

AMBIENT NOISE LEVEL AND AIR QUALITY DURING DEEPAWALI, 2019 OF MAJOR CITIES / TOWNS OF ODISHA



AMBIENT AIR QUALITY STANDARDS IN RESPECT OF NOISE

Category Area/Zone	of	Limits in dB(A) Leq	
		Day Time (6.00 a.m. - 10.00 p.m.)	Night Time (10.00 p.m. - 6.00 a.m.)
Industrial area		75	70
Commercial area		65	55
Residential area		55	45
Silence Zone		50	40

NATIONAL AMBIENT AIR QUALITY STANDARDS (24 HOURLY)

SO ₂ (µg/m ³)	NO _x (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
80	80	100	60

AMBIENT NOISE LEVEL AND AIR QUALITY DURING DEEPAWALI, 2019 OF MAJOR CITIES/TOWNS OF ODISHA

1. ANGUL & Talcher

- Latitude & Longitude :20⁰49'90.0"N /85⁰06'52.5"E
- Climate/Meteorology: Dry
- Population-84,636(as per 2011 census)
- Major land use: Residential& Commercial

DESCRIPTION OF MONITORING AREA:

1. Location-A (Residential Zone) - Amalapada
2. Location-B (Commercial Zone) - Bazar Chhak
3. Location-C (Silence Zone) - District Head Quarter Hospital
4. Location-D (Industrial Zone) - Industrial Estate,Angul

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location : A Amalapada	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
		L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
Time duration	Residential						
18:00 to 19:00 Hr		46.3	83.5	63.5	52.4	87.0	75.5
19:00 to 20:00 Hr		48.2	89.2	66.2	54.0	90.2	78.2
20:00 to 21:00 Hr		54.6	76.2	64.4	58.3	83.5	64.0
21:00 to 22:00 Hr		58.2	78.0	62.4	60.4	68.2	64.4
22:00 to 23:00 Hr		54.2	76.4	58.3	58.2	72.4	62.5
23:00 to 24:00 Hr		51.4	74.0	54.4	54.2	75.8	58.2

Location : B Bazar Chhak	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
		L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
Time duration	Commercial						
18:00 to 19:00 Hr		54.2	88.4	77.6	56.4	88.2	78.2
19:00 to 20:00 Hr		48.4	82.3	78.4	52.4	96.6	83.5
20:00 to 21:00 Hr		52.7	89.5	68.0	55.2	105.4	88.2
21:00 to 22:00 Hr		44.8	81.0	68.5	58.2	110.2	78.7
22:00 to 23:00 Hr		48.2	75.5	63.3	62.4	107.2	72.5
23:00 to 24:00 Hr		50.4	68.2	60.7	62.0	112.4	62.2

Location : C District Head Quarter Hospital	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
		L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
Time duration	Silence						
18:00 to 19:00 Hr		44.0	70.4	66.4	48.2	74.4	64.0
19:00 to 20:00 Hr		55.7	82.2	68.0	48.6	86.3	68.5
20:00 to 21:00 Hr		58.2	78.4	66.7	54.4	80.8	70.2
21:00 to 22:00 Hr		50.4	75.5	64.4	58.0	75.5	66.6
22:00 to 23:00 Hr		38.2	68.2	60.2	50.5	90.2	58.3
23:00 to 24:00 Hr		36.0	72.2	50.6	44.6	88.0	52.2

Location : D Industrial Estate, Angul	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
		L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
Time duration	Industrial						
18:00 to 19:00 Hr		46.2	89.4	64.2	44.2	80.2	68.2
19:00 to 20:00 Hr		37.8	84.5	60.3	48.5	91.4	72.5
20:00 to 21:00 Hr		46.5	88.6	62.4	40.4	86.4	66.5
21:00 to 22:00 Hr		48.8	74.2	61.1	49.7	80.3	62.4
22:00 to 23:00 Hr		44.2	78.6	57.2	36.6	93.3	60.0
23:00 to 24:00 Hr		40.7	86.0	54.5	40.0	84.4	58.6

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1. RO,SPCB Building	9.2	26.3	86	48	19.1	31.2	189	84
2. Nalco Township	9.9	21.6	102	41	15.4	34.1	222	60
3. Talcher Thermal	8.8	28.2	79	42	13.9	31.9	116	53
4. MCL area, Talcher	9.1	27.0	117	46	13.7	35.0	130	51
NAAQ Standards	80	80	100	60	80	80	100	60
• All values (24 hourly Average) are in µg/m ³								

2. BALASORE

- Latitude & Longitude :21°30'22.3"N/86°55'8.8"
- Climate/Meteorology: Dry
- Population :1,44,373(as per 2011 census)
- Major land use: Residential & Commercial

DESCRIPTION OF MONITORING AREA:

1. Location-A (Residential Zone)-Sahadevkhunta
2. Location-B (Commercial Zone)- Motiganj
3. Location-C (Silence Zone) -District Head Quarter Hospital
4. Location-D (Industrial Zone) -Balasore Industrial Estate

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location : A Sahadevkhunta	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Residential	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		41.4	71.9	52.3	47.9	107.1	78.5
19:00 to 20:00 Hr		47.4	99.3	66.8	51.5	120.2	85.0
20:00 to 21:00 Hr		42.7	72.2	62.2	49.8	92.6	75.3
21:00 to 22:00 Hr		44.4	79.4	64.7	51.2	86.3	69.2
22:00 to 23:00 Hr		40.8	93.1	65.4	42.9	76.0	62.1
23:00 to 24:00 Hr		37.5	50.0	43.0	39.0	77.5	55.0

Location : B Motiganj	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Commercial	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		64.5	103.0	83.8	62.7	98.0	88.8
19:00 to 20:00 Hr		68.2	94.2	80.5	64.6	98.0	91.4
20:00 to 21:00 Hr		65.1	101.2	81.1	63.5	113.3	87.4
21:00 to 22:00 Hr		65.7	92.9	74.3	63.7	92.7	82.4
22:00 to 23:00 Hr		55.1	90.3	73.2	60.1	92.6	76.1
23:00 to 24:00 Hr		53.2	90.5	69.3	48.1	97.3	75.2

Location : C District Head Quarter Hospital	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Silence	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		48.5	72.1	59.0	51.1	82.0	65.3
19:00 to 20:00 Hr		53.0	72.9	59.5	50.3	81.4	65.0
20:00 to 21:00 Hr		48.7	72.9	60.9	54.6	82.8	66.7
21:00 to 22:00 Hr		48.9	77.7	63.6	54.6	84.4	69.0
22:00 to 23:00 Hr		47.9	71.9	52.7	49.6	82.5	64.6
23:00 to 24:00 Hr		44.9	61.4	50.6	42.2	79.7	57.5

Location : D Balasore Industrial Estate	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Industrial	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		47.2	62.8	49.2	43.9	105.7	71.2
19:00 to 20:00 Hr		48.1	72.7	55.5	49.2	85.0	78.0
20:00 to 21:00 Hr		45.4	62.2	50.4	49.5	103.2	73.0
21:00 to 22:00 Hr		44.3	66.9	55.8	53.7	105.6	71.1
22:00 to 23:00 Hr		49.4	58.2	50.8	43.2	97.5	68.7
23:00 to 24:00 Hr		42.7	83.7	64.2	43.1	85.5	64.1

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters Monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1.RO SPCB, Ganeswarpur	BDL	11.0	85.0	33.0	BDL	12.0	103.0	62.0
2.DIC Angaragadia	BDL	10.6	81.0	30.0	BDL	12.9	113.0	70.0
3.Rasalpur Industrial Estate	7.3	11.3	87.0	42.0	9.0	13.6	115.0	75.0
NAAQ Standards	80	80	100	60	80	80	100	60

- All values(24 hourly Avg) are in $\mu\text{g}/\text{m}^3$

N.B:- BDL- Below Detectable Limit, $\text{SO}_2 \leq 4 \mu\text{g}/\text{m}^3$

3. BERHAMPUR

- Latitude & Longitude : $19^{\circ}18'N/84^{\circ}51'E$
- Climate/ Meteorology :Dry
- Population :3,56,598(as per 2011 census)
- Major land use: Residential & Commercial

DESCRIPTION OF MONITORING AREA:

- 1 Location-A (Residential Zone) - Brahmanagar
- 2 Location-B (Commercial Zone) - Girija Market square
- 3 Location-C (Silence Zone) - MKCG Medical College Hospital Campus
- 4 Location-D (Industrial Zone) - Industrial Estate, Ankuli

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location : A Brahmanagar	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Residential	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		46.3	78.6	56.3	46.3	85.2	65.2
19:00 to 20:00 Hr		40.3	64.3	55.3	56.3	88.6	76.3
20:00 to 21:00 Hr		46.3	65.3	56.5	65.6	89.0	72.6
21:00 to 22:00 Hr		42.0	66.3	53.0	63.0	88.5	77.6
22:00 to 23:00 Hr		41.3	64.2	54.3	69.8	85.4	65.2
23:00 to 24:00 Hr		40.5	62.6	50.5	45.8	76.3	58.5

Location : B Girija Market square	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Commercial	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		63.5	95.8	77.2	56.3	96.7	78.6
19:00 to 20:00 Hr		62.8	98.6	73.5	55.3	85.6	76.5
20:00 to 21:00 Hr		65.5	96.3	76.5	63.4	87.6	72.3
21:00 to 22:00 Hr		65.6	106.5	77.6	65.8	108.2	78.5
22:00 to 23:00 Hr		53.6	95.6	75.6	60.5	95.6	74.5
23:00 to 24:00 Hr		56.3	85.6	58.6	62.3	84.6	67.8

Location : C MKCG Medical College Hospital Campus	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Silence	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		40.3	85.6	63.3	55.3	85.7	69.6
19:00 to 20:00 Hr		40.6	78.6	66.3	45.6	102.6	65.6
20:00 to 21:00 Hr		40.3	85.6	65.3	42.6	98.6	69.6
21:00 to 22:00 Hr		41.3	98.6	66.3	43.6	74.6	66.3
22:00 to 23:00 Hr		40.3	86.6	58.6	46.6	77.6	65.6
23:00 to 24:00 Hr		41.5	65.3	56.5	45.2	76.3	52.6

Location : D Industrial Estate, Ankuli	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Industrial	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		48.3	85.6	67.3	55.3	86.7	69.6
19:00 to 20:00 Hr		50.6	78.6	66.3	45.6	102.6	65.6
20:00 to 21:00 Hr		56.3	85.6	65.3	55.6	98.6	69.6
21:00 to 22:00 Hr		46.3	98.6	66.3	58.6	84.6	66.3
22:00 to 23:00 Hr		46.3	86.6	58.6	52.6	87.6	65.6
23:00 to 24:00 Hr		43.5	75.3	56.5	45.2	86.3	55.6

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters Monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1.Brahmanagar	4.5	25.6	52	24	10.5	45.6	92	45
2.Girija market square	7.4	30.2	72	31	14.2	48.5	110	55
3.MKCG Medical College & Hospital	4.0	22.2	62	28	8.5	40.2	88	44
4.Industrial Estate, Ankuli	5.2	28.2	65	20	10.2	50.2	104	65
NAAQ Standards	80	80	100	60	80	80	100	60
*All values(24 hourly Avg) are in µg/m ³								

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

4. BHUBANESWAR

- Latitude & Longitude : 20°16'48.2"N/85°48'46.2"E
- Climate/Meteorology :Dry
- Population :8,85,363(As per Census-2011)
- Major land use: Residential& Commercial

DESCRIPTION OF MONITORING AREA:

1. Location-A(Residential Zone) - Nayapalli
2. Location-B(Commercial Zone) - Sahid Nagar
3. Location-C(Silence Zone) - Capital Hospital
4. Location-D(Industrial Zone) - Rasulgarh

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location: A Nayapalli	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Residential	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		58.1	81.8	66.6	42.3	86.0	70.1
19:00 to 20:00 Hr		54.5	78.5	64.4	51.6	83.3	67.6
20:00 to 21:00 Hr		60.8	79.8	67.2	40.7	75.2	62.1
21:00 to 22:00 Hr		54.4	78.0	66.9	41.9	90.7	69.4
22:00 to 23:00 Hr		48.5	74.7	59.1	54.7	77.3	59.5
23:00 to 24:00 Hr		44.5	71.6	57.0	55.4	73.1	61.5

Location: B Sahid Nagar	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Commercial	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		41.2	78.7	62.6	43.4	80.6	62.7
19:00 to 20:00 Hr		39.2	74.4	61.1	55.3	75.4	65.1
20:00 to 21:00 Hr		48.0	81.6	62.9	49.1	100.3	76.8
21:00 to 22:00 Hr		47.2	73.1	58.6	46.0	96.4	76.5
22:00 to 23:00 Hr		48.8	75.8	59.5	53.8	70.9	59.4
23:00 to 24:00 Hr		44.7	74.5	57.5	54.1	83.7	62.8

Location: C Capital Hospital	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Silence	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		39.6	67.5	52.3	54.1	78.9	63.9
19:00 to 20:00 Hr		35.6	78.3	58.7	54.7	78.9	63.2
20:00 to 21:00 Hr		37.2	75.6	53.1	43.5	85.0	64.3
21:00 to 22:00 Hr		37.2	61.2	45.3	42.3	86.3	65.6
22:00 to 23:00 Hr		47.8	67.2	55.2	53.1	70.3	58.4
23:00 to 24:00 Hr		41.4	65.3	53.6	54.2	71.1	60.0

Location: D Rasulgarh	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Industrial	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		40.7	73.9	60.0	41.1	98.2	74.8
19:00 to 20:00 Hr		40.7	72.7	58.8	55.0	71.4	63.5
20:00 to 21:00 Hr		46.1	71.5	55.4	43.6	87.2	67.8
21:00 to 22:00 Hr		40.7	75.4	60.1	46.0	89.3	70.5
22:00 to 23:00 Hr		36.3	73.3	53.0	54.9	75.8	61.9
23:00 to 24:00 Hr		34.5	65.6	50.3	54.4	69.7	60.8

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1.Office Building	BDL	18.5	86	29	4.3	20.2	218	110
2.IRC Nayapalli	BDL	13.7	86	27	4.9	22.1	234	129
3.Capital Police Station	BDL	15.8	82	21	7.1	25.0	206	37
4.Patrapada	BDL	14.4	70	21	4.3	26.0	164	34
5.Chandrasekharpur	BDL	14.2	97	29	5.7	21.2	244	83
6.Palasuni water works	BDL	13.7	80	17	6.9	21.2	110	40
NAAQ Standards	80	80	100	60	80	80	100	60
<ul style="list-style-type: none"> • All values (24 hourly Average) are in µg/m³ 								

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

**Ambient Air Quality monitoring data during Deepawali festival
(20.10.2019 to 03.11.2019) Bhubaneswar city**

Data/ Observations:-

Name of the Location: SPCB, Office Building, Unit-8									
Date	Regulatory parameters					Metals/Elements in PM _{2.5}			
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Metals in PM ₁₀		Metals/Elements in PM _{2.5}		
					Pb (µg/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)
20.10.2019	BDL	13.4	54	18	BDL	BDL	BDL	19.4	ND
21.10.2019	BDL	18.5	86	29	BDL	BDL	BDL	14.7	0.97
22.10.2019	BDL	18.8	50	16	BDL	9.5	BDL	19.7	2.00
23.10.2019	BDL	16.2	63	19	BDL	4.1	BDL	10.8	2.17
24.10.2019	Not monitored due to cyclonic rain								
25.10.2019	BDL	18.5	89	26	BDL	4.4	BDL	10.1	1.24
26.10.2019	BDL	19.5	102	29	0.006	21.6	BDL	10.2	1.63
27.10.2019	4.3	20.2	218	110	0.712	19.4	BDL	27.3	3.48
28.10.2019	BDL	20.3	159	40	0.044	21.1	0.016	19.2	1.26
29.10.2019	BDL	21.2	104	31	0.034	12.5	BDL	14.6	1.23
30.10.2019	BDL	16.2	109	35	0.026	BDL	BDL	10.2	1.89
31.10.2019	BDL	15.6	134	39	0.019	BDL	0.06	10.6	0.15
01.11.2019	BDL	16.3	142	42	0.170	BDL	0.37	7.6	ND
02.11.2019	BDL	16.3	108	34	0.012	BDL	0.32	14.8	0.53
03.11.2019	BDL	16.1	101	30	0.011	BDL	0.31	10.4	0.63

N.B:- BDL- Below Detectable Limit, BDL Value for SO₂ ≤ 4 µg/m³, NO₂ ≤ 9 µg/m³, Pb ≤ 0.0022 µg/m³, Ni ≤ 2.2 ng/m³

**Ambient Air Quality monitoring data during Deepawali festival
(20.10.2019 to 03.11.2019)- Bhubaneswar city**

Data/ Observations:-

Name Of The Location: IRC Village Nayapalli									
Date	Regulatory parameters								
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Metals in PM ₁₀		Metals/Elements in PM _{2.5}		
					Pb (µg/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)
20.10.2019	BDL	16.4	84	24	BDL	BDL	0.12	BDL	0.99
21.10.2019	BDL	13.7	86	27	BDL	BDL	0.05	BDL	0.90
22.10.2019	BDL	15.9	91	26	BDL	BDL	0.14	8.9	1.775
23.10.2019	BDL	14.5	65	28	NM	NM	NM	NM	NM
24.10.2019	Not monitored due to cyclonic rain								
25.10.2019	BDL	13.9	58	16	BDL	1.5	0.07	6.7	1.57
26.10.2019	BDL	15.2	78	24	BDL	3.5	0.06	BDL	0.58
27.10.2019	4.9	22.1	234	129	0.46	25.4	0.43	26.4	2.23
28.10.2019	BDL	21.6	95	30	0.04	15.3	0.03	9.8	1.07
29.10.2019	BDL	16.7	120	38	0.022	5.0	0.04	7.6	1.75
30.10.2019	BDL	19.2	126	40	0.017	BDL	BDL	BDL	1.20
31.10.2019	BDL	16.9	116	36	0.01	BDL	0.05	BDL	0.02
01.11.2019	BDL	18.2	134	34	0.005	BDL	NM	NM	NM
02.11.2019	BDL	16.1	132	36	BDL	BDL	NM	NM	NM
03.11.2019	BDL	17.1	130	42	0.003	BDL	NM	NM	NM

N.B:- BDL- Below Detectable Limit, BDL Value for SO₂ ≤ 4 µg/m³, NO₂ ≤ 9 µg/m³, Pb ≤ 0.0022 µg/m³, Ni ≤ 2.2 ng/m³

**Ambient Air Quality monitoring data during Deepawali festival
(20.10.2019 to 03.11.2019)- Bhubaneswar city**

Data/ Observations:-

Name Of The Location: Capital Police Station, Unit-1									
Date	Regulatory parameters					Metals/Elements in PM _{2.5}			
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Metals in PM ₁₀		Metals/Elements in PM _{2.5}		
					Pb (µg/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)
20.10.2019	BDL	13.4	86	27	0.013	BDL	BDL	BDL	1.54
21.10.2019	BDL	15.8	82	21	0.007	BDL	BDL	13.0	1.708
22.10.2019	BDL	16.9	57	27	0.008	BDL	BDL	15.4	0.453
23.10.2019	BDL	12.4	55	24	NM	NM	NM	NM	NM
24.10.2019	Not monitored due to cyclonic rain								
25.10.2019	BDL	17.9	83	25	0.009	BDL	BDL	10.8	ND
26.10.2019	BDL	15.7	92	24	0.03	8.9	BDL	14.6	ND
27.10.2019	7.1	25.0	206	37	0.094	73.8	0.015	38.8	6.99
28.10.2019	BDL	16.7	89	38	0.047	58.6	0.26	20.6	ND
29.10.2019	BDL	17.7	88	27	0.044	13.9	0.11	18.4	1.777
30.10.2019	BDL	15.2	86	23	0.023	BDL	0.009	12.6	1.60
31.10.2019	BDL	15.5	85	25	0.02	BDL	BDL	14.8	ND
01.11.2019	BDL	13.7	93	26	0.014	BDL	BDL	10.8	3.713
02.11.2019	BDL	15.1	90	30	0.015	BDL	BDL	9.6	ND
03.11.2019	BDL	13.7	89	32	0.011	BDL	BDL	8.8	2.383

N.B:- BDL- Below Detectable Limit, BDL Value for SO₂ ≤ 4 µg/m³, NO₂ ≤ 9 µg/m³, Pb ≤ 0.0022 µg/m³, Ni ≤ 2.2 ng/m³

Ambient Air Quality monitoring data during Deepawali festival

(20.10.2019 to 03.11.2019)- Bhubaneswar city

Data/ Observations:-

Name Of The Location: Central Laboratory, Chandrasekharpur									
Date	Regulatory parameters								
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Metals in PM ₁₀		Metals/Elements in PM _{2.5}		
					Pb (µg/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)
20.10.2019	BDL	14.8	93	25	0.014	BDL	0.13	13.2	0.099
21.10.2019	BDL	14.0	97	29	BDL	BDL	BDL	17.0	0.066
22.10.2019	BDL	15.4	81	29	0.015	BDL	004	BDL	0.037
23.10.2019	BDL	15.7	46	13	0.013	BDL	0.018	17.7	0.116
24.10.2019	Not monitored due to cyclonic rain								
25.10.2019	BDL	15.7	54	27	BDL	BDL	0.07	10.6	0.065
26.10.2019	BDL	14.9	73	24	0.022	5.2	BDL	18.4	0.035
27.10.2019	5.7	21.2	244	83	0.082	18.5	0.042	40.8	0.25
28.10.2019	BDL	19.6	87	22	0.013	12.3	BDL	18.6	0.053
29.10.2019	BDL	16.4	74	24	0.021	4.2	0.031	11.9	0.068
30.10.2019	BDL	17.0	87	29	0.07	7.4	BDL	10.6	0.130
31.10.2019	BDL	14.1	92	31	0.033	3.6	0.06	BDL	ND
01.11.2019	BDL	14.7	88	27	0.025	BDL	0.04	9.1	ND
02.11.2019	BDL	16.4	78	24	0.026	BDL	0.03	BDL	ND
03.11.2019	BDL	15.2	87	27	0.022	BDL	0.04	BDL	0.097

N.B:- BDL- Below Detectable Limit, BDL Value for SO₂ ≤4 µg/m³, NO₂ ≤ 9 µg/m³, Pb ≤0.0022 µg/m³, Ni ≤2.2 ng/m³

**Ambient Air Quality monitoring data during Deepawali festival
(20.10.2019 to 03.11.2019)- Bhubaneswar city**

Data/ Observations:-

Name Of The Location: Patrapada									
Date	Regulatory parameters								
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Metals in PM ₁₀		Metals/Elements in PM _{2.5}		
					Pb (µg/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)
20.10.2019	BDL	13.0	67	17	BDL	3.7	0.19	8.17	3.146
21.10.2019	BDL	14.0	70	21	BDL	0.86	0.18	BDL	ND
22.10.2019	BDL	13.0	77	16	BDL	1.7	0.09	5.62	ND
23.10.2019	BDL	13.0	75	14	BDL	4.1	0.24	6.76	2.169
24.10.2019	Not monitored due to cyclonic rain								
25.10.2019	BDL	15.0	70	27	BDL	5.6	0.08	BDL	1.996
26.10.2019	BDL	15.0	76	26	BDL	7.0	0.01	19.5	0.732
27.10.2019	4.3	26.0	164	34	0.094	17.0	0.38	32.7	4.68
28.10.2019	BDL	14.0	83	21	0.077	13.6	0.10	20.8	0.909
29.10.2019	BDL	18.0	86	21	0.054	11.6	0.018	11.32	ND
30.10.2019	BDL	12.0	94	31	0.02	8.3	0.015	BDL	ND
31.10.2019	BDL	16.0	84	27	0.02	5.7	BDL	5.30	ND
01.11.2019	BDL	13.0	81	32	0.02	1.4	0.08	3.93	ND
02.11.2019	BDL	13.2	105	31	0.01	1.5	BDL	13.60	1.589
03.11.2019	BDL	13.0	94	35	0.004	0.2	BDL	BDL	0.120

N.B:- BDL- Below Detectable Limit, BDL Value for SO₂ ≤ 4 µg/m³, NO₂ ≤ 9 µg/m³, Pb ≤ 0.0022 µg/m³, Ni ≤ 2.2 ng/m³

**Ambient Air Quality monitoring data during Deepawali festival
(20.10.2019 to 03.11.2019)- Bhubaneswar city**

Data/ Observations:-

Name Of The Location: Palasuni Water works									
Date	Regulatory parameters					Metals/Elements in PM _{2.5}			
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Metals in PM ₁₀		Metals/Elements in PM _{2.5}		
					Pb (µg/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	Ni (ng/m ³)	Fe (µg/m ³)
20.10.2019	BDL	13.6	54	26	BDL	BDL	0.2	15.7	ND
21.10.2019	BDL	13.7	80	17	BDL	BDL	BDL	14.2	0.16
22.10.2019	BDL	13.6	38	21	0.004	BDL	0.11	18.4	ND
23.10.2019	BDL	9.8	33	20	BDL	BDL	NM	NM	NM
24.10.2019	Not monitored due to cyclonic rain								
25.10.2019	BDL	13.8	78	26	BDL	4.5	0.05	18.4	ND
26.10.2019	BDL	13.1	56	19	BDL	6.2	BDL	17.4	ND
27.10.2019	6.9	21.2	110	40	0.84	20.2	BDL	37.8	0.31
28.10.2019	BDL	15.1	65	29	0.038	3.2	0.017	10.3	0.11
29.10.2019	BDL	14.2	67	22	BDL	BDL	BDL	17.0	0.05
30.10.2019	BDL	13.2	68	25	BDL	BDL	BDL	16.6	ND
31.10.2019	BDL	9.9	64	31	0.007	BDL	NM	NM	NM
01.11.2019	BDL	14.7	86	28	BDL	BDL	BDL	18.4	0.11
02.11.2019	BDL	13.3	83	37	BDL	BDL	BDL	16.7	ND
03.11.2019	BDL	13.4	71	25	BDL	3.2	0.04	13.6	0.10

N.B:- BDL- Below Detectable Limit, BDL Value for SO₂ ≤ 4 µg/m³, NO₂ ≤ 9 µg/m³, Pb ≤ 0.0022 µg/m³, Ni ≤ 2.2 ng/m³

5. CUTTACK

- Latitude & Longitude : 20⁰01' N/84⁰58' E
- Climate/Meteorology: Dry
- Population :6,10,189 (as per 2011 census)
- Major land use: Residential & Commercial

DESCRIPTION OF MONITORING AREA:

1. Location-A (Residential Zone)- Suryavihar, Link Road
2. Location-B (Commercial Zone)- Badambadi
3. Location-C (Silence Zone - SCB Medical College & Hospital
4. Location-D (Industrial Zone) - Khapuria Industrial Estate

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location : A Suryavihar Link Road	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Residential	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		46.5	81.1	61.0	49.6	96.1	71.6
19:00 to 20:00 Hr		53.6	75.8	63.0	61.9	91.7	81.6
20:00 to 21:00 Hr		58.8	87.2	69.7	56.9	83.7	69.1
21:00 to 22:00 Hr		62.8	82.6	70.5	62.2	83.4	73.1
22:00 to 23:00 Hr		48.4	77.3	63.4	64.6	99.7	77.0
23:00 to 24:00 Hr		58.3	86.0	67.2	58.1	85.0	64.2

Location : B Badambadi	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Commercial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		61.0	88.2	73.7	48.6	96.6	70.7
19:00 to 20:00 Hr		56.7	87.9	69.1	58.8	93.0	79.6
20:00 to 21:00 Hr		60.0	95.5	80.0	52.8	92.1	74.5
21:00 to 22:00 Hr		61.9	86.6	76.3	68.2	100.0	78.6
22:00 to 23:00 Hr		68.1	89.7	77.5	61.7	92.5	75.1
23:00 to 24:00 Hr		60.5	83.7	70.0	47.4	102.9	78.9

Location : C SCB Medical College & Hospital	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Silence	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		52.9	86.5	66.4	61.1	94.4	71.9
19:00 to 20:00 Hr		57.3	89.8	70.4	50.3	91.6	68.3
20:00 to 21:00 Hr		58.9	76.9	65.9	50.8	90.5	71.8
21:00 to 22:00 Hr		60.2	83.6	70.1	52.2	82.3	63.2
22:00 to 23:00 Hr		48.6	92.0	64.5	61.1	83.0	70.0
23:00 to 24:00 Hr		51.3	77.2	61.3	56.0	85.2	64.4

Location : D Khapuria Industrial Estate	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Industrial Estate	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		57.2	93.3	75.5	61.2	87.1	75.7
19:00 to 20:00 Hr		57.3	89.5	71.0	64.3	89.5	78.0
20:00 to 21:00 Hr		59.1	90.9	73.0	54.3	102.3	77.7
21:00 to 22:00 Hr		53.0	87.3	64.1	51.6	92.0	69.5
22:00 to 23:00 Hr		48.7	85.8	66.2	66.4	92.5	74.8
23:00 to 24:00 Hr		59.4	79.3	69.0	56.3	91.6	75.7

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1. On the Roof of PHD Office near Barabati Stadium	BDL	18.6	73	NM	4.2	19.1	112	NM
2. On the Roof of Regional Office Building, Suryavihar	BDL	24.4	75	38	9.9	42.3	159	94
3. Hotel Bishal Inn near Traffic Tower Badambadi	4.2	19.6	87	34	8.1	31.1	235	97
NAAQ Standards	80	80	100	60	80	80	100	60

• All values (24 hourly Average) are in µg/m³

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

6. JHARSUGUDA

- Latitude & Longitude : 21°52'24.00"N/84°0'57.00"E
- Climate/Meteorology: Dry
- Population : 97,730 (as per 2011 census)
- Major land use: Residential & Industrial

DESCRIPTION OF MONITORING AREA:

1. Location-A (Residential Zone) - Cox Colony Jharsuguda
2. Location-B (Commercial Zone) - Badambadi
3. Location-C (Silence Zone) - SCB Medical College & Hospital
4. Location-D (Industrial Zone) - Khapuria Industrial Estate

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location : A Cox Colony Jharsuguda	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Residential	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		49.1	77.7	52.9	51.1	96.1	69.6
19:00 to 20:00 Hr		53.4	84.5	72.9	57.3	125.1	92.0
20:00 to 21:00 Hr		27.0	83.6	64.1	54.6	110.2	78.3
21:00 to 22:00 Hr		54.4	91.0	69.9	55.7	89.1	70.7
22:00 to 23:00 Hr		32.5	89.6	67.4	44.1	100.1	73.4
23:00 to 24:00 Hr		46.5	85.0	65.3	57.3	122.1	93.1

Location : B Jhanda Chowk	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Commercial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		55.0	87.2	67.9	61.4	93.8	74.2
19:00 to 20:00 Hr		44.2	91.8	65.2	64.7	100.1	77.2
20:00 to 21:00 Hr		57.8	93.7	74.0	47.6	95.1	70.8
21:00 to 22:00 Hr		60.7	88.5	71.1	57.5	90.0	70.1
22:00 to 23:00 Hr		49.5	90.3	68.4	50.8	110.8	80.1
23:00 to 24:00 Hr		36.7	88.4	69.0	58.0	103.1	88.1

Location : C Near Mangala Bazar	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Silence	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		54.0	81.1	64.6	55.3	92.1	71.7
19:00 to 20:00 Hr		33.6	95.7	66.1	53.7	114.4	84.6
20:00 to 21:00 Hr		53.6	88.2	70.5	64.8	96.4	78.0
21:00 to 22:00 Hr		33.2	82.9	63.6	38.7	88.5	66.0
22:00 to 23:00 Hr		48.3	90.1	65.3	63.6	124.3	93.2
23:00 to 24:00 Hr		36.3	98.4	67.8	38.6	98.8	68.4

Location : D Bombay Chowk	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Industrial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		41.6	86.1	69.7	50.1	87.8	66.5
19:00 to 20:00 Hr		49.0	89.6	70.7	46.8	96.7	71.4
20:00 to 21:00 Hr		45.6	93.6	72.0	40.4	113.3	82.7
21:00 to 22:00 Hr		57.1	91.2	73.2	56.0	101.6	77.6
22:00 to 23:00 Hr		61.0	92.1	71.0	58.1	116.8	85.0
23:00 to 24:00 Hr		47.1	80.4	66.6	52.1	99.1	75.0

Monitoring Location	Parameters monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1.RO,SPCB Building	8.1	13.2	75	34	30.6	44.8	167	97
NAAQ Standards	80	80	100	60	80	80	100	60
<ul style="list-style-type: none"> All values (24 hourly Average) are in µg/m³ 								

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

7. KALINGANAGAR

- Latitude & Longitude :20° 94' 60" N, 86° 13'01" E
- Climate/Meteorology : Dry
- Population :37,458(as per 2011 census)
- Major Land use : Residential & Commercial

DESCRIPTION OF MONITORING AREA:

- 1 Location-A (Residential Zone)- Sapagadia
- 2 Location-B (Commercial Zone)- Gopabandhu Chowk
- 3 Location-C (Silence Zone)- Common Health Centre, Jajpur road
- 4 Location-D (Industrial Zone)-Duburi Chowk, Kalinganagar

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location : A Sapagadia	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
		L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
Time duration	Residential						
18:00 to 19:00 Hr		59.2	82.5	70.4	57.4	94.6	78.3
19:00 to 20:00 Hr		57.8	79.0	64.1	72.3	109.1	86.0
20:00 to 21:00 Hr		63.1	83.2	70.1	44.5	104.8	81.8
21:00 to 22:00 Hr		62.3	83.8	71.8	47.5	107.7	87.2
22:00 to 23:00 Hr		59.3	89.4	74.0	70.3	106.9	85.3
23:00 to 24:00 Hr		60.6	84.3	68.9	62.6	94.4	80.9

Location : B Gopabandhu Chowk	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
		L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
Time duration	Commercial						
18:00 to 19:00 Hr		64.5	84.1	76.9	68.4	97.3	81.8
19:00 to 20:00 Hr		63.9	79.4	69.6	58.9	97.1	82.7
20:00 to 21:00 Hr		64.7	89.5	77.3	44.0	106.7	84.4
21:00 to 22:00 Hr		65.3	96.5	76.9	53.6	110.8	86.9
22:00 to 23:00 Hr		60.5	102.2	79.4	58.9	92.4	76.1
23:00 to 24:00 Hr		60.0	87.8	74.6	54.7	90.3	77.4

Location : C Common Health Centre, Jajpur road	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
		L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
Time duration	Silence						
18:00 to 19:00 Hr		56.9	88.1	68.9	63.7	91.5	77.3
19:00 to 20:00 Hr		59.4	84.0	69.4	54.7	84.6	69.9
20:00 to 21:00 Hr		59.2	82.6	67.6	52.8	76.2	65.8
21:00 to 22:00 Hr		49.8	87.3	67.0	57.3	95.3	82.1
22:00 to 23:00 Hr		52.8	97.0	76.1	66.8	92.5	80.2
23:00 to 24:00 Hr		44.8	75.2	60.5	65.7	92.2	78.7

Location : D Duburi Chowk, Kalinganagar	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
		L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
Time duration	Industrial						
18:00 to 19:00 Hr		62.7	80.6	70.3	61.5	89.1	73.7
19:00 to 20:00 Hr		59.6	85.0	71.6	54.7	100.0	78.1
20:00 to 21:00 Hr		60.0	69.6	63.5	66.8	89.3	77.1
21:00 to 22:00 Hr		60.4	71.4	65.2	63.5	97.1	78.7
22:00 to 23:00 Hr		60.2	83.0	70.2	57.1	84.2	68.9
23:00 to 24:00 Hr		60.8	73.5	64.9	58.0	96.3	80.9

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1.RO SPCB building	BDL	16.7	116.1	NM	4.8	26.8	226	NM
2.BRPL Guest House	BDL	16.5	71.0	NM	4.9	25.9	179	NM
NAAQ Standards	80	80	100	60	80	80	100	60

- All values (24 hourly Average) are in µg/m³

N.B:- BDL- Below Detectable Limit, SO₂≤4 µg/m³, NO₂≤9 µg/m³, NM-Not Monitored

8. KEONJHAR

- Latitude & Longitude :21⁰ 39.270 N /85⁰ 36.577 E
- Climate/Meteorology: Dry
- Population :60,590(as per 2011 census)
- Major land use: Residential& Commercial

DESCRIPTION OF MONITORING AREA:

1. Location-A (Residential Zone)-Baniapat chowk
2. Location-B (Commercial Zone) -Punjabi Chowk
3. Location-C (Silence Zone)-Govt. Hospital

Noise Level during Deepawali festival, 2019:

Location : A Baniapat chowk	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Residential	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		57.0	84.4	70.0	57.2	101.0	76.7
19:00 to 20:00 Hr		47.2	84.6	68.3	56.6	101.8	75.9
20:00 to 21:00 Hr		51.6	99.3	72.1	48.5	102.5	78.1
21:00 to 22:00 Hr		45.4	101.1	71.2	45.1	91.2	73.2
22:00 to 23:00 Hr		54.0	89.2	74.3	46.9	90.4	70.0
23:00 to 24:00 Hr		52.1	89.4	72.6	43.2	87.5	69.7

Location : B Punjabi Chowk	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Commercial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		64.5	91.1	77.2	57.8	103.0	77.5
19:00 to 20:00 Hr		57.7	95.9	73.8	57.4	110.4	83.5
20:00 to 21:00 Hr		58.3	94.6	70.6	55.2	109.9	84.7
21:00 to 22:00 Hr		55.4	98.8	76.7	53.0	98.1	73.6
22:00 to 23:00 Hr		65.4	93.3	79.6	58.6	105.1	77.7
23:00 to 24:00 Hr		41.4	94.2	70.6	49.6	97.3	74.4

Location : C Govt. Hospital	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Silence	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		44.1	87.1	65.3	37.2	96.5	73.9
19:00 to 20:00 Hr		53.9	81.1	65.2	45.1	102.7	73.7
20:00 to 21:00 Hr		39.9	80.6	59.5	46.7	87.3	67.8
21:00 to 22:00 Hr		23.2	88.3	66.0	45.2	90.0	70.8
22:00 to 23:00 Hr		39.6	91.5	65.3	33.7	93.8	66.6
23:00 to 24:00 Hr		29.9	90.6	60.3	31.6	84.1	61.1

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1. Regional Office Building	BDL	15.1	108	NM	BDL	25.1	212	NM
NAAQ Standards	80	80	100	60	80	80	100	60
• All values (24 hourly Average) are in µg/m ³								

N.B:- BDL- Below Detectable Limit, SO₂ ≤ 4 µg/m³, NM-Not Monitored

9. Konark

- Latitude & Longitude : 19°53'19.8"N/86°05'31.4"
- Climate/Meteorology: Dry
- Population :16,779(as per 2011 census)
- Major land use: Residential & Commercial

DESCRIPTION OF MONITORING AREA:

1. Location-A (Residential Zone)- Madhipur
2. Location-B (Commercial Zone) - NAC Market
3. Location-C (Silence Zone)-Govt. Public Health Centre

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location: A Madhipur	Zone		Normal Day 21.10.2019			Deepawali day 27.10.2019		
Time duration	Residential	D	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr			49.3	80.1	56.6	34.9	68.5	53.4
19:00 to 20:00 Hr			45.9	72.9	58.3	43.0	68.8	54.2
20:00 to 21:00 Hr			41.7	88.5	62.4	39.0	92.6	71.4
21:00 to 22:00 Hr		42.8	77.5	56.4	38.3	85.1	60.9	
22:00 to 23:00 Hr		43.3	65.0	49.6	39.1	79.8	58.3	
23:00 to 24:00 Hr		41.6	50.9	44.4	39.6	78.5	55.0	
			N					

Location: B NAC Market	Zone		Normal Day 21.10.2019			Deepawali day 27.10.2019		
Time duration	Commercial	D	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr			61.0	91.9	78.1	46.4	95.0	71.9
19:00 to 20:00 Hr			57.9	83.3	79.8	49.1	88.3	65.9
20:00 to 21:00 Hr			56.5	89.9	72.9	42.4	98.5	78.8
21:00 to 22:00 Hr		53.8	81.2	66.8	41.1	77.4	58.8	
22:00 to 23:00 Hr		45.3	74.5	64.7	45.0	71.5	56.2	
23:00 to 24:00 Hr		41.5	62.2	61.9	39.8	71.1	57.3	
			N					

Location: C Public Health Centre	Zone		Normal Day 21.10.2019			Deepawali day 27.10.2019		
Time duration	Silence	D	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr			43.7	89.9	64.7	36.1	62.8	44.5
19:00 to 20:00 Hr			43.8	88.0	61.9	32.4	78.1	59.2
20:00 to 21:00 Hr			42.9	81.8	56.3	36.0	82.6	64.7
21:00 to 22:00 Hr		43.3	68.6	53.1	39.7	85.0	61.4	
22:00 to 23:00 Hr		N	40.4	61.6	53.3	40.3	61.8	52.5
23:00 to 24:00 Hr	34.2		57.3	50.5	35.3	70.0	51.2	

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1. Konark Police Station	BDL	12.9	68.0	NM	BDL	13.8	77.0	NM
NAAQ Standards	80	80	100	60	80	80	100	60
<ul style="list-style-type: none"> All values (24 hourly Average) are in µg/m³ 								

N.B:- BDL- Below Detectable Limit, SO₂ ≤ 4 µg/m³, NM-Not monitored

10. Paradeep

- Latitude & Longitude : 20° 16' 27" N, 86° 38' 24" E
- Climate/Meteorology : Dry
- Population : 68,585 (as per 2011 census)
- Major Land use : Residential, Commercial & Industrial

DESCRIPTION OF MONITORING AREA:

1. Location-A (Residential Zone)- PPT Colony, Madhuban, Paradeep
2. Location-B (Commercial Zone)- Badpadia Market, Paradeep
3. Location-C (Silence Zone)- Biju Memorial Hospital, Atharabanki
4. Location-D (Industrial Zone)- IFFCO Ltd. Paradeep

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location : A PPT Colony, Madhuban, Paradeep	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Residential	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		46.6	47.9	47.3	32.5	88.0	63.7
19:00 to 20:00 Hr		56.9	80.6	66.6	48.2	94.0	71.6
20:00 to 21:00 Hr		38.6	85.9	62.9	47.0	103.5	74.3
21:00 to 22:00 Hr		40.0	72.9	55.4	45.5	100.4	75.2
22:00 to 23:00 Hr		41.4	85.3	65.4	54.6	90.7	74.6
23:00 to 24:00 Hr		38.0	93.2	66.8	47.4	89.3	59.4

Location : B Badpadia Market, Paradeep	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Commercial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		56.3	93.1	70.7	49.1	88.7	65.9
19:00 to 20:00 Hr		56.5	95.7	69.7	54.7	96.4	74.5
20:00 to 21:00 Hr		55.4	95.8	72.2	56.6	105.5	78.6
21:00 to 22:00 Hr		54.2	85.1	67.9	80.2	105.3	80.4
22:00 to 23:00 Hr		50.8	84.5	69.0	45.7	99.7	77.0
23:00 to 24:00 Hr		64.0	81.2	71.6	38.9	85.7	60.6

Location : C Biju Memorial Hospital,Atharbanki	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Silence	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		48.3	87.6	62.8	47.2	91.1	65.1
19:00 to 20:00 Hr		56.0	61.8	58.6	49.1	90.7	70.2
20:00 to 21:00 Hr		44.5	68.4	53.1	50.2	94.9	71.7
21:00 to 22:00 Hr		43.5	73.4	56.1	54.5	109.3	79.2
22:00 to 23:00 Hr		45.2	72.4	55.3	56.6	98.9	63.9
23:00 to 24:00 Hr		47.3	71.1	53.5	43.3	88.2	63.1

Location : D IFFCO Ltd. Paradeep	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Industrial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		53.9	84.5	66.2	59.3	113.8	85.0
19:00 to 20:00 Hr		44.1	84.4	67.9	55.5	95.6	73.2
20:00 to 21:00 Hr		56.7	82.3	69.3	48.6	88.6	70.8
21:00 to 22:00 Hr		60.4	76.3	66.0	57.5	91.9	76.5
22:00 to 23:00 Hr		49.8	82.9	69.0	43.4	95.7	71.8
23:00 to 24:00 Hr		41.0	79.0	60.8	57.0	91.3	68.7

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters monitored							
	Normal Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1.On the roof of STP Building, IFFCO, Paradeep	18.9	10.0	119.0	NM	26.2	18.1	139	NM
2.On the roof PPL Guest House, PPL Paradeep	16.2	9.9	97.0	NM	24.9	17.9	134	NM
3.On the roof PPT Staff Quarters, PPT Paradeep	15.8	9.9	91.0	NM	26.6	19.2	139	NM
NAAQ Standards	80	80	100	60	80	80	100	60

• All values (24 hourly Average) are in µg/m³

N.B:- BDL- Below Detectable Limit, SO₂ ≤ 4 µg/m³, NM-Not Monitored

11 . PURI

- Latitude & Longitude : 19°16'17.1" N/ 85°49'57.4" E
- Climate/Meteorology: Dry
- Population :2,00,564(as per 2011 census)
- Major land use: Residential

DESCRIPTION OF MONITORING AREA:

1. Location-A (Residential Zone)-Kumutisahi, Old Sadar lane
2. Location-B (Commercial Zone)-Gundicha Temple
3. Location-C (Silence Zone)-District Head Quarter Hospital

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location: A Kumutisahi, Old Sadar lane,Puri	Area/ Zone	Normal day (21.10.2019)			Deepawali day (27.10.2019)		
Time duration	Residential	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		47.1	92.9	70.7	60.0	99.8	80.2
19:00 to 20:00 Hr		51.0	99.3	74.8	58.5	98.2	78.8
20:00 to 21:00 Hr		48.4	87.1	72.4	52.6	83.5	71.2
21:00 to 22:00 Hr		43.1	93.1	66.4	46.4	104.2	79.1
22:00 to 23:00 Hr		43.3	90.0	63.6	55.4	85.0	68.6
23:00 to 24:00 Hr		44.6	84.6	62.3	55.9	86.4	68.1

Location: B Sri Mandir, Puri	Area/ Zone	Normal day (21.10.2019)			Deepawali day (27.10.2019)		
Time duration	Commercial	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		45.3	103.0	79.6	60.6	102.0	81.7
19:00 to 20:00 Hr		45.6	100.5	80.3	59.6	100.7	80.5
20:00 to 21:00 Hr		63.9	92.8	76.6	53.4	89.7	75.2
21:00 to 22:00 Hr		63.9	88.1	74.4	50.1	115.1	90.6
22:00 to 23:00 Hr		45.2	96.8	70.3	53.3	96.9	77.2
23:00 to 24:00 Hr		54.9	90.1	69.0	56.1	87.5	74.2

Location: C District Head Quarter Hospital	Area/ Zone	Normal day (21.10.2019)			Deepawali day (27.10.2019)		
Time duration	Silence	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr		49.9	93.3	68.2	59.8	101.0	79.9
19:00 to 20:00 Hr		53.3	81.9	67.7	53.4	89.7	75.2
20:00 to 21:00 Hr		53.1	82.9	64.2	54.1	88.4	72.9
21:00 to 22:00 Hr		45.1	79.7	63.5	50.1	84.9	67.8
22:00 to 23:00 Hr		42.4	83.1	60.9	46.7	83.5	66.6
23:00 to 24:00 Hr		42.0	83.4	59.8	30.9	78.1	65.2

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
Town Police Station	BDL	14.9	91.0	13.0	5.3	22.4	163.0	91.0
NAAQ Standards	80	80	100	60	80	80	100	60

• All values (24 hourly Average) are in µg/m³

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

12. RAYAGADA

- Latitude & Longitude : 19°10'.724" N/83°25'.142" E
- Climate/Meteorology: Dry
- Population : 71,208(as per 2011 census)
- Major land use: Residential & Commercial

DESCRIPTION OF MONITORING AREA:

1. Location-A (Residential Zone)-R.K.Nagar
2. Location-B (Commercial Zone)-Main market
3. Location-C (Silence Zone)-District Head Quarter Hospital
4. Location-D (Industrial)-JESCO Rayagada

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location : A Indiranagar	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Residential	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		27.3	95.5	73.1	32.8	97.5	70.8
19:00 to 20:00 Hr		52.1	101.3	79.8	38.3	116.1	90.4
20:00 to 21:00 Hr		27.6	91.0	73.4	43.0	127.9	95.0
21:00 to 22:00 Hr		24.5	75.5	49.4	30.6	91.0	77.8
22:00 to 23:00 Hr		24.9	66.6	46.6	26.5	98.8	67.8
23:00 to 24:00 Hr		25.2	65.7	47.0	22.9	81.7	59.7

Location : B Main market	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Commercial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		56.5	105.5	77.7	35.5	88.8	74.1
19:00 to 20:00 Hr		45.6	99.1	75.8	42.2	105.8	75.2
20:00 to 21:00 Hr		45.2	87.3	72.2	50.4	111.6	90.5
21:00 to 22:00 Hr		32.7	91.6	72.6	41.2	102.7	67.7
22:00 to 23:00 Hr		42.0	94.9	72.6	38.9	89.4	63.0
23:00 to 24:00 Hr		49.4	91.3	71.2	33.0	83.6	59.7

Location : C District Head Quarter Hospital	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Silence	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		43.5	90.6	71.8	60.1	112.8	86.3
19:00 to 20:00 Hr		52.0	90.3	73.0	43.5	105.9	76.6
20:00 to 21:00 Hr		50.1	97.2	72.7	49.6	97.9	73.8
21:00 to 22:00 Hr		33.8	98.6	69.0	47.2	101.0	71.7
22:00 to 23:00 Hr		61.6	97.6	73.7	40.2	112.4	84.0
23:00 to 24:00 Hr		37.6	89.8	65.7	31.0	92.7	67.8

Location : D JESCO	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Industrial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		41.0	104.2	71.6	50.5	110.3	83.3
19:00 to 20:00 Hr		46.3	87.4	68.9	44.7	97.7	72.2
20:00 to 21:00 Hr		42.2	85.5	65.9	50.1	102.8	77.2
21:00 to 22:00 Hr		36.8	83.7	63.9	46.2	113.4	85.4
22:00 to 23:00 Hr		31.3	87.7	67.3	41.0	86.9	69.1
23:00 to 24:00 Hr		24.4	87.1	65.6	35.5	86.6	64.5

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1. Regional office Building	4.9	13.1	26	13	11.6	21.6	112	91
2. L.P.S. Jaykaypur	4.2	12.3	32	16	9.4	20.5	83	61
NAAQ Standards	80	80	100	60	80	80	100	60

• All values (24 hourly Average) are in µg/m³

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

13. Rourkela

- Latitude & Longitude :22.2492° N, 84.8828° E
- Climate/Metrology :Dry
- Population :3,20,040(as per 2011 census)
- Major land use : Residential & Commercial

DESCRIPTION OF MONITORING AREA:

1. Location-A (Residential Zone)- Sector-6
2. Location-B (Commercial Zone)- AMABAGAAN
3. Location-C (Silence Zone)- IGH, Steel Township
4. Location-D(Industrial Zone) - In front of main gate of RSP(SAIL)

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location :A Sector-6	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Residential	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		41.7	70.7	52.4	48.7	88.3	67.9
19:00 to 20:00 Hr		47.3	60.7	48.8	48.4	102.0	76.7
20:00 to 21:00 Hr		47.4	60.1	49.5	47.5	93.4	67.4
21:00 to 22:00 Hr		46.9	70.2	53.3	48.7	94.1	68.3
22:00 to 23:00 Hr		44.7	72.8	49.2	42.8	91.1	64.4
23:00 to 24:00 Hr		39.9	67.2	49.1	44.2	69.6	48.8

Location : B AMABAGAAN	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Commercial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		54.5	86.8	65.8	56.8	101.3	76.5
19:00 to 20:00 Hr		54.3	75.9	61.4	56.9	95.4	73.2
20:00 to 21:00 Hr		54.5	79.4	63.3	54.9	91.7	70.5
21:00 to 22:00 Hr		54.0	81.0	62.7	56.1	98.3	73.1
22:00 to 23:00 Hr		51.9	83.0	63.8	46.3	73.2	61.5
23:00 to 24:00 Hr		50.1	79.7	64.3	45.6	75.4	59.5

Location : C IGH, Steel Township	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Silence	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		43.3	72.9	52.5	46.5	80.2	59.1
19:00 to 20:00 Hr		43.2	71.3	51.8	46.4	83.8	60.2
20:00 to 21:00 Hr		43.0	70.5	50.0	47.2	88.1	62.9
21:00 to 22:00 Hr		42.8	61.0	47.5	47.1	82.1	60.5
22:00 to 23:00 Hr		38.2	66.7	41.7	44.4	91.1	65.2
23:00 to 24:00 Hr		37.3	58.6	41.3	44.4	86.2	62.2

Location : D In front of main gate of RSP(SAIL)	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Industrial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		56.0	82.1	65.1	55.1	83.8	66.6
19:00 to 20:00 Hr		54.8	78.7	63.8	55.3	90.1	67.9
20:00 to 21:00 Hr		64.3	84.0	65.8	55.0	85.7	66.0
21:00 to 22:00 Hr		54.8	78.7	63.8	52.3	93.7	68.8
22:00 to 23:00 Hr		60.5	92.0	71.0	52.1	86.2	70.2
23:00 to 24:00 Hr		52.4	89.3	69.5	50.5	91.2	68.4

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1.Regional Office Building	10.6	18.9	123	69	15.9	21.9	178	88
2.IDL Outpost, Sonaparbat	6.0	10.8	90	72	10.3	16.3	160	93
3. IDC Kalunga	11.9	22.9	110	33	15.4	24.8	124	45
4. Kuarmunda	10.2	15.8	143	72	13.6	21.9	199	93
5. Bonaigarh	8.8	13.6	123	70	12.1	19.6	177	83
6.DISIR, Rajgangur	13.7	18.9	108	72	18.0	22.1	132	93
NAAQ Standards	80	80	100	60	80	80	100	60
• All values (24 hourly Average) are in µg/m ³								

14. SAMBALPUR

- Latitude & Longitude : 20^o47'N / 83^o97' E
- Climate/Meteorology :Dry
- Population :1,89,366(as per 2011 census)
- Major land use: Residential& Commercial

DESCRIPTION OF MONITORING AREA:

1. Location-A (Residential Zone) -Ainthapalli
2. Location-B (Commercial Zone) -Goal Bazar Chowk
3. Location-C (Silence Zone) -Dist Head Quarter Hospital, Modipara
4. Location-D(Industrial) -Bareipali

NOISE LEVEL DURING DEEPAWALI FESTIVAL, 2019:

Location : A Ainthapalli	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Residential	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		45.6	59.2	50.8	42.3	85.6	62.0
19:00 to 20:00 Hr		45.1	84.3	64.4	44.8	111.5	85.8
20:00 to 21:00 Hr		43.5	76.0	56.0	45.8	90.3	67.3
21:00 to 22:00 Hr		41.7	80.8	57.7	45.6	96.8	68.8
22:00 to 23:00 Hr		41.1	79.0	59.8	45.7	88.8	65.3
23:00 to 24:00 Hr		40.0	86.8	56.1	43.5	92.7	65.5

Location : B Goal Bazar Chowk	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Commercial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		56.3	99.3	76.6	61.0	99.8	77.0
19:00 to 20:00 Hr		59.4	99.2	75.7	59.9	99.7	76.2
20:00 to 21:00 Hr		58.5	93.8	74.5	60.0	704.6	78.4
21:00 to 22:00 Hr		57.5	99.3	74.4	54.2	114.7	87.9
22:00 to 23:00 Hr		59.0	96.1	72.3	55.1	111.2	84.3
23:00 to 24:00 Hr		54.4	93.3	72.3	52.0	110.5	81.0

Location : C Dist Head Quarter Hospital Modipara	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Silence	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		41.6	66.1	52.7	43.4	78.4	59.4
19:00 to 20:00 Hr		42.6	71.8	52.8	46.5	88.4	66.9
20:00 to 21:00 Hr		44.8	72.7	56.0	49.7	87.1	69.7
21:00 to 22:00 Hr		42.8	61.0	49.3	47.0	102.9	73.4
22:00 to 23:00 Hr		40.8	57.7	50.3	47.4	91.9	72.1
23:00 to 24:00 Hr		34.9	80.8	51.7	41.5	104.0	73.6

Location : D Bareipali	Area/ Zone	Pre-Deepawali Day (21.10.2019)			Deepawali Day (27.10.2019)		
Time duration	Industrial	L _{min}	L _{max}	Leq dB(A)	L _{min}	L _{max}	Leq dB(A)
18:00 to 19:00 Hr		46.2	75.3	60.8	48.3	114.5	91.6
19:00 to 20:00 Hr		52.8	91.1	73.0	53.6	104.7	81.3
20:00 to 21:00 Hr		40.1	79.7	63.5	45.7	88.2	63.3
21:00 to 22:00 Hr		40.0	84.3	63.7	46.7	92.6	64.3
22:00 to 23:00 Hr		42.5	84.9	63.9	58.3	97.6	74.3
23:00 to 24:00 Hr		44.9	77.6	61.5	59.0	89.0	71.4

AMBIENT AIR MONITORING DURING DEEPAWALI FESTIVAL, 2019

Monitoring Location	Parameters monitored							
	Pre-Deepawali Day (21.10.2019)				Deepawali Day (27.10.2019)			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
1.Modipara	5.5	22.5	38.0	29	35.6	46.2	266	164
NAAQ Standards	80	80	100	60	80	80	100	60

• All values (24 hourly Average) are in µg/m³