-2(iii) Silence Zones

Ambient Noise level in dB(A) Leq at different locations on pre and during Deepawali for the year 2024

Sl.No.	Towns/Cities	Monitoring Locations	Pre Deepawali (24.10.2024)		Deepawali (31.10.2024)	
			D	N	D	N
1.	Angul	District Head Quarter Hospital(S)	65.5	52.6	62.4	51.4
2.	Balasore	District Head Quarter Hospital(S)	51.6	39.9	54.4	45.8
3.	Bolangir	Near BhimaBhoi MCH (S)	50.7	44.4	59.2	62.8
4.	Berhampur	MKCG Medical & Hospital(S)	72.8	71.1	79.9	80.7
5.	Bhubaneswar	Capital Hospital(S)	52.8	48.7	67.9	67.7
6.	Cuttack	SCB Medical College & Hospital(S)	55.0	50.5	64.2	56.2
7.	Jharsuguda	Urban PHC ,Mangalbazar (S)	49.7	37.9	74.1	65.3
8.	Kalinganagar	CHC Hospital, Jajpur Road(S)	63.4	58.3	66.4	58.7
9.	Keonjhar	District Head Quarter Hospital (S)	62.4	51.7	69.9	62.1
10.	Konark	Public Health Centre(S)	40.7	35.1	45.1	36.3
11.	Paradeep	Atharabanki Medical(S)	63.2	46.2	75.8	62.7
12.	Puri	District Head Quarter Hospital(S)	57.7	53.8	70.8	65.7
13.	Rayagada	District Head Quarter Hospital (S)	60.2	53.6	61.7	54.6
14.	Rourkela	Civil & Session Court Uditnagar (S)	52.5	51.9	56.0	73.0
15.	Sambalpur	District Head Quarter Hospital(S)	47.0	46.9	67.6	65.5
Prescribed Standard (In Leq dB(A))			50	40	50	40

Table-2(iv) Industrial Zones

Ambient Noise level in dB(A) Leq at different locations on pre and during Deepawali for the year 2024

Sl.No.	Towns/Cities	Monitoring Locations	Pre Deepawali (24.10.2024)		Deepawali (31.10.2024)	
			D	N	D	N
1.	Angul	Hakimpada(I)	59.0	54.2	63.9	56.8
2.	Balasore	Balasore Industrial Estate(I)	49.9	40.1	54.9	49.9
3.	Bolangir	I.E. Growth Phase-II (I)	46.0	47.3	59.2	53.3
4.	Berhampur	Ankuli(I)	75.3	75.4	77.2	80.2
5.	Bhubaneswar	Mancheswar(I)	65.7	49.8	75.3	74.7
6.	Cuttack	Khapuria(I)	53.5	54.0	64.6	63.4
7.	Jharsuguda	Bombay Chowk(I)	68.8	67.9	71.2	72.3
8.	Kalinganagar	Kalinganagar Industrial Complex (I)	71.0	68.8	76.5	72.3
9.	Paradeep	Premises of IFFCO Ltd(I)	63.0	46.2	70.4	58.0
10.	Rayagada	I.E. Jesco(I)	63.3	57.7	64.3	60.3
11.	Rourkela	Industrial Estate, Kalunga(I)	59.6	56.4	66.1	65.5
12.	Sambalpur	I.E.Bareipali(I)	51.0	54.0	79.6	65.8
Prescribed Standard (In Leq dB(A))			75	70	75	70

C. IMPACT OF DEEPAWALI CELEBRATION ON AIR QUALITY

Continuous Ambient Air Quality was conducted from 24th October to 7th November, 2024 including pre and on the day of Deepawali respectively on 24.10.2024 and 31.10.2024 at 45 locations in 19 town/cities of the state, i.e. Angul, Balasore, Berhampur, Bhubaneswar, Bonaigarh, Cuttack, Jharsuguda, Kalinganagar, Kandhamal, Keonjhar, Konark, Koraput, Paradeep, Puri, Rayagada, Rajgangpur, Rourkela, Sambalpur & Talcher with respect to parameters like SO₂, NO₂, PM₁₀ & PM_{2.5} to assess the status of ambient air quality due to bursting of fire crackers during the celebration.

The SO₂ & NO₂ values on pre and Deepawali days were remained below their respective prescribed limits, i.e. 80 µg/m³ (on 24 hourly average basis) at all 45 locations. The range of SO₂ in pre and on the day of Deepawali is from BDL- 34.3. The maximum value occurred at Cox Colony, Jharsuguda. Similarly NO₂ varies from 9.2- 41.5. The maximum value occurred at Modipara, Sambalpur.

The respirable dust particle matters (PM₁₀) values were above the prescribed limit of 100 µg/m³ (on 24 hourly average basis) at 45 locations except at 02 i.e. SPCB Office building, Koraput and Sakhigopal, Puri on the day of Deepawali. The range varies from 88 µg/m³ – 274 µg/m³. The maximum value occurred at Kunanmunda, Rourkela. In pre Deepawali the values were exceeded the limit at two locations out of 45 locations. The range varies from 23- 113 µg/m³.

On the day of Deepawali, the results of PM_{2.5} exceeded the prescribed limits of 60 µg/m³ at 35 locations (out of 45 locations). The range varies from 39 - 118 µg/m³. The maximum value occurred at IDC-Kalunga. Similarly in pre Deepawali only two out of 45 locations are above the limit of 60 µg/m³. The range varies from 12-92 µg/m³. The maximum value occurred at BRPL guest house, Kalinganagar. The Monitoring locations and results are shown in Table-3.

P.T.O

AMBIENT AIR QUALITY STATUS OF MAJOR CITIES/TOWNS IN PRE & ON THE DAY OF DEEPAWALI FESTIVAL, 2024

Table -3

Sl. No	Town/cities	Monitoring Locations	Parameter Monitored							
			SO ₂		NO ₂		PM ₁₀		PM _{2.5}	
			Values are expressed in microgram per cubic meter							
			PRE	DURING	PRE	DURING	PRE	DURING	PRE	DURING
1	Angul	1. SPCB Office Building	8.4	17.6	11.7	32.4	82	228	25	117
		2. Nalco Township	7.6	20.8	15.7	28.5	68	170	26	87
		3. Sikhyakapada	8.8	17.8	24.9	33.1	73	170	29	85
2	Balasore	4. Ganeswarpur	BDL	5.9	10.2	10.9	66	126	26	56
		5. Oriplast premises, OT Road	BDL	5.6	9.6	10.6	55	103	23	52
		6. Rasalpur Industrial Estate	5.2	7.6	10.8	11.4	69	124	26	61
3	Bhadrak	7. Municipality Office	BDL	6.6	10.2	11.5	69	110	23	54
		8. DP Officers' Club (FACOR)	BDL	6.6	9.9	11.2	66	109	27	50
4	Berhampur	9. Brahmanagar	BDL	21.7	15.7	30.7	44	159	24	98
5	Bhubaneswar	10. SPCB Office Building	BDL	16.6	14.1	22.8	42	171	20	104
		11. IRC Village, Nayapalli	BDL	11.9	11.2	19.9	23	164	13	99
		12. Capital P.S.	BDL	16.3	12.1	18.6	29	162	18	90
		13. Khandagiri P.S.	BDL	BDL	11.2	22.5	36	198	28	89
		14. Chandrasekharpur (SPCB Central laboratory)	BDL	9.2	11.3	23.3	26	106	12	74
15. Palasuni water works	BDL	13.8	11.6	20.3	32	201	17	94		
6	Bonaigarh	16. Govt. Hospital	14.1	22.6	18.1	25.0	95	178	41	89
7	Cuttack	17. SPCB Office Building, Suryavihar	BDL	13.3	19.0	23.5	56	119	27	73
		18. PHD office, Barabati	4.1	8.6	14.1	25.4	51	136	21	68
		19. Hotel Bishal-inn, Badambadi	BDL	13.6	15.0	26.0	45	123	21	74
8	Jharsuguda	20. SPCB Office Building, Cox Colony, Babubagicha	8.9	34.3	13.4	29.7	79	181	34	90
		21. TRL colony	7.7	20.2	13.7	22.3	84	159	40	89
9	Kalinganagar	22. SPCB Office Building	7.3	8.1	13.0	15.0	60	124	59	71
		23. DET Hostel	9.9	13.2	19.2	21.4	85	101	92	53
		24. BRPL Guest House, Duburi	9.0	32.3	12.0	13.3	113	140	76	85
10	Keonjhar	25. SPCB Office Building	BDL	7.8	10.7	21.5	50	132	28	82
11	Konark	26. Police Station	BDL	4.1	12.1	15.3	23	132	13	57
		27. Jagannath Temple	BDL	6.0	10.5	11.6	26	118	14	51
		28. RWSS Building	BDL	BDL	10.6	11.5	36	110	15	46
12	Koraput	29. SPCB Office Building	BDL	4.4	9.6	10.2	43	97	23	39
13	Paradeep	30. STP Building (IFFCO)	16.5	20.0	9.9	18.1	49	117	20	71
		31. PPL Guest House	15.6	21.4	9.9	19.2	44	122	16	68
		32. PPT Staff Quarters	9.6	21.3	9.2	17.4	37	130	18	82
14	Puri	33. Town P.S.	BDL	BDL	9.6	16.9	60	137	12	66
		34. Sadar P.S.	BDL	BDL	9.8	18.5	63	142	13	58
		35. Biraramchandrapur, Sakhigopal	BDL	BDL	11.4	14.5	32	88	19	42
15	Rayagada	36. SPCB Office Building, Indira Nagar	6.9	13.9	22.1	36.1	58	168	25	87
16	Rajgangpur	37. DISIR Premises	10.1	26.6	13.9	26.6	88	203	38	81
17	Rourkela	38. SPCB Office Building	15.5	23.8	18.1	26.1	39	188	14	88
		39. IDL Police Outpost	13.0	21.3	15.0	24.2	108	124	49	76
		40. IDC Kalunga	9.5	13.8	10.4	22.1	69	260	29	118
		41. Kuanarmunda	11.6	13.3	12.5	14.4	100	274	18	93
18	Sambalpur	42. Modipara	6.0	25.7	23.8	41.5	84	267	37	104
19	Talcher	43. Talcher Thermal	8.9	17.6	25.8	32.8	73	170	32	76
		44. MCL area, Talcher	8.5	18.8	26.8	33.2	85	178	38	111
		45. Champapassi village	9.8	17.4	19.6	32.6	63	163	26	73
Standard on 24hrly avg. Basis			80		80		100		60	

N.B-BDL-Below Detection Limit, BDL value for SO₂ ≤4 µg/m³, NM-Not Monitored

Continuous ambient air quality monitoring has been carried out at one location of each 16 cities/towns of Odisha except at two locations in the capital city, Bhubaneswar i.e., at (i) Office Building, Unit-8& (ii) Central laboratory, Patia, Bhubaneswar on occasion of Deepawali 2024 from 24.10.2024 to 07.11.2024 (15 days) covering 7 days pre and 7 days after Dipawali day i.e 31.10.2024 to assess the impact of pre, during and post Deepawali on surrounding ambient air quality as per direction of CPCB with respect to parameters like PM₁₀, PM_{2.5}, SO₂ & NO₂ and Heavy metals like Pb, Ni in PM₁₀ & Fe in PM_{2.5}. The monitoring results of the year 2024 are reflected in Tables 4(i) to 4(xvi).

From the Table It was observed that the gaseous pollutants like SO₂ & NO₂ and heavy metals like Pb, Ni in PM₁₀ & Fe in PM_{2.5} are increased at all locations on the day of Deepawali, with respect to pre and post Deepawali days. But the results are quite below their prescribed limit i.e 80 µg/m³ for SO₂ & NO₂ and 1.0 µg/m³ for Pb and 20 ng/m³ for Ni respectively.

Similarly PM₁₀ & PM_{2.5} values as expected are high on the day of Deepawali and post Deepawali at all locations in comparison to pre Deepawali. PM₁₀ on the day of Deepawali exceed the prescribed limit i.e. 100µg/m³ at all locations except at Koraput. PM_{2.5} exceeds their prescribed limit i.e. 60µg/m³ at all locations except at Puri, Konark and Koraput. The details individual parameters are described below. Observed values of PM₁₀ & PM_{2.5} were highest at Bhubaneswar on the day following Deepawali.

Continuous Ambient Air Monitoring Data from 24.10.2024- 07.11.2024 of different towns/ cities On the eve of Deepawali, 2024.

Table-4(i)

Name of the Monitoring Station:- Angul						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	8.4	11.7	82	25	0.11	1.0	2.64	82(PM ₁₀)	Satisfactory
2.	25.10.2024	5.4	13.4	55	21	0.11	17.9	3.55	55(PM ₁₀)	Satisfactory
3.	26.10.2024	8.4	10.6	65	36	0.10	6.8	2.72	65(PM ₁₀)	Satisfactory
4.	27.10.2024	9.2	10.7	73	27	0.09	17.0	2.28	73(PM ₁₀)	Satisfactory
5.	28.10.2024	9.7	22.5	85	43	0.11	3.5	2.05	85(PM ₁₀)	Satisfactory
6.	29.10.2024	9.7	26.7	81	39	0.12	9.7	1.84	81(PM ₁₀)	Satisfactory
7.	30.10.2024	13.0	26.3	127	75	0.27	14.1	1.6	150(PM _{2.5})	Moderate
8.	31.10.2024	17.6	32.4	228	117	0.45	18.6	2.79	290(PM _{2.5})	Poor
9.	01.11.2024	12.3	14.6	170	81	0.13	11.3	1.47	170(PM _{2.5})	Moderate
10.	02.11.2024	9.7	12.3	165	78	0.14	16.3	0.97	160(PM _{2.5})	Moderate
11.	03.11.2024	13.6	22.5	130	73	0.12	9.0	1.38	143(PM _{2.5})	Moderate
12.	04.11.2024	11.7	26.8	180	89	0.12	7.3	0.94	197(PM _{2.5})	Moderate
13.	05.11.2024	8.3	10.5	153	68	0.12	18.6	1.17	135(PM ₁₀)	Moderate
14.	06.11.2024	14.7	27.5	116	67	0.12	5.6	0.95	123(PM _{2.5})	Moderate
15.	07.11.2024	10.1	27.0	150	81	0.12	11.2	1.92	170(PM _{2.5})	Moderate

Table-4(ii)

Name of the Monitoring Station:- Berhampur						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂			PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	BDL	15.7	44	24	0.11	09.2	01.71	44(PM ₁₀)	Good
2.	25.10.2024	4.7	17.0	54	27	0.13	08.6	01.4	54(PM ₁₀)	Satisfactory
3.	26.10.2024	4.1	17.0	66	34	0.13	06.8	01.24	66(PM ₁₀)	Satisfactory
4.	27.10.2024	4.7	17.1	59	30	0.14	19.5	01.89	59(PM ₁₀)	Satisfactory
5.	28.10.2024	5.8	18.6	70	42	0.15	16.5	01.00	70 Both (PM ₁₀ & PM _{2.5})	Satisfactory
6.	29.10.2024	5.6	18.8	86	48	0.2	14.4	01.22	86(PM ₁₀)	Satisfactory
7.	30.10.2024	7.2	19.7	104	67	0.28	17.8	01.8	123(PM _{2.5})	Moderate
8.	31.10.2024	21.7	30.7	159	98	0.56	16.7	0.77	227(PM _{2.5})	Poor
9.	01.11.2024	12.7	26.0	134	69	0.27	16.2	02.95	130(PM _{2.5})	Moderate
10.	02.11.2024	5.8	17.7	113	58	0.28	18.1	01.17	109(PM ₁₀)	Moderate
11.	03.11.2024	4.6	15.8	97	51	0.2	17.5	0.79	97(PM ₁₀)	Satisfactory
12.	04.11.2024	5.5	16.9	103	67	0.49	18.8	01.08	123(PM _{2.5})	Moderate
13.	05.11.2024	4.5	16.6	93	48	0.25	16.4	01.23	93(PM ₁₀)	Satisfactory
14.	06.11.2024	4.5	15.6	101	71	0.25	18.5	01.02	137(PM _{2.5})	Moderate
15.	07.11.2024	4.3	17.0	80	58	0.23	18.4	01.03	97(PM _{2.5})	Satisfactory

Table-4(iii)

Name of the Monitoring Station:-Balasore						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	-	-	-	-	-	-	-	-	-
2.	25.10.2024	-	-	-	-	-	-	-	-	-
3.	26.10.2024	BDL	10.2	66	26	0.10	13.6	1.21	66(PM ₁₀)	Satisfactory
4.	27.10.2024	5.9	10.9	86	35	0.11	3.80	1.14	86(PM ₁₀)	Satisfactory
5.	28.10.2024	6.2	11.1	100	43	0.16	15.20	0.86	100(PM ₁₀)	Satisfactory
6.	29.10.2024	5.8	10.7	111	39	0.12	11.20	1.16	107(PM ₁₀)	Moderate
7.	30.10.2024	5.6	10.7	85	32	0.09	1.50	0.86	85(PM ₁₀)	Satisfactory
8.	31.10.2024	8.5	10.8	126	56	0.17	14.20	0.68	117(PM ₁₀)	Moderate
9.	01.11.2024	6.7	11.0	123	56	0.16	19.60	0.78	115(PM ₁₀)	Moderate
10.	02.11.2024	6.2	11.3	123	64	0.11	14.80	1.07	115(PM ₁₀)	Moderate
11.	03.11.2024	5.8	11.2	118	56	0.20	15.5	0.75	112(PM ₁₀)	Moderate
12.	04.11.2024	6.9	11.4	125	65	0.12	7.00	1.13	117 Both (PM ₁₀ &PM _{2.5})	Moderate
13.	05.11.2024	6.5	10.8	113	70	0.27	10.8	0.94	133(PM _{2.5})	Moderate
14.	06.11.2024	5.7	10.9	91	54	0.33	13.6	0.76	91(PM ₁₀)	Satisfactory
15.	07.11.2024	5.7	11.1	117	69	0.20	4.80	0.90	130(PM _{2.5})	Moderate

Table-4(iv)

Name of the Monitoring Station:- (i)Office Building, Bhubaneswar						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	BDL	14.1	42	20	0.07	8.3	0.99	42(PM ₁₀)	Good
2.	25.10.2024	BDL	13.8	59	23	0.02	3.5	0.31	59(PM ₁₀)	Satisfactory
3.	26.10.2024	BDL	11.8	85	37	0.08	12.5	0.92	85(PM ₁₀)	Satisfactory
4.	27.10.2024	BDL	14.9	103	41	0.01	4.6	1.19	102(PM ₁₀)	Moderate
5.	28.10.2024	BDL	15.2	120	45	0.01	5.9	0.64	113(PM ₁₀)	Moderate
6.	29.10.2024	BDL	15.0	75	21	0.02	12.8	1.04	75(PM ₁₀)	Satisfactory
7.	30.10.2024	BDL	15.8	61	32	0.03	6.8	0.62	61(PM ₁₀)	Satisfactory
8.	31.10.2024	16.6	22.8	171	104	0.16	10.4	0.87	247(PM _{2.5})	Poor
9.	01.11.2024	6.8	14.0	276	152	0.40	9.00	0.57	325(PM _{2.5})	Very Poor
10.	02.11.2024	12.9	16.7	98	59	0.13	5.8	1.01	98 Both (PM ₁₀ &PM _{2.5})	Satisfactory
11.	03.11.2024	4.4	18.2	99	38	0.01	6.9	0.44	99(PM ₁₀)	Satisfactory
12.	04.11.2024	6.2	21.7	114	53	0.01	5.2	1.08	109(PM ₁₀)	Moderate
13.	05.11.2024	BDL	15.8	97	62	0.02	0.5	0.37	107(PM _{2.5})	Moderate
14.	06.11.2024	5.6	14.0	123	43	0.02	8.6	0.86	115(PM ₁₀)	Moderate
15.	07.11.2024	BDL	18.0	75	35	0.02	1.5	0.35	75(PM ₁₀)	Satisfactory

Table-4(v)

Name of the Monitoring Station:- (i)Chandrasekharpur (Central Laboratory)						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
1.	24.10.2024	BDL	13.3	26	12	0.1	0.5	1.05	26(PM ₁₀)	Good
2.	25.10.2024	BDL	12.7	60	23	0.04	4.1	1.03	60(PM ₁₀)	Satisfactory
3.	26.10.2024	BDL	13.3	66	27	0.03	8.0	1.02	66(PM ₁₀)	Satisfactory
4.	27.10.2024	BDL	15.1	84	40	0.02	2.6	1.69	84(PM ₁₀)	Satisfactory
5.	28.10.2024	BDL	14.8	59	34	0.04	6.0	1.07	59(PM ₁₀)	Satisfactory
6.	29.10.2024	BDL	15.1	49	27	0.02	8.0	1.11	49(PM ₁₀)	Satisfactory
7.	30.10.2024	BDL	16.8	47	29	0.23	5.8	1.57	47(PM ₁₀)	Satisfactory
8.	31.10.2024	9.2	23.3	106	74	0.78	8.2	1.56	147(PM _{2.5})	Moderate
9.	01.11.2024	15.3	20.7	122	79	0.21	3.3	1.18	163(PM _{2.5})	Moderate
10.	02.11.2024	8.4	15.1	91	70	0.02	3.1	1.72	133(PM _{2.5})	Moderate
11.	03.11.2024	7.3	18.6	99	74	0.05	12.3	1.72	147(PM _{2.5})	Moderate
12.	04.11.2024	BDL	15.6	114	66	0.02	2.0	0.64	120(PM _{2.5})	Moderate
13.	05.11.2024	BDL	23.5	125	59	0.01	2.1	1.15	117(PM ₁₀)	Moderate
14.	06.11.2024	BDL	14.5	102	65	0.01	11.2	0.31	117(PM _{2.5})	Moderate
15.	07.11.2024	BDL	15.2	111	40	0.02	3.4	1.39	107(PM ₁₀)	Moderate

Table-4(vi)

Name of the Monitoring Station:- Cuttack						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
1.	24.10.2024	BDL	19.0	56	27	0.2	19.6	1.03	56(PM ₁₀)	Satisfactory
2.	25.10.2024	BDL	21.6	63	21	0.22	13.8	0.99	63 (PM ₁₀)	Satisfactory
3.	26.10.2024	4.9	20.2	54	38	0.21	18.7	0.98	54(PM ₁₀)	Satisfactory
4.	27.10.2024	4.7	21.4	68	42	0.25	17.7	0.75	68(PM ₁₀)	Satisfactory
5.	28.10.2024	4.9	21.8	91	38	0.19	7.7	1.43	91(PM ₁₀)	Satisfactory
6.	29.10.2024	6.6	21.5	82	43	0.15	11.4	1.18	82(PM ₁₀)	Satisfactory
7.	30.10.2024	5.5	19.2	83	64	0.15	19.4	1.11	113(PM _{2.5})	Moderate
8.	31.10.2024	13.3	23.5	119	73	0.96	18.1	1.14	143(PM _{2.5})	Moderate
9.	01.11.2024	11.4	25.3	110	65	0.24	19.3	0.95	117(PM _{2.5})	Moderate
10.	02.11.2024	6.3	21.0	101	53	0.34	18.7	0.87	101(PM ₁₀)	Moderate
11.	03.11.2024	5.2	22.3	106	57	0.23	15.0	1.07	104(PM ₁₀)	Moderate
12.	04.11.2024	7.0	20.2	115	59	0.22	15.9	0.67	110(PM ₁₀)	Moderate
13.	05.11.2024	5.4	21.2	111	56	0.21	18.5	0.8	107(PM ₁₀)	Moderate
14.	06.11.2024	6.4	23.7	117	59	0.17	10.4	0.77	111(PM ₁₀)	Moderate
15.	07.11.2024	5.8	21.9	114	54	0.22	15.3	0.75	109(PM ₁₀)	Moderate

Table-4(vii)

Name of the Monitoring Station:-Jharsuguda						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	09.0	13.4	79	34	0.59	3.4	1.66	79(PM ₁₀)	Satisfactory
2.	25.10.2024	09.2	13.4	77	34	0.12	2.7	1.06	77(PM ₁₀)	Satisfactory
3.	26.10.2024	08.9	13.3	98	38	0.12	7.4	1.09	98(PM ₁₀)	Satisfactory
4.	27.10.2024	08.7	13.5	75	30	0.12	10.7	1.19	75(PM ₁₀)	Satisfactory
5.	28.10.2024	09.4	13.2	103	55	0.11	10.5	1.08	102(PM ₁₀)	Moderate
6.	29.10.2024	09.3	13.4	116	64	0.13	3.7	1.37	113(PM _{2.5})	Moderate
7.	30.10.2024	11.9	14.6	129	72	0.15	2.1	1.51	140(PM _{2.5})	Moderate
8.	31.10.2024	34.3	29.7	181	90	0.34	13.0	1.9	200(PM _{2.5})	Moderate
9.	01.11.2024	30.0	27.6	172	85	0.28	3.0	1.03	183(PM _{2.5})	Moderate
10.	02.11.2024	19.7	22.2	118	68	0.28	6.1	1.38	127(PM _{2.5})	Moderate
11.	03.11.2024	10.5	14.8	133	72	0.19	2.1	1.8	140(PM _{2.5})	Moderate
12.	04.11.2024	10.7	14.3	135	68	0.34	2.7	0.34	127(PM _{2.5})	Moderate
13.	05.11.2024	10.3	14.7	132	64	0.17	8.3	1.39	121(PM ₁₀)	Moderate
14.	06.11.2024	09.8	13.7	128	69	0.15	6.8	1.28	130(PM _{2.5})	Moderate
15.	07.11.2024	10.2	13.9	129	68	0.18	8.7	0.67	127(PM _{2.5})	Moderate

Table-4(viii)

Name of the Monitoring Station:-Kalinganagar						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	-	-	-	-	-	-	-		
2.	25.10.2024	-	-	-	-	-	-	-		
3.	26.10.2024	-	-	-	-	-	-	-		
4.	27.10.2024	7.3	13.0	60	59	0	5.2	6.33	98(PM _{2.5})	Satisfactory
5.	28.10.2024	8.1	16.9	89	-	0	9.2	9.76	89(PM ₁₀)	Satisfactory
6.	29.10.2024	8.0	15.1	75	61	0	2.5	13.43	98(PM _{2.5})	Satisfactory
7.	30.10.2024	6.7	13.5	63	55	0.01	3.0	9.92	63(PM ₁₀)	Satisfactory
8.	31.10.2024	11.5	15.7	131	81	0.72	14.8	18.89	170(PM _{2.5})	Moderate
9.	01.11.2024	8.2	15.3	82	72	0.12	9.9	19.47	140(PM _{2.5})	Moderate
10.	02.11.2024	7.4	14.6	100	42	0.01	9.3	03.31	100(PM ₁₀)	Satisfactory
11.	03.11.2024	7.7	15.5	95	64	0.01	3.9	01.59	113(PM _{2.5})	Moderate
12.	04.11.2024	10.2	18.3	115	58	0.01	4.7	07.69	110(PM ₁₀)	Moderate
13.	05.11.2024	8.3	14.5	157	91	0	13.6	08.33	203(PM _{2.5})	Poor
14.	06.11.2024	7.8	16.4	151	94	0.01	4.6	8.0	213(PM _{2.5})	Poor
15.	07.11.2024	8.1	15.0	124	71	0.01	16.2	4.55	137(PM _{2.5})	Moderate

Table-4(ix)

Name of the Monitoring Station:-Keonjhar						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
(values expressed in Microgram per cubic meter)										
1.	24.10.2024	-	-	-	-					
2.	25.10.2024	-	-	-	-					
3.	26.10.2024	-	-	-	-					
4.	27.10.2024	BDL	10.7	50	28	0.09	5.9	1.07	50(PM ₁₀)	Good
5.	28.10.2024	BDL	13.2	55	36	0.08	5.3	1.66	55(PM ₁₀)	Satisfactory
6.	29.10.2024	4.4	15.7	54	39	0.11	4.2	1.48	65(PM _{2.5})	Satisfactory
7.	30.10.2024	4.2	13.2	49	27	0.09	5.1	1.07	49(PM ₁₀)	Good
8.	31.10.2024	7.8	21.5	132	82	0.35	11.9	1.99	173(PM _{2.5})	Moderate
9.	01.11.2024	7.3	18.9	140	70	0.22	6.8	1.17	133(PM _{2.5})	Moderate
10.	02.11.2024	BDL	11.5	103	49	0.10	4.9	0.97	102(PM ₁₀)	Moderate
11.	03.11.2024	BDL	12.8	95	39	0.11	5.7	0.69	95(PM ₁₀)	Satisfactory
12.	04.11.2024	BDL	13.4	103	59	0.17	5.1	0.97	102(PM ₁₀)	Moderate
13.	05.11.2024	BDL	11.0	113	66	0.16	8.9	0.77	120(PM _{2.5})	Moderate
14.	06.11.2024	4.3	14.9	123	58	0.19	8.8	0.68	115(PM ₁₀)	Moderate
15.	07.11.2024	4.4	14.8	126	61	0.09	9.7	0.73	117(PM ₁₀)	Moderate

Table-4(x)

Name of the Monitoring Station:- Konark						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
(values expressed in Microgram per cubic meter)										
1.	24.10.2024	BDL	12.1	23	13	0.17	11.3	1.34	23(PM ₁₀)	Good
2.	25.10.2024	BDL	11.6	30	15	0.2	16.9	1.22	30(PM ₁₀)	Good
3.	26.10.2024	BDL	12.5	55	18	0.15	9.7	1.58	55(PM ₁₀)	Satisfactory
4.	27.10.2024	BDL	11.5	43	16	0.17	6.5	1.36	43(PM ₁₀)	Good
5.	28.10.2024	BDL	10.5	53	22	0.16	18.4	0.51	53(PM ₁₀)	Satisfactory
6.	29.10.2024	BDL	12.5	54	19	0.15	17.7	1.78	54(PM ₁₀)	Satisfactory
7.	30.10.2024	BDL	12.5	65	22	0.19	9.3	1.55	65(PM ₁₀)	Satisfactory
8.	31.10.2024	4.1	15.3	132	57	0.24	14.8	1.66	121(PM ₁₀)	Moderate
9.	01.11.2024	BDL	16.0	96	48	0.18	12.3	1.31	96(PM ₁₀)	Satisfactory
10.	02.11.2024	BDL	15.5	84	38	0.19	4.3	2.37	84(PM ₁₀)	Satisfactory
11.	03.11.2024	BDL	14.8	73	29	0.2	14.7	1.52	73(PM ₁₀)	Satisfactory
12.	04.11.2024	BDL	13.4	63	27	0.19	18.1	0.85	63(PM ₁₀)	Satisfactory
13.	05.11.2024	BDL	13.3	78	39	0.18	9.8	1.1	78(PM ₁₀)	Satisfactory
14.	06.11.2024	BDL	14.7	89	41	0.22	12.9	1.99	89(PM ₁₀)	Satisfactory
15.	07.11.2024	BDL	12.7	38	16	0.21	16.2	0.92	38(PM ₁₀)	Good

Table-4(xi)

Name of the Monitoring Station:-Koraput						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	Fe ($\mu\text{g}/\text{m}^3$)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	BDL	9.6	43	23	0.15	5.3	0.8	43(PM ₁₀)	Good
2.	25.10.2024	BDL	9.5	47	22	0.12	4.9	0.75	47(PM ₁₀)	Good
3.	26.10.2024	BDL	9.6	51	27	0.13	3.7	0.53	51(PM ₁₀)	Satisfactory
4.	27.10.2024	BDL	9.7	54	23	0.19	6.9	1.08	54(PM ₁₀)	Satisfactory
5.	28.10.2024	BDL	9.7	57	28	0.18	4.3	1.65	57(PM ₁₀)	Satisfactory
6.	29.10.2024	4.0	9.9	61	29	0.13	3.2	1.41	61(PM ₁₀)	Satisfactory
7.	30.10.2024	4.1	9.9	82	37	0.13	6.1	0.93	82(PM ₁₀)	Satisfactory
8.	31.10.2024	4.4	10.2	97	39	0.45	10.9	1.27	97(PM ₁₀)	Satisfactory
9.	01.11.2024	4.2	10.4	82	31	0.19	6.6	1.14	82(PM ₁₀)	Satisfactory
10.	02.11.2024	4.1	10.2	77	34	0.14	4.2	0.97	77(PM ₁₀)	Satisfactory
11.	03.11.2024	BDL	10.1	69	28	0.16	5.3	0.6	69(PM ₁₀)	Satisfactory
12.	04.11.2024	BDL	9.8	66	25	0.16	4.0	0.99	66(PM ₁₀)	Satisfactory
13.	05.11.2024	BDL	9.7	68	27	0.16	8.1	0.76	68(PM ₁₀)	Satisfactory
14.	06.11.2024	BDL	9.6	53	27	0.19	8.9	0.64	53(PM ₁₀)	Satisfactory
15.	07.11.2024	BDL	9.6	49	22	0.2	9.2	0.72	49(PM ₁₀)	Good

Table-4(xii)

Name of the Monitoring Station:- Paradeep						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	Fe ($\mu\text{g}/\text{m}^3$)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	-	-	-	-	0.02	1.2	-		
2.	25.10.2024	-	-	-	-	0.07	17.2	-		
3.	26.10.2024	9.6	8.4	37	19	0.32	19.4	1.36	37(PM ₁₀)	Good
4.	27.10.2024	9.1	8.7	61	32	0.01	15.5	1.27	53(PM ₁₀)	Satisfactory
5.	28.10.2024	11.7	10.4	55	24	0.02	12	1.28	55(PM ₁₀)	Satisfactory
6.	29.10.2024	10.6	8.9	62	27	0.04	15.9	1.78	62(PM ₁₀)	Satisfactory
7.	30.10.2024	14.0	10.6	65	31	0.04	13.6	1.07	65(PM ₁₀)	Satisfactory
8.	31.10.2024	21.3	17.4	130	82	0.19	18.4	1.22	173(PM _{2.5})	Moderate
9.	01.11.2024	19.1	13.7	122	57	0.14	9.3	1.69	115(PM ₁₀)	Moderate
10.	02.11.2024	14.2	11.1	111	44	0.11	5.7	1.09	107(PM ₁₀)	Moderate
11.	03.11.2024	11.0	11.3	107	47	0.06	16.1	1.02	105(PM ₁₀)	Moderate
12.	04.11.2024	12.2	11.8	101	43	0.05	18	0.91	101(PM ₁₀)	Moderate
13.	05.11.2024	12.8	11.3	79	42	0.04	18.1	1.06	79(PM ₁₀)	Satisfactory
14.	06.11.2024	13.7	10.2	85	46	0.08	18.2	1.57	85(PM ₁₀)	Satisfactory
15.	07.11.2024	11.7	8.7	93	38	0.06	18.5	1.22	93(PM ₁₀)	Satisfactory

Table-4(xiii)

Name of the Monitoring Station:- Puri						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	-	-	-	-					
2.	25.10.2024	-	-	-	-					
3.	26.10.2024	BDL	9.8	63	13	0.2	11.2	1.19	63(PM ₁₀)	Satisfactory
4.	27.10.2024	BDL	9.7	62	15	0.21	14.6	1.2	62(PM ₁₀)	Satisfactory
5.	28.10.2024	BDL	9.9	62	13	0.21	4.6	0.95	62(PM ₁₀)	Satisfactory
6.	29.10.2024	BDL	10.2	60	12	0.23	12.5	0.27	60(PM ₁₀)	Satisfactory
7.	30.10.2024	BDL	10.4	65	14	0.23	4.6	1.52	65(PM ₁₀)	Satisfactory
8.	31.10.2024	BDL	18.5	142	58	0.24	11.2	1.36	128(PM ₁₀)	Moderate
9.	01.11.2024	4.8	19.2	177	44	0.19	7.8	1.96	151(PM ₁₀)	Moderate
10.	02.11.2024	BDL	12.7	121	-	0.22	8	0.89	114(PM ₁₀)	Moderate
11.	03.11.2024	BDL	11.0	91	29	0.25	13.8	1.23	91(PM ₁₀)	Satisfactory
12.	04.11.2024	BDL	10.5	81	26	0.22	4	1.65	81(PM ₁₀)	Satisfactory
13.	05.11.2024	BDL	10.3	74	24	0.22	8.4	1.74	74(PM ₁₀)	Satisfactory
14.	06.11.2024	BDL	10.3	71	18	0.22	5.2	1.17	71(PM ₁₀)	Satisfactory
15.	07.11.2024	BDL	10.2	68	14	0.26	5.9	1.27	68(PM ₁₀)	Satisfactory

Table-4(xiv)

Name of the Monitoring Station:-Rayagada						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	6.9	22.1	58	25	0.01	6.6	2.18	58(PM ₁₀)	Satisfactory
2.	25.10.2024	7.2	23.4	69	31	0.01	4.6	1.1	69(PM ₁₀)	Satisfactory
3.	26.10.2024	7.1	23.3	71	34	0.01	8.4	1.12	71(PM ₁₀)	Satisfactory
4.	27.10.2024	4.8	21.4	51	26	0.01	7.6	0.23	51(PM ₁₀)	Satisfactory
5.	28.10.2024	7.9	24.1	72	36	0.02	4.9	0.47	72(PM ₁₀)	Satisfactory
6.	29.10.2024	7.8	24.2	81	41	0.04	14.9	1.1	81(PM ₁₀)	Satisfactory
7.	30.10.2024	9.5	25.1	86	45	0.05	13.4	0.23	86(PM ₁₀)	Satisfactory
8.	31.10.2024	13.9	36.1	168	87	0.17	15.1	2.48	190(PM _{2.5})	Moderate
9.	01.11.2024	11.7	29.1	87	62	0.14	19.2	9.57	87(PM ₁₀)	Satisfactory
10.	02.11.2024	9.1	24.7	82	40	0.07	13.9	3.85	82(PM ₁₀)	Satisfactory
11.	03.11.2024	8.0	24.9	81	37	0.04	9.3	2.23	81(PM ₁₀)	Satisfactory
12.	04.11.2024	7.6	24.3	78	35	0.02	7.3	4.22	78(PM ₁₀)	Satisfactory
13.	05.11.2024	8.4	24.6	87	39	0.01	3.8	3.2	87(PM ₁₀)	Satisfactory
14.	06.11.2024	7.7	23.9	75	32	0.01	3.1	3.45	75(PM ₁₀)	Satisfactory
15.	07.11.2024	7.3	23.3	68	29	0.01	2.9	2.14	68(PM ₁₀)	Satisfactory

Name of the Monitoring Station:- Rourkela						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	15.8	18.5	39	14	0.11	19.3	2.15	39(PM ₁₀)	Good
2.	25.10.2024	16.7	19.1	35	43	0.08	17	2.48	72(PM _{2.5})	Satisfactory
3.	26.10.2024	15.9	18.7	40	26	0.09	12.5	1.03	43(PM _{2.5})	Good
4.	27.10.2024	18.0	21.8	43	35	0.13	19.5	1.7	58(PM _{2.5})	Satisfactory
5.	28.10.2024	19.0	24.0	41	36	0.13	14.3	2.2	60(PM _{2.5})	Satisfactory
6.	29.10.2024	22.4	24.8	70	42	0.14	7.2	2.84	70 both (PM ₁₀ &PM _{2.5})	Satisfactory
7.	30.10.2024	23.3	25.7	50	35	0.14	3	2.34	58(PM _{2.5})	Satisfactory
8.	31.10.2024	24.3	26.7	188	88	0.37	16.9	2.31	193(PM _{2.5})	Moderate
9.	01.11.2024	22.7	25.4	171	74	0.36	6.3	1.98	147 both (PM ₁₀ &PM _{2.5})	Moderate
10.	02.11.2024	20.8	24.2	125	66	0.25	18.1	2.14	120(PM _{2.5})	Moderate
11.	03.11.2024	19.4	23	81	67	0.19	17	1.79	123(PM _{2.5})	Moderate
12.	04.11.2024	19.8	22	114	53	0.19	5.8	1.8	109(PM ₁₀)	Moderate
13.	05.11.2024	18.1	21.3	87	55	0.2	19.1	1.57	92(PM _{2.5})	Satisfactory
14.	06.11.2024	16.3	20.5	111	52	0.28	13.7	1.07	107(PM ₁₀)	Moderate
15.	07.11.2024	15.4	18.5	109	57	0.19	18.5	1.32	106(PM ₁₀)	Moderate

Table-4(xvi)

Name of the Monitoring Station:-Sambalpur						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	6.0	23.8	84	37	0.26	13.5	2.94	84(PM ₁₀)	Satisfactory
2.	25.10.2024	6.6	24.3	96	40	0.29	17.5	1.85	96(PM ₁₀)	Satisfactory
3.	26.10.2024	5.9	23.7	89	36	0.27	18.8	1.35	89(PM ₁₀)	Satisfactory
4.	27.10.2024	7.1	24.8	102	45	0.27	12.1	2.26	101(PM ₁₀)	Moderate
5.	28.10.2024	7.3	25.1	108	48	0.3	10.6	2.96	105(PM ₁₀)	Moderate
6.	29.10.2024	7.9	25.8	121	56	0.27	9.4	2.0	114(PM ₁₀)	Moderate
7.	30.10.2024	9.8	29.8	165	68	0.31	14.2	2.33	143(PM ₁₀)	Moderate
8.	31.10.2024	25.7	41.5	267	104	0.30	16.3	7.0	247(PM _{2.5})	Poor
9.	01.11.2024	21.3	36.7	234	91	0.25	6.5	1.99	203(PM _{2.5})	Poor
10.	02.11.2024	18.2	33.0	226	87	0.26	2.4	2.57	190(PM _{2.5})	Moderate
11.	03.11.2024	16.5	31.8	205	78	0.24	15.5	1.92	170(PM ₁₀)	Moderate
12.	04.11.2024	14.8	30.3	182	72	0.27	9.5	2.19	155(PM ₁₀)	Moderate
13.	05.11.2024	14.2	32.0	176	69	0.28	11.9	2.23	151(PM ₁₀)	Moderate
14.	06.11.2024	13.8	31.4	187	75	0.28	19.3	1.96	158(PM ₁₀)	Moderate
15.	07.11.2024	13.4	32.5	194	82	0.27	6.8	2.16	173(PM _{2.5})	Moderate

Name of the Monitoring Station:-Talcher						Metals in PM ₁₀		Metals in PM _{2.5}	AQI w. r. t Prominent Pollutant	Categorization
Sl.No.	Date of Monitoring	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)		
		(values expressed in Microgram per cubic meter)								
1.	24.10.2024	8.9	25.8	73	32	0.12	19.3	1.81	73(PM ₁₀)	Satisfactory
2.	25.10.2024	6.2	22.1	60	21	0.10	10.9	1.57	60(PM ₁₀)	Satisfactory
3.	26.10.2024	10.0	27.5	47	16	0.10	6.4	0.97	47(PM ₁₀)	Good
4.	27.10.2024	11.1	29.0	82	45	0.12	16.1	0.73	82(PM ₁₀)	Satisfactory
5.	28.10.2024	8.3	25.1	56	24	0.13	8.3	1.25	56(PM ₁₀)	Satisfactory
6.	29.10.2024	11.3	30.4	85	47	0.16	14.4	1.15	85(PM ₁₀)	Satisfactory
7.	30.10.2024	12.4	28.7	108	53	0.20	18.1	1.74	105(PM ₁₀)	Moderate
8.	31.10.2024	17.6	32.8	170	76	0.26	18.3	1.47	153(PM _{2.5})	Moderate
9.	01.11.2024	14.1	31.2	171	83	0.24	19	3.0	177(PM _{2.5})	Moderate
10.	02.11.2024	12.0	28.7	140	63	0.18	18.1	2.81	127(PM ₁₀)	Moderate
11.	03.11.2024	10.6	29.0	136	51	0.13	13.5	2.38	124(PM ₁₀)	Moderate
12.	04.11.2024	11.2	27.7	159	70	0.12	7.3	2.75	139(PM ₁₀)	Moderate
13.	05.11.2024	9.1	26.4	153	67	0.13	8.5	2.26	135(PM ₁₀)	Moderate
14.	06.11.2024	37	18.6	127	58	0.16	11.5	2.7	118(PM ₁₀)	Moderate
15.	07.11.2024	12.5	29.7	131	63	0.18	9.1	2.1	121(PM ₁₀)	Moderate

N.B:-BDL- Below Detectable Limit, BDL Value for SO₂ ≤4 µg/m³,

Range of PM₁₀ & PM_{2.5} values with max values observed on the Deepawali day at different cities/towns areas on the table below.

SL. No	Cities/Towns	PM ₁₀ (Microgram per cubic meter)		PM _{2.5} (Microgram per cubic meter)	
		Deepawali day	Range of values	Deepawali day	Range of values
1.	Angul	228	55-228	117	21-117
2.	Berhampur	159	44-159	98	24-98
3.	Balasore	126	66-126	56	26-70
4.(i)	Unit-8, Bhubaneswar	171	42-276	104	20-152
(ii)	Patia, Bhubaneswar	106	26-125	74	12-79
5.	Cuttack	119	54-119	73	21-73
6.	Jharsuguda	181	75-181	90	30-90
7.	Kalinganagar	131	60-157	81	42-94
8.	Keonjhar	132	49-140	82	27-82
9.	Konark	132	23-132	57	13-57
10.	Puri	142	60-177	58	12-58
11.	Paradeep	130	37-130	82	19-82
12.	Rayagada	168	51-168	87	25-87
13.	Rourkela	188	35-188	88	14-88
14.	Sambalpur	267	84-267	104	36-104
15.	Talcher	170	47-171	76	16-83
16.	Koraput	97	43-97	39	22-39

Conclusion:-

Ambient Air quality monitoring had been carried out in 45 locations of 19 cities/towns of Odisha on eve of Deepawali during Pre and on the day of Deepawali also continuous ambient air quality has been conducted at one location of each cities and town except at two locations in the capital cities of Bhubaneswar have been carried out from 24.10.2024 to 07.11.2024 (15 days), 7days prior to Deepawali and 7 days after Deepawali to assess the impact of bursting of fire crackers on the surrounding Ambient Air Quality and impact on ambient noise quality. In addition to it Ambient Noise was monitored at 57 locations in 15 cities/towns of Odisha.

From the report it was revealed that at most of the locations Ambient Noise on the day of both Dushera and Deepawali have recorded higher values than that the corresponding Pre monitored value and the values are slightly above their prescribed limit for the day and night time in on all four zones that Industrial, Commercial, Residential, and Silence zone.

Similarly Ambient Air Quality on pre During and Post Deepawali period shows that the pollutants like PM_{10} , $PM_{2.5}$, SO_2 , & NO_2 , Pb and Ni in PM_{10} and Fe in $PM_{2.5}$ at most of the locations on the day of Deepawali sharply increases in comparison to Pre values. However the gaseous pollutant like SO_2 , NO_2 and Ni in PM_{10} and Fe in $PM_{2.5}$ are within their respective prescribed limit. While PM_{10} on the day of Deepawali was above the prescribed limit of $100\mu g/m^3$ at 43 (out of 45) locations. While $PM_{2.5}$ exceeded the limit of $60\mu g/m^3$ at 34 locations (out of 45) on the day of Deepawali. The maximum PM_{10} value i.e $274\mu g/m^3$ observed at Kuanrarmunda, Rourkela and maximum $PM_{2.5}$ value i.e $118\mu g/m^3$ observed at IDC Kalunga, Rourkela. This is due to the impact of bursting of fire crackers.

The Air Quality Index (AQI) value of continuous monitoring days (15 days) at 17 locations of 16 cities were calculated and categorised from the result it was observed that Pre & Post period the AQI at all monitored locations were mostly fall under Good to Moderate Category. However on the day of Deepawali and the day following Deepawali due to bursting of fire crackers the AQI value falls under Moderate category at 13 locations, Poor category at 4 locations and at 1 location in Office building, Bhubaneswar falls under Very poor category(on 01.11.2024). On the day of Deewali the prominent pollutant is found to be ($PM_{2.5}$) in most of the cases.

1933

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STATE POLLUTION CONTROL BOARD, ODISHA
 (FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT,
 GOVERNMENT OF ODISHA)

No. 17408 VISC-LEM (Proj.) - 96/2024-25 Dt. 29-10-24

**ADVISORY GUIDELINES OF GOVT. OF ODISHA/
 STATE POLLUTION CONTROL BOARD, ODISHA
 FOR BURSTING OF FIRE CRACKERS**


- Celebrate Deepavali by burning Diyas only and limit bursting of fire crackers between 7 p.m. to 9 p.m. only. Also avoid bursting of serious fire crackers and crackers generating a peak noise level of 125 dBA.
- Fire crackers should not be burst near gardens/parks, in silence zone such as areas comprising 100 meters around hospitals, educational institutions, courts, religion places etc. as declared by the competent authority.
- Only green fire crackers are allowed in open areas.
- Avoid using fire crackers near slum and structures that are easily flammable on road and busy traffic.
- Children below 10 years are not allowed to burst sound generating fire crackers. Wear cotton cloths while bursting firecrackers.
- Hon'ble Supreme Court has also banned production and sale of crackers except green crackers. Uses of Barium and banned chemicals in fire crackers have also been prohibited.

Sd/-
 Member Secretary

OIPR 08012/11/01132425

The times of India dt-30.10.24 p-15

ରାଜ୍ୟ ପ୍ରଦୂଷଣ ନିୟନ୍ତ୍ରଣ ବୋର୍ଡ଼, ଓଡ଼ିଶା
 (ଜଙ୍ଗଲ, ପରିବେଶ ଏବଂ ଜଳବାୟୁ ପରିବର୍ତ୍ତନ ବିଭାଗ,
 ଓଡ଼ିଶା ସରକାର)

 ପରିବେଶ ସମ୍ପର୍କ, ଏ/୧୧୮, ଚାନ୍ଦିନୀନଗର,
 ସୂଚନା-୮, ଭୁବନେଶ୍ୱର - ୭୫୧୦୧୨

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୦. ୧୨୪୦୨ VISC-LEM (Proj.) - 96/2024 25 ଡି.୨୯.୧୦.୨୦୨୪

**ଡାପାବଳିରେ ଆଚସ୍ତବାଜି ବ୍ୟବହାର ସମ୍ବନ୍ଧୀୟ
 ସରକାରୀ ନିର୍ଦ୍ଦେଶାବଳୀ**

- ଅତ୍ୟୁଚିତ ଭାବେ ଡାପ ବାଜି ଡାପାବଳି ପାଳନ କରିବା।
- ଯଥା ସମ୍ଭବ କେବଳ କର୍ତ୍ତବ୍ୟ ସମୟ ଓ ସ୍ଥାନରେ ବାଜି ବଜାଇବା (କେବଳ ୨୦୦ ମିଟର ପର୍ଯ୍ୟନ୍ତ ଦୂରତାରେ ନ୍ୟାୟାଳୟର ଆବେଦନ ଅନୁଯାୟୀ କରାଯିବ) ଏବଂ ଯେଉଁଠି ୧୨୫ ଡିସିବିଏଲ୍ ସ୍ତରରୁ ଊର୍ଦ୍ଧ୍ୱ ଶବ୍ଦ ସୃଷ୍ଟି କରୁଥିବା କୌଣସି ପ୍ରକାର, ବିକ୍ରି ଓ ବ୍ୟବହାର କରାଯାଇ ନିଷିଦ୍ଧ ଅଟେ, ତେଣୁ ତାହାକୁ ସମ୍ପୂର୍ଣ୍ଣ ବନ୍ଦ କରିବା।
- ବୈନା / ପାର୍ଟି, ପରମ୍ପରା ସ୍ୱାଭାବିକ ପୋଡ଼ିତ ନାଚ ଓ ଅନ୍ୟ ଯଥା ବାଦ୍ୟମାନ, ଶିଶୁମୁଖ୍ୟାନ, ବ୍ୟାୟାମୟ, ଧାର୍ମିକ ପଦ ପଢ଼ାଯିବା ୧୦୦ ମିଟର ପରିସରରେ କୌଣସି ପ୍ରକାର ନିଷିଦ୍ଧ ଅଟେ।
- ୧୦ ବର୍ଷରୁ କମ୍ ପିଲାମାନଙ୍କ ପାଇଁ ଉଚ୍ଚ ଶବ୍ଦ ସୃଷ୍ଟି କରୁଥିବା କୌଣସି ପ୍ରକାର ନିଷିଦ୍ଧ ଅଟେ। କୌଣସି ପ୍ରକାର କାର୍ଯ୍ୟରେ ସୁନା ବାଜି ପରିଧାନ କରିବା ନିଷିଦ୍ଧ।

Sd/- ପରମ୍ପରା ସମ୍ପର୍କ

OIPR 08012/11/01132425

ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ୦.୧୦.୨୪ ପୃଷ୍ଠା - ୧୨

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**FOREST AND ENVIRONMENT DEPARTMENT
NOTIFICATION**

The 12th February 2002

S. R. O. No. 215/2002—In exercise of the powers conferred by clause (c) of rule 2 of the Noise Pollution (Regulation and Control) Rules, 2002, the State Government do hereby designate the District Magistrates, the Additional District Magistrates, the Subdivisional Magistrates, the Superintendent of Police, the Additional Superintendent of Police, the Deputy Superintendent of Police and the Subdivisional Police Officers of the concerned districts and Subdivisions, respectively as the "authority" for maintenance of ambient air quality standards in respect of noise.

[No. 2849—ENV-I-10/2000-F.&E.,]

By order of the Governor

A. S. SARANGI

Principal Secretary to Government

ANNEXURE-R3/6

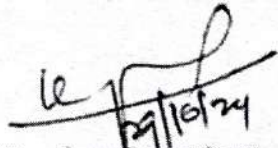


STATE POLLUTION CONTROL BOARD, ODISHA
 [FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF ODISHA]

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 Member Secretary