

Format of Report: Deepawali Monitoring 2017

City: : Puducherry
Climate / Meteorology : 1. Clear (Normal day)
2. Clear (Deepawali day)
Major Land use : Residential
Monitoring Location : Mudaliarpet
Area : Residential
Activity : Residential (two wheeler movement)
Data / Observations :
Noise level during Deepawali festival, 2017:

Location A	Normal Day (13.10.2017)			Deepawali Day (18.10.2017)		
Time Duration	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18.00 to 19.00 Hr	56.3	87.0	67.0	54.6	118.6	96.3
19.00 to 20.00 Hr	52.9	85.6	65.9	65.2	114.1	93.6
20.00 to 21.00 Hr	53.0	90.4	65.5	60.6	111.0	89.7
21.00 to 22.00 Hr	48.1	105.3	72.1	55.6	93.3	75.4
22.00 to 23.00 Hr	40.5	86.6	63.6	45.7	109.0	78.5
23.00 to 24.00 Hr	40.1	68.2	49.3	42.8	96.2	63.4
Average Lequivalent dB(A) between (18.00 to 24.00 hours)	-	-	63.9	-	-	82.8
Lmax between (18.00 to 24.00 hours)		105.3	-	-	118.6	-
Lmin between (18.00 to 24.00 hours)	40.1	-	-	42.8	-	-

Observation:

- The Noise survey result reveals that there is an increase in ambient noise level on the day of Deepawali in comparison to the normal day.
- The average Lequivalent dB (A) monitored between 18.00 and 24.00 Hours is increased by 29.6 % on Deepawali day when compared to normal day.
- The main cause of increase in the ambient noise level during festivals is bursting of crackers, whereas in normal day the main contributors to the ambient noise level in that area is due to two wheeler movement. However, the measured noise levels because of bursting of crackers were found to be within the Hon’ble Supreme Court directive on noise level of 125 dB(A).

Ambient Air Monitoring during Deepawali Festival, 2017

Ambient Air Quality during Deepawali 2017						
Monitoring Location	Parameters Monitored					
	Normal Day (12.10.2017)			Deepawali Day (18.10.2017)		
	SO ₂	NO ₂	PM ₁₀	SO ₂	NO ₂	PM ₁₀
Anna Nagar, Puducherry	2.9	19.7	73	9.2	31	180
Monitoring Location	Parameters Monitored					
	Normal Day (12.10.2017)			Deepawali Day (18.10.2017)		
	SO ₂	NO ₂	PM ₁₀	SO ₂	NO ₂	PM ₁₀
Kovilpathu, Karaikal	11	7.8	35	13.4	12.5	62
NAAQ Standards	80	80	100	80	80	100
All values (24 hourly Average) are in µg/m ³						

Remarks/Observation:

Puducherry:

Monitoring report reveals that the 24 hourly average concentration of Particulate Matter was found higher on the day of Deepawali (180 µg/m³) may be due to bursting of crackers in comparison to Normal day (73 µg/m³). 24 Hourly concentration of Particulate Matter measured on Deepawali 2017 is above the prescribed standard limit of 100 µg/m³. The concentration of gaseous pollutants viz., SO₂ and NO₂ are within the prescribed standard limit (80 µg/m³).

The analysis of AQI on the day of Deepawali indicates that the values are falling in Moderate category and on Normal day the values are falling in satisfactory.

Karaikal:

Monitoring report reveals that the 24 hourly average concentration of Particulate Matter was found higher on the day of Deepawali (62 µg/m³) may be due to bursting of crackers in comparison to Normal day (35 µg/m³). 24 Hourly concentration of Particulate Matter measured on Deepawali 2017 is within the prescribed standard limit of 100 µg/m³. The concentration of gaseous pollutants viz., SO₂ and NO₂ are within the prescribed standard limit (80 µg/m³).

The analysis of AQI on the day of Deepawali indicates that the value is falling in satisfactory category and on Normal day the value is falling in good category.

During the monitoring period, in Puducherry and Karaikal the weather was calm and the meteorological conditions were not favorable for easy diffusion of pollutants and this may also a cause for higher concentration.