

Monitoring of Ambient Air and Noise
during Deepavali Festival 2020

AAQ/ANL Monitoring

From 07.11.2020 to 21.11.2020



TAMIL NADU POLLUTION CONTROL BOARD
CHENNAI - 600 032



TAMIL NADU POLLUTION CONTROL BOARD
CHENNAI - 600 032

REPORT ON AAQS ANLS CONDUCTED ON THE EVE OF
DEEPAVALI FESTIVAL 2020

AAQ/ANL/ Monitoring from 07.11.2020 to 21.11.2020
DEEPAVALI DAY : 14.11.2020

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Deepavali Monitoring 2020

Chennai

City:

- Latitude & Longitude : 13° 08'27"N 80°27'07"E
- Climate / Meteorology :
Pre-Deepavali : Drizzling with partially cloudy weather
Deepavali Day : Cloudy
- Population : 10.9 million (approx) as on 2020
- Major Land use : Mixed use

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
- Description of monitoring site: Area /Zone : Noise level survey
Triplicane (R)
Besant Nagar (R)
Nungambakkam (R)
Sowcarpet (C)
T. Nagar (C)
Ambient Air quality Survey
Triplicane (R)
Besant Nagar (R)
Nungambakkam (R)
Sowcarpet (C)
T. Nagar (C)
- Activities around the monitoring location / Sources of Noise Pollution : Crackers were burnt near the monitoring stations during Deepavali festival.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

CHENNAI

Location: Besant Nagar (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	49.8	89.0	74.0	55.7	112.2	80.7
19:00 to 20:00 Hr	52.1	89.0	68.0	58.5	99.5	86.0
20:00 to 21:00 Hr	52.7	91.5	68.1	59.7	98.4	87.1
21:00 to 22:00 Hr	53.0	91.7	68.9	58.5	97.3	87.0
22:00 to 23:00 Hr	52.9	90.5	68.6	67.1	70.9	67.4
23:00 to 24:00 Hr	53.2	91.1	68.2	62.1	74.5	65.5

Location: T. Nagar (C)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	58.5	84.4	70.6	51.1	106.5	76.2
19:00 to 20:00 Hr	59.1	81.0	59.9	54.4	110.0	82.7
20:00 to 21:00 Hr	58.7	77.4	59.7	52.1	107.1	78.7
21:00 to 22:00 Hr	54.3	88.1	60.7	49.4	103.8	78.9
22:00 to 23:00 Hr	53.5	77.3	59.8	46.1	104.5	79.4
23:00 to 24:00 Hr	59.0	72.4	61.4	44.9	101.8	73.4

Location: Nungambakkam (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	51.6	90.4	70.2	51.6	94.7	74.8
19:00 to 20:00 Hr	52.3	105.0	63.6	56.3	97.7	78.2
20:00 to 21:00 Hr	47.9	86.5	59.0	53.3	95.5	78.9
21:00 to 22:00 Hr	47.6	76.6	53.0	52	93	68.3
22:00 to 23:00 Hr	51.4	57.2	51.4	48.5	95	69.3
23:00 to 24:00 Hr	50.9	52.8	50.1	47.4	75.5	56.1



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

CHENNAI

Location: Triplicane (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	51.6	81.4	60.1	54.1	105.7	79.2
19:00 to 20:00 Hr	51.8	84.5	60.4	52.0	108.0	82.4
20:00 to 21:00 Hr	51.8	80.8	60.0	55.7	106.4	78.7
21:00 to 22:00 Hr	51.2	82.4	59.7	52.9	101.6	75.2
22:00 to 23:00 Hr	51.6	82.6	59.6	50.1	96.8	67.8
23:00 to 24:00 Hr	51.4	82.9	59.1	50.4	90.7	66.3

Location: Sowcarpet (C)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	50.7	69.2	59.5	65.6	81.3	74.7
19:00 to 20:00 Hr	51.4	69.4	57.5	61.5	104.8	83.4
20:00 to 21:00 Hr	50.2	64.3	53.7	63.4	98.6	79.6
21:00 to 22:00 Hr	47.8	52.9	49.8	60.7	93.1	75.1
22:00 to 23:00 Hr	49.1	58.7	50.7	62.1	89.7	73.7
23:00 to 24:00 Hr	50.3	61.7	51.9	57.3	82.5	69.8



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

CHENNAI

Name of the location: Besant Nagar (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	9.0	19.0	33.0	16.0	33.0
08.11.2020	11.0	22.0	53.0	18.0	53.0
09.11.2020	10.0	19.0	57.0	19.0	57.0
10.11.2020	12.0	25.0	62.0	29.0	62.0
11.11.2020	9.0	20.0	49.0	19.0	49.0
12.11.2020	7.0	18.0	33.0	16.0	33.0
13.11.2020	10.0	21.0	52.0	23.0	52.0
14.11.2020	12.0	22.0	52.0	37.0	62.0
15.11.2020	9.0	18.0	48.0	23.0	48.0
16.11.2020	11.0	21.0	45.0	16.0	45.0
17.11.2020	9.0	18.0	50.0	19.0	50.0
18.11.2020	11.0	20.0	45.0	22.0	45.0
19.11.2020	8.0	19.0	32.0	11.0	32.0
20.11.2020	11.0	22.0	58.0	29.0	58.0
21.11.2020	11.0	20.0	41.0	21.0	41.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

CHENNAI

Name of the location: Besant Nagar (R)						
Date	Metals in PM ₁₀			Proposed New Parameters Metals/ Elements in PM _{2.5}		
	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m ³)	As (ng/m ³)	Al ($\mu\text{g}/\text{m}^3$)	Ba ($\mu\text{g}/\text{m}^3$)	Fe ($\mu\text{g}/\text{m}^3$)
	07.11.2020	BLQ	3.87	BLQ	BLQ	BLQ
08.11.2020	BLQ	2.23	BLQ	BLQ	BLQ	BLQ
09.11.2020	BLQ	4.12	BLQ	BLQ	BLQ	BLQ
10.11.2020	BLQ	3.15	BLQ	BLQ	BLQ	BLQ
11.11.2020	0.001	2.2	BLQ	BLQ	BLQ	BLQ
12.11.2020	BLQ	3.15	BLQ	BLQ	BLQ	BLQ
13.11.2020	BLQ	4.5	BLQ	BLQ	BLQ	BLQ
14.11.2020	1.53	33.79	BLQ	21.78	17.88	4.91
15.11.2020	0.98	11.98	BLQ	16.72	2.87	1.57
16.11.2020	0.75	11.13	BLQ	10.72	1.9	0.96
17.11.2020	0.36	8.42	BLQ	12.5	1.79	1.84
18.11.2020	0.94	6.55	BLQ	10.89	1.22	1.75
19.11.2020	0.2	4.35	BLQ	6.54	1.76	1.84
20.11.2020	BDL	2.2	BLQ	6.51	0.67	1.65
21.11.2020	0.88	2.02	BLQ	4.52	0.52	0.85
* All Values (24 hourly Average) are in ($\mu\text{g}/\text{m}^3$)						
* All Values (24 hourly Average) are in ($\mu\text{g}/\text{m}^3$) and (ng/m ³)						

BLQ - Below Limit of Quantification



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

CHENNAI

Name of the location: T. Nagar (C)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	12.0	21.0	51.0	19.0	51.0
08.11.2020	10.0	26.0	55.0	28.0	55.0
09.11.2020	11.0	24.0	65.0	18.0	65.0
10.11.2020	9.0	23.0	77.0	35.0	77.0
11.11.2020	11.0	21.0	53.0	21.0	53.0
12.11.2020	12.0	22.0	36.0	9.0	36.0
13.11.2020	9.0	20.0	63.0	19.0	63.0
14.11.2020	11.0	24.0	72.0	32.0	72.0
15.11.2020	12.0	20.0	55.0	24.0	55.0
16.11.2020	10.0	19.0	52.0	23.0	52.0
17.11.2020	12.0	23.0	55.0	21.0	55.0
18.11.2020	10.0	22.0	52.0	26.0	52.0
19.11.2020	12.0	21.0	68.0	21.0	68.0
20.11.2020	11.0	22.0	58.0	29.0	58.0
21.11.2020	10.0	22.0	59.0	27.0	59.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

CHENNAI

Name of the location: T. Nagar (C)						
Date	Metals in PM ₁₀			Proposed New Parameters Metals/ Elements in PM _{2.5}		
	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m ³)	As (ng/m ³)	Al ($\mu\text{g}/\text{m}^3$)	Ba ($\mu\text{g}/\text{m}^3$)	Fe ($\mu\text{g}/\text{m}^3$)
	07.11.2020	0.003	5.94	BLQ	BLQ	BLQ
08.11.2020	0.001	8.69	BLQ	BLQ	BLQ	BLQ
09.11.2020	BLQ	5.28	BLQ	BLQ	BLQ	BLQ
10.11.2020	0.002	9.08	BLQ	BLQ	BLQ	BLQ
11.11.2020	BLQ	6.14	BLQ	BLQ	BLQ	BLQ
12.11.2020	0.003	9.09	BLQ	BLQ	BLQ	BLQ
13.11.2020	0.002	4.79	BLQ	BLQ	BLQ	BLQ
14.11.2020	23.16	51.77	BLQ	13.65	0.44	BLQ
15.11.2020	17.3	10.25	BLQ	12.17	0.36	1.93
16.11.2020	8.9	5.21	BLQ	15.57	0.28	1.61
17.11.2020	5.31	3.65	BLQ	12.98	0.42	0.95
18.11.2020	4.11	2.84	BLQ	19.92	0.47	0.58
19.11.2020	3	7.42	BLQ	4.64	0.54	0.91
20.11.2020	3.23	3.21	BLQ	2.39	0.39	0.75
21.11.2020	1.02	0.2	BLQ	1.25	0.22	0.42

* All Values (24 hourly Average) are in ($\mu\text{g}/\text{m}^3$) and (ng/m³)

BLQ - Below Limit of Quantification



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

CHENNAI

Name of the location: Nungambakkam (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	13.0	17.0	48.0	23.0	48.0
08.11.2020	11.0	19.0	43.0	20.0	43.0
09.11.2020	9.0	22.0	51.0	23.0	51.0
10.11.2020	12.0	25.0	61.0	29.0	61.0
11.11.2020	9.0	20.0	50.0	20.0	50.0
12.11.2020	11.0	19.0	38.0	18.0	38.0
13.11.2020	10.0	22.0	49.0	26.0	49.0
14.11.2020	14.0	25.0	59.0	34.0	59.0
15.11.2020	10.0	21.0	58.0	25.0	58.0
16.11.2020	12.0	23.0	48.0	20.0	48.0
17.11.2020	10.0	21.0	52.0	24.0	52.0
18.11.2020	13.0	22.0	48.0	19.0	48.0
19.11.2020	10.0	18.0	47.0	19.0	47.0
20.11.2020	11.0	22.0	58.0	29.0	58.0
21.11.2020	13.0	22.0	51.0	24.0	51.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

CHENNAI

Name of the location: Nungambakkam (R)						
Date	Metals in PM ₁₀			Proposed New Parameters Metals/ Elements in PM _{2.5}		
	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m ³)	As (ng/m ³)	Al ($\mu\text{g}/\text{m}^3$)	Ba ($\mu\text{g}/\text{m}^3$)	Fe ($\mu\text{g}/\text{m}^3$)
	07.11.2020	0.002	7.74	BLQ	BLQ	BLQ
08.11.2020	BLQ	6.75	BLQ	BLQ	BLQ	BLQ
09.11.2020	0.001	2.23	BLQ	BLQ	BLQ	BLQ
10.11.2020	0.001	7.03	BLQ	BLQ	BLQ	BLQ
11.11.2020	BLQ	6.25	BLQ	BLQ	BLQ	BLQ
12.11.2020	BLQ	8.64	BLQ	BLQ	BLQ	BLQ
13.11.2020	0.003	8.27	BLQ	BLQ	BLQ	BLQ
14.11.2020	22.9	37.32	BLQ	35.72	22.74	1.04
15.11.2020	21.01	13.2	BLQ	15.53	2.89	0.75
16.11.2020	10.64	7.33	BLQ	14.26	1.83	0.62
17.11.2020	3.55	7.37	BLQ	12.89	1.69	0.53
18.11.2020	5.23	6.5	BLQ	17.04	0.53	0.74
19.11.2020	4.64	4.21	BLQ	15.47	1.34	0.75
20.11.2020	3.32	6.5	BLQ	5.48	1.34	0.21
21.11.2020	2.31	3.2	BLQ	2.12	0.21	0.17

* All Values (24 hourly Average) are in ($\mu\text{g}/\text{m}^3$) and (ng/m³)
BLQ - Below Limit of Quantification



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

CHENNAI

Name of the location: Triplicane (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	12.0	22.0	52.0	23.0	52.0
08.11.2020	9.0	24.0	58.0	24.0	58.0
09.11.2020	10.0	21.0	56.0	27.0	56.0
10.11.2020	9.0	19.0	55.0	22.0	55.0
11.11.2020	8.0	18.0	41.0	15.0	41.0
12.11.2020	9.0	21.0	32.0	19.0	32.0
13.11.2020	11.0	20.0	54.0	27.0	54.0
14.11.2020	10.0	21.0	111.0	59.0	107.0
15.11.2020	8.0	16.0	61.0	24.0	61.0
16.11.2020	9.0	19.0	51.0	18.0	51.0
17.11.2020	9.0	19.0	56.0	25.0	56.0
18.11.2020	12.0	21.0	56.0	26.0	56.0
19.11.2020	11.0	22.0	55.0	24.0	55.0
20.11.2020	11.0	22.0	58.0	29.0	58.0
21.11.2020	11.0	22.0	54.0	21.0	54.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

CHENNAI

Name of the location: Triplicane (R)						
Date	Metals in PM ₁₀			Proposed New Parameters Metals/ Elements in PM _{2.5}		
	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	As (ng/m^3)	Al ($\mu\text{g}/\text{m}^3$)	Ba ($\mu\text{g}/\text{m}^3$)	Fe ($\mu\text{g}/\text{m}^3$)
	07.11.2020	BLQ	3.66	BLQ	BLQ	BLQ
08.11.2020	BLQ	4.74	BLQ	BLQ	BLQ	BLQ
09.11.2020	BLQ	8.88	BLQ	BLQ	BLQ	BLQ
10.11.2020	BLQ	3.65	BLQ	BLQ	BLQ	BLQ
11.11.2020	BLQ	3.45	BLQ	BLQ	BLQ	BLQ
12.11.2020	0.002	7.02	BLQ	BLQ	BLQ	BLQ
13.11.2020	0.002	2.43	BLQ	BLQ	BLQ	BLQ
14.11.2020	20.12	62.22	BLQ	38.67	20.31	2.72
15.11.2020	19.93	35.25	BLQ	5.6	2.4	1.54
16.11.2020	12.81	12.52	BLQ	4.81	1.72	1.71
17.11.2020	10.22	6.2	BLQ	4.19	2.13	2.88
18.11.2020	7.51	5.4	BLQ	5.9	0.78	2.17
19.11.2020	6.62	7.22	BLQ	5.97	0.74	2.07
20.11.2020	5.56	8.32	BLQ	5.99	1.41	1.73
21.11.2020	3.21	2.41	BLQ	3.12	0.41	1.22

* All Values (24 hourly Average) are in ($\mu\text{g}/\text{m}^3$) and (ng/m^3)

BLQ - Below Limit of Quantification



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

CHENNAI

Name of the location: Sowcarpet (C)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	13.0	20.0	64.0	23.0	64.0
08.11.2020	11.0	18.0	60.0	20.0	60.0
09.11.2020	9.0	24.0	64.0	22.0	64.0
10.11.2020	13.0	27.0	71.0	38.0	71.0
11.11.2020	10.0	22.0	51.0	19.0	51.0
12.11.2020	11.0	20.0	55.0	28.0	55.0
13.11.2020	13.0	24.0	66.0	32.0	66.0
14.11.2020	13.0	28.0	100.0	51.0	100.0
15.11.2020	11.0	22.0	56.0	21.0	56.0
16.11.2020	13.0	21.0	58.0	28.0	58.0
17.11.2020	11.0	23.0	63.0	33.0	63.0
18.11.2020	10.0	24.0	64.0	37.0	64.0
19.11.2020	9.0	23.0	66.0	21.0	66.0
20.11.2020	11.0	22.0	58.0	29.0	58.0
21.11.2020	10.0	24.0	62.0	25.0	62.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

CHENNAI

Name of the location: Sowcarpet (C)						
Date	Metals in PM ₁₀			Proposed New Parameters Metals/ Elements in PM _{2.5}		
	Pb (µg/m ³)	Ni (ng/m ³)	As (ng/m ³)	Al (µg/m ³)	Ba (µg/m ³)	Fe (µg/m ³)
	07.11.2020	0.004	3.12	BLQ	BLQ	BLQ
08.11.2020	BLQ	5.84	BLQ	BLQ	BLQ	BLQ
09.11.2020	BLQ	2.08	BLQ	BLQ	BLQ	BLQ
10.11.2020	BLQ	2.23	BLQ	BLQ	BLQ	BLQ
11.11.2020	BLQ	4.65	BLQ	BLQ	BLQ	BLQ
12.11.2020	0.001	8.09	BLQ	BLQ	BLQ	BLQ
13.11.2020	0.001	4.89	BLQ	BLQ	BLQ	BLQ
14.11.2020	93.9	51.92	BLQ	31.46	17.92	1.17
15.11.2020	23.78	6.25	BLQ	18.8	4.12	1.5
16.11.2020	18	3.5	BLQ	17	3.43	1.17
17.11.2020	13.6	4.2	BLQ	18.61	1.04	1.89
18.11.2020	8.44	3.5	BLQ	18.39	1.87	1.96
19.11.2020	9.92	2.1	BLQ	6.42	1.62	0.44
20.11.2020	6.45	BDL	BLQ	2.13	1.19	0.1
21.11.2020	4.45	0.52	BLQ	1.15	0.25	0.1

* All Values (24 hourly Average) are in (µg/m³) and (ng/m³)

BLQ - Below Limit of Quantification

Deepavali Monitoring 2020

Coimbatore

City:

- Latitude & Longitude : 11°0'16.4016"N 76° 57'41.8752"E
- Climate / Meteorology : Partially Cloudy
- Population : More than 1 Million
- Major Land use : Mixed use

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
- Description of monitoring site: Area /Zone : **Noise level survey**
(Residential, Commercial and Silence) Kavundampalayam (R)
District Collectorate (M)
Ambient Air quality Survey
Kavundampalayam (R)
District Collectorate (M)
- Activities around the monitoring location / Sources of Noise Pollution : Pre-Deepavali – Vehicle Movements/No Crackers burst
Deepavali - Crackers Noise with Vehicle Movements.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

COIMBATORE

Location: Kavundampalayam (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	51.7	87.6	65.3	52.8	112.1	79.9
19:00 to 20:00 Hr	51.3	86.4	64.8	59	108.5	73.9
20:00 to 21:00 Hr	51.2	85.4	65.8	54.2	106.4	62.7
21:00 to 22:00 Hr	51.2	85.1	52.6	51.9	96.5	60.7
22:00 to 23:00 Hr	47.1	84.8	53.7	49.1	99.2	55.8
23:00 to 24:00 Hr	51.1	74.7	52.1	48.5	90.5	56.2

Location: District Collector Office (M)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	52.4	93.5	65.6	47.6	95.3	64.6
19:00 to 20:00 Hr	49.7	80.9	59.9	56.1	101.9	71.9
20:00 to 21:00 Hr	47.9	77	57.1	51.1	94	65.5
21:00 to 22:00 Hr	45.8	67.5	53.2	47.2	96.8	67.2
22:00 to 23:00 Hr	44.4	66.5	51.5	44.3	95.6	58.3
23:00 to 24:00 Hr	43.7	70.5	53.1	43.5	81.7	



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

COIMBATORE

Name of the location: Kavundampalayam (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	6.7	16.5	34.0	24.0	40.0
08.11.2020	7.2	16.4	49.0	9.0	49.0
09.11.2020	7.6	16.8	19.0	12.0	21.0
10.11.2020	6	15.1	25.0	9.0	25.0
11.11.2020	7.3	15.5	32.0	12.0	32.0
12.11.2020	7.9	17.7	56.0	14.0	56.0
13.11.2020	10.8	19.8	50.0	16.0	50.0
14.11.2020	11.7	26.2	55.0	14.0	55.0
15.11.2020	6.9	16.8	27.0	12.0	27.0
16.11.2020	8.2	19.2	21.0	9.0	24.0
17.11.2020	7.7	18.0	18.0	-	23.0
18.11.2020	6.2	15.4	37.0	8.0	37.0
19.11.2020	5.2	19.6	17.0	9.0	25.0
20.11.2020	6.6	16.5	17.0	8.0	21.0
21.11.2020	7.7	17.4	40.0	15.0	40.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

COIMBATORE

Name of the location: District Collector Office (M)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	7.6	17.5	91.0	23.0	91.0
08.11.2020	8.0	17.4	72.0	13.0	72.0
09.11.2020	8.2	18.8	70.0	14.0	70.0
10.11.2020	7.5	18.7	69.0	17.0	69.0
11.11.2020	8.6	18.0	84.0	14.0	84.0
12.11.2020	9.1	19.0	80.0	17.0	80.0
13.11.2020	10.2	22.0	45.0	13.0	45.0
14.11.2020	11.5	23.8	86.0	12.0	86.0
15.11.2020	8.2	19.5	22.0	11.0	25.0
16.11.2020	5.3	15.2	46.0	20.0	46.0
17.11.2020	6.6	15.4	17.0	10.0	19.0
18.11.2020	7.2	16.4	21.0	11.0	21.0
19.11.2020	6.2	15.2	25.0	14.0	25.0
20.11.2020	7.1	17.7	20.0	11.0	22.0
21.11.2020	7.8	18.0	38.0	11.0	38.0

* All Values (24 hourly Average) are in (µg/m³)

Deepavali Monitoring 2020

Cuddalore

City:

- Latitude & Longitude : Imperial Road :11° 74'41.19"N & 79° 75'89.98"E
: Pudupalayam: 11°44'50.6"N & 79°45'55.4"E
- Climate / Meteorology :During Pre Deepavali day: 09.11.2020
Calm, Clear sky on Deepavali day: 14.11.2020
Calm, Over cast condition
- Population :26,05,914 (2011 census)
- Major Land use :Commercial / Residential

Monitoring Locations:

- Map showing all monitoring locations of the city : Available
- Description of monitoring site: Area /Zone : **Noise level survey**
(Residential, Commercial and Silence) Imperial Road (C)
Pudupalayam (R)
Ambient Air quality Survey
Imperial Road (C)
Pudupalayam (R)

Activities around the monitoring location /
Sources of Noise Pollution

: The monitoring locations
are in residential &
commercial area, and source
of noise pollution area traffic
noise and cracker noise.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

CUDDALORE

Location: Imperial Road (C)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
18:00 to 19:00 Hr	72.8	88.8	81.7	74.6	93.6	84.2
19:00 to 20:00 Hr	73.4	89.5	82.8	75.1	96.5	86.6
20:00 to 21:00 Hr	72.2	87.9	80.6	73.8	92.9	83.5
21:00 to 22:00 Hr	64.8	79.4	74.1	69.2	89.3	79.1
22:00 to 23:00 Hr	57.3	72.8	64.2	60.4	83.8	70.8
23:00 to 24:00 Hr	54.4	69.0	61.8	56.9	80.6	68.9

Location: Pudupalayam (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
18:00 to 19:00 Hr	65.4	79.2	73.9	74	91.6	83.1
19:00 to 20:00 Hr	64.5	79.9	73.6	76.9	92.8	84.9
20:00 to 21:00 Hr	62.8	78.2	71.7	72.8	87.9	78.6
21:00 to 22:00 Hr	59.6	74.5	69.8	69.2	84.6	78.1
22:00 to 23:00 Hr	53.2	70.3	62.6	62.5	76.8	69.4
23:00 to 24:00 Hr	48.6	60.4	55.4	57.7	69.9	62.8



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

CUDDALORE

Name of the location: Imperial Road (C)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	18.3	24.0	77.7	42.0	78.0
08.11.2020	19.0	24.4	79.6	45.0	80.0
09.11.2020	17.9	23.5	75.3	44.0	75.0
10.11.2020	18.5	24.1	77.5	43.0	78.0
11.11.2020	19.4	24.6	80.6	45.0	81.0
12.11.2020	20.6	25.3	81.2	46.0	81.0
13.11.2020	21.7	25.7	84.7	48.0	85.0
14.11.2020	25.3	29.6	89.6	52.0	90.0
15.11.2020	21.6	26.2	81.0	44.0	81.0
16.11.2020	20.2	24.7	75.9	41.0	76.0
17.11.2020	19	23.6	72.3	40.0	72.0
18.11.2020	17.2	21.4	70.0	38.0	70.0
19.11.2020	16.7	21.1	68.8	36.0	69.0
20.11.2020	16.6	20.2	68.6	37.0	69.0
21.11.2020	**	**	**	**	**

* All Values (24 hourly Average) are in (µg/m³)

** Rain



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

CUDDALORE

Name of the location: Pudupalayam (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	16.0	21.5	62.2	39.0	65.0
08.11.2020	16.4	22.2	64.6	42.0	70.0
09.11.2020	16.9	22.5	63.6	41.0	68.0
10.11.2020	17.8	23.3	68.6	43.0	72.0
11.11.2020	19.6	24.8	67.6	45.0	75.0
12.11.2020	21.1	24.9	67.1	43.0	72.0
13.11.2020	22.6	26.9	76.7	49.0	82.0
14.11.2020	35.5	37.3	87.3	55.0	92.0
15.11.2020	24.9	27.6	73.5	47.0	78.0
16.11.2020	21.9	26	70.4	41.0	70.0
17.11.2020	17.3	21.4	66.5	42.0	70.0
18.11.2020	17.9	21.1	65.0	41.0	68.0
19.11.2020	16.3	20.9	63.6	40.0	67.0
20.11.2020	15.9	20.5	60.9	38.0	63.0
21.11.2020	**	**	**	**	**

* All Values (24 hourly Average) are in (µg/m³)

** Rain

Deepavali Monitoring 2020

Madurai

City:

- Latitude & Longitude : 9.88°N 78.06° E
- Climate / Meteorology : Pre Deepavali Day: Partially Cloudy
On Deepavali Day: Cloudy
- Population : 10,17,865 (as per 2020)
- Major Land use : Residential and Mixed

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
- Description of monitoring site: Area /Zone : **Noise level survey**
(Residential, Commercial and Silence) Thiru Nagar (R)
Birla Visram (M)
Ambient Air quality Survey
Thiru Nagar (R)
Birla Visram (M)
- Activities around the monitoring location / Sources of Noise Pollution : Vehicle Movement and bursting of crackers on Deepavali day.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

MADURAI

Location: Thirunagar (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
18:00 to 19:00 Hr	53.4	98.2	60.2	61.8	100.5	76.8
19:00 to 20:00 Hr	50.6	93.4	62.4	60.4	106.6	76.5
20:00 to 21:00 Hr	49.1	98.7	66.2	54.1	106.6	78.1
21:00 to 22:00 Hr	46.6	91.7	58.5	43.8	96.2	72.5
22:00 to 23:00 Hr	40.5	88.6	56.6	41.1	88.0	64.0
23:00 to 24:00 Hr	39.7	69.7	48.4	40.3	80.0	53.6

Location: Birla Visram (M)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
18:00 to 19:00 Hr	50.6	89.5	68.4	57.1	88.1	72.2
19:00 to 20:00 Hr	50.8	89.8	66.3	59.4	113.5	104.4
20:00 to 21:00 Hr	50.4	88.6	62.4	73.8	93.9	84
21:00 to 22:00 Hr	50.2	85.2	60.3	63.9	101.2	80
22:00 to 23:00 Hr	49.4	84.3	58.2	65.1	111.3	77.9
23:00 to 24:00 Hr	44.2	80.2	54.4	64.2	110.2	76.3



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

MADURAI

Name of the location: Thiru Nagar (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	12.4	14.1	55.0	18.0	55.0
08.11.2020	9.3	13.4	47.0	16.0	47.0
09.11.2020	9.8	13.1	53.0	15.0	53.0
10.11.2020	10.1	14.2	57.0	18.0	57.0
11.11.2020	10.0	14.9	60.0	22.0	60.0
12.11.2020	13.4	16.8	55.0	17.0	55.0
13.11.2020	13.0	17.2	58.0	20.0	58.0
14.11.2020	18.9	22.8	79.0	28.0	79.0
15.11.2020	14.2	19.8	54.0	20.0	54.0
16.11.2020	11.7	13.1	21.0	14.0	23.0
17.11.2020	8.3	12.9	26.0	10.0	26.0
18.11.2020	7.1	11.1	20.0	7.0	20.0
19.11.2020	5.5	10.1	26.0	9.0	26.0
20.11.2020	11.0	13.8	25.0	10.0	25.0
21.11.2020	12.0	16.0	43.0	16.0	43.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

MADURAI

Name of the location: Birla Visram (M)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	13.0	15.2	75.0	20.0	75.0
08.11.2020	12.3	15.6	77.0	23.0	77.0
09.11.2020	11.2	15.9	79.0	26.0	79.0
10.11.2020	13.0	16.4	71.0	29.0	71.0
11.11.2020	14.2	17.8	73.0	27.0	73.0
12.11.2020	14.7	18.3	72.0	29.0	72.0
13.11.2020	16.0	19.3	76.0	30.0	76.0
14.11.2020	21.3	25.1	68.0	22.0	68.0
15.11.2020	13.2	17.4	34.0	13.0	34.0
16.11.2020	12.0	16.9	54.0	18.0	54.0
17.11.2020	10.8	14.0	59.0	19.0	59.0
18.11.2020	11.0	13.3	51.0	16.0	51.0
19.11.2020	9.7	13.1	50.0	15.0	50.0
20.11.2020	12.0	15.1	70.0	21.0	70.0
21.11.2020	15.0	20.0	72.0	22.0	72.0

* All Values (24 hourly Average) are in (µg/m³)

Deepavali Monitoring 2020

Salem

City:

- Latitude & Longitude : 11.65°N and 78.16 E
- Climate / Meteorology : Salem in general is characterized with Scanty rain fall and a dry climate. Salem has moderate – dry weather throughout except during the monsoon season. The highest temp is normally recorded during May. There is a light improvement in the climate during June – July period. The North-east monsoon sets in vigorously only during September – November and by December, the rain disappear rendering the climate clear but pleasant.
- Population : 9,19,150 (as on 2011 census results)
- City Area : 124 Sq.km (48 Sq. miles)
- Major Land use : **Salem District:** Agriculture, Industries Mining Forestry Body Building of Goods Transport Vehicles.
Salem City: Commercial Activities Educational Institutions Hospitals Production of Food Products like edible Oil pulses and grams.

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
- Description of monitoring site: Area /Zone (Residential, Commercial and Silence) :
Noise level survey
Sri Saradha Balamandhir
Boys Matric Higher Secondary School (R)
Siva Tower (C&I)
Ambient Air quality Survey
Sri Saradha Balamandhir
Boys Matric Higher Secondary School (R)
Siva Tower (C &I)
- Activities around the monitoring location / Sources of Noise Pollution
 - 1.The residential location is purely residential area with Schools and Hospitals
 2. The Commercial and Industrial location is Automobile Work Shops, Sales centres of Automobile spares are located in Meyyanur Main Road. Public Transport Buses are flying towards Mettur through Meyyanur Main Road. Reliance Mall is situated nearer to the station. Residential houses are located nearby this station. Hotels are also found nearby this station.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

SALEM

Location: Sri Saradha Balamandhir Boys Matric Hr. Sec. School (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	46.4	81.6	64.5	48.8	100.2	69.0
19:00 to 20:00 Hr	44.9	94.5	49.6	56.5	107.0	73.4
20:00 to 21:00 Hr	41.2	84.3	45.3	49.7	101.5	62.8
21:00 to 22:00 Hr	40.2	83.9	44.1	43.3	111.4	55.2
22:00 to 23:00 Hr	37.7	74.8	43.7	36.4	98.0	45.9
23:00 to 24:00 Hr	36.5	72.0	40.7	35.4	88.5	40.6

Location: Siva Tower (C&I)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	54.6	87.5	65.7	59.1	108.4	79
19:00 to 20:00 Hr	54.8	94.7	65.1	68.9	94.1	81.8
20:00 to 21:00 Hr	54.0	88.8	65.3	60.6	111.4	79.2
21:00 to 22:00 Hr	52.9	81.9	63.8	58.6	113.4	75.6
22:00 to 23:00 Hr	54.5	83.0	59.7	58.3	88.9	63.7
23:00 to 24:00 Hr	48.2	82.1	58.2	46.5	87.8	56.9



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

SALEM

Name of the location: Sri Saradha Balamandhir Boys Higher Secondary School (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	6.3	11.9	33.0	22.0	37.0
08.11.2020	6.7	12.5	37.0	21.0	37.0
09.11.2020	7.2	21.1	56.0	32.0	56.0
10.11.2020	8.2	19.3	40.0	24.0	40.0
11.11.2020	9.4	22.5	39.0	26.0	43.0
12.11.2020	10.9	23.1	47.0	29.0	48.0
13.11.2020	6.3	10.6	30.0	19.0	32.0
14.11.2020	17.0	45.0	110.0	49.0	107.0
15.11.2020	14.7	31.7	82.0	36.0	82.0
16.11.2020	9.3	16.2	43.0	17.0	43.0
17.11.2020	9.0	17.5	38.0	20.0	38.0
18.11.2020	7.9	14.5	36.0	23.0	38.0
19.11.2020	7.2	13.9	35.0	22.0	37.0
20.11.2020	7.0	12.9	36.0	24.0	40.0
21.11.2020	6.6	12.2	37.0	23.0	38.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

SALEM

Name of the location: Siva Tower (C&I)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	7.0	11.1	40.0	15.0	40.0
08.11.2020	9.4	12.9	47.0	17.0	47.0
09.11.2020	9.9	15.3	49.0	18.0	49.0
10.11.2020	11.0	16.7	50.0	20.0	50.0
11.11.2020	11.2	17.6	51.0	25.0	51.0
12.11.2020	10.4	14.2	49.0	22.0	49.0
13.11.2020	5.0	10.7	35.0	13.0	35.0
14.11.2020	23.0	49.0	128.0	46.0	119.0
15.11.2020	8.8	11.9	44.0	17.0	44.0
16.11.2020	6.5	9.4	32.0	13.0	32.0
17.11.2020	8.0	17.8	42.0	18.0	42.0
18.11.2020	8.8	15.0	48.0	20.0	48.0
19.11.2020	8.6	14.8	49.0	21.0	49.0
20.11.2020	8.7	14.6	49.0	21.0	49.0
21.11.2020	9.8	16.2	47.0	22.0	47.0

* All Values (24 hourly Average) are in (µg/m³)

Deepavali Monitoring 2020

Tirunelveli

City:

- Latitude & Longitude : 8.73°N and 77.70° E
- Climate / Meteorology : Cloudy with raining days.
Pre Deepavali day: 07.11.20 to 13.11.20,
Cloudy and occasionally rainy
on Deepavali days 14.11.20 Cloudy
occasionally rainy
Post Deepavali day 15.11.20 to 21.11.20
Cloudy with rain
- Population : 9.56
- Major Land use : Mixed use

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
- Description of monitoring site: Area /Zone : **Noise level survey**
(Residential, Commercial and Silence) Vannarpettai (C)
Pettai (S)
Ambient Air quality Survey
Town (R) – Movement of all
types of vehicles
Pettai (S) – Residential,
School, Hospital along with
movements of all kinds of
vehicles.
- Activities around the monitoring location /
Sources of Noise Pollution : All the two places crackers
were bursted only on
Deepavali day (14.11.2020)
monitoring during 19.00 to
20.00 hrs.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

TIRUNELVELI

Location: Pettai (S)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)	
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}
Time duration					
18:00 to 19:00 Hr	51.3	64.6	60.0	47.6	92.1
19:00 to 20:00 Hr	51.6	63.8	58.4	47.3	92.5
20:00 to 21:00 Hr	53.1	68.8	56.8	48.1	89.5
21:00 to 22:00 Hr	53.7	68.0	53.9	47.0	94.5
22:00 to 23:00 Hr	49.0	56.7	50.1	46.8	83.3
23:00 to 24:00 Hr	40.8	47.3	42.3	40.7	87.8

Location: Vannarpettai (C)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)	
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}
Time duration					
18:00 to 19:00 Hr	53.5	80.2	62.3	54.5	92.3
19:00 to 20:00 Hr	56.2	84.5	64.5	55.8	96.2
20:00 to 21:00 Hr	54.3	79.9	61.5	53	93.4
21:00 to 22:00 Hr	51.8	74.6	58.3	50.7	90
22:00 to 23:00 Hr	48.8	71.0	55.7	48.6	86.7
23:00 to 24:00 Hr	46.9	67.6	52.0	44.3	70.8



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

TIRUNELVELI

Name of the location: Pettai (S)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	7.1	17.5	73.0	16.4	73.0
08.11.2020	6.3	15.4	28.4	12.8	28.0
09.11.2020	6.0	14.4	67.9	29.2	68.0
10.11.2020	7.2	16.3	94.0	48.0	94.0
11.11.2020	6.4	15.0	64.7	13.4	65.0
12.11.2020	5.4	12.3	53.5	27.6	54.0
13.11.2020	6.3	18.2	31.1	17.1	31.0
14.11.2020	9.0	21.1	70.7	16.6	71.0
15.11.2020	5.3	14.4	33.3	10.1	33.0
16.11.2020	4.2	12.1	48.4	15.3	48.0
17.11.2020	4.4	12.7	30.8	12.6	31.0
18.11.2020	**	**	**	**	**
19.11.2020	4.5	13.0	43.6	27.2	44.0
20.11.2020	4.2	13.6	39.4	15.0	39.0
21.11.2020	5.7	13.9	50.0	16.8	50.0

* All Values (24 hourly Average) are in (µg/m³)

** Rain



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

TIRUNELVELI

Name of the location: Town (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	6.0	16.5	28.0	13.6	28.0
08.11.2020	7.3	17.3	32.0	15.2	32.0
09.11.2020	7.4	15.9	51.8	24.8	52.0
10.11.2020	5.9	17.0	48.0	12.6	48.0
11.11.2020	5.9	16.2	76.0	36.6	76.0
12.11.2020	7.1	16.9	54.1	18.5	54.0
13.11.2020	5.2	15.1	47.1	12.2	47.0
14.11.2020	9.3	22.6	62.0	16.8	62.0
15.11.2020	4.9	13.0	57.5	8.5	58.0
16.11.2020	5.7	16.6	38.7	7.7	39.0
17.11.2020	4.6	12.4	42.5	2.7	43.0
18.11.2020	**	**	**	**	**
19.11.2020	5.7	14.9	48.6	6.9	49.0
20.11.2020	5.7	14.5	58.3	8.4	58.0
21.11.2020	7.2	17.4	69.0	24.5	69.0

* All Values (24 hourly Average) are in (µg/m³)

** Rain

Deepavali Monitoring 2020

Trichy

City:

- Latitude & Longitude : 10° 50'N and 78° 46' E
- Climate / Meteorology : Clear Sky and Cloudy on Pre Deepavali and Partial Cloudy on Deepavali day
- Population : 3000000
- Major Land use : Mixed use

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
- Description of monitoring site: Area /Zone : **Noise level survey**
(Residential, Commercial and Silence) A. Thillai Nagar (R)

Ambient Air quality Survey

Ramalinga Nagar (R)

Gandhi Market (C)

- Activities around the monitoring location / Sources of Noise Pollution : Location A (NLS):
Residential area all type of vehicles movement observed.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

TRICHY

Location: Thillai Nagar (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
18:00 to 19:00 Hr	56.5	92.3	70.1	54.0	107.5	74.6
19:00 to 20:00 Hr	58.9	89.2	66.6	57.8	116.5	87.5
20:00 to 21:00 Hr	52.7	99.4	68.9	58.4	112.1	90.2
21:00 to 22:00 Hr	50.9	93.0	64.2	53.9	112.3	82.9
22:00 to 23:00 Hr	44.3	73.2	47.9	45.2	103.5	71.7
23:00 to 24:00 Hr	43.5	70.4	51.4	42.1	95.3	66.0



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

TRICHY

Name of the location: Ramalinga Nagar (R)					
Date	Regulatory Parameters				AQI
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	
07.11.2020	8.0	12.0	55.0	24.0	55.0
08.11.2020	11.0	15.0	63.0	34.0	63.0
09.11.2020	12.6	15.1	64.0	31.0	64.0
10.11.2020	11.8	14.1	70.0	37.0	70.0
11.11.2020	13.0	16.0	55.0	21.0	55.0
12.11.2020	12.0	15.0	62.0	26.0	62.0
13.11.2020	10.0	14.0	66.0	25.0	66.0
14.11.2020	13.8	15.4	92.0	41.0	92.0
15.11.2020	8.0	12.0	55.0	24.0	55.0
16.11.2020	11.0	14.0	58.0	17.0	58.0
17.11.2020	**	**	**	**	**
18.11.2020	10.6	13.0	61.0	29.0	61.0
19.11.2020	12.0	14.0	68.0	27.0	68.0
20.11.2020	12.0	14.0	65.0	28.0	65.0
21.11.2020	10.0	12.0	62.0	26.0	62.0

* All Values (24 hourly Average) are in (µg/m³)

** -Rain



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

TRICHY

Name of the location: Gandhi Market (C)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	9.0	13.0	71.0	32.0	71.0
08.11.2020	13.0	17.0	77.0	39.0	77.0
09.11.2020	14.5	16.9	73.0	38.0	73.0
10.11.2020	13.0	16.8	74.0	31.0	74.0
11.11.2020	15.0	18.0	78.0	31.0	78.0
12.11.2020	14.0	17.0	76.0	34.0	76.0
13.11.2020	11.0	15.0	82.0	32.0	82.0
14.11.2020	15.3	18.9	106.0	54.0	104.0
15.11.2020	14.0	17.3	94.0	51.0	94.0
16.11.2020	13.0	17.0	74.0	19.0	74.0
17.11.2020	**	**	**	**	**
18.11.2020	13.6	15.0	76.0	34.0	76.0
19.11.2020	14.0	17.0	83.0	35.0	83.0
20.11.2020	13.0	15.0	79.0	34.0	79.0
21.11.2020	12.0	14.0	79.0	31.0	79.0
* All Values (24 hourly Average) are in (µg/m ³)					
**-Rain					

Deepavali Monitoring 2020

Vellore

City:

- Latitude & Longitude : 12.95°N 79.14°E
- Climate / Meteorology : Hot/Cold depends on climate seasons
- Population : 5,01,966 as per 2014
- Major Land use : **Residence**

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
 - Description of monitoring site: Area /Zone : **Noise level survey**
(Residential, Commercial and Silence) Gandhi Nagar (R)
SIDCO Industrial Estate (I)
Ambient Air quality Survey
Gandhi Nagar (R)
SIDCO Industrial Estate (I)
- Activities around the monitoring location /
Sources of Noise Pollution
- :Location A: Residential area with houses, schools, college and some government establishment with normal traffic.
Location B: Predominantly residential with slight commercial activity.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

VELLORE

Location: Gandhi Nagar (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	48.0	78.2	60.3	48.1	97.4	73.4
19:00 to 20:00 Hr	48.0	84.4	59.8	53.3	95.4	74.4
20:00 to 21:00 Hr	48.2	82.8	59.7	51.0	96.2	76.4
21:00 to 22:00 Hr	49.1	77.1	58.3	47.6	83.7	68.6
22:00 to 23:00 Hr	43.8	77.4	59.9	47.8	72.0	53.1
23:00 to 24:00 Hr	43.8	77.7	59.3	47.4	74.9	52.9

Location: SIDCO Industrial Estate (I)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	44.8	80.1	54.6	48.1	78.5	66.8
19:00 to 20:00 Hr	44.7	80.1	53.2	48.1	84.4	67.3
20:00 to 21:00 Hr	48.0	77.1	62.1	50.4	95.4	73.7
21:00 to 22:00 Hr	45.3	77.4	61.1	48.6	83.7	61.4
22:00 to 23:00 Hr	44.7	63.1	47.3	44.4	81.7	65.2
23:00 to 24:00 Hr	40.9	64.5	46.9	45.2	67.6	48.7



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

VELLORE

Name of the location: Gandhi Nagar (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	5.5	15.3	27.0	9.0	27.0
08.11.2020	7.7	16.7	63.0	25.0	63.0
09.11.2020	9.7	21.2	106.0	37.0	104.0
10.11.2020	11.6	28.9	161.0	67.0	141.0
11.11.2020	11.6	28.8	147.0	66.0	131.0
12.11.2020	14.8	30.7	154.0	71.0	137.0
13.11.2020	16.4	34.7	193.0	85.0	183.0
14.11.2020	14.0	34.2	98.0	35.0	98.0
15.11.2020	6.9	15.4	36.0	11.0	36.0
16.11.2020	6.9	13.8	38.0	13.0	38.0
17.11.2020	7.3	21.1	45.0	14.0	45.0
18.11.2020	7.2	18.4	37.0	17.0	37.0
19.11.2020	5.8	16.8	26.0	10.0	26.0
20.11.2020	7.7	19.0	55.0	21.0	55.0
21.11.2020	9.9	23.2	122.0	54.0	115.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

VELLORE

Name of the location: SIDCO Industrial Estate (I)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	4.8	12.0	18.0	5.0	18.0
08.11.2020	6.6	14.7	49.0	18.0	49.0
09.11.2020	9.6	20.9	92.0	29.0	92.0
10.11.2020	9.7	26.2	117.0	49.0	111.0
11.11.2020	9.2	24.6	109.0	42.0	106.0
12.11.2020	7.7	20.8	84.0	36.0	84.0
13.11.2020	14.9	33.2	175.0	79.0	163.0
14.11.2020	11.7	31.6	88.0	27.0	88.0
15.11.2020	5.3	13.2	20.0	6.0	20.0
16.11.2020	8.8	16.5	41.0	16.0	41.0
17.11.2020	7.1	18.1	38.0	11.0	38.0
18.11.2020	7.0	16.3	36.0	18.0	36.0
19.11.2020	5.2	15.3	29.0	11.0	29.0
20.11.2020	7.1	16.7	37.0	16.0	37.0
21.11.2020	8.2	19.7	50.0	19.0	50.0
21.11.2020	8.2	19.7	50.0	19.0	50.0

Deepavali Monitoring 2020

Dindigul

City:

- Latitude & Longitude : 10.3846 N and 78.0018 E
- Climate / Meteorology : Partially Cloudy with Slight Drizzling
- Population : 21,59,775 (as per census 2011)
- Major Land use : Residential and Commercial

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
- Description of monitoring site: Area /Zone : **Noise level survey**
(Residential, Commercial and Silence) N.S. Nagar (R)
Near Rajagopal Iyyangar
Petrol Bunk (C)
Ambient Air quality Survey
N.S. Nagar (R)
Near Rajagopal Iyyangar
Petrol Bunk (C)

Activities around the monitoring location /
Sources of Noise Pollution

: Normal and public
activities and Crackers
Noise.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

DINDIGUL

Location: N.S. Nagar (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	48.6	84.9	61.5	58.5	108.7	78.8
19:00 to 20:00 Hr	47.5	85.3	63.1	54.9	104.0	68.7
20:00 to 21:00 Hr	45.8	86.1	59.5	50.9	98.9	59.6
21:00 to 22:00 Hr	45.4	82.6	55.1	50.8	100.5	63.5
22:00 to 23:00 Hr	44.5	77.8	58.9	49.0	79.9	63.2
23:00 to 24:00 Hr	44.4	72.2	53.1	45.5	78.4	51.4

Location: Rajagopal Iyengar (C)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	60.8	97.9	73.3	56.7	98.6	74
19:00 to 20:00 Hr	63.0	96.9	73.8	59.4	101.7	76.2
20:00 to 21:00 Hr	59.4	92.6	71.7	56.3	99.9	74.6
21:00 to 22:00 Hr	56.3	95.1	71.6	53	107.9	72.5
22:00 to 23:00 Hr	49.2	96.1	69.7	47.2	99.2	72.9
23:00 to 24:00 Hr	46.4	92.9	68.7	48.1	97.4	67.9



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

DINDIGUL

Name of the location: Near Rajagopal Iyyangar & Sons (C)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	15.3	20.9	76.4	29.3	76.0
08.11.2020	9.1	14.3	40.7	19.2	41.0
09.11.2020	16.9	23.7	76.7	31.3	77.0
10.11.2020	18.5	25.4	85.4	38.9	85.0
11.11.2020	22.6	28.3	96.8	41.2	97.0
12.11.2020	24.2	30.2	103.4	43.8	102.0
13.11.2020	12.1	19.1	61.0	48.2	61.0
14.11.2020	24.9	31.3	114.1	56.2	109.0
15.11.2020	21.7	27.6	92.1	46.3	92.0
16.11.2020	21.4	27.2	56.5	24.3	57.0
17.11.2020	23.5	29.5	75.1	34.9	75.0
18.11.2020	25.3	31.7	96.8	42.0	97.0
19.11.2020	26.9	33.2	109.6	52.2	107.0
20.11.2020	25.8	32.2	94.5	44.9	96.0
21.11.2020	26.6	32.8	113.9	56.1	109.0

* All Values (24 hourly Average) are in (µg/m³)

Deepavali Monitoring 2020

Hosur

City:

- Latitude & Longitude : 12°43'N and 77°49'E
- Climate / Meteorology : Enclosed
- Population : 2,44,518 (as per 2011 census)
- Major Land use : Residential & Silence

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
- Description of monitoring site: Area /Zone : **Noise level survey**
(Residential, Commercial and Silence) INEL Transit House (R)
ESI Hospital (S)
Ambient Air quality Survey
INEL Transit House (R)
ESI Hospital (S)

Activities around the monitoring location /
Sources of Noise Pollution

: 1. The INEL Transit House location is situated at SIPCOT housing colony approximately 1000 peoples are residing and most of them are working in the nearby industries. 300 meters from NH-7 1 km away from SIPCOT industrial complex 100 meters from Matriculation school (ST Josph Matriculation School) 75 mts from shopping complex (Pushpa Pandian Shopping Complex) 200 mts from Dharga lake this location is west side of the SIPCOT housing colony.

2.ESI Hospital location is very close to NH-7 i.e 50 mts from station point 1 km from sipcot industries, with 100 Beds. This location is 200 mts from EWS Quarters and petrol bunk, and Tinny hotels, shops are available.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

HOSUR

Location: INEL Transit House (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
18:00 to 19:00 Hr	51.6	64.7	58.9	60.1	85.2	83.0
19:00 to 20:00 Hr	49.9	63.1	60.1	68.6	95.7	86.2
20:00 to 21:00 Hr	48.5	63.2	56.2	67.1	99.9	81.0
21:00 to 22:00 Hr	48.8	56.2	51.0	60.0	89.1	76.7
22:00 to 23:00 Hr	43.6	55.0	47.6	49.1	89.9	64.3
23:00 to 24:00 Hr	40.1	53.2	46.0	50.2	64.3	60.9

Location: ESI Hospital (S)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
18:00 to 19:00 Hr	48.0	66.5	56.5	60.8	88.0	76.0
19:00 to 20:00 Hr	48.2	62.9	54.8	70.1	82.8	80.6
20:00 to 21:00 Hr	47.1	59.2	54.0	71.1	80.5	74.2
21:00 to 22:00 Hr	46.0	56.8	53.0	60.8	71.6	65.0
22:00 to 23:00 Hr	41.0	54.0	46.8	51.7	60.8	54.6
23:00 to 24:00 Hr	40.2	53.1	44.3	41.4	56.2	46.0



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

HOSUR

Name of the location: INEL Transit House (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	8.5	12.2	33.0	14.3	33.0
08.11.2020	14.0	16.6	42.9	20.9	43.0
09.11.2020	11.8	15.7	47.4	30.4	51.0
10.11.2020	19.9	19.0	47.2	22.7	47.0
11.11.2020	9.9	20.5	56.1	29.0	56.0
12.11.2020	8.1	12.1	31.7	17.7	32.0
13.11.2020	9.0	11.4	29.7	15.1	30.0
14.11.2020	26.9	34.8	98.6	53.4	99.0
15.11.2020	8.9	11.5	37.0	17.3	37.0
16.11.2020	10.0	14.2	29.5	14.9	30.0
17.11.2020	9.6	14.9	39.6	16.7	40.0
18.11.2020	10.4	12.4	27.0	16.3	27.0
19.11.2020	11.5	14.1	28.3	17.4	29.0
20.11.2020	8.3	16.7	26.9	15.8	28.0
21.11.2020	8.2	17.3	38.2	20.2	38.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board
Ambient Air Quality data during Deepavali festival from
07.11.2020 to 21.11.2020

Annexure - V

HOSUR

Name of the location: ESI Hospital (S)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	11.0	16.1	40.5	19.0	41.0
08.11.2020	11.0	15.2	30.4	17.1	30.0
09.11.2020	8.3	13.8	32.5	18.1	33.0
10.11.2020	8.9	16.0	36.8	20.5	37.0
11.11.2020	8.3	14.5	30.5	13.2	31.0
12.11.2020	9.2	14.7	34.1	17.5	34.0
13.11.2020	8.9	14.5	28.3	12.8	28.0
14.11.2020	12.8	24.1	48.7	21.7	49.0
15.11.2020	8.9	11.5	36.2	14.5	36.0
16.11.2020	8.4	13.3	32.4	17.6	32.0
17.11.2020	10.0	12.3	32.4	13.9	32.0
18.11.2020	16.0	12.7	30.5	13.4	31.0
19.11.2020	12.8	14.8	31.3	13.7	31.0
20.11.2020	15.4	15.2	27.5	14.8	28.0
21.11.2020	16.1	18.7	37.4	19.8	37.0

* All Values (24 hourly Average) are in (µg/m³)

Deepavali Monitoring 2020

Thoothukudi

City:

- Latitude & Longitude : 8°47'47" N and 78° 7'1" E
- Climate / Meteorology : Frequent rain in Thoothukudi during Pre Deepavali and Deepavali. The sky was cloudy with calm wind.
- Population : 17.5 Lakhs (Census 2011)
- Major Land use : Thoothukudi is industrial city having Commercial and Residential activities.

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
- Description of monitoring site: Area /Zone : **Noise Level Survey**
(Residential, Commercial and Silence) Raju Nagar (R)
Ambient Air quality Survey
Raju Nagar (R)
Celseeni Colony (R)
- Activities around the monitoring location / Sources of Noise Pollution : Residential area where movement's automobile were observed.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

THOOTHUKUDI

Location: Raju Nagar (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
18:00 to 19:00 Hr	40.7	90.7	64.9	46.9	95.6	74.5
19:00 to 20:00 Hr	42.8	72.2	65.2	53.2	96.8	77.8
20:00 to 21:00 Hr	41.9	58.1	51.0	46.3	93.6	74.4
21:00 to 22:00 Hr	40.6	67.3	51.8	40.9	91.6	68.7
22:00 to 23:00 Hr	40.3	67.2	51.2	40.3	89.3	59.3
23:00 to 24:00 Hr	37.5	49.3	41.1	31.6	82.7	58.8



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

THOOTHUKUDI

Name of the location: Raju Nagar (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	4.3	6.6	38.9	12.0	39.0
08.11.2020	3.8	4.3	49.6	26.3	50.0
09.11.2020	2.0	3.8	85.2	51.7	86.0
10.11.2020	2.6	5.6	88.2	39.8	88.0
11.11.2020	2.6	4.1	79.0	40.8	79.0
12.11.2020	2.8	4.2	41.4	12.2	41.0
13.11.2020	5.3	5.2	64.9	19.7	65.0
14.11.2020	8.6	9.6	139.4	23.8	126.0
15.11.2020	2.6	4.7	63.9	29.1	64.0
16.11.2020	2.4	6.2	49.8	9.0	50.0
17.11.2020	4.7	3.1	32.8	8.7	33.0
18.11.2020	2.9	5.1	43.3	9.0	43.0
19.11.2020	3.1	4.4	65.2	5.3	65.0
20.11.2020	2.8	4.4	49.3	19.8	49.0
21.11.2020	3.1	5.1	35.5	14.8	36.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

THOOTHUKUDI

Name of the location: Celseeni Colony (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	4.9	4.3	24.2	13.1	24.0
08.11.2020	4.2	3.4	43.5	27.7	44.0
09.11.2020	2.8	4.5	60.9	38.2	61.0
10.11.2020	7.9	5.9	90.0	53.3	90.0
11.11.2020	3.1	4.0	43.3	29.9	43.0
12.11.2020	3.3	4.6	34.3	9.3	34.0
13.11.2020	4.2	5.7	69.3	32.9	69.0
14.11.2020	10.9	9.6	140.4	51.7	127.0
15.11.2020	2.9	4.5	72.8	8.8	73.0
16.11.2020	2.5	4.6	38.2	7.4	38.0
17.11.2020	3.5	5.6	30.9	4.5	31.0
18.11.2020	3.5	5.2	48.2	7.6	48.0
19.11.2020	2.6	4.2	42.5	8.3	43.0
20.11.2020	3.6	4.3	35.6	15.8	36.0
21.11.2020	3.8	4.7	38.3	16.4	38.0

* All Values (24 hourly Average) are in (µg/m³)

Deepavali Monitoring 2020

Tiruppur

City:

- Latitude & Longitude : 11.1085° N and 77. 3411° E
- Climate / Meteorology : Clear sky
- Population : 24,71,222 as per 2011 census
- Major Land use : Residential & Commercial

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
- Description of monitoring site: Area /Zone : **Noise level survey**
(Residential, Commercial and Silence) Rayapuram (R)
Kumaran Complex (C)
Ambient Air quality Survey
Rayapuram (R)
Kumaran Complex (C)

Activities around the monitoring location /
Sources of Noise Pollution

: Rayapuram is a pure residential area inside Tiruppur Corporation. Kumaran Complex is situated at a traffic island close to the city railway station, Government offices and commercial establishments.



Tamil Nadu Pollution Control Board
Noise level during Deepavali festival - 2020

TIRUPPUR

Location: Rayapuram (R)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	42.3	55.5	45.1	58.4	92.8	70.0
19:00 to 20:00 Hr	47.0	57.4	50.3	50.4	91.7	70.3
20:00 to 21:00 Hr	50.8	61.0	52.5	50.3	87.7	72.7
21:00 to 22:00 Hr	47.8	61.3	50.4	48.7	102.2	78.7
22:00 to 23:00 Hr	44.7	55.7	51.5	50.0	84.1	66.0
23:00 to 24:00 Hr	41.4	55.5	45.3	42.3	62.6	53.4

Location: Kumaran Complex (C)	Pre - Deepavali Day (09.11.2020)			Deepavali Day (14.11.2020)		
	L_{min}	L_{max}	L_{eq} dB(A)	L_{min}	L_{max}	L_{eq} dB(A)
Time duration						
18:00 to 19:00 Hr	52.9	67.1	58.1	61.9	46.2	91.0
19:00 to 20:00 Hr	53.0	72.2	57.2	61.8	44.2	92.0
20:00 to 21:00 Hr	52.6	75.2	58.0	65.3	51.4	88.8
21:00 to 22:00 Hr	41.3	54.4	48.4	59.7	45.2	82.4
22:00 to 23:00 Hr	46.2	53.4	45.7	62.6	55.5	78.0
23:00 to 24:00 Hr	39.1	65.4	48.8	51.8	48.9	57.7



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

TIRUPPUR

Name of the location: Kumaran Complex (C)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	5.9	9.7	132.0	78.0	160.0
08.11.2020	7.7	9.0	159.0	67.0	139.0
09.11.2020	6.9	9.0	231.0	65.0	187.0
10.11.2020	11.5	12.0	241.0	62.0	194.0
11.11.2020	14.0	16.0	284.0	64.0	234.0
12.11.2020	8.0	9.0	224.0	71.0	183.0
13.11.2020	15.5	16.2	305.0	50.0	255.0
14.11.2020	15.5	18.8	130.0	66.0	120.0
15.11.2020	13.9	61.0	115.0	39.0	110.0
16.11.2020	14.0	56.5	92.0	31.0	92.0
17.11.2020	16.2	18.0	89.0	52.0	89.0
18.11.2020	15.1	19.0	94.0	35.0	94.0
19.11.2020	21.5	22.0	112.0	27.0	108.0
20.11.2020	16.2	20.0	122.0	47.0	115.0
21.11.2020	11.3	18.0	89.0	34.0	89.0

* All Values (24 hourly Average) are in (µg/m³)



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

TIRUPPUR

Name of the location: Rayapuram (R)					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	9.7	12.4	117.0	42.0	111.0
08.11.2020	16.6	19.0	154.0	47.0	136.0
09.11.2020	16.0	19.0	141.0	51.0	127.0
10.11.2020	7.5	9.0	227.0	39.0	185.0
11.11.2020	6.8	9.0	108.0	37.0	105.0
12.11.2020	14.4	19.0	163.0	43.0	142.0
13.11.2020	29.2	30.0	139.0	52.0	126.0
14.11.2020	25.0	30.8	226.0	60.0	184.0
15.11.2020	13.5	19.6	92.0	10.2	92.0
16.11.2020	14.8	19.0	133.0	17.0	122.0
17.11.2020	13.9	21.8	112.0	12.0	108.0
18.11.2020	9.9	12.0	113.0	22.0	109.0
19.11.2020	15.1	16.0	86.0	10.0	86.0
20.11.2020	11.1	12.0	81.0	17.0	81.0
21.11.2020	11.9	12.9	81.0	13.0	81.0

* All Values (24 hourly Average) are in (µg/m³)

Deepavali Monitoring 2020

Nagercoil

City:

- Latitude & Longitude : 8.1833° N and 77.4119° E
- Climate / Meteorology : Partially cloudy
- Population : 2,24,849 (as per 2011 census)
- Major Land use : Residential & Commercial

Monitoring Locations:

- Map showing all monitoring locations of the city : Enclosed
- Description of monitoring site: Area /Zone :
(Residential, Commercial and Silence) **Ambient Air quality Survey**
Nagercoil

Activities around the monitoring location /
Sources of Noise Pollution

: Vehicle movement and
bursting of crackers were
observed on Deepavali day.



Tamil Nadu Pollution Control Board

Ambient Air Quality data during Deepavali festival from

07.11.2020 to 21.11.2020

Annexure - V

NAGERCOIL

Name of the location: Nagercoil					
Date	Regulatory Parameters				
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	AQI
07.11.2020	8.4	18.0	78.2	19.4	78.0
08.11.2020	8.3	17.3	54.9	10.3	55.0
09.11.2020	9.2	18.2	104.7	46.7	103.0
10.11.2020	6.5	17.3	82.7	14.0	83.0
11.11.2020	7.7	21.1	80.7	13.3	81.0
12.11.2020	7.5	19.2	69.4	15.5	70.0
13.11.2020	7.4	19.8	63.0	8.8	63.0
14.11.2020	10.7	24.8	66.0	31.8	66.0
15.11.2020	6.2	13.1	60.6	7.0	61.0
16.11.2020	4.9	13.7	33.0	6.2	33.0
17.11.2020	7.0	14.1	96.1	18.5	96.0
18.11.2020	**	**	**	**	**
19.11.2020	5.2	13.6	57.6	8.9	58.0
20.11.2020	5.4	16.1	73.2	10.7	73.0
21.11.2020	6.2	16.6	71.0	14.3	71.0

* All Values (24 hourly Average) are in (µg/m³)

** Rain

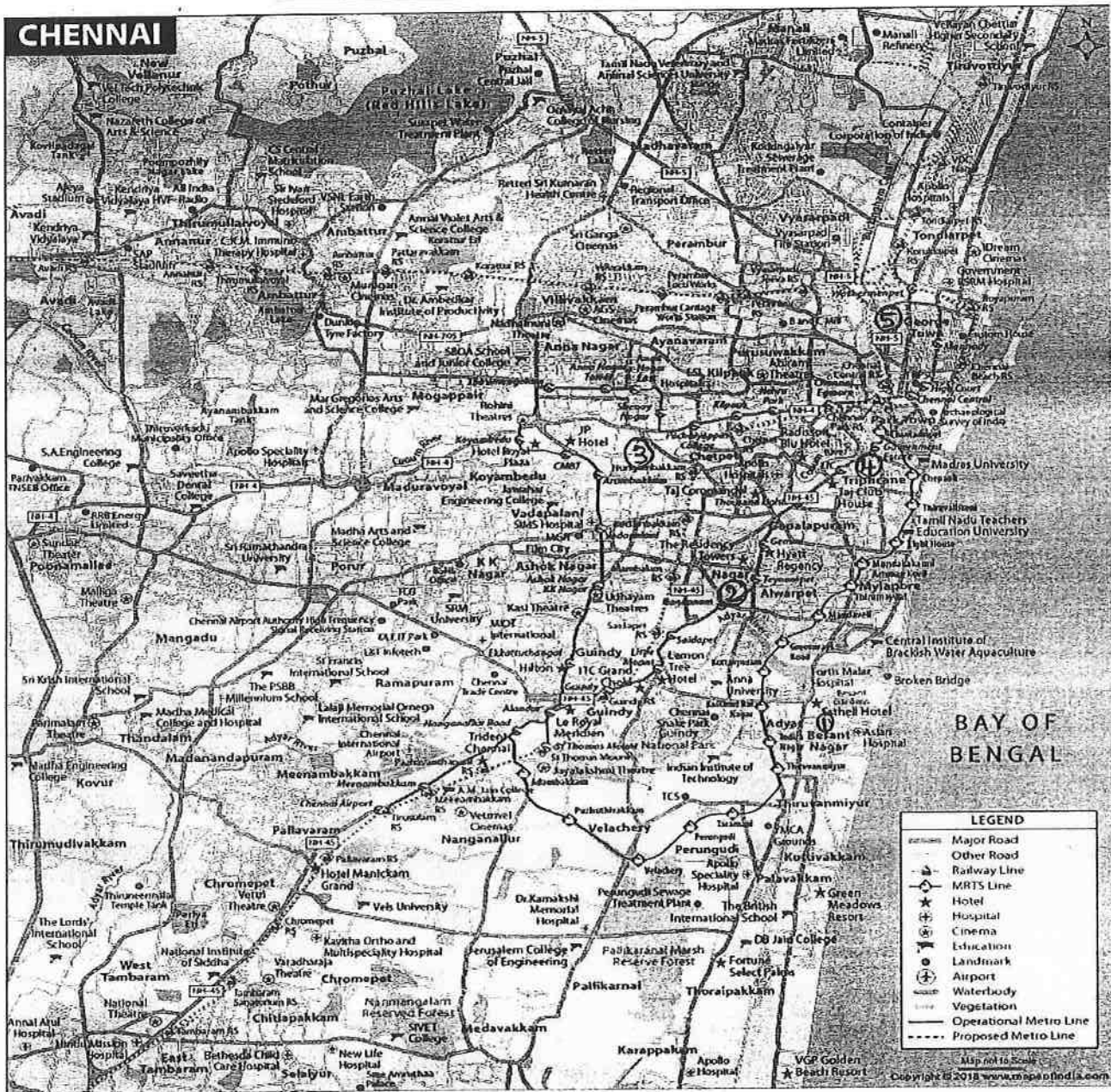


TAMILNADU POLLUTION CONTROL BOARD
Ambient Air Quality and Noise Level Survey - Deepavali - 2020
SAMPLING LOCATIONS

Name of the City	No. of stations	AAQ Stations	Name of the City	No. of stations	Noise level monitoring stations
1. Chennai	1	Triplicane (R)	1. Chennai	1	Triplicane (R)
	2	Besant Nagar (R)		2	Besant Nagar (R)
	3	Nungambakkam (R)		3	Nungambakkam (R)
	4	Sowcarpet (C)		4	Sowcarpet (C)
	5	T.Nagar (C)		5	T.Nagar (C)
2. Coimbatore	6	Kavundampalayam(R)	2. Coimbatore	6	Kavundampalayam(R)
	7	District Collectorate (C)		7	District Collectorate (C)
3. Cuddalore	8	Imperial Road (C)	3. Cuddalore	8	Imperial Road (C)
	9	Pudupalayam (R)		9	Pudupalayam (R)
4. Madurai	10	Thirunagar (R)	4. Madurai	10	Thirunagar (R)
	11	Birla Vishram (C)		11	Birla Vishram (C)
	12	School (R)		12	School (R)
5. Salem	13	Siva Tower (C&I)	5. Salem	13	Siva Tower (C&I)
	14	Town (R)		14	Pettai (S)
6. Tirunelveli	15	Pettai (S)	6. Tirunelveli	15	Vannarapettai (C)
	16	Ramalinga Nagar (R)		16	Thillai Nagar (R)
7. Trichy	17	Gandhi Market (C)	7. Trichy	17	Gandhi Nagar (R)
	18	Gandhi Nagar (R)		18	Sidco Industrial Estate(I)
8. Vellore	19	Sidco Industrial Estate(I)	8. Vellore	19	Nagal Pudur (R)
	20	Nagal Pudur (R)		20	Near Rajagopal Iyyangar & Sons (C)
9. Dindigul	21	Near Rajagopal Iyyangar & Sons (C)	9. Dindigul	21	ESI Hospital (S)
	22	ESI Hospital (S)		22	INEL Transit House (R)
10. Hosur	23	INEL Transit House (R)	10. Hosur	23	Raju Nagar (R)
	24	Raju Nagar (R)		24	Celseeni Colony (R)
11. Thoothukudi	25	Celseeni Colony (R)	11. Thoothukudi	25	Kumaran Complex (C)
	26	Kumaran Complex (C)		26	Rayapuram (R)
12. Tiruppur	27	Rayapuram (R)	12. Tiruppur	27	Rayapuram (R)
	28	Nagercoil		28	Nagercoil
13. Nagercoil	30	Nagercoil			

R-Residential, S - Sensitive, C - Commercial, I - Industrial

Chennai City Map



1. Besant Nagar – Residential
2. T. Nagar – Commercial
3. Nungambakkam – Residential
4. Triplicane – Residential
5. Sowcarpet – Commercial



Sl.No	Name of the City
I	Chennai
II	Coimbatore
III	Cuddalore
IV	Madurai
V	Salem
VI	Tirunelveli
VII	Trichy
VIII	Vellore
IX	Dindigul
X	Krishnagiri (Hosur)
XI	Thoothukkudi
XII	Tiruppur
XIII	Kanniyakumari(Nagercoil)

16	Ramalinga Nagar (R)	62	28.3	92	41	92	S	61.5	25.2
17	Gandhi Market (C)	75.9	33.9	106	54	104	M	80.8	34
VIII	Vellore								
18	Gandhi Nagar (S)	98	35	98	35	98	S	51	20
19	SIDCO (I)	92	36.9	88	27	88	S	35.9	13.9
IX	Hosur								
20	Inel Transit House (R)	41	21	98.6	53	99	S	32	16.9
21	ESI Hospital (S)	33	16.9	48.7	21.6	49	G	32.5	15.4
X	Dindigul								
22	Nagal Pudur (R)	61	29	108.7	53	106	M	83	40
23	Rajagopal Iyengar (C)	77	36	114	56	109	M	91	42.9
XI	Thoothukudi								
24	Cellsini Colony(R)	63.9	28.9	139	23.8	127	M	48.5	13.7
25	Raju Nagar (R)	52.2	29.2	140	52	127	M	43.8	9.8
XII	Tiruppur								
26	Kumaran Complex(C)	225	65	130	66	120	M	101.9	37.9
27	Rayapuram (R)	149.9	44	226	60	184	M	99.7	14.5
XIII	Nagercoil								
28	Nagercoil	76.2	18.3	66	31.75	66	S	65	10.9

Note: 0-50-Good (G), 51-100-Satisfactory (S), 101-200 – Moderate (M), 201-300-Poor, 301-400-Very Poor & 401-500 – Severe.

The Air quality index (AQI) is an index for reporting air quality on a daily basis. It is a measure of how air pollution affects one's health within a short time period. The purpose of the AQI is to help people know how the local air quality impacts their health.

The Air Quality Index of the 28 locations revealed that almost 17 locations falls under Satisfactory category (AQI-51 to 100) except 10 locations falls under the Moderate category (AQI-101 to 200) and 1 location (ESI Hospital, Hosur) falls under category good (AQI-0-50).

The status (AQI) of non-attainment cities namely Thoothukudi, Trichy and Madurai on Deepavai days 2020 is found to be satisfactory for Madurai and Moderate for Trichy and Thoothukudi.

Interpretation of Heavy Metals in Chennai during Pre-Deepavali Deepavali 2020 in Five Locations.

1a. Besant Nagar : PM₁₀ (Residential)

In Besant Nagar location Nickel was found to be 33.79ng/m³ on Deepavali day when compared to Pre-deepavali. The value of Nickel ranges from 2.2 to 4.5 ng/m³, while in post Deepavali the nickel values were 2.02 to 11.98ng/m³. This indicated the disposition of Nickel in ambient air from Deepavali emission, it takes five days to arrive to background concentration levels of 2.0 – 3.0ng/m³.

1b. Beasant Nagar: PM_{2.5} (Residential)

In Beasant Nagar location Aluminium and Barium was found to be 27.78 µg/m³ and 17.88 µg/m³ respectively on Deepavalli day. Aluminium and Barium was found to be BLQ (Below limit of Quantification) in pre deepavali period. While the concentration of Aluminium remains in ambient air and it takes more than seven days to dilute to minimum concentration, while the concentration of Barium remains in ambient air for five days and disposition takes more than seven days to come to a value of 0.52 µg/m³

2a. T.Nagar PM₁₀ (Commercial)

In T. Nagar Location, The value of Lead and Nickel was found to be 23.16 µg/m³ and 51.77 ng/m³ respectively on Deepavali day when compared to Pre-deepavali, where the values ranged between 0.001to 0.002 µg/m³ and 4.79 to 5.94 ng/m³ respectively. This indicates the disposition of Lead and Nickel in ambient air during Deepavali it takes around nearly seven days for both the metals to come to a lower concentration of 1.02µg/m³ and 0.2 ng/m³ respectively.

2b. T.Nagar PM_{2.5}(Commercial)

In T. Nagar Location, the value of Aluminium was found to be 13.65 $\mu\text{g}/\text{m}^3$ on Deepavali day when compared to Pre-deepavali day where the concentration of Aluminium Value was BLQ. The concentration of Aluminium remains in Ambient air and it takes more than seven days for dispersion and to come to a lower level of 1.25 $\mu\text{g}/\text{m}^3$.

3a. Nungambakkam: PM₁₀ (Residential)

In Nungambakkam the value of Lead and Nickel was found to be 22.9 $\mu\text{g}/\text{m}^3$ and 37.32 ng/m^3 respectively on Deepavali day when compared to Pre-deepavali, where the values ranged between 0.001 to 0.003 $\mu\text{g}/\text{m}^3$ and 2.43 to 8.64 ng/m^3 respectively. This indicates the disposition of Lead and Nickel in ambient air during Deepavali and it takes around nearly seven days for both the metals to come to a lower concentration of 2.31 $\mu\text{g}/\text{m}^3$ and 3.2 ng/m^3 respectively.

3b. Nungambakkam: PM_{2.5} (Residential)

In Nungambakkam Location, the value of Aluminium and Barium was found to be 35.72 $\mu\text{g}/\text{m}^3$ and 22.74 $\mu\text{g}/\text{m}^3$ on Deepavali day when compared to Pre-deepavali day where the concentration of Aluminium and Barium was BLQ. The concentration of Aluminium and Barium remains in ambient air and it takes more than seven days for dispersion and to come to a lower level of 2.12 $\mu\text{g}/\text{m}^3$ and 0.21 $\mu\text{g}/\text{m}^3$.

4a. Triplicane: PM₁₀ (Residential)

In Triplicane the value of Lead and Nickel was found to be 20.12 $\mu\text{g}/\text{m}^3$ and 62.22 ng/m^3 respectively on Deepavali day when compared to Pre-deepavali, where the values ranges between BLQ to 0.002 and 2.43 to 7.02 ng/m^3 respectively. This indicates the disposition of Lead and nickel in ambient air during Deepavali and it takes around nearly seven days for both

the metals to come to a lower concentration of $3.21\mu\text{g}/\text{m}^3$ and $2.41\text{ ng}/\text{m}^3$ respectively.

4b. Triplicane: PM_{2.5} (Residential)

In Triplicane Location, the value of Aluminium and Barium was found to be $38.67\mu\text{g}/\text{m}^3$ and $20.31\mu\text{g}/\text{m}^3$ on Deepavali day when compared to pre deepavali day where the concentration of Alumnium and Barium was BLQ. The concentration of Aluminium and Barium remains in ambient air and it takes more than seven days for dispersion and to come to a lower level of $3.12\mu\text{g}/\text{m}^3$ and $0.41\mu\text{g}/\text{m}^3$ respectively.

5a. Sowcarpet PM₁₀ (Commercial)

In Sowcarpet the value of Lead and Nickel was found to be $93.9\mu\text{g}/\text{m}^3$ and $51.92\text{ ng}/\text{m}^3$ respectively on Deepavali day when compared to Pre-deepavali, where the values ranges between 0.001 to $0.004\mu\text{g}/\text{m}^3$ and 2.08 to $8.09\text{ ng}/\text{m}^3$ respectively. This indicates the disposition of Lead and Nickel in ambient air during Deepavali and it takes around nearly seven days for both the metals to come to a lower concentration of $4.45\mu\text{g}/\text{m}^3$ and $0.52\text{ ng}/\text{m}^3$ respectively.

5b. Sowcarpet PM_{2.5} (Commercial)

In Sowcarpet the value of Aluminium and Barium was found to be $31.46\mu\text{g}/\text{m}^3$ and $17.92\mu\text{g}/\text{m}^3$ on Deepavali day when compared to Pre-deepavali day where the concentration of Alumnium and Barium was BLQ. The concentration of Aluminium and Barium remains in ambient air and it takes more than seven days for dispersion to come to a lower level of $1.15\mu\text{g}/\text{m}^3$ and $0.25\mu\text{g}/\text{m}^3$ respectively .

It is also observed that Arsenic was not found in ambient air in all the five locations during the entire period. While Iron in ambient air was reported as $4.91\mu\text{g}/\text{m}^3$ at Besant Nagar, $1.04\mu\text{g}/\text{m}^3$ at Nungambakkam, $2.72\mu\text{g}/\text{m}^3$, at Triplicane and $1.17\mu\text{g}/\text{m}^3$, at Sowcarpet during Deepavali 2020.

**NATIONAL AMBIENT AIR QUALITY STANDARDS
CENTRAL POLLUTION CONTROL BOARD
NOTIFICATION**

New Delhi, the 18th November, 2009

No.B-29016/20/90/PCI-L—In exercise of the powers conferred by ~~Sub-section (2) of~~ section 16 of the Air (Prevention and Control of Pollution) Act, 1981 (Act No. 14 of 1981) and in super session of the Notification No(s). S.O. 384(E), dated 11th April, 1994 and ~~S.O. 384(E)~~ dated 14th October, 1998, the Central Pollution Control Board hereby ~~notify the National~~ Ambient Air Quality Standards with immediate effect, namely:-

NATIONAL AMBIENT AIR QUALITY STANDARDS

S. No.	Pollutant	Time Weighted average	Concentration in Ambient Air		Methods of Measurement
			Industrial, Residential, Rural and Other Area	Ecologically sensitive area (notified by Central Govt.)	
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO ₂), µg/m ³	Annual*	50	20	<ul style="list-style-type: none"> Improved West and Geake Ultraviolet fluorescence
		24 hours**	80	80	
2	Nitrogen Dioxide (NO ₂), µg/m ³	Annual*	40	30	<ul style="list-style-type: none"> Modified Jacob & Hochheiser (Arsenite) Chemiluminescence
		24 hours**	80	80	
3	Particulate Matter (size less than 10 µm) or PM ₁₀ µg/m ³	Annual*	60	60	<ul style="list-style-type: none"> Gravimetric TOEM Beta attenuation
		24 hours**	100	100	
4	Particulate Matter (size less than 2.5 microns) or PM _{2.5} µg/m ³	Annual*	40	40	<ul style="list-style-type: none"> Gravimetric TOEM Beta attenuation
		24 hours**	60	60	
5	Ozone (O ₃) µg/m ³	8 hours **	100	100	<ul style="list-style-type: none"> UV photometric Chemiluminescence Chemical method
		1 hour **	180	180	
6	Lead (Pb) µg/m ³	Annual*	0.5	0.5	<ul style="list-style-type: none"> ASS / ICP method after sampling on EPM 2000 or equivalent filter paper ED — XRF using Teflon filter
		24 hours**	1.0	1.0	

(1)	(2)	(3)	(4)	(5)	(6)
7	Carbon Monoxide (CO) mg/m ³	8 hours**	2	2	Non Dispersive Infra RED (NDIR) Spectroscopy
		1 hour**	4	4	
8	Ammonia (NH ₃) μg/m ³	Annual*	100	100	<ul style="list-style-type: none"> • Chemiluminescence • Indophenol blue method
		24 hours**	400	400	
9	Benzene (C ₆ H ₆) μg/m ³	Annual*	5	5	<ul style="list-style-type: none"> • Gas chromatography based continuous analyser • Adsorption and desorption followed by GC analysis
10	Benzo (a) Pyrene (BaP) – particulate phase only ng/m ³	Annual*	1	1	Solvent extraction followed by HPLC / GC analysis
11	Arsenic (As) ng/m ³	Annual*	6	6	AAS / ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni) ng/m ³	Annual*	20	20	AAS / ICP method after sampling on EPM 2000 or equivalent filter paper

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 8 hourly or 1 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note: Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation.