In Compliance of the orders of Hon'ble Supreme Court

Report of Special Monitoring of ambient air and ambient noise,

on the occasion of Deepawali festival -2018

UTTAR PRADESH POLLUTION CONTROL BOARD

Special Monitoring of ambient air and ambient noise,
on the occasion of Deepawali festival -2018

(Ambient air monitoring -Pre-Deepawali- from 31.10.2018 to 06.11.2018 on Deepawali 07.11.2018 and Post-Deepawali from 08.11.18 to 14.11.18 -Total 14 days.
Noise monitoring- on 01-11-2018 and 07-11-2018 Total 02 days.)

Please refer to the letter of Central Pollution Control Board (CPCB), New Delhi no- A21016/1/8-Mon dated-25.10.2018 (Annexure No.- 1) with reference to the implementation of the orders of Honorable Supreme court, dated-23.10.2018 for the monitoring of ambient air and ambient noise, from 07 days before Deepawali, on Deepawali and 07 days post Deepawali following standerd protocol. (Starting from 31.10.2018 to 06.11.2018 on 07.11.2018 & from 08.11.18 to 14.11.18 total 14 days.)

In compliance of above orders, Uttar Pradesh Pollution Control Board (UPPCB), Lucknow has carried out ambient air & ambient noise monitoring in Lucknow, the state capital of Uttar Pradesh. Besides state capital other regional offices of UPPCB has also carried out the above said monitoring in important cities of Uttar Pradesh.

The ambient air and noise monitoring data of state capital, Lucknow, Uttar Pradesh is a annexed as Annexure No. - 2 . Ambient air and noise monitoring data of other regional offices of UPPCB are enclosed as Annexure No.- 3 herewith.

Special Monitoring of ambient air and ambient noise, on the occasion of Deepawali festival -2018

(Ambient air monitoring -Pre-Deepawali- from 31.10.2018 to 06.11.2018 on Deepawali 07.11.2018 and Post-Deepawali from 08.11.18 to 14.11.18 -Total 14 days.
Noise monitoring- on 01-11-2018 and 07-11-2018 Total 02 days.)

Please refer to the letter of Central Pollution Control Board (CPCB), New Delhi no-A21016/1/8-Mon dated-25.10.2018 (Annexure No.- 1) with reference to the implementation of the orders of Honorable Supreme court, dated-23.10.2018 for the monitoring of ambient air and ambient noise, from 07 days before Deepawali, on Deepawali and 07 days post Deepawali following standerd protocol. (Commencing from 31.10.2018 to 06.11.2018 on 07.11.2018 & from 08.11.18 to 14.11.18 total 14 days.). The parameters namely PM_{10}, $PM_{2.5}$, SO_2 and NO_2 were included as per protocol and format of CPCB, New Delhi.

In compliance of above orders, Uttar Pradesh Pollution Control Board (UPPCB), Lucknow has carried out ambient air & ambient noise monitoring in Lucknow, the State Capital of Uttar Pradesh. Along with State Capital, Lucknow other cities of Uttar Pradesh Noida, Gaziabaad, Kanpur, Varanasi, Bijnaur, Barelly and Meerut carried out the above said monitoring..

In addition to this, at some places metals (Pb, Ni & As in PM_{10}) and selected metals/ Elements (Al, Ba, Sr & Fe in $PM_{2.5}$) had been monitored at Lucknow, Noida, Gaziabaad, Kanpur, Varanasi, Bijnaur, Barelly and Meerut to assess the impact of firecrackers bursting during Deepawali festival.

[A] The data obtained from monitoring in Lucknow city following are the conclusions.

1. During the short term monitoring carried out in Lucknow city at two stations namely Vishnupuri Aliganj and Sarai mali Khan Chowk for 15 days (commencing from 07 days prior to Deepawali, ending 7 days after Deepawali and including Deepawali day) the PM_{10} and $PM_{2.5}$ values had been found above the prescribed limits.

2. The values of Sulphur dioxide gas & Nitrogen dioxide gas have been below the prescribed limits of (80 µg/m3) during the short term monitoring carried out in Lucknow city at two stations namely Vishnupuri Aliganj and Sarai Mali Khan Chowk for 15 days (commencing from 07 days prior to Deepawali, ending 7 days after Deepawali and including Deepawali day) .

3. On the day of Deepawali the values of Air pollutants such as PM_{10} and $PM_{2.5}$, SO_2 and NO_2 have been increased significantly as compared to day before Deepawali.

4. Noise monitoring was conducted on 1.11.18 (Pre Deepawali day) and on 7.11.18 (Deepawali day) at two locations namely, CSIR Scientist Apartment, Aliganj (Residential area) and New Srinagar, Alambagh (Commercial area).

At New Srinagar, Alambagh (Commercial area), the values had been found above the prescribed limits on both the days. At Aliganj (Residential area) the values had been found above the prescribed limits on Deepawali day (07.11.2018).

5. During the short term monitoring carried out in Lucknow city at two stations namely Vishnupuri Aliganj and Sarai mali Khan Chowk for 15 days (commencing from 07 days prior to Deepawali, ending 7 days after Deepawali and including Deepawali day) the values of metals (Lead, Arsenic and nickel) in PM_{10} had been found within the prescribed standards.

6. During the short term monitoring carried out in Lucknow city at two stations namely Vishnupuri Aliganj and Sarai mali Khan Chowk for 15 days (commencing from 07 days prior to Deepawali, ending 7 days after Deepawali and including Deepawali day) the values of metals (Lead, Arsenic nickel, Aluminium, Barium and Iron) in $PM_{2.5}$ had been found within the prescribed standards. The facility for analysis of Strontium metal was not available in Central Lab, Uttar Pradesh Pollution Control Board and Indian Institute of Toxicology Reasearch, Lucknow.

7. a.) Real Time Continuous Ambient Air Quality Monitoring data at Nishatganj station, shows for 15 days (commencing from 07 days prior to Deepawali, ending 7 days after Deepawali and including Deepawali day) the values of $PM_{2.5}$ had been found above the prescribed standards throughout the monitoring period.

b.) Real Time Continuous Ambient Air Quality Monitoring data at Nishatganj station, shows for 15 days (commencing from 07 days prior to Deepawali, ending 7 days after Deepawali and including Deepawali day) the values of NO_2 had been found within the prescribed standards throughout the monitoring period.

c.) Real Time Continuous Ambient Air Quality Monitoring data at Nishatganj station, shows for 15 days (commencing from 07 days prior to Deepawali, ending 7 days after Deepawali and including Deepawali day) the values of SO_2 had been found within the prescribed standards throughout the monitoring period. The ambient air and noise monitoring data of state capital, Lucknow, Uttar Pradesh. **Ambient air and noise monitoring data is annexed as Annexure No. - 1**

[B] The data obtained from monitoring of the cities namely Noida, Gaziabaad, Kanpur, Varanasi, Bijnaur, Barelly and Meerut, it has been found that

1. During the short term monitoring carried out that the PM_{10} and $PM_{2.5}$ values had been found above the prescribed limits.

2. The values of Sulphur dioxide gas & Nitrogen dioxide gas have been below the prescribed limits of (80 µg/m3)

3. On the day of Deepawali the values of Air pollutants such as PM_{10} and $PM_{2.5}$, SO_2 and NO_2 have been increased significantly as compared to day before Deepawali.

4. Noise monitoring was conducted on 1.11.18 (Pre Deepawali day) and on 7.11.18 (Deepawali day) at least on two locations of residential area and Commercial area of each regional offices.

At Commercial areas, the values had been found above the prescribed limits on both the days. At residential areas, the values had been found above the prescribed limits on Deepawali day (07.11.2018).

5. During the short term monitoring carried out in various regional offices the values of metals (Lead, Arsenic and nickel) in PM_{10} had been found within the prescribed standards.

6. During the short term monitoring carried out in various regional offices, the values of metals (Lead, Arsenic nickel, Aluminium, Barium and Iron) in $PM_{2.5}$ had been found within the prescribed standards. The facility for analysis of Strontium metal was not available in Central Lab, Uttar Pradesh Pollution Control Board and Indian Institute of Toxicology Research, Lucknow.

7. a.) Real Time Continuous Ambient Air Quality Monitoring, the values of $PM_{2.5}$ had been found above the prescribed standards throughout the monitoring period.

b.) Real Time Continuous Ambient Air Quality Monitoring, the values of NO_2 had been found within the prescribed standards throughout the monitoring period.

c.) Real Time Continuous Ambient Air Quality Monitoring, the values of SO_2 had been found within the prescribed standards throughout the monitoring period.

Data is annexed as Annexure No. - 2

[C] For the monitoring during Deepawali Guidelines provided by CPCB, Delhi is enclosed as **Annexure No.- 3** herewith.