

## **Report on Ambient Air Quality and Ambient Noise Monitoring during Diwali, 2024**

To study the impact of the bursting of crackers and other related activities, the Himachal Pradesh State Pollution Control Board has conducted ambient air quality monitoring on the occasion of Diwali festival 2024 from 24.10.2024 to 30.10.2024 (Pre Diwali monitoring), on 31.10.2024 (Diwali Day monitoring) and 01.11.2024 to 07.11.2024 (Post Diwali monitoring). Ambient air quality monitoring at Shimla, Parwanoo, Dharamshala, Damtal (Jassur), Sunder Nagar, Paonta Sahib, Kala Amb, Una, and Manali was carried out for parameters i.e. Respirable Particulate Matter (PM<sub>10</sub>), Respirable Particulate Matter (PM<sub>2.5</sub>), Sulphur Dioxide (SO<sub>2</sub>), Oxides of Nitrogen (NO<sub>x</sub>) and Ammonia (NH<sub>3</sub>) for 24 hour a day. Ambient air quality monitoring at Parwanoo, Damtal, Paonta Sahib, Kala Amb, Una and Nalagarh was carried out for CO (Carbon Monoxide) and at Shimla, Parwanoo, Dharamshala, Damtal Sundernagar, Paonta Sahib, Kala Amb and Una was carried out for O<sub>3</sub> (Ozone) parameter. At Baddi Station Ambient Air Quality was carried out for Respirable Particulate Matter (PM<sub>10</sub>), Respirable Particulate Matter (PM<sub>2.5</sub>), Sulphur Dioxide (SO<sub>2</sub>) and Oxides of Nitrogen (NO<sub>x</sub>). Further, the heavy metal monitoring and analysis was carried out at Shimla, Parwanoo, Paonta Sahib, Sundernagar, Una and Dharamshala for Lead, Nickel, Arsenic metals in PM<sub>10</sub>, and Aluminium, Barium and Iron metals in PM<sub>2.5</sub>. Ambient Noise monitoring was carried out at Shimla, Parwanoo, Paonta Sahib, Una, Dharamshala, Baddi, Kullu, Bilaspur, Kinnaur, Rampur and Chamba. The detail of ambient air & and noise monitoring data is enclosed in Annexures- I-II & III.

### **Ambient Air Quality Monitoring report of Himachal Pradesh during the Diwali Festival, 2024 are as under:**

#### **SHIMLA**

The ambient air quality monitoring at Shimla was carried out at one location i.e. Tekka Bench, Shimla. The 24-hour average value of RSPM (PM<sub>10</sub>) at Tekka Bench was observed at 65.7µg/m<sup>3</sup> which is below the standard prescribed limit of 100 µg/m<sup>3</sup> on Diwali day. The concentration of RSPM (PM<sub>10</sub>) observed at Shimla during Diwali, 2024 was above the concentration of RSPM (PM<sub>10</sub>) observed during Diwali last year i.e. 61.1µg/m<sup>3</sup>. The maximum concentration of RSPM (PM<sub>10</sub>) in the ambient air on Diwali day was observed as 84.0µg/m<sup>3</sup> at Tekka Bench, Shimla from 2:00 PM-10:00 PM. Similarly, the 24-hour average value of RSPM (PM<sub>2.5</sub>) at Tekka Bench, Shimla was observed at 24.0µg/m<sup>3</sup> which is below than standard prescribed limit of 60µg/m<sup>3</sup> on Diwali day. The concentration of RSPM (PM<sub>2.5</sub>) observed at Shimla during Diwali, 2024 was comparatively below the concentration of RSPM (PM<sub>2.5</sub>) observed during Diwali last year i.e. 47.1µg/m<sup>3</sup>. The concentration of SO<sub>2</sub> and NO<sub>x</sub> was also observed well below the prescribed standards of 80µg/m<sup>3</sup> for 24 hours. The average concentration of SO<sub>2</sub> and NO<sub>x</sub> was observed as 2.9µg/m<sup>3</sup> & and 14.6µg/m<sup>3</sup> at Tekka Bench respectively on Diwali day which was well below the prescribed standard limit of 80µg/m<sup>3</sup>.

The 8-hour average O<sub>3</sub> concentration at Tekka Bench, Shimla was observed within the standard prescribed limit of 100µg/m<sup>3</sup> on pre-Diwali, Diwali and post-Diwali

monitoring. The concentration of  $\text{NH}_3$  at Tekka Bench was observed at  $1.0\mu\text{g}/\text{m}^3$  during Diwali day which is below the standard prescribed limit of  $400\mu\text{g}/\text{m}^3$ .

The concentrations of Lead, Nickel and Arsenic in  $\text{PM}_{10}$  at Shimla town were found within the standard prescribed limit of Lead  $1.0\mu\text{g}/\text{m}^3$ , Arsenic  $6.0\text{ng}/\text{m}^3$  & Nickel  $20.0\text{ng}/\text{m}^3$  during Pre Diwali, Diwali & Post Diwali monitoring.

### **PARWANOO**

The ambient air quality monitoring at Parwanoo was carried out at one location i.e. Sector-IV Parwanoo. The 24-hour average RSPM ( $\text{PM}_{10}$ ) concentration at Sector-IV Parwanoo on Diwali day was observed at  $228.0\mu\text{g}/\text{m}^3$  which is higher than the prescribed standard limit of  $100\mu\text{g}/\text{m}^3$ . The value of RSPM ( $\text{PM}_{10}$ ) concentration observed on pre-Diwali was within the prescribed limit and post-Diwali was above the prescribed limit. The maximum concentration of RSPM ( $\text{PM}_{10}$ ) in the ambient air on Diwali was observed as  $365.5\mu\text{g}/\text{m}^3$  from 02:00 PM-10:00 PM. The concentration of RSPM( $\text{PM}_{10}$ )  $228.0\mu\text{g}/\text{m}^3$  at Sector-IV, Parwanoo was observed higher than the concentration of RSPM( $\text{PM}_{10}$ ) observed during Diwali last year i.e.  $87.0/\text{m}^3$ . Similarly, the 24-hour average RSPM ( $\text{PM}_{2.5}$ ) concentration in Parwanoo at Sector-IV was observed at  $95.0\mu\text{g}/\text{m}^3$  which is above the standard prescribed limit of  $60\mu\text{g}/\text{m}^3$  on Diwali day. The concentration of RSPM( $\text{PM}_{2.5}$ )  $95.0\mu\text{g}/\text{m}^3$  at Sector-IV, Parwanoo was observed higher than the concentration of RSPM( $\text{PM}_{2.5}$ ) observed during Diwali last year i.e.  $23.0\mu\text{g}/\text{m}^3$ . The average concentration of  $\text{SO}_2$  and  $\text{NO}_x$  at Sector-IV, Parwanoo was observed well below the prescribed standards of  $80\mu\text{g}/\text{m}^3$  for 24 hours i.e.  $2.0$  &  $4.5\mu\text{g}/\text{m}^3$  on Diwali day.

The 8-hour average concentration of  $\text{O}_3$  and  $\text{CO}$  at Sector-IV, Parwanoo was observed within the standard prescribed limit of  $100\mu\text{g}/\text{m}^3$  and  $2.0\text{mg}/\text{m}^3$  on Pre Diwali, Diwali day & Post Diwali. The value of  $\text{NH}_3$  concentration was observed at  $0.3\mu\text{g}/\text{m}^3$  on Diwali day within the prescribed limit of  $400\mu\text{g}/\text{m}^3$ .

The concentrations of metals Lead, Nickel and Arsenic in  $\text{PM}_{10}$  at Parwanoo town were found within the standard prescribed limit of Lead  $1.0\mu\text{g}/\text{m}^3$ , Arsenic  $6.0\text{ng}/\text{m}^3$  & Nickel  $20.0\text{ng}/\text{m}^3$  on Pre Diwali, Diwali & Post Diwali monitoring.

### **DHARAMSHALA**

The ambient air quality monitoring at Dharamshala was carried out at one location i.e. Dari, Dharamshala. The 24-hour average RSPM ( $\text{PM}_{10}$ ) concentration at Dari, Dharamshala was observed above the prescribed standards of  $100\mu\text{g}/\text{m}^3$  i.e.  $113.0\mu\text{g}/\text{m}^3$  during Diwali day. The maximum concentration of RSPM ( $\text{PM}_{10}$ ) in the ambient air on Diwali, 2023 was observed as  $246.0\mu\text{g}/\text{m}^3$  during 2:00 PM-10:00 PM. The concentration of RSPM ( $\text{PM}_{10}$ ) at Dari, Dharamshala was observed comparatively lower than the concentration of RSPM ( $\text{PM}_{10}$ ) observed during Diwali last year  $128.0\mu\text{g}/\text{m}^3$ . Similarly, the

24-hour average RSPM (PM<sub>2.5</sub>) concentration was observed 41.0µg/m<sup>3</sup> lower than the standard prescribed limit of 60 µg/m<sup>3</sup> on Diwali day. The concentration of RSPM (PM<sub>2.5</sub>) at Dari, Dharamshala was observed comparatively lower than the concentration of RSPM (PM<sub>2.5</sub>) observed during Diwali last year i.e. 72.0µg/m<sup>3</sup>. The average concentration on Diwali day of SO<sub>2</sub> and NO<sub>x</sub> at Dari, Dharamshala was observed well below the prescribed standards of 80µg/m<sup>3</sup> for 24 hours i.e. 2.0 µg/m<sup>3</sup> (BDL) & and 11.6µg/m<sup>3</sup> (BDL) respectively.

The 8-hour average O<sub>3</sub> concentration at Dari, Dharamshala was observed within the standard prescribed limit of 100µg/m<sup>3</sup> on Pre Diwali, Diwali day & Post Diwali. The value of NH<sub>3</sub> concentration was observed at 0.78µg/m<sup>3</sup> on Diwali day is within the prescribed limit of 400µg/m<sup>3</sup>.

The concentrations of metals Lead, Nickel and Arsenic in PM<sub>10</sub> at Dharamshala town were also found within the standard prescribed limit of Lead 1.0µg/m<sup>3</sup>, Arsenic 6.0ng/m<sup>3</sup> & Nickel 20.0ng/m<sup>3</sup> on Pre Diwali, Diwali & Post Diwali monitoring.

#### **DAMTAL (JASSUR)**

The ambient air quality monitoring at Damtal was carried out at one location i.e. Ram Gopal Mandir, Damtal. The 24-hour average RSPM (PM<sub>10</sub>) concentration at Damtal, Jassur was observed below the prescribed standards of 100 µg/m<sup>3</sup> i.e. 98.0µg/m<sup>3</sup> on Diwali day, 2024. The maximum concentration of RSPM (PM<sub>10</sub>) in the ambient air was observed as 114.0µg/m<sup>3</sup> on Diwali day from 02:00 PM-10:00 PM. The concentration of RSPM (PM<sub>10</sub>) at 98.0µg/m<sup>3</sup> was observed relatively higher than the concentration of RSPM (PM<sub>10</sub>) observed during Diwali last year at 60.0µg/m<sup>3</sup>. Similarly, the 24-hour average RSPM (PM<sub>2.5</sub>) concentration at Damtal, Jassur was observed 37.0µg/m<sup>3</sup> lower than the standard prescribed limit of 60 µg/m<sup>3</sup> on Diwali day. The concentration of RSPM(PM<sub>2.5</sub>) 37.0µg/m<sup>3</sup> was observed relatively higher than the concentration of RSPM(PM<sub>2.5</sub>) observed during Diwali last year i.e. 20.0µg/m<sup>3</sup>. The average concentration of SO<sub>2</sub> and NO<sub>x</sub> was observed as 2.0µg/m<sup>3</sup> (BDL) and 8.6µg/m<sup>3</sup> (BDL) respectively on Diwali day.

The 8-hour average O<sub>3</sub> and CO concentration at Damtal was observed within the standard prescribed limit of 100µg/m<sup>3</sup> and 2mg/m<sup>3</sup> on Pre Diwali, Diwali & Post Diwali monitoring. The value of NH<sub>3</sub> concentration was observed at 0.56µg/m<sup>3</sup> on Diwali day is within the prescribed limit of 400µg/m<sup>3</sup>.

The concentrations of metals Lead, Nickel and Arsenic in PM<sub>10</sub> at Damtal town were also found within the standard prescribed limit of Lead 1.0µg/m<sup>3</sup>, Arsenic 6.0ng/m<sup>3</sup> & Nickel 20.0ng/m<sup>3</sup> on Pre Diwali, Diwali & Post Diwali monitoring.

## **SUNDER NAGAR**

The ambient air quality monitoring at Sunder Nagar was carried out at one location i.e. Regional Office, Sunder Nagar. The 24-hour average RSPM (PM<sub>10</sub>) concentration at Sunder Nagar was observed above the prescribed standards of 100 µg/m<sup>3</sup> i.e. 106.0µg/m<sup>3</sup> on Diwali day. The concentration of RSPM (PM<sub>10</sub>) observed during Diwali, 2024 was comparatively higher than the concentration of RSPM (PM<sub>10</sub>) observed during Diwali last year 63.8µg/m<sup>3</sup>. The maximum concentration of RSPM (PM<sub>10</sub>) in the ambient air on Diwali was observed as 121.0µg/m<sup>3</sup> during 10:00 PM-6:00 AM. Similarly, the 24-hour average RSPM (PM<sub>2.5</sub>) concentration was also observed 52.0µg/m<sup>3</sup> lower than the standard prescribed limit of 60µg/m<sup>3</sup> on Diwali day. The concentration of RSPM (PM<sub>2.5</sub>) 52.0µg/m<sup>3</sup> was observed higher than the concentration of RSPM (PM<sub>2.5</sub>) observed during Diwali last year i.e. 35.0µg/m<sup>3</sup>. The concentration of SO<sub>2</sub> and NO<sub>x</sub> was observed well below the prescribed standards of 80µg/m<sup>3</sup> for 24 hours. The average concentration of SO<sub>2</sub> and NO<sub>x</sub> was observed as 1.07µg/m<sup>3</sup> (BDL) and 7.29µg/m<sup>3</sup> (BDL) which is below the prescribed standard of 80µg/m<sup>3</sup> for 24 hours.

The 8-hour average O<sub>3</sub> concentration at Sunder Nagar was observed within the standard prescribed limit of 100µg/m<sup>3</sup> on Pre Diwali, Diwali day & Post Diwali. The value of NH<sub>3</sub> concentration was observed at 3.75µg/m<sup>3</sup> on Diwali day is within the prescribed limit of 400µg/m<sup>3</sup>.

The concentrations of metals Lead, Nickel and Arsenic in PM<sub>10</sub> at Sundernagar town were found within the standard prescribed limit of Lead 1.0µg/m<sup>3</sup>, Arsenic 6.0ng/m<sup>3</sup> & Nickel 20.0ng/m<sup>3</sup> on Pre Diwali, Diwali & Post Diwali monitoring.

## **PAONTA SAHIB**

The ambient air quality monitoring at Paonta Sahib was carried out at one location i.e. office building, Shubkhera, Paonta Sahib. The 24-hour average RSPM (PM<sub>10</sub>) concentration at Paonta Sahib was observed higher than the prescribed standards of 100µg/m<sup>3</sup> i.e. 167.2µg/m<sup>3</sup> on Diwali day. The maximum concentration of RSPM (PM<sub>10</sub>) in the ambient air was observed as 273.8µg/m<sup>3</sup> on Diwali day, 2024 from 02:00 PM-10:00 PM indicating the impact of bursting of crackers on the ambient air quality. The concentration of RSPM (PM<sub>10</sub>) at 167.2µg/m<sup>3</sup> was observed higher than the concentration of RSPM (PM<sub>10</sub>) observed during Diwali last year at 115.9µg/m<sup>3</sup>. Similarly, the 24-hour average RSPM (PM<sub>2.5</sub>) concentration was also observed 53.2µg/m<sup>3</sup> lower than the standard prescribed limit of 60 µg/m<sup>3</sup> on Diwali day. The concentration of RSPM (PM<sub>2.5</sub>) 53.2.0µg/m<sup>3</sup> was observed relatively higher than the concentration of RSPM (PM<sub>2.5</sub>) observed during Diwali last year i.e. 50.6µg/m<sup>3</sup>. The concentration of SO<sub>2</sub> and NO<sub>x</sub> was observed well below the prescribed

standards of  $80\mu\text{g}/\text{m}^3$  for 24 hours. The average concentration of  $\text{SO}_2$  and  $\text{NO}_x$  was observed as  $6.0\mu\text{g}/\text{m}^3$  and  $10.1\mu\text{g}/\text{m}^3$  respectively on Diwali day.

The 8-hour average  $\text{O}_3$  concentration at Paonta Sahib was observed within the standard prescribed limit of  $100\mu\text{g}/\text{m}^3$  on pre-Diwali, Diwali and post-Diwali monitoring. The value of  $\text{NH}_3$  concentration was observed at  $2.0\mu\text{g}/\text{m}^3$  on Diwali day is within the prescribed limit of  $400\mu\text{g}/\text{m}^3$ .

The concentrations of metals Lead, Nickel and Arsenic in  $\text{PM}_{10}$  at Paonta Sahib town were also found within the standard prescribed limit of Lead  $1.0\mu\text{g}/\text{m}^3$ , Arsenic  $6.0\text{ng}/\text{m}^3$  & Nickel  $20.0\text{ng}/\text{m}^3$  on Pre Diwali, Diwali & Post Diwali monitoring.

### **KALA AMB**

The ambient air quality monitoring at Kala Amb was carried out at one location i.e. Trilokpur. The 24-hour average RSPM ( $\text{PM}_{10}$ ) concentration at Trilokpur was observed lower than the prescribed standards of  $100\mu\text{g}/\text{m}^3$  i.e.  $84.2\mu\text{g}/\text{m}^3$  on Diwali day. The maximum concentration of RSPM ( $\text{PM}_{10}$ ) was observed as  $90.2\mu\text{g}/\text{m}^3$  on Diwali, 2024 from 06:00 AM-02:00 PM. The concentration of RSPM ( $\text{PM}_{10}$ ) at  $84.2\mu\text{g}/\text{m}^3$  was observed relatively higher than the concentration of RSPM ( $\text{PM}_{10}$ ) observed during Diwali last year  $82.6\mu\text{g}/\text{m}^3$ . Similarly, the 24-hour average RSPM ( $\text{PM}_{2.5}$ ) concentration was observed  $41.9\mu\text{g}/\text{m}^3$  lower than the standard prescribed limit of  $60\mu\text{g}/\text{m}^3$  on Diwali day. The concentration of RSPM( $\text{PM}_{2.5}$ )  $41.9\mu\text{g}/\text{m}^3$  was observed relatively lower than the concentration of RSPM( $\text{PM}_{2.5}$ ) observed during Diwali last year i.e.  $44.0\mu\text{g}/\text{m}^3$ . The concentration of  $\text{SO}_2$  and  $\text{NO}_x$  was observed well below the prescribed standards of  $80\mu\text{g}/\text{m}^3$  for 24 hours. The average concentration of  $\text{SO}_2$  and  $\text{NO}_x$  was observed as  $6.5\mu\text{g}/\text{m}^3$  and  $10.6\mu\text{g}/\text{m}^3$  which is below the prescribed standard of  $80\mu\text{g}/\text{m}^3$  for 24 hours.

The 8-hour average  $\text{O}_3$  and CO concentration at Trilokpur, Kala Amb was observed within the standard prescribed limit of  $100\mu\text{g}/\text{m}^3$  and  $2.0\text{mg}/\text{m}^3$  on Pre Diwali, Diwali day & Post Diwali. The value of  $\text{NH}_3$  concentration was observed at  $2.1\mu\text{g}/\text{m}^3$  on Diwali day is within the prescribed limit of  $400\mu\text{g}/\text{m}^3$ .

The concentrations of metals Lead, Nickel and Arsenic in  $\text{PM}_{10}$  at Kala Amb town were found within the standard prescribed limit of Lead  $1.0\mu\text{g}/\text{m}^3$ , Arsenic  $6.0\text{ng}/\text{m}^3$  & Nickel  $20.0\text{ng}/\text{m}^3$  on Pre Diwali, Diwali & Post Diwali monitoring.

### **UNA**

The ambient air quality monitoring at Una was carried out at one location i.e. Regional Office, Una. The 24-hour average RSPM ( $\text{PM}_{10}$ ) concentration at Una was also observed higher than the prescribed standards of  $100\mu\text{g}/\text{m}^3$  i.e.  $113.3\mu\text{g}/\text{m}^3$  on Diwali day. The maximum concentration of RSPM ( $\text{PM}_{10}$ ) in the ambient air was observed as  $164.4\mu\text{g}/\text{m}^3$  on Diwali day, 2024 from 02:00 PM-10:00 PM indicating the impact of bursting of crackers

on the ambient air quality. The concentration of RSPM (PM<sub>10</sub>) 113.3µg/m<sup>3</sup> was observed comparatively lower than the concentration of RSPM (PM<sub>10</sub>) observed during Diwali last year i.e. 180.06µg/m<sup>3</sup>. The concentration of RSPM (PM<sub>2.5</sub>) 66.6µg/m<sup>3</sup> was observed on Diwali day and is above the standard prescribed limit of 60µg/m<sup>3</sup> on Diwali day. The concentration of RSPM (PM<sub>2.5</sub>) 66.6µg/m<sup>3</sup> was observed relatively higher than the concentration of RSPM (PM<sub>2.5</sub>) observed during Diwali last year i.e. 62.5µg/m<sup>3</sup>. The average concentration of SO<sub>2</sub> and NO<sub>x</sub> was observed as 8.85µg/m<sup>3</sup> and 6.85µg/m<sup>3</sup> which is below the prescribed standard of 80µg/m<sup>3</sup> for 24 hours. The value of NH<sub>3</sub> concentration was observed at 4.3µg/m<sup>3</sup> on Diwali day is within the prescribed limit of 400µg/m<sup>3</sup>

The concentrations of metals Lead, Nickel and Arsenic in PM<sub>10</sub> at Una town were found within the standard prescribed limit of Lead 1.0µg/m<sup>3</sup>, Arsenic 6.0ng/m<sup>3</sup> & Nickel 20.0ng/m<sup>3</sup> on Pre Diwali, Diwali & Post Diwali monitoring.

### **BADDI**

The ambient air quality monitoring at Baddi was carried out at one location i.e. Secure Meter, Barotiwala. The 24-hour average RSPM (PM<sub>10</sub>) concentration at Baddi was observed higher than the prescribed standards of 100 µg/m<sup>3</sup> i.e. 158.0µg/m<sup>3</sup> on Diwali day. The concentration of RSPM (PM<sub>10</sub>) observed during Diwali, 2024 was higher than the concentration of RSPM (PM<sub>10</sub>) observed during Diwali last year i.e. 96.0µg/m<sup>3</sup>. The maximum concentration of RSPM (PM<sub>10</sub>) in the ambient air on Diwali was observed as 195.0µg/m<sup>3</sup> from 10:00 PM-06:00 AM. Similarly, the 24-hour average RSPM (PM<sub>2.5</sub>) concentration was also observed 59.4µg/m<sup>3</sup> lower than the standard prescribed limit of 60µg/m<sup>3</sup> on Diwali day. The concentration of RSPM (PM<sub>2.5</sub>) at 59.4µg/m<sup>3</sup> was observed higher than the concentration of RSPM (PM<sub>2.5</sub>) observed during Diwali last year 33.3µg/m<sup>3</sup>. The average concentration of SO<sub>2</sub> and NO<sub>x</sub> was observed as 3.2µg/m<sup>3</sup> and 15.2µg/m<sup>3</sup> on Diwali which is below the prescribed standard of 80µg/m<sup>3</sup> for 24 hours.

### **NALAGARH**

The ambient air quality monitoring at Nalagarh was carried out at one location i.e: Durga Devi Temple, Nalagarh. The 24-hour average RSPM (PM<sub>10</sub>) concentration at Nalagarh was also observed higher than the prescribed standards of 100 µg/m<sup>3</sup> i.e. 142.7µg/m<sup>3</sup> on Diwali day. The concentration of RSPM (PM<sub>10</sub>) observed during Diwali, 2024 was higher than the concentration of RSPM (PM<sub>10</sub>) observed during Diwali last year 85.0µg/m<sup>3</sup>. The maximum concentration of RSPM (PM<sub>10</sub>) in the ambient air on Diwali was observed as 180.0µg/m<sup>3</sup> from 10:00 PM-06:00 AM. Further; 24-hour average RSPM (PM<sub>2.5</sub>) concentration was observed at 50.9µg/m<sup>3</sup> within the standard prescribed limit of 60 µg/m<sup>3</sup> on Diwali day. The concentration of RSPM (PM<sub>2.5</sub>) observed during Diwali, 2024 was higher than the concentration of RSPM (PM<sub>2.5</sub>) observed last year i.e. 25.0µg/m<sup>3</sup>. The average concentration of SO<sub>2</sub> and NO<sub>x</sub> was observed as 2.7µg/m<sup>3</sup> (BDL) and 14.0µg/m<sup>3</sup> on Diwali

day. The value of  $\text{NH}_3$  concentration was observed at  $6.10\mu\text{g}/\text{m}^3$  on Diwali day is within the prescribed limit of  $400\mu\text{g}/\text{m}^3$ .

The 8-hour average CO concentration at Nalagarh was observed within the standard prescribed limit of  $2.0\text{mg}/\text{m}^3$  on Pre Diwali, Diwali day & Post Diwali.

### **MANALI**

The ambient air quality monitoring at Manali was carried out at one location i.e. Hadimba Mata Road, Manali. The 24-hour average RSPM ( $\text{PM}_{10}$ ) concentration at Hadimba Mata Road, Manali was observed lower than the prescribed standards of  $100\mu\text{g}/\text{m}^3$  i.e.  $80.4\mu\text{g}/\text{m}^3$  on Diwali day. The concentration of RSPM ( $\text{PM}_{10}$ ) observed during Diwali, 2024 was comparatively higher than the concentration of RSPM ( $\text{PM}_{10}$ ) observed during Diwali last year  $54.5\mu\text{g}/\text{m}^3$ . The maximum concentration of RSPM ( $\text{PM}_{10}$ ) observed was  $99.2\mu\text{g}/\text{m}^3$  from 2:00 PM-10:00 PM on Diwali day indicating the impact of bursting of crackers on the ambient air quality. Similarly, the 24-hour average RSPM ( $\text{PM}_{2.5}$ ) concentration was observed at  $22.7\mu\text{g}/\text{m}^3$  within the standard prescribed limit of  $60\mu\text{g}/\text{m}^3$  on Diwali day. The concentration of RSPM( $\text{PM}_{2.5}$ )  $22.7\mu\text{g}/\text{m}^3$  was observed relatively higher than the concentration of RSPM ( $\text{PM}_{2.5}$ ) observed during Diwali last year i.e.  $16.6\mu\text{g}/\text{m}^3$ . The concentration of  $\text{SO}_2$  and  $\text{NO}_x$  was observed well below the prescribed standards of  $80\mu\text{g}/\text{m}^3$  for 24 hours. The average concentration of  $\text{SO}_2$  and  $\text{NO}_x$  was observed as  $4.7\mu\text{g}/\text{m}^3$  and  $11.1\mu\text{g}/\text{m}^3$  which is below the prescribed standard of  $80\mu\text{g}/\text{m}^3$  for 24 hours.

The 24-hour average  $\text{NH}_3$  concentration at Hadimba Mata Road, Manali was observed at  $3.4\mu\text{g}/\text{m}^3$  which is within the prescribed standard limit of  $400\mu\text{g}/\text{m}^3$  on Diwali day.

The concentrations of metals Lead, Nickel and Arsenic in  $\text{PM}_{10}$  at Kullu town were found within the standard prescribed limit of Lead  $1.0\mu\text{g}/\text{m}^3$ , Arsenic  $6.0\text{ng}/\text{m}^3$  & Nickel  $20.0\text{ng}/\text{m}^3$  on Pre Diwali, Diwali & Post Diwali monitoring.

### **Ambient Noise monitoring reports of Himachal Pradesh during the Diwali Festival, 2024 are as under:**

Himachal Pradesh State Pollution Control Board has also conducted ambient noise monitoring on the occasion of the Diwali festival, 2024, to study the impact of the bursting of crackers and other related activities on 24.10.2024 (Normal day monitoring) and 31.10.2024 (Diwali day monitoring). The data of the ambient noise monitoring observed are summarized in Annexure-I.

### **SHIMLA**

The ambient noise level monitoring was conducted at Shimla Ridge during the Diwali festival on 24.10.2024 and 31.10.2024. The average ambient noise level (Leq.) monitored from 18:00hrs-24:00hrs on 24.10.2024 and 31.10.2024 was observed as 50.4 dB(A) and 68.7 dB(A) respectively. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed at 97.1dB (A) between 08.00 PM to 09.00 PM.

The ambient noise level of 68.7 dB(A) at Shimla was observed lower than the noise level of 72.6 dB(A) observed during Diwali last year.

### **PARWANOO**

The ambient noise level was monitored at Sector IV, Parwanoo during the Diwali festival on 24.10.2024 and 31.10.2024. The ambient noise level (Leq.) monitored from 18:00hrs-24:00hrs on 24.10.2024 and 31.10.2024 was observed as 42.6 dB(A) and 66.6 dB(A) respectively. The maximum impact of the bursting of crackers on the ambient noise level on Diwali day was observed between 08:00 PM to 09:00 PM, where a noise level (Leq) of 91.6 dB(A) was observed.

The ambient noise level of 66.6 dB (A) at Parwanoo was observed slightly higher than the noise level of 66.3dB (A) observed during Diwali last year.

### **BILASPUR**

The ambient noise level was monitored at Bilaspur town during the Diwali festival on 24.10.2024 and 31.10.2024. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 24.10.2024 and 31.10.2024 was observed as 46.5 dB(A) and 54.5 dB(A) respectively. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed between 09:00 PM to 10:00 PM and an ambient noise level of 88.9 dB (A) was observed.

The ambient noise level of 54.5 dB(A) at Bilaspur was observed lower than the noise level of 55.9 dB(A) observed during Diwali last year.

### **CHAMBA**

The ambient noise level was monitored at Regional Office Chamba (Residential zone) during the Diwali festival on 24.10.2024 and 31.10.2024. The ambient



noise level (Leq) monitored at the Regional Office, Chamba (Residential zone), from 18:00hrs-24:00hrs on 24.10.2024 and 31.10.2024 was observed as 46.9 dB(A) and 73.2 dB(A) respectively in residential zone. The maximum impact of the bursting of crackers on the ambient noise level on Diwali day was observed between 08:00 PM to 09:00 PM where a noise level (Leq) of 103.1 dB(A) was observed.

The ambient noise level of 73.2 dB(A) at Chamba was observed higher than the noise level of 72.1 dB(A) observed during Diwali last year.

### **PAONTA SAHIB**

The ambient noise level was monitored at HIMUDA Colony, Shubkhera, and Paonta Sahib during the Diwali festival on 24.10.2024 and 31.10.2024. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 24.10.2024 and 31.10.2024 was observed as 52.8 dB(A) and 58.9 dB(A) respectively. The maximum impact of the bursting of crackers on the ambient noise level on Diwali day was observed between 09:00 PM-10:00 PM where a noise level (Leq) of 76.4 dB(A) was observed.

The ambient noise level of 58.9 dB(A) at Paonta Sahib was observed higher than the noise level of 57.7 dB(A) observed during Diwali last year.

### **UNA**

The ambient noise level was monitored at Regional Office Una (Residential zone) on 24.10.2024 and 31.10.2024 (Pre Diwali and Diwali day). The ambient noise level was monitored from 18:00hrs-24:00hrs on 24.10.2024 and 31.10.2024 and the values were observed as 46.9 dB(A) and 71.0 dB(A) respectively in Residential zone. The maximum impact of the bursting of crackers on the ambient noise level on Diwali day was observed between 08:00 PM to 10:00 PM where a noise level (Leq) of 114.3 dB(A) was observed.

The Ambient noise level of 71.0 dB(A) at Una was observed higher than the level of 62.1 dB(A) observed during Diwali last year.

### **BADDI**

The ambient noise level was monitored at Phase-I, Baddi during the Diwali festival on 24.10.2024 and 31.10.2024. The ambient noise level (Leq.) monitored from 18:00hrs-24:00hrs on 24.10.2024 and 31.10.2024 was observed as 58.2 dB(A) and 65.7 dB(A) respectively. The maximum impact of the bursting of crackers on the ambient noise level on Diwali day was observed between 09:00 PM-10:00 PM where a noise level (Leq.) of 74.4 dB(A) was observed.

The ambient noise level of 65.7 dB(A) at Phase-I, Baddi was observed lower than the noise level of 66.6 dB(A) observed during Diwali last year.

### **RECONG PEO**

The ambient noise level was monitored at Recong Peo, District Kinnaur during the Diwali festival on 24.10.2024 and 31.10.2024. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 24.10.2024 and 31.10.2024 was observed as 51.5 dB(A), and 64.0 dB(A) respectively. The maximum impact of the bursting of crackers on the ambient noise level on Diwali day was observed between 09:00 PM to 10:00 PM where a noise level (Leq) of 98.0 dB(A) was observed.

The ambient noise level of 64.0 dB(A) at Recong Peo was observed higher than the noise level of 62.5 dB(A) observed during Diwali last year.

### **RAMPUR BUSHAR**

The ambient noise level was monitored at Rampur, Distt. Shimla during the Diwali festival on 24.10.2024 and 31.10.2024. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 24.10.2024 and 31.10.2024 was observed as 56.2 dB(A) and 65.0 dB(A) respectively. The maximum impact of the bursting of crackers on the ambient noise level on Diwali day was observed between 08:00 PM to 09:00 PM where a noise level (Leq) of 98.0 dB (A) was observed.

The ambient noise level of 65.0 dB (A) at Rampur Bushar was observed slightly higher than the noise level 64.6 dB (A) observed during Diwali last year.

### **DHARAMSHALA**

The ambient noise level was monitored at the Regional office of Dharamshala during the Diwali festival on 24.10.2024 and 31.10.2024. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 24.10.2024 and 31.10.2024 was observed as 48.1 dB(A) and 58.8 dB(A) respectively. The maximum impact of the bursting of crackers on the ambient noise level on Diwali day was observed between 07:00 PM to 08:00 PM where a noise level (Leq) of 81.4 dB(A) was observed.

The ambient noise level of 58.8 dB(A) at Dharamshala was observed lower than the noise level of 59.9 dB(A) observed during Diwali last year.

### **KULLU**

The ambient noise level was monitored near Dhalpur Ground, Kullu during the Diwali festival on 24.10.2024 and 31.10.2024. The ambient noise level (Leq) monitored

from 18:00hrs-24:00hrs on 24.10.2024 and 31.10.2024 was observed as 64.2 dB(A) and 63.5 dB(A) respectively. The maximum impact of the bursting of crackers on the ambient noise level on Diwali day was observed between 08:00 PM to 09:00 PM where a noise level (Leq) of 91.4 dB (A) was observed.

The ambient noise level of 63.5 dB(A) near Dhalpur Ground, Kullu was observed higher than the noise level of 61.8 dB(A) observed during Diwali last year.

### **CONCLUSION**

The concentration of RSPM (PM<sub>10</sub> and PM<sub>2.5</sub>), NO<sub>x</sub>, SO<sub>2</sub>, NH<sub>3</sub>, O<sub>3</sub> & CO levels in the ambient air observed on Diwali, 2024 was comparatively more than the values observed on the normal days which indicates the impact of the bursting of firecrackers and other activities on the ambient air quality. During Diwali, 2024 the concentration of SO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub>, O<sub>3</sub> & CO were observed within the standard limit in all the monitoring stations whereas, the concentration of **RSPM (PM<sub>10</sub>) exceeded** the prescribed standard limit of 100µg/m<sup>3</sup> for 24 hours at **Dharamshala, Paonta Sahib, Parwanoo, Sunder Nagar, Una, Baddi and Nalagarh** however, the RSPM (PM<sub>10</sub>) concentration was observed within the **prescribed standard at Shimla, Damtal, Kala Amb and Manali on Diwali day**. Further, the concentration of **RSPM(PM<sub>10</sub>) at Shimla, Parwanoo, Damtal, Sunder Nagar, Paonta Sahib, Kala Amb, Baddi, Nalagarh and Manali** was observed **more** than the concentration observed during **Diwali, 2023**, whereas, the concentration of **RSPM(PM<sub>10</sub>) at Dharamshala, and Una** stations were observed comparatively **lower** than the concentration of RSPM observed during Diwali, 2023.

Similarly, the Concentration of RSPM (PM<sub>2.5</sub>) has **exceeded** the prescribed standard limit of 60µg/m<sup>3</sup> for 24 hours at **Parwanoo and Una** however, the RSPM (PM<sub>2.5</sub>) concentration was observed within the **prescribed standard at Shimla, Dharamshala, Damtal, Sundernagar, Paonta Sahib, Kala Amb, Baddi, Nalagarh & Manali on Diwali day**. Further, the concentration of **RSPM(PM<sub>2.5</sub>) at Parwanoo, Damtal, Sundernagar, Paonta Sahib, Una, Baddi, Nalagarh and Manali** was observed **more** than the concentration observed during **Diwali, 2023**, whereas, the concentration of **RSPM(PM<sub>2.5</sub>) at Shimla, Dharamshala and Kala Amb** stations were observed comparatively **lower** than the concentration of **PM<sub>2.5</sub>** observed during Diwali, 2023.

There was a gradual decrease in the concentration of **RSPM (PM<sub>10</sub> & PM<sub>2.5</sub>), SO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub>, O<sub>3</sub> & CO** after the Diwali festival at all the monitoring stations.

Further, the **heavy metal analysis** was also carried out in all Laboratories i.e. **Shimla, Parwanoo, Paonta Sahib, Sunder Nagar, Una & Dharamshala**. The concentrations of Lead, Nickel and arsenic in PM<sub>10</sub> and Aluminium, Barium and Iron in PM<sub>2.5</sub> were monitored for consecutive 15 days and the Lead, Nickel and Arsenic parameters

were found within the prescribed limit as per NAAQMS, 2009 on Pre Diwali, Diwali & Post Diwali period.

It can be concluded from the ambient air quality monitoring carried out by the State Board that w.r.t. PM<sub>10</sub> concentration on Diwali day, **Parwanoo, Baddi and Nalagarh towns were highest polluted** and **Shimla was the cleanest town** in the State and with respect to RSPM(PM<sub>2.5</sub>) concentration **Parwanoo and Una was highest polluted and Manali was the cleanest towns**. With respect to SO<sub>2</sub> & NO<sub>x</sub> concentrations, all values are within the standard prescribed limit. The SO<sub>2</sub> concentration was observed highest at **Una 8.9 µg/m<sup>3</sup>** and the concentration of NO<sub>x</sub> was observed highest at **Baddi 15.2µg/m<sup>3</sup>**. The concentrations of NH<sub>3</sub> and O<sub>3</sub> at all locations were observed within the standard prescribed limit on Pre Diwali, Diwali and Post Diwali monitoring. The Concentration of metals (Lead, Nickel & Arsenic) in **Shimla, Parwanoo, Paonta Sahib, Dharamshala, Una and Sunder Nagar** was observed within the standard prescribed limit on Pre Diwali, Diwali and Post Diwali monitoring.

Annexure-I														
Area	Zone	Location	Annexure-I-Data of Noise Level											
			Date						Date					
			24.10.2024						31.10.2024					
			18:00Hrs-24:00Hrs						18:00Hrs-24:00Hrs					
			dB (A) Leq	L <sub>max</sub>	L <sub>min</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>	dB (A) Leq	L <sub>max</sub>	L <sub>min</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
Shimla	C	Shimla (BCS Area)	50.4	68.2	31.9	57.1	48.2	49.6	68.7	97.1	45.8	75.4	71.5	68.6
Parwanoo	Mixed	Sector-4, Parwanoo	42.6	73.8	31.3	-	-	-	66.6	91.6	39.0	-	-	-
Poanta Sahib	R	Regional Office Himuda Colony, Shubkhera, Poanta Sahib	52.8	65.9	38.5	55.8	50.4	48.1	58.9	76.4	39.2	56.5	51.3	48.7
Una	R	Regional Office, Una	46.9	64.8	30.2	49.2	41.4	38.8	71.0	114.3	46.6	80.7	64.9	56.8
Dharamshala	R	Regional Office Dharamshala	48.1	64.2	33.3	-	-	-	58.8	81.4	31.7	-	-	-
Baddi	C/R	Baddi Phase-I	58.2	69.4	38.1	60.8	54.4	49.9	65.7	74.4	38.4	66.5	59.4	52.6
Kullu	C	Near Dhalpur Ground, Kullu	64.2	113.5	40.3	62.2	57.1	53.1	63.5	91.4	45.9	68.1	56.6	53.6
Bilaspur	C/R	Housing Board Colony Bilaspur	46.5	74.3	34.0	49.6	44.9	42.3	54.5	88.9	37.4	62.4	53.1	46.0
Kinnaur	C	Recongpeo (Distt.Kinnaur)	51.5	75.0	29.0	-	-	-	64.0	98.0	30.0	-	-	-
Rampur	C	Rampur Bushar (Distt. Shimla)	56.2	76.0	28.0	-	-	-	65.0	98.0	30.0	-	-	-
Chamba	R	Regional Office Chamba	46.9	48.1	42.6	-	-	-	73.2	103.1	35.5	-	-	-

\* S = Silence, C = Commercial, I = Industrial, R=Residential,

## ANNEXURE-II (a)

RSPM(PM10) in ug/m<sup>3</sup>

24 Hour Standard for Industrial, Residential &amp; Others=100 ug/m3

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
Tekka Bench, The Mall, Shimla	6AM-2PM	34.0	30.0	28.0	44.0	41.0	59.0	35.0	34.0	48.0	55.0	56.0	54.0	70.0	52.0	79.0
	2PM-10PM	43.0	42.0	43.0	72.0	69.0	74.0	68.0	84.0	67.0	66.0	67.0	80.0	86.0	59.0	87.0
	10PM-6AM	30.0	21.0	25.0	44.0	51.0	46.0	23.0	79.0	69.0	53.0	59.0	52.0	64.0	66.0	78.0
	24 hour Avg.	35.7	31.0	32.0	53.3	53.7	59.7	42.0	65.7	61.3	58.0	60.7	62.0	73.3	59.0	81.3
Parwanoo, Sector-IV	6AM-2PM	26.9	62.8	80.2	95.1	97.2	88.4	149.3	116.9	96.6	93.4	111.7	97.0	134.0	123.0	187.0
	2PM-10PM	44.8	65.9	102.6	97.0	116.5	102.2	107.2	365.5	151.4	128.2	164.6	131.1	175.0	193.0	205.0
	10PM-6AM	42.1	62.7	90.5	96.2	77.3	67.8	140.9	202.2	113.0	82.7	70.1	99.0	120.0	149.0	192.0
	24 hour Avg.	38.0	64.0	91.0	96.0	97.0	86.0	133.0	228.0	120.0	101.0	115.0	109.0	143.0	155.0	195.0
Residential Building Dari Dharamshala	6AM-2PM	40.0	31.0	39.0	58.0	82.0	54.0	59.0	49.0	48.0	69.0	51.0	48.0	64.0	63.0	43.0
	2PM-10PM	80.0	58.0	64.0	96.0	100.0	90.0	114.0	246.0	92.0	54.0	71.0	61.0	96.0	95.0	86.0
	10PM-6AM	16.0	22.0	31.0	44.0	44.0	41.0	30.0	43.0	52.0	51.0	32.0	35.0	66.0	51.0	57.0
	24 hour Avg.	45.3	37.0	44.7	66.0	75.0	62.0	68.0	113.0	64.0	58.0	51.0	48.0	75.0	70.0	62.0
Ram Gopal Mandir, Damtal	6AM-2PM	59.0	59.0	58.0	56.0	65.0	61.0	62.0	82.0	114.0	71.0	35.0	66.0	69.0	76.0	68.0
	2PM-10PM	66.0	68.0	69.0	58.0	59.0	72.0	109.0	114.0	168.0	92.0	54.0	57.0	74.0	86.0	79.0
	10PM-6AM	52.0	53.0	59.0	60.0	49.0	54.0	76.0	98.0	104.0	60.0	36.0	41.0	54.0	54.0	49.0
	24 hour Avg.	59.0	60.0	62.0	58.0	58.0	62.0	82.0	98.0	129.0	74.0	42.0	55.0	66.0	72.0	65.0

**ANNEXURE-II (a) (RSPM)**

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024		10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024
Regional Laboratory, SunderNagar	6AM-2PM	77.0	64.0	77.0	102.0	104.0	105.0	106.0	94.0	144.0	101.0	107.0	97.0	89.0	77.0	90.0
	2PM-10PM	89.0	40.0	77.0	122.0	96.0	80.0	115.0	104.0	103.0	57.0	71.0	74.0	95.0	124.0	114.0
	10PM-6AM	49.0	66.0	63.0	150.0	78.0	44.0	72.0	121.0	119.0	73.0	99.0	86.0	92.0	74.0	101.0
	<b>24 hour Avg.</b>	<b>72.0</b>	<b>57.0</b>	<b>72.0</b>	<b>125.0</b>	<b>93.0</b>	<b>76.0</b>	<b>98.0</b>	<b>106.0</b>	<b>122.0</b>	<b>77.0</b>	<b>92.0</b>	<b>86.0</b>	<b>92.0</b>	<b>92.0</b>	<b>102.0</b>
Office Building, Shubkhera, Poanta Sahib	6AM-2PM	131.7	104.7	62.1	123.4	118.9	109.2	95.9	124.7	130.0	74.2	64.3	86.1	83.3	127.3	120.9
	2PM-10PM	113.7	109.7	127.9	124.8	129.8	134.3	134.0	273.8	114.3	83.5	116.2	105.0	148.0	130.3	148.0
	10PM-6AM	139.8	102.5	162.9	122.8	124.7	113.1	158.0	103.1	123.8	61.2	111.6	96.0	150.4	119.9	116.6
	<b>24 hour Avg.</b>	<b>128.4</b>	<b>105.7</b>	<b>117.6</b>	<b>123.7</b>	<b>124.4</b>	<b>118.9</b>	<b>129.3</b>	<b>167.2</b>	<b>122.7</b>	<b>73.0</b>	<b>97.4</b>	<b>95.7</b>	<b>127.2</b>	<b>125.8</b>	<b>128.5</b>
Trilokpur, Kala Amb	6AM-2PM	16.44	35.91	49.61	44.57	56.91	59.40	84.37	90.15	55.90	52.81	50.78	58.00	63.73	59.92	98.57
	2PM-10PM	33.53	38.82	50.20	50.14	58.55	65.54	60.39	82.68	68.09	62.30	54.22	58.18	75.42	70.38	98.05
	10PM-6AM	22.53	19.13	35.42	27.22	53.97	41.62	56.42	79.74	34.38	42.21	58.28	38.67	63.94	58.39	81.67
	<b>24 hour Avg.</b>	<b>24.17</b>	<b>31.29</b>	<b>45.08</b>	<b>40.64</b>	<b>56.48</b>	<b>55.52</b>	<b>67.06</b>	<b>84.19</b>	<b>52.79</b>	<b>52.44</b>	<b>54.43</b>	<b>51.62</b>	<b>67.70</b>	<b>62.90</b>	<b>92.76</b>
Regional Office, Una	6AM-2PM	90.41	76.87	121.87	138.33	53.75	123.95	81.87	74.58	73.54	104.17	86.04	96.04	127.70	113.12	120.00
	2PM-10PM	79.37	112.70	97.91	149.37	144.79	92.29	94.79	164.37	99.37	158.13	83.33	32.50	154.58	159.37	110.00
	10PM-6AM	-	-	-	-	-	-	81.25	101.04	139.37	-	-	-	-	-	-
	<b>24 hour Avg.</b>	<b>84.89</b>	<b>94.79</b>	<b>109.89</b>	<b>143.85</b>	<b>99.27</b>	<b>108.12</b>	<b>85.97</b>	<b>113.33</b>	<b>104.09</b>	<b>131.15</b>	<b>84.69</b>	<b>64.27</b>	<b>141.14</b>	<b>136.25</b>	<b>115.00</b>
Secure Meter, Baddi	6AM-2PM	94.0	91.0	69.0	76.0	99.0	89.0	90.0	119.0	107.0	103.0	99.0	91.0	88.0	86.0	101.0
	2PM-10PM	106.0	93.0	83.0	114.0	102.0	103.0	111.0	160.0	121.0	109.0	92.0	96.0	96.0	104.0	146.0
	10PM-6AM	99.0	88.0	116.0	102.0	107.0	96.0	101.0	195.0	102.0	99.0	95.0	86.0	98.0	87.0	108.0
	<b>24 hour Avg.</b>	<b>99.7</b>	<b>90.7</b>	<b>89.3</b>	<b>97.8</b>	<b>102.7</b>	<b>96.0</b>	<b>100.7</b>	<b>158.0</b>	<b>110.0</b>	<b>103.0</b>	<b>95.3</b>	<b>91.0</b>	<b>94.0</b>	<b>92.3</b>	<b>118.3</b>

**ANNEXURE-II (a) (RSPM)**

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
<b>Durga Devi Temple, Nalagarh</b>	6AM-2PM	92.0	-	68.0	72.0	69.0	75.0	83.0	105.0	95.0	92.0	87.0	84.0	95.0	82.0	83.0
	2PM-10PM	74.0	92.0	94.0	105.0	80.0	86.0	104.0	143.0	114.0	109.0	90.0	89.0	80.0	83.0	86.0
	10PM-6AM	90.0	84.0	88.0	94.0	119.0	100.0	95.0	180.0	97.0	100.0	91.0	85.0	83.0	76.0	88.0
	<b>24 hour Avg.</b>	<b>85.3</b>	<b>88.0</b>	<b>83.3</b>	<b>90.3</b>	<b>89.3</b>	<b>87.0</b>	<b>94.0</b>	<b>142.7</b>	<b>102.0</b>	<b>100.0</b>	<b>89.3</b>	<b>86.0</b>	<b>86.0</b>	<b>80.3</b>	<b>85.7</b>
<b>Hadimba Mata Road, Manali</b>	6AM-2PM	28.4	28.4	30.3	32.8	36.4	40.0	32.3	53.6	58.1	38.1	39.6	23.1	19.5	29.5	49.4
	2PM-10PM	32.8	32.2	27.5	32.2	78.8	82.8	83.0	99.2	86.6	74.7	71.0	56.1	52.1	45.5	45.7
	10PM-6AM	22.7	18.6	26.0	26.8	18.0	16.7	32.6	88.4	34.9	45.1	9.7	18.6	11.4	15.2	22.9
	<b>24 hour Avg.</b>	<b>28.0</b>	<b>26.4</b>	<b>27.9</b>	<b>30.6</b>	<b>44.4</b>	<b>46.5</b>	<b>49.3</b>	<b>80.4</b>	<b>59.9</b>	<b>52.6</b>	<b>40.1</b>	<b>32.6</b>	<b>27.7</b>	<b>30.1</b>	<b>39.3</b>

**Note: - Monitoring not conducted.**



## ANNEXURE-II (b)

NO<sub>x</sub> in ug/m<sup>3</sup>24 Hour Standard for Industrial, Residential & Others=80 ug/m<sup>3</sup>

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring							
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024		10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
Tekka Bench, The Mall, Shimla	6AM-2PM	9.1	4.5	9.1	9.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	9.6	4.5	9.1	10.1
		10.5	9.6	11.4	10.5	9.1	10.1	10.1	11.0	10.1	10.5	11.4	15.3	10.5	4.5	11.9	
	2PM-10PM	11.9	12.8	12.8	13.3	12.3	13.3	13.3	12.8	12.8	11.4	12.3	11.9	12.8	...	12.3	
		10.1	12.3	9.6	10.1	10.1	11.0	12.3	16.9	17.4	15.5	12.8	4.5	11.9	12.3	11.9	
	10PM-6AM	4.5	10.1	4.5	4.5	4.5	4.5	11.9	17.8	13.3	11.9	11.2	10.1	9.6	14.2	9.1	
		4.5	4.5	4.5	4.5	4.5	4.5	4.5	24.7	11.9	9.1	10.1	9.1	9.1	4.5	4.5	
24 hour Avg.		8.4	9.0	8.7	8.8	7.5	8.0	9.4	14.6	11.7	10.5	10.4	10.1	9.7	8.9	10.0	
Parwanoo, Sec-IV	6AM-2PM	5.6	3.2	2.8	7.9	6.9	3.7	5.1	2.3	6.9	5.6	4.2	4.6	7.4	6.0	6.9	
		7.9	5.3	6.9	7.2	8.3	6.0	7.9	4.6	6.0	4.7	3.7	5.1	6.5	4.2	7.4	
	2PM-10PM	9.7	4.9	7.9	8.3	10.6	5.1	7.4	7.4	6.5	6.0	11.1	8.8	6.0	6.5	10.2	
		7.0	5.1	6.0	6.9	8.4	6.5	11.1	13.9	6.9	6.5	9.7	10.2	4.2	6.9	9.7	
	10PM-6AM	7.9	2.8	5.1	6.0	11.6	20.4	6.9	3.2	6.5	4.2	8.4	3.2	4.6	5.1	6.5	
		8.8	6.0	7.4	8.8	7.9	13.9	6.5	5.6	7.4	3.2	3.7	4.2	6.0	5.6	4.2	
24 hour Avg.		7.8	4.5	4.5	4.5	4.5	9.3	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Residential Building Dari Dharamshala (795)	6AM-2PM	5.37	4.47	5.37	5.81	5.81	8.05	6.71	8.10	7.15	6.26	7.15	7.60	6.71	7.15	Power Cut	
		6.71	6.71	6.36	8.04	7.15	11.18	8.05	10.23	9.39	8.05	8.05	8.50	7.60	8.05	5.60	
	2PM-10PM	8.45	8.94	7.60	7.60	8.50	7.60	10.28	12.52	11.18	9.84	9.34	9.39	8.94	9.39	7.15	
		8.94	9.39	8.94	9.39	9.84	8.94	11.92	14.76	13.41	11.63	12.07	10.28	10.73	8.50	8.50	
	10PM-6AM	6.26	5.37	6.71	8.04	6.71	8.50	7.60	13.41	11.63	10.73	5.37	9.84	9.39	6.71	7.60	
		4.92	6.26	6.26	6.26	6.26	8.94	8.50	10.73	9.84	8.50	4.47	8.05	7.15	5.96	6.70	

24 hour Avg.	6.78 (BDL)	6.86 (BDL)	6.86 (BDL)	7.52 (BDL)	7.38 (BDL)	8.87 (BDL)	8.84 (BDL)	11.63	10.43	9.17	7.74 (BDL)	8.94 (BDL)	8.42 (BDL)	7.63 (BDL)	7.11 (BDL)
--------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------	-------	-------	------	---------------	---------------	---------------	---------------	---------------

**ANNEXURE-II (b) NO<sub>x</sub>**

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
Ram Gopal Mandir Damtal	6AM-2PM	4.92	4.02	4.02	4.92	4.29	5.37	4.47	5.37	6.71	5.81	4.47	4.02	3.13	2.68	3.58
		9.20	7.15	4.92	10.28	9.39	7.15	7.60	9.39	8.94	10.28	9.39	5.81	5.37	8.50	8.46
	2PM-10PM	8.94	10.28	10.28	8.94	8.05	8.35	10.73	9.84	10.73	11.18	10.73	9.39	8.50	8.50	8.05
		9.84	10.28	9.84	5.37	6.71	7.60	9.84	11.18	10.28	11.63	8.05	8.50	9.84	8.94	8.94
	10PM-6AM	6.26	5.37	6.26	10.28	6.71	7.15	8.94	9.84	6.75	8.50	8.05	7.60	6.71	7.60	6.71
		4.47	4.47	4.92	4.92	4.47	3.58	5.81	5.81	5.37	6.26	5.81	6.71	5.37	6.26	5.81
	24 hour Avg.	<b>7.27 (BDL)</b>	<b>6.93 (BDL)</b>	<b>6.71 (BDL)</b>	<b>7.45 (BDL)</b>	<b>6.6 (BDL)</b>	<b>6.53 (BDL)</b>	<b>7.90 (BDL)</b>	<b>8.57 (BDL)</b>	<b>8.13 (BDL)</b>	<b>8.94 (BDL)</b>	<b>7.75 (BDL)</b>	<b>7.01 (BDL)</b>	<b>6.49 (BDL)</b>	<b>7.08 (BDL)</b>	<b>6.93 (BDL)</b>
Regional Laboratory, Sunder Nagar	6AM-2PM	5.99	5.57	5.57	5.14	6.00	5.14	5.58	6.43	6.00	6.43	6.43	5.14	4.29	4.72	5.14
		5.62	6.85	6.86	6.43	6.86	6.43	6.86	7.29	7.29	7.29	7.29	7.72	5.14	5.58	6.86
	2PM-10PM	6.43	7.29	7.29	6.86	8.15	7.72	7.29	8.15	8.58	8.15	6.86	6.43	6.86	6.86	7.71
		8.14	8.15	8.15	7.72	7.29	8.58	8.15	9.00	9.00	8.58	7.72	6.00	6.00	7.71	8.15
	10PM-6AM	6.86	6.43	6.43	7.29	6.43	6.86	6.43	6.86	6.86	7.72	6.00	5.58	7.72	8.15	6.43
		5.57	6.00	6.00	6.00	5.14	6.00	5.14	6.00	6.43	6.86	4.29	4.29	4.72	5.14	5.58
	24 hour Avg.	<b>6.44</b>	<b>6.72</b>	<b>6.72</b>	<b>6.57</b>	<b>6.65</b>	<b>6.79</b>	<b>6.58</b>	<b>7.29</b>	<b>7.36</b>	<b>7.51</b>	<b>6.43</b>	<b>5.86</b>	<b>5.79</b>	<b>6.36</b>	<b>6.65</b>
Office Building, Shubkhera, Poanta Sahib	6AM-2PM	7.3	7.8	7.3	8.7	8.7	8.2	8.7	8.2	8.7	7.3	8.7	5.5	7.8	5.5	6.4
		8.2	8.7	8.2	8.2	9.2	8.7	8.2	8.7	8.7	8.2	8.2	7.3	7.3	6.9	6.9
	2PM-10PM	7.8	7.8	7.8	7.8	8.2	10.0	10.1	10.1	9.6	7.3	8.2	11.0	8.2	8.2	7.8
		8.2	8.2	8.7	8.7	9.8	8.7	9.6	9.6	10.1	9.6	8.7	5.5	7.3	9.1	7.3
	10PM-6AM	8.7	8.7	9.6	9.6	9.6	9.6	10.1	11.4	12.4	11.9	10.1	8.7	8.7	10.1	8.7
		8.2	8.2	10.1	9.2	8.2	8.7	9.6	12.8	12.8	12.8	8.7	7.8	9.6	10.5	10.1

24 hour Avg.	8.1	8.2	8.6	8.7	8.9	9.0	9.4	10.1	10.4	9.5	8.8	7.6	8.2	8.4	7.8
--------------	-----	-----	-----	-----	-----	-----	-----	------	------	-----	-----	-----	-----	-----	-----

**ANNEXURE-II (b) NOx**

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
Trilokpur, Kala Amb	6AM-2PM	8.2	7.3	7.8	8.7	8.7	8.7	9.6	9.6	8.7	6.9	5.0	6.4	7.3	8.7	7.8
		9.2	9.2	9.2	9.2	10.5	9.6	10.5	10.4	6.9	7.8	8.2	5.5	7.8	6.0	7.8
	2PM-10PM	8.2	8.2	8.2	8.2	7.8	8.7	10.1	10.1	9.2	9.6	7.8	7.3	8.7	7.8	7.3
		8.7	8.7	7.3	6.0	9.2	8.2	9.6	12.4	8.7	11.0	9.6	7.3	7.8	9.6	8.7
	10PM-6AM	10.1	9.6	10.5	10.5	9.2	8.7	10.0	11.4	11.9	10.1	9.6	8.2	9.6	7.3	8.2
		10.5	10.5	9.6	10.5	9.6	9.6	10.1	10.1	11.4	9.6	8.7	8.7	10.1	8.2	8.7
	<b>24 hour Avg.</b>	<b>9.1</b>	<b>8.9</b>	<b>8.8</b>	<b>8.8</b>	<b>9.1</b>	<b>8.9</b>	<b>10.0</b>	<b>10.6</b>	<b>9.5</b>	<b>9.1</b>	<b>8.2</b>	<b>7.2</b>	<b>8.5</b>	<b>7.9</b>	<b>8.1</b>
Secure Meter, Baddi	6AM-2PM	13.9	11.6	13.9	12.0	13.0	10.6	9.7	11.6	10.6	14.3	12.0	11.1	11.6	11.1	12.0
		14.8	13.4	12.5	13.4	13.4	12.0	13.0	13.9	12.5	13.0	9.7	13.0	14.8	12.5	13.4
	2PM-10PM	16.2	15.7	14.3	16.2	15.7	13.9	14.8	15.8	13.9	15.7	8.7	13.9	13.4	15.3	14.3
		13.4	16.2	14.8	15.3	15.3	15.3	17.6	17.6	15.7	10.2	17.1	15.7	11.1	14.3	15.7
	10PM-6AM	16.7	15.3	16.2	15.7	15.7	14.3	15.7	17.1	14.8	11.1	14.8	14.8	14.8	13.9	15.3
		14.3	13.4	14.8	13.9	14.8	13.4	13.4	15.3	13.4	12.5	13.0	13.4	12.0	12.0	14.3
	<b>24 hour Avg.</b>	<b>14.9</b>	<b>14.3</b>	<b>14.4</b>	<b>14.4</b>	<b>14.6</b>	<b>13.3</b>	<b>14.0</b>	<b>15.2</b>	<b>13.5</b>	<b>12.8</b>	<b>12.5</b>	<b>13.6</b>	<b>13.0</b>	<b>13.2</b>	<b>14.2</b>
Durga Devi Temple, Nalagarh	6AM-2PM	10.6	-	11.1	11.6	11.6	13.4	9.3	10.6	9.7	12.0	10.2	9.3	8.2	10.6	11.6
		11.5	-	12.5	13.0	14.3	12.0	11.1	13.0	12.0	11.6	8.2	11.1	13.0	9.7	14.8
	2PM-10PM	13.0	11.6	13.9	13.9	13.4	13.9	13.4	13.9	11.1	9.3	13.0	12.0	13.9	11.6	9.7
		13.4	13.4	13.0	14.3	12.5	15.3	15.7	16.2	14.8	10.6	14.8	13.9	14.8	16.7	14.8
	10PM-6AM	10.2	12.0	13.0	12.5	13.9	14.3	14.3	14.8	13.9	15.3	11.6	13.0	13.9	14.8	11.6
		12.0	10.6	12.0	11.6	11.1	15.3	13.0	15.3	13.0	8.2	13.9	11.6	10.2	8.7	8.7

24 hour Avg.	11.8	11.9	12.6	12.8	12.8	14.0	12.8	14.0	12.4	11.2	11.9	11.8	12.3	12.0	11.8
--------------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

**ANNEXURE-II (b) NOx**

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring							
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024	
		<b>Regional Office, Una</b>															
6AM-2PM	10.65	12.96	5.64	5.88	6.48	8.33	1.85	15.75	21.48	3.89	29.58	22.59	14.58	9.91	13.84		
	4.45	5.60	4.49	8.50	4.63	11.90	2.78	4.63	5.69	2.25	12.96	11.76	6.80	13.38	11.85		
	<b>2PM-10PM</b>																
	4.56	7.54	5.04	5.09	5.55	13.43	3.24	5.69	6.99	4.10	22.69	15.74	7.73	14.54	9.77		
	4.50	8.16	1.34	2.77	2.46	9.63	4.17	6.02	11.43	2.68	12.50	7.96	3.89	1.06	5.46		
	<b>10PM-6AM</b>																
-	-	-	-	-	-	6.34	4.50	8.79	-	-	-	-	-	-			
-	-	-	-	-	-	1.38	4.50	5.37	-	-	-	-	-	-			
<b>24 hour Avg.</b>		<b>6.04</b>	<b>8.57</b>	<b>4.13</b>	<b>5.56</b>	<b>4.78</b>	<b>10.82</b>	<b>3.29</b>	<b>6.85</b>	<b>9.96</b>	<b>3.23</b>	<b>19.43</b>	<b>14.51</b>	<b>8.25</b>	<b>9.72</b>	<b>10.23</b>	
<b>Hadimba Mata Road, Manali</b>																	
6AM-2PM	3.8	3.8	4.9	3.8	4.1	5.1	7.9	7.8	8.9	6.3	9.6	4.1	3.8	4.7	5.0		
	4.1	4.1	4.1	7.6	6.0	6.0	6.4	8.9	10.4	8.9	8.5	5.6	4.1	4.1	3.8		
2PM-10PM	4.5	4.5	4.5	4.6	6.4	6.3	7.1	13.1	8.6	12.4	6.7	7.1	7.5	7.4	6.0		
	4.9	4.9	4.9	4.9	5.2	5.2	6.3	11.9	9.7	10.1	7.8	6.7	6.0	6.4	6.9		
10PM-6AM	3.7	3.7	3.7	3.7	3.7	3.7	4.1	9.3	7.1	7.1	4.5	3.7	3.3	3.7	3.3		
	3.7	3.7	4.9	5.0	6.2	4.7	7.4	15.7	8.1	7.1	4.5	3.7	3.3	6.2	4.5		
<b>24 hour Avg.</b>		<b>4.1</b>	<b>4.1</b>	<b>4.5</b>	<b>4.9</b>	<b>5.3</b>	<b>5.2</b>	<b>6.6</b>	<b>11.1</b>	<b>8.8</b>	<b>8.7</b>	<b>6.9</b>	<b>5.1</b>	<b>4.7</b>	<b>5.4</b>	<b>4.9</b>	

Note: - Monitoring not conducted.



24 hour Avg.	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)
--------------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------

**ANNEXURE-II (c) SO2**

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring							
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024	
Ram Gopal Mandir Damtal	6AM-2PM	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	2PM-10PM	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	10PM-6AM	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	24 hour Avg.	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)	2 (BDL)
Regional Laboratory, Sunder Nagar	6AM-2PM	0.98	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	
		0.65	0.98	1.48	0.98	0.98	0.98	0.98	0.98	1.48	0.98	0.98	1.48	0.98	0.98	0.49	0.98
	2PM-10PM	0.98	0.49	0.98	1.48	0.98	1.48	1.48	0.98	0.98	1.48	0.98	0.49	0.98	0.98	1.48	
		1.48	1.48	0.49	0.98	1.48	1.48	0.98	1.48	1.48	1.48	0.98	0.98	1.48	1.48	0.49	
	10PM-6AM	0.49	0.98	0.49	0.98	0.49	0.98	0.49	0.98	0.49	0.98	1.48	1.48	0.49	0.98	0.49	
		0.49	0.49	0.98	0.49	0.49	0.49	0.49	0.98	0.98	0.49	0.49	0.49	0.49	0.49	0.49	0.98
	24 hour Avg.	0.85	0.82	0.82	0.90	0.82	0.98	0.82	1.07	0.90	0.98	0.98	0.82	0.82	0.82	0.82	0.88
Office Building, Shubkhera, Poanta Sahib	6AM-2PM	4.1	3.6	4.1	4.7	4.1	5.7	5.2	6.2	5.7	5.7	5.2	3.6	4.7	3.6	3.1	
		4.1	4.7	4.1	4.7	5.7	6.2	4.7	7.8	6.2	6.2	3.6	2.1	1.0	2.1	2.1	
	2PM-10PM	4.7	5.2	5.7	5.7	5.2	6.7	5.7	6.2	4.1	5.7	4.1	9.3	6.2	8.3	6.2	
		4.1	4.1	4.1	4.1	5.5	4.1	5.2	5.2	5.7	5.7	7.2	3.6	5.2	3.1	3.6	
	10PM-6AM	4.7	4.7	4.7	4.7	4.7	4.7	5.2	5.2	8.3	5.2	6.2	3.1	3.6	3.6	3.1	

	3.1	3.6	3.6	5.2	4.1	3.6	5.7	5.7	7.8	6.2	6.7	4.1	3.6	4.1	4.1
<b>24 hour Avg.</b>	<b>4.1</b>	<b>4.3</b>	<b>4.4</b>	<b>4.8</b>	<b>4.9</b>	<b>5.2</b>	<b>5.3</b>	<b>6.0</b>	<b>6.3</b>	<b>5.8</b>	<b>5.5</b>	<b>4.3</b>	<b>4.0</b>	<b>4.1</b>	<b>3.7</b>

**ANNEXURE-II (c) SO2**

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024		10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024
<b>Trilokpur, Kala Amb</b>	6AM-2PM	3.6	4.7	5.2	5.2	4.7	5.2	5.2	5.7	3.6	4.7	6.2	1.6	2.6	1.6	3.1
		4.1	3.1	3.6	3.6	5.7	4.7	5.7	8.3	4.1	5.7	6.2	2.1	2.1	2.1	2.1
	2PM-10PM	4.7	4.7	4.1	5.2	6.7	5.2	6.2	7.2	5.2	4.1	5.7	9.3	6.2	7.2	7.6
		4.7	4.7	4.1	4.1	4.7	4.1	6.7	5.7	5.7	3.6	2.1	3.6	5.7	3.6	3.6
	10PM-6AM	5.7	5.7	5.2	5.2	4.1	5.2	4.7	6.2	6.7	5.7	5.7	3.1	4.7	4.7	2.6
		4.7	5.7	4.7	6.2	4.7	5.7	5.7	6.2	6.2	6.7	1.6	4.1	4.1	4.1	4.7
<b>24 hour Avg.</b>	<b>4.6</b>	<b>4.7</b>	<b>4.5</b>	<b>4.9</b>	<b>5.1</b>	<b>5.0</b>	<b>5.7</b>	<b>6.5</b>	<b>5.3</b>	<b>5.1</b>	<b>4.6</b>	<b>4.0</b>	<b>4.2</b>	<b>3.9</b>	<b>3.9</b>	
<b>Secure Meter, Baddi</b>	6AM-2PM	2.0	1.6	2.0	2.4	2.4	2.0	2.2	2.2	1.6	1.4	1.2	1.2	1.4	1.0	1.8
		2.2	1.4	2.6	2.8	2.8	2.8	2.8	2.8	2.6	2.4	3.2	1.8	2.4	1.6	2.0
	2PM-10PM	3.0	2.4	2.2	2.6	3.6	3.2	3.2	3.4	3.0	1.0	1.6	2.4	1.6	2.4	2.4
		2.4	2.8	1.2	2.6	3.0	3.0	3.4	3.8	3.4	3.0	2.0	2.8	2.8	2.8	3.0
	10PM-6AM	3.2	2.6	2.0	3.0	2.8	2.6	3.0	3.6	3.2	1.6	2.4	3.0	2.2	2.6	3.4
		2.6	2.2	2.8	2.8	2.6	2.4	3.2	3.4	2.4	2.0	0.6	2.2	1.8	2.0	2.6
<b>24 hour Avg.</b>	<b>2.6</b>	<b>2.2</b>	<b>2.2</b>	<b>2.7</b>	<b>2.9</b>	<b>2.7</b>	<b>3.0</b>	<b>3.2</b>	<b>2.7</b>	<b>1.9</b>	<b>1.9</b>	<b>2.3</b>	<b>2.1</b>	<b>2.1</b>	<b>2.6</b>	
<b>Durga Devi Temple, Nalagarh</b>	6AM-2PM	1.62	-	1.41	1.21	1.21	0.81	1.41	1.82	1.41	0.81	0.6	0.81	1.62	1.01	2.02
		1.82	-	1.82	2.02	0.81	1.41	1.82	2.02	1.82	1.82	1.62	1.41	0.81	2.02	1.62
	2PM-10PM	2.43	1.41	2.43	2.22	1.41	2.43	2.43	2.83	2.63	1.21	1.01	1.82	2.22	1.62	1.41
		2.02	2.02	2.02	2.83	2.02	1.82	3.03	3.44	3.44	2.02	2.02	2.63	1.01	0.6	1.62
	10PM-6AM	1.41	1.82	2.63	2.63	1.82	1.21	2.83	3.24	2.83	1.62	1.62	2.22	1.41	2.02	1.01

		2.22	1.41	2.02	2.22	1.41	1.62	2.83	2.83	2.02	2.63	1.82	1.62	2.02	1.41	1.41
	<b>24 hour Avg.</b>	<b>1.92</b>	<b>1.66</b>	<b>2.05</b>	<b>2.18</b>	<b>1.44</b>	<b>1.55</b>	<b>2.39</b>	<b>2.69</b>	<b>2.35</b>	<b>1.68</b>	<b>1.44</b>	<b>1.75</b>	<b>1.51</b>	<b>1.44</b>	<b>1.51</b>

**ANNEXURE-II (C)SO2**

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
Regional Office, Una	6AM-2PM	6.84	3.88	2.92	8.76	3.03	1.00	7.96	2.16	12.51	7.46	9.76	1.04	1.96	2.13	3.37
		9.88	5.06	15.02	9.59	10.80	8.34	6.25	5.42	2.92	8.90	12.90	4.84	1.54	1.13	2.58
	2PM-10PM	2.08	5.01	9.17	15.43	12.20	5.84	7.09	13.35	8.34	5.10	12.47	2.12	1.62	6.50	6.30
		2.00	1.25	5.42	10.01	5.57	5.75	5.40	23.36	27.12	3.22	9.84	1.21	3.00	2.62	6.01
	10PM-6AM	-	-	-	-	-	-	7.92	2.12	3.75	-	-	-	-	-	-
		-	-	-	-	-	-	13.35	6.67	5.00	-	-	-	-	-	-
<b>24 hour Avg.</b>	<b>5.20</b>	<b>3.80</b>	<b>8.13</b>	<b>10.95</b>	<b>7.90</b>	<b>5.23</b>	<b>8.00</b>	<b>8.85</b>	<b>9.94</b>	<b>6.17</b>	<b>11.24</b>	<b>2.30</b>	<b>2.03</b>	<b>3.10</b>	<b>4.57</b>	
Hadimba Mata Road, Manali	6AM-2PM	1.6	1.6	1.0	1.6	1.2	2.0	1.9	3.2	3.2	1.6	2.9	1.2	1.2	1.0	2.1
		1.6	0.8	1.6	1.6	2.1	3.2	3.2	4.0	4.3	3.2	2.1	1.9	1.6	1.6	1.6
	2PM-10PM	1.6	1.6	1.6	1.6	2.1	3.2	3.2	5.6	4.0	3.2	2.6	2.4	1.9	2.4	2.4
		2.4	2.4	2.4	2.4	1.9	2.4	3.2	4.8	4.0	3.2	1.9	1.6	1.9	2.4	2.1
	10PM-6AM	0.8	0.8	1.6	0.8	0.8	1.4	2.4	4.0	3.2	2.4	1.2	1.2	0.8	1.6	1.6
		0.8	0.8	1.0	1.0	1.4	2.0	3.2	6.4	2.9	1.6	1.2	1.2	0.8	1.5	1.1
	<b>24 hour Avg.</b>	<b>1.5</b>	<b>1.3</b>	<b>1.5</b>	<b>1.5</b>	<b>1.6</b>	<b>2.4</b>	<b>2.9</b>	<b>4.7</b>	<b>3.6</b>	<b>2.5</b>	<b>2.0</b>	<b>1.6</b>	<b>1.4</b>	<b>1.8</b>	<b>1.8</b>

Note:=- Monitoring not conducted.



## ANNEXURE-II (d)

RSPM(PM2.5) in ug/m<sup>3</sup>24 Hour Standard for Industrial, Residential & Others=60 ug/m<sup>3</sup>

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
Tekka Bench, The Mall, Shimla	24 hour Avg.	15.0	14.0	13.0	22.0	25.0	19.0	15.0	24.0	22.0	16.0	15.0	20.0	27.0	22.0	26.0
Parwanoo, Sector-IV	24 hour Avg.	9.0	17.0	39.0	40.0	41.0	36.0	42.0	95.0	57.0	38.0	39.0	37.0	37.0	40.0	42.0
Dari, Dharamshala	24 hour Avg.	24.0	22.0	27.0	40.0	45.0	41.0	41.0	41.0	38.0	29.0	30.0	21.0	38.0	42.0	26.0
Ram Gopal Mandir Damtal	24 hour Avg.	28.0	30.0	32.0	29.0	27.0	34.0	32.0	37.0	39.0	32.0	27.0	28.0	30.0	32.0	29.0
Regional Laboratory, Sunder Nagar	24 hour Avg.	34.0	27.0	35.0	56.0	24.0	36.0	45.0	52.0	59.0	40.0	49.0	43.0	38.0	43.0	52.0
Office Building, Shubkhera, Poanta Sahib	24 hour Avg.	42.0	22.2	28.1	30.4	29.2	44.5	56.1	53.2	42.6	30.9	18.9	53.5	45.7	44.1	35.0
Trilokpur, Kala Amb	24 hour Avg.	8.15	18.01	26.42	19.82	25.51	33.31	33.54	41.93	34.98	25.67	26.83	26.94	25.50	32.98	40.98
Regional Office, Una	24 hour Avg.	39.40	38.95	41.24	40.62	32.50	28.17	62.50	66.66	79.16	68.75	43.75	31.25	50.00	43.75	37.50
Secure Meter, Baddi	24 hour Avg.	41.7	41.7	42.5	45.6	50.0	42.4	45.8	59.4	51.0	45.8	41.7	45.7	45.8	50.9	54.2
Durga Devi Temple, Nalagarh	24 hour Avg.	37.5	37.4	37.5	41.7	41.7	37.5	41.4	50.9	46.6	41.7	37.5	38.2	37.5	37.5	41.7
Hadimba Mata Road, Manali	24 hour Avg.	12.9	8.8	9.2	9.5	14.9	14.0	14.8	22.7	14.1	13.6	9.9	8.6	12.6	14.0	14.2

## ANNEXURE-II (e)

O<sub>3</sub> in ug/m<sup>3</sup>24 Hour Standard for Industrial, Residential & Others=100 ug/m<sup>3</sup>

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024		10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024
Tekka Bench, The Mall, Shimla	6AM-2PM	5.6	5.3	5.6	5.9	6.5	6.9	8.0	13.3	11.8	12.4	13.2	8.1	8.0	8.9	8.5
	2PM-10PM	5.9	6.3	6.5	6.8	7.5	8.2	11.4	15.1	14.4	14.8	16.5	13.6	14.5	12.3	15.2
	10PM-6AM	5.1	5.7	6.2	6.0	6.3	6.6	8.7	21.9	19.7	19.1	15.6	13.4	13.7	14.2	6.9
	24 hour Avg.	5.5	5.8	6.1	6.2	6.8	7.2	9.4	16.8	15.3	15.4	15.1	11.7	12.1	11.8	10.2
Parwanoo, Sector-IV	6AM-2PM	1.5	1.2	1.7	2.1	1.7	1.1	1.7	1.6	3.6	2.4	2.1	1.3	2.6	1.6	2.4
	2PM-10PM	2.1	1.2	1.6	1.8	1.6	1.5	2.3	1.4	3.7	2.6	1.3	1.4	3.1	2.3	2.1
	10PM-6AM	1.7	2.0	1.7	2.3	2.1	1.3	1.6	2.7	2.9	2.1	1.6	1.5	1.9	1.6	2.9
	24 hour Avg.	1.8	1.6	1.7	2.1	1.8	1.3	1.9	1.9	3.4	2.4	1.7	1.4	2.5	1.9	2.5
Residential Building Dari Dharamshala (795)	6AM-2PM	1.23	0.72	0.90	0.94	1.00	1.47	1.40	1.51	1.37	1.26	1.12	1.65	1.55	1.37	1.35
	2PM-10PM	2.77	2.81	2.27	1.98	2.08	2.95	3.08	3.42	2.93	2.81	2.91	3.09	2.66	2.19	2.09
	10PM-6AM	1.44	1.40	1.37	1.19	1.47	1.37	1.44	2.23	1.65	1.51	1.40	0.76	1.15	1.04	1.12
	24 hour Avg.	1.85	1.64	1.51	1.37	1.52	1.93	1.97	2.39	1.99	1.86	1.81	1.83	1.79	1.53	1.52
Ram Gopal Mandir Damtal	6AM-2PM	0.88	1.01	1.01	0.90	0.91	1.03	1.19	1.33	1.58	1.47	1.37	1.29	1.12	1.08	1.11
	2PM-10PM	1.04	1.26	1.04	1.04	1.26	1.46	1.23	1.76	1.93	2.19	1.87	1.65	1.33	1.26	1.15
	10PM-6AM	0.76	0.86	1.18	1.37	0.86	0.90	1.22	1.62	1.69	1.76	1.51	1.19	1.22	1.37	1.08
	24 hour Avg.	0.89	1.04	1.06	1.10	1.01	1.13	1.21	1.57	1.75	1.81	1.58	1.38	1.22	1.24	1.11
Regional Laboratory, Sunder Nagar	6AM-2PM	0.79	1.05	0.80	0.77	0.80	0.77	0.73	0.80	0.77	0.80	0.63	0.70	0.70	0.73	0.80
	2PM-10PM	0.91	0.70	0.98	0.91	0.98	1.01	0.91	1.05	1.05	1.09	0.70	0.91	0.80	0.84	0.91
	10PM-6AM	0.80	0.77	0.91	0.73	0.70	0.73	0.67	0.84	0.80	0.73	0.84	0.73	0.91	0.91	1.05
	24 hour Avg.	0.83	0.84	0.90	0.80	0.83	0.84	0.77	0.90	0.87	0.87	0.72	0.78	0.80	0.83	0.92

**ANNEXURE-II (e) O<sub>3</sub>**

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
Office Building, Shubkhera, Poanta Sahib	6AM-2PM	2.8	2.4	2.8	2.7	3.0	3.1	3.1	3.4	3.6	3.3	2.6	3.3	3.5	3.8	3.3
	2PM-10PM	3.1	4.9	4.4	3.9	4.3	4.6	4.4	5.2	5.0	4.5	3.5	2.8	3.2	3.4	3.5
	10PM-6AM	3.8	3.2	3.0	3.6	3.9	3.8	4.1	3.6	3.8	3.7	3.2	3.2	3.0	2.9	2.7
	24 hour Avg.	3.2	3.5	3.4	3.4	3.7	3.8	3.8	4.1	4.1	3.8	3.1	3.1	3.2	3.3	3.2
Trilokpur, Kala Amb	6AM-2PM	3.0	3.2	3.1	2.8	3.1	3.2	3.2	3.3	4.0	3.9	3.8	4.6	3.9	3.5	3.6
	2PM-10PM	2.8	3.4	3.2	3.4	3.9	4.9	4.6	5.0	4.5	4.5	2.6	4.1	4.1	3.9	3.4
	10PM-6AM	2.3	3.1	2.9	3.0	3.8	3.6	4.3	3.9	4.2	4.0	3.7	2.2	3.3	3.6	3.8
	24 hour Avg.	2.7	3.2	3.1	3.1	3.6	3.9	4.0	4.1	4.2	4.1	3.4	3.6	3.8	3.7	3.6
Regional Office, Una	6AM-2PM	3.04	2.43	0.08	0.22	4.20	3.50	4.19	7.97	3.70	2.35	3.02	4.27	1.54	1.92	2.30
	2PM-10PM	2.70	2.39	0.14	1.06	4.44	3.90	7.77	6.06	6.13	4.61	1.69	5.89	1.10	2.60	1.86
	10PM-6AM	-	-	-	-	-	-	2.70	4.68	2.80	-	-	-	-	-	-
	24 hour Avg.	2.87	2.41	0.11	0.64	4.32	3.70	4.89	6.24	4.21	3.48	2.36	5.08	1.32	2.26	2.08

Note: - Monitoring not conducted.

## ANNEXURE-II (f)

CO in mg/m<sup>3</sup>24 Hour Standard for Industrial, Residential & Others=02 mg/m<sup>3</sup>

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
Regional Office, Una	6AM-2PM	0.30	0.49	0.08	0.29	0.48	0.37	0.22	0.74	0.98	0.95	0.47	0.43	0.47	0.48	0.18
	2PM-10PM	0.19	0.49	0.08	0.29	0.48	0.09	0.29	0.70	0.74	1.27	0.03	0.10	0.28	0.08	0.42
	10PM-6AM	-	-	-	-	-	-	0.79	0.70	1.13	-	-	-	-	-	-
	<b>24 hour Avg.</b>	<b>0.25</b>	<b>0.49</b>	<b>0.08</b>	<b>0.29</b>	<b>0.48</b>	<b>0.23</b>	<b>0.43</b>	<b>0.71</b>	<b>0.95</b>	<b>1.11</b>	<b>0.25</b>	<b>0.27</b>	<b>0.38</b>	<b>0.28</b>	<b>0.30</b>
Sector-4, Parwanoo	6AM-2PM	0.3	0.3	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5
	2PM-10PM	0.4	0.4	0.9	0.7	0.6	0.7	0.5	0.5	0.4	0.5	0.4	0.4	0.7	0.5	0.5
	10PM-6AM	0.4	0.4	0.5	0.5	0.5	0.6	0.3	0.7	0.4	0.4	0.3	0.4	0.6	0.5	0.6
	<b>24 hour Avg.</b>	<b>0.4</b>	<b>0.4</b>	<b>0.7</b>	<b>0.6</b>	<b>0.5</b>	<b>0.6</b>	<b>0.4</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>	<b>0.3</b>	<b>0.4</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>
Regional Laboratory, Sunder Nagar	6AM-2PM	0.38	0.37	0.35	0.36	0.54	0.43	0.49	0.33	0.35	0.39	0.39	0.90	0.92	0.98	0.97
	2PM-10PM	0.42	0.45	0.40	0.84	0.56	0.49	0.46	0.36	0.42	0.48	0.43	0.86	0.88	0.92	0.97
	10PM-6AM	0.45	0.47	0.41	0.89	0.61	0.68	0.58	0.57	0.50	0.51	0.51	0.56	0.90	0.72	0.84
	<b>24 hour Avg.</b>	<b>0.42</b>	<b>0.43</b>	<b>0.39</b>	<b>0.70</b>	<b>0.57</b>	<b>0.53</b>	<b>0.51</b>	<b>0.42</b>	<b>0.42</b>	<b>0.46</b>	<b>0.44</b>	<b>0.77</b>	<b>0.90</b>	<b>0.87</b>	<b>0.93</b>
Trilokpur, Kala Amb	6AM-2PM	1.0	0.8	0.6	0.6	0.5	0.6	0.6	0.7	0.6	0.6	0.5	0.4	0.5	0.3	0.4
	2PM-10PM	1.0	0.8	0.7	0.8	0.8	0.7	0.8	0.8	0.8	0.7	0.6	0.6	0.7	0.5	0.7
	10PM-6AM	0.9	0.6	0.6	0.6	0.5	0.6	0.6	0.7	0.7	0.6	0.5	0.4	0.5	0.3	0.5
	<b>24 hour Avg.</b>	<b>1.0</b>	<b>0.7</b>	<b>0.6</b>	<b>0.7</b>	<b>0.6</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.6</b>	<b>0.4</b>	<b>0.5</b>
Office Building, Shubkhara, Poanta Sahib	6AM-2PM	0.0	0.8	0.2	0.4	0.5	0.6	0.8	0.5	0.1	0.3	1.3	0.2	0.6	0.5	0.5
	2PM-10PM	0.9	0.4	0.8	0.5	0.1	0.4	0.8	0.3	0.7	1.1	0.1	0.8	0.4	0.9	0.5
	10PM-6AM	1.1	0.5	0.7	0.4	0.1	0.4	0.8	0.1	0.4	1.2	0.1	0.8	0.3	0.8	0.4

	<b>24 hour Avg.</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.4</b>	<b>0.2</b>	<b>0.5</b>	<b>0.8</b>	<b>0.3</b>	<b>0.4</b>	<b>0.9</b>	<b>0.5</b>	<b>0.6</b>	<b>0.5</b>	<b>0.7</b>	<b>0.4</b>
<b>Tekka Bench The Mall Shimla</b>	6AM-2PM	0.11	0.16	0.19	0.19	0.23	0.24	0.37	0.29	0.32	0.42	0.46	0.44	0.40	0.48	0.55
	2PM-10PM	0.15	0.18	0.26	0.22	0.27	0.30	0.43	0.42	0.49	0.47	0.49	0.49	0.46	0.50	0.59
	10PM-6AM	0.10	0.14	0.15	0.16	0.16	0.18	0.28	0.34	0.36	0.34	0.40	0.39	0.37	0.43	0.51
	<b>24 hour Avg.</b>	<b>0.12</b>	<b>0.16</b>	<b>0.20</b>	<b>0.19</b>	<b>0.22</b>	<b>0.24</b>	<b>0.36</b>	<b>0.35</b>	<b>0.39</b>	<b>0.41</b>	<b>0.45</b>	<b>0.44</b>	<b>0.41</b>	<b>0.47</b>	<b>0.55</b>

**Note:= - Monitoring not conducted.**

## ANNEXURE-II (g)

NH<sub>3</sub> in ug/m<sup>3</sup>24 Hour Standard for Industrial, Residential & Others=400 ug/m<sup>3</sup>

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
Tekka Bench, The Mall, Shimla	6AM-2PM	1.1	0.8	0.6	0.8	0.8	0.7	0.6	0.7	0.9	0.9	0.7	1.0	0.8	0.8	0.8
		1.3	1.2	1.0	1.2	1.0	0.9	1.0	1.0	1.1	1.1	1.2	1.9	1.2	1.2	1.2
	2PM-10PM	1.5	1.8	1.9	1.5	1.6	1.9	2.0	1.2	1.3	1.2	1.4	1.4	1.4	....	1.4
		1.3	2.0	2.2	1.9	1.8	1.7	2.1	1.3	1.7	1.4	1.5	1.0	0.9	1.1	1.3
	10PM-6AM	1.0	1.0	0.9	1.1	0.6	0.8	0.8	1.1	0.8	0.9	1.2	0.9	1.0	1.0	1.1
		0.9	0.8	0.8	0.8	0.9	1.0	0.8	0.6	0.7	0.8	0.9	0.8	0.7	0.8	1.0
24 hour Avg.		1.2	1.3	1.2	1.2	1.1	1.2	1.2	1.0	1.1	1.1	1.2	1.2	1.0	1.0	1.1
Sector-4- Residential Parwanoo	6AM-2PM	0.1	0.3	0.3	0.4	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.3
		0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.3
	2PM-10PM	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3
		0.2	0.2	0.3	0.3	0.3	0.3	0.5	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3
	10PM-6AM	0.3	0.2	0.4	0.3	0.3	0.5	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2
		0.1	0.2	0.3	0.2	0.2	0.4	0.2	0.4	0.2	0.3	0.3	0.3	0.2	0.2	0.3
24 hour Avg.		0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.3
Residential Building Dari Dharamshala	6AM-2PM	0.45	0.52	0.38	0.31	0.32	0.49	0.51	0.77	0.69	0.64	0.63	0.41	0.32	0.41	0.40
	2PM-10PM	0.97	0.90	0.58	0.59	0.54	0.90	0.89	1.07	0.92	0.84	1.02	0.73	0.69	0.58	0.54
	10PM-6AM	0.65	0.26	0.29	0.45	0.46	0.52	0.45	0.51	0.46	0.41	0.50	0.65	0.45	0.33	0.24
	24 hour Avg.	0.69	0.56	0.42	0.45	0.44	0.65	0.62	0.78	0.69	0.63	0.72	0.60	0.49	0.44	0.39

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
Ram Gopal Mandir Damtal	6AM-2PM	0.31	0.33	0.29	0.33	0.33	0.29	0.37	0.45	0.50	0.46	0.42	0.40	0.36	0.38	0.42
	2PM-10PM	0.37	0.46	0.41	0.43	0.46	0.43	0.50	0.67	0.77	0.84	0.58	0.54	0.50	0.51	0.54
	10PM-6AM	0.27	0.24	0.46	0.37	0.32	0.26	0.42	0.56	0.54	0.63	0.46	0.43	0.41	0.43	0.45
	<b>24 hour Avg.</b>	<b>0.32</b>	<b>0.34</b>	<b>0.39</b>	<b>0.38</b>	<b>0.37</b>	<b>0.33</b>	<b>0.43</b>	<b>0.56</b>	<b>0.60</b>	<b>0.64</b>	<b>0.49</b>	<b>0.46</b>	<b>0.42</b>	<b>0.44</b>	<b>0.47</b>
Regional Laboratory, Sunder Nagar	6AM-2PM	3.90	4.20	4.20	1.80	2.10	2.41	1.80	2.70	2.10	2.41	2.41	2.70	2.41	2.41	3.30
		4.00	4.81	4.81	2.41	2.70	3.00	2.70	3.30	2.70	3.00	3.30	3.00	3.30	2.70	3.90
	2PM-10PM	4.81	5.41	5.41	3.90	4.20	3.90	3.60	4.20	3.30	3.90	3.00	2.41	3.90	3.30	3.60
		5.41	6.00	6.00	4.20	3.30	4.20	3.00	4.81	3.90	4.20	3.60	3.90	3.60	3.00	2.70
	10PM-6AM	4.50	4.50	5.11	2.70	3.00	2.70	2.41	3.90	3.00	2.70	2.70	3.30	2.70	3.60	2.41
		3.00	3.90	3.90	2.10	2.41	1.80	2.10	3.60	2.41	2.10	2.10	3.60	2.41	2.70	3.00
<b>24 hour Avg.</b>	<b>4.27</b>	<b>4.80</b>	<b>4.91</b>	<b>2.85</b>	<b>2.95</b>	<b>3.00</b>	<b>2.60</b>	<b>3.75</b>	<b>2.90</b>	<b>3.05</b>	<b>2.85</b>	<b>3.15</b>	<b>3.05</b>	<b>2.95</b>	<b>3.15</b>	
Office Building, Shubkhera, Poanta Sahib	6AM-2PM	1.3	1.2	1.1	1.2	1.3	1.4	1.5	1.8	1.9	1.9	1.9	1.6	1.7	1.4	1.5
		1.3	1.2	1.1	1.2	1.3	1.4	1.5	1.8	1.9	1.9	1.9	1.6	1.7	1.4	1.5
	2PM-10PM	1.4	1.5	1.4	1.4	1.8	1.5	2.1	2.6	2.7	2.0	1.8	1.6	1.8	1.7	1.6
		1.4	1.5	1.4	1.4	1.8	1.5	2.1	2.6	2.7	2.5	1.8	1.6	1.8	1.7	1.6
	10PM-6AM	1.7	0.9	0.9	0.9	1.1	1.4	1.8	1.7	1.8	1.7	2.0	1.7	1.5	1.5	1.3
		1.7	0.9	0.9	0.9	1.1	1.4	1.8	1.7	1.8	1.7	2.0	1.7	1.5	1.5	1.3
<b>24 hour Avg.</b>	<b>1.4</b>	<b>1.2</b>	<b>1.1</b>	<b>1.2</b>	<b>1.4</b>	<b>1.4</b>	<b>1.8</b>	<b>2.0</b>	<b>2.1</b>	<b>2.0</b>	<b>1.9</b>	<b>1.6</b>	<b>1.7</b>	<b>1.5</b>	<b>1.5</b>	
Trilokpur, Kala Amb	6AM-2PM	1.2	1.0	1.1	1.1	1.4	1.4	2.0	1.9	2.0	2.0	1.9	2.0	1.9	1.5	1.8
		1.2	1.0	1.1	1.1	1.4	1.4	2.0	1.9	2.0	2.0	1.9	2.0	1.9	1.5	1.8
	2PM-10PM	1.0	1.2	1.2	1.2	1.2	2.0	1.7	2.5	2.6	2.5	2.1	2.0	2.1	2.0	2.1
		1.0	1.2	1.2	1.2	1.2	2.0	1.7	2.5	2.6	2.5	2.1	2.0	2.1	2.0	2.1
	10PM-6AM	1.1	1.0	1.0	1.0	1.1	1.2	1.6	1.8	2.0	1.9	1.7	1.9	1.7	1.9	2.0
		1.1	1.0	1.0	1.0	1.1	1.2	1.6	1.8	2.0	1.9	1.7	1.9	1.7	1.9	2.0
<b>24 hour Avg.</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.5</b>	<b>1.8</b>	<b>2.1</b>	<b>2.2</b>	<b>2.1</b>	<b>1.9</b>	<b>2.0</b>	<b>1.9</b>	<b>1.8</b>	<b>2.0</b>	

**ANNEXURE-II (g)**

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024
Hadimba Mata Road, Manali	6AM-2PM	1.7	1.7	2.0	2.3	2.1	2.5	2.8	2.9	3.5	2.7	3.1	2.1	1.8	1.8	1.8
	2PM-10PM	2.0	2.0	2.1	2.1	2.5	2.5	2.6	3.4	2.9	3.0	2.5	2.5	2.4	2.5	2.5
	10PM-6AM	1.4	1.4	1.7	1.7	2.0	1.9	2.3	4.0	2.9	2.2	1.7	1.5	1.5	1.8	1.5
	<b>24 hour Avg.</b>	<b>1.7</b>	<b>1.7</b>	<b>1.9</b>	<b>2.0</b>	<b>2.2</b>	<b>2.3</b>	<b>2.6</b>	<b>3.4</b>	<b>3.1</b>	<b>2.7</b>	<b>2.4</b>	<b>2.0</b>	<b>1.9</b>	<b>2.0</b>	<b>1.9</b>
Regional Office, Una	6AM-2PM	13.68	7.28	10.66	6.28	8.33	9.10	9.92	4.89	6.90	5.68	3.13	3.11	5.90	5.87	6.35
		13.68	7.28	10.66	6.28	8.33	9.10	9.92	4.89	6.90	5.68	3.13	3.11	5.90	5.87	6.35
	2PM-10PM	13.87	6.39	10.49	7.96	12.67	13.24	14.79	5.03	7.20	7.72	2.25	4.27	4.52	4.67	7.01
		13.87	6.39	10.49	7.96	12.67	13.24	14.79	5.03	7.20	7.72	2.25	4.27	4.52	4.67	7.01
	10PM-6AM	-	-	-	-	-	-	7.18	2.93	6.24	-	-	-	-	-	-
		-	-	-	-	-	-	7.18	2.93	6.24	-	-	-	-	-	-
<b>24 hour Avg.</b>	<b>13.78</b>	<b>6.84</b>	<b>10.58</b>	<b>7.12</b>	<b>10.50</b>	<b>11.17</b>	<b>10.63</b>	<b>4.28</b>	<b>6.78</b>	<b>6.70</b>	<b>2.69</b>	<b>3.69</b>	<b>5.21</b>	<b>5.47</b>	<b>6.68</b>	
Durga Devi Temple, Nalagarh	6AM-2PM	5.0	4.0	5.0	5.0	4.9	6.4	5.0	6.0	5.3	5.0	6.1	6.0	4.7	7.0	4.7
	2PM-10PM	6.1	5.5	5.0	5.4	4.0	5.0	6.4	6.3	5.0	5.0	6.0	6.1	5.0	6.0	5.0
	10PM-6AM	6.0	4.0	5.0	5.0	4.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	7.4	5.0
	<b>24 hour Avg.</b>	<b>5.7</b>	<b>4.5</b>	<b>5.0</b>	<b>5.1</b>	<b>4.3</b>	<b>5.8</b>	<b>5.8</b>	<b>6.1</b>	<b>5.1</b>	<b>5.0</b>	<b>5.7</b>	<b>5.7</b>	<b>4.9</b>	<b>6.8</b>	<b>4.9</b>

Note: - Monitoring not conducted.



## Annexure-III

## Tekka Bench, Shimla (34)

Date	Regulatory Parameters						Metals in PM10			Proposed New Parameters		
	SO <sub>2</sub> (ug/m <sup>3</sup> )	NO <sub>x</sub> (ug/m <sup>3</sup> )	PM10 (ug/m <sup>3</sup> )	PM 2.5 (ug/m <sup>3</sup> )	O <sub>3</sub> ug/m <sup>3</sup>	NH <sub>3</sub> ug/m <sup>3</sup>	Pb (ug/m <sup>3</sup> )	Ni (ng/m <sup>3</sup> )	As (ng/m <sup>3</sup> )	Metals/Elements in PM 2.5		
										In ug/m <sup>3</sup>		
										Al	Fe	Ba
10/24/2024	20	8.4	35.7	15.0	5.5	1.18	ND	ND	ND	ND	1.06	0.09
10/25/2024	20	9.0	31.0	14.0	5.8	1.27	ND	ND	ND	ND	2.05	0.06
10/26/2024	20	8.7	32.0	13.0	6.1	1.23	ND	ND	ND	ND	1.06	0.08
10/27/2024	20	8.8	53.3	22.0	6.2	1.22	ND	ND	ND	ND	1.78	0.62
10/28/2024	20	7.5	53.7	25.0	6.8	1.12	ND	ND	ND	ND	2.64	3.24
10/29/2024	20	8.0	59.7	19.0	7.2	1.17	ND	ND	ND	ND	1.00	ND
10/30/2024	22	9.4	42.0	15.0	9.4	1.22	ND	ND	ND	ND	1.13	0.63
10/31/2024	29	14.6	65.7	24.0	16.8	0.98	ND	ND	ND	ND	0.80	0.64
11/1/2024	25	11.7	61.3	22.0	15.3	1.08	ND	ND	ND	ND	1.03	1.57
11/2/2024	20	10.5	58.0	16.0	15.4	1.05	ND	ND	ND	ND	1.49	ND
11/3/2024	20	10.4	60.7	15.0	15.1	1.15	ND	ND	ND	ND	1.53	ND
11/4/2024	20	10.1	62.0	20.0	11.7	1.17	ND	ND	ND	ND	1.29	ND
11/5/2024	20	9.7	73.3	27.0	12.1	1.00	ND	ND	ND	ND	0.74	ND
11/6/2024	20	8.9	59.0	22.0	11.8	0.98	ND	ND	ND	ND	0.76	0.05
11/7/2024	20	10.0	81.3	26.0	10.2	1.13	ND	ND	ND	ND	1.10	0.12

## Annexure-III

## Parwanoo, Sector-IV (132)

Regulatory Parameters							Proposed New Parameters					
SO <sub>2</sub> (ug/m <sup>3</sup> )	NO <sub>x</sub> (ug/m <sup>3</sup> )	PM <sub>10</sub> (ug/m <sup>3</sup> )	PM 2.5 (ug/m <sup>3</sup> )	O <sub>3</sub> ug/m <sup>3</sup>	NH <sub>3</sub> ug/m <sup>3</sup>	CO mg/m <sup>3</sup>	Metals in PM <sub>10</sub>			Metals/Elements in PM 2.5		
							Pb (ug/m <sup>3</sup> )	Ni (ng/m <sup>3</sup> )	As (ng/m <sup>3</sup> )	In ug/m <sup>3</sup>		
										Al	Fe	Ba
2.0	7.8	38.0	9.0	1.8	0.19	0.35	ND	ND	ND	ND	0.000	ND
2.0	4.5	64.0	17.0	1.6	0.21	0.37	ND	ND	ND	ND	0.525	228.14
2.0	4.5	91.0	39.0	1.7	0.30	0.67	ND	ND	ND	ND	0.000	5580.30
2.0	4.5	96.0	40.0	2.1	0.30	0.57	ND	ND	ND	ND	1.200	1986.36
2.0	4.5	97.0	41.0	1.8	0.26	0.49	ND	ND	ND	ND	10.890	2423.63
2.0	9.3	86.0	36.0	1.3	0.36	0.56	ND	ND	ND	ND	13.530	492.28
2.0	4.5	133.0	42.0	1.9	0.30	0.41	ND	ND	ND	ND	9.717	1133.72
2.0	4.5	228.0	95.0	1.9	0.29	0.53	ND	ND	ND	ND	0.863	863.94
2.0	4.5	120.0	57.0	3.4	0.27	0.36	ND	ND	ND	ND	12.204	ND
2.0	4.5	101.0	38.0	2.4	0.22	0.38	ND	ND	ND	ND	0	872.31
2.0	4.5	115.0	39.0	1.7	0.31	0.33	ND	ND	ND	ND	2.033	ND
2.0	4.5	109.0	37.0	1.4	0.25	0.37	ND	ND	ND	ND	1.887	145.08
2.0	4.5	143.0	37.0	2.5	0.26	0.52	ND	ND	ND	ND	0.933	28138.20
2.0	4.5	155.0	40.0	1.9	0.21	0.47	ND	ND	ND	ND	2.27	136.98
2.0	4.5	195.0	42.0	2.5	0.27	0.52	ND	ND	ND	ND	3.608	ND

## ANNEXURE-III

Residential Building Dari Dharamshala (795)												
Date	Regulatory Parameters						Metals in PM10			Proposed New Parameters		
	SO <sub>2</sub> (ug/m <sup>3</sup> )	NO <sub>x</sub> (ug/m <sup>3</sup> )	PM10 (ug/m <sup>3</sup> )	PM 2.5 (ug/m <sup>3</sup> )	O <sub>3</sub> ug/m <sup>3</sup>	NH <sub>3</sub> ug/m <sup>3</sup>				Metals/Elements in PM 2.5		
							In ug/m <sup>3</sup>					
							Pb (ug/m <sup>3</sup> )	Ni (ng/m <sup>3</sup> )	As (ng/m <sup>3</sup> )	Al	Fe	Ba
10/24/2024	2 (BDL)	6.78 (BDL)	45.3	24.0	1.9	0.69	ND	ND	ND	ND	0.276	5.009
10/25/2024	2 (BDL)	6.86 (BDL)	37.0	22.0	1.6	0.56	0.007	ND	ND	ND	0.024	0.864
10/26/2024	2 (BDL)	6.86 (BDL)	44.7	27.0	1.5	0.42	ND	ND	ND	ND	ND	0.028
10/27/2024	2 (BDL)	7.52 (BDL)	66.0	40.0	1.4	0.45	0.175	ND	ND	ND	0.053	0.097
10/28/2024	2 (BDL)	7.38 (BDL)	75.0	45.0	1.5	0.44	0.008	ND	ND	ND	0.165	0.575
10/29/2024	2 (BDL)	8.87 (BDL)	62.0	41.0	1.9	0.65	ND	ND	ND	ND	ND	0.242
10/30/2024	2 (BDL)	8.84 (BDL)	68.0	41.0	2.0	0.62	0.222	ND	ND	ND	ND	0.213
10/31/2024	2 (BDL)	11.6	113.0	41.0	2.4	0.78	0.549	ND	ND	ND	0.031	1.578
11/1/2024	2 (BDL)	10.4	64.0	38.0	2.0	0.69	ND	ND	ND	ND	ND	0.213
11/2/2024	2 (BDL)	9.2	58.0	29.0	1.9	0.63	ND	ND	ND	ND	ND	0.195
11/3/2024	2 (BDL)	7.74 (BDL)	51.0	30.0	1.8	0.72	ND	ND	ND	ND	0.106	0.277
11/4/2024	2 (BDL)	8.94 (BDL)	48.0	21.0	1.8	0.60	ND	ND	ND	ND	0.166	0.337
11/5/2024	2 (BDL)	8.42 (BDL)	75.0	38.0	1.8	0.49	ND	ND	ND	ND	ND	0.050
11/6/2024	2 (BDL)	7.63 (BDL)	70.0	42.0	1.5	0.44	ND	ND	ND	ND	ND	0.013
11/7/2024	2 (BDL)	7.11 (BDL)	62.0	26.0	1.5	0.39	ND	ND	ND	ND	ND	0.085

## ANNEXURE-III

Ram Gopal Mandir, Damtal (271)														
Date	Regulatory Parameters							CO mg/m <sup>3</sup>	Metals in PM10			Proposed New Parameters		
	SO <sub>2</sub> (ug/m <sup>3</sup> )	NO <sub>x</sub> (ug/m <sup>3</sup> )	PM10 (ug/m <sup>3</sup> )	PM 2.5 (ug/m <sup>3</sup> )	O <sub>3</sub> ug/m <sup>3</sup>	NH <sub>3</sub> ug/m <sup>3</sup>	Metals/Elements in PM 2.5							
							Pb (ug/m <sup>3</sup> )		Ni (ng/m <sup>3</sup> )	As (ng/m <sup>3</sup> )	In ug/m <sup>3</sup>			
							Al	Fe	Ba					
10/24/2024	2 (BDL)	7.27 (BDL)	59.0	28.0	0.9	0.32	0.42	ND	ND	ND	ND	0.105	0.192	
10/25/2024	2 (BDL)	6.93 (BDL)	60.0	30.0	1.0	0.34	0.43	ND	ND	ND	ND	ND	0.593	
10/26/2024	2 (BDL)	6.71 (BDL)	62.0	32.0	1.1	0.39	0.39	0.015	ND	ND	ND	ND	0.178	
10/27/2024	2 (BDL)	7.45 (BDL)	58.0	29.0	1.1	0.38	0.70	0.023	ND	ND	ND	ND	0.248	
10/28/2024	2 (BDL)	6.6 (BDL)	58.0	27.0	1.0	0.37	0.57	ND	ND	ND	ND	ND	0.238	
10/29/2024	2 (BDL)	6.53 (BDL)	62.0	34.0	1.1	0.33	0.53	0.084	ND	ND	ND	ND	0.21	
10/30/2024	2 (BDL)	7.90 (BDL)	82.0	32.0	1.2	0.43	0.51	ND	ND	ND	ND	ND	0.242	
10/31/2024	2 (BDL)	8.57 (BDL)	98.0	37.0	1.6	0.56	0.42	ND	ND	ND	ND	ND	1.02	
11/1/2024	2 (BDL)	8.13 (BDL)	129.0	39.0	1.8	0.60	0.42	ND	ND	ND	ND	ND	0.061	
11/2/2024	2 (BDL)	8.94 (BDL)	74.0	32.0	1.8	0.64	0.46	ND	ND	ND	ND	ND	0.084	
11/3/2024	2 (BDL)	7.75 (BDL)	42.0	27.0	1.6	0.49	0.44	ND	ND	ND	ND	ND	0.069	
11/4/2024	2 (BDL)	7.01 (BDL)	55.0	28.0	1.4	0.46	0.77	ND	ND	ND	ND	ND	0.081	
11/5/2024	2 (BDL)	6.49 (BDL)	66.0	30.0	1.2	0.42	0.90	ND	ND	ND	ND	ND	0.072	
11/6/2024	2 (BDL)	7.08 (BDL)	72.0	32.0	1.2	0.44	0.87	ND	ND	ND	ND	ND	0.072	
11/7/2024	2 (BDL)	6.93 (BDL)	65.0	29.0	1.1	0.47	0.93	ND	ND	ND	ND	ND	0.097	

## ANNEXURE-III

Regional Office, Sunder Nagar (665)

Date	Regulatory Parameters						Metals in PM10			Proposed New Parameters		
	SO <sub>2</sub> (ug/m <sup>3</sup> )	NO <sub>x</sub> (ug/m <sup>3</sup> )	PM10 (ug/m <sup>3</sup> )	PM 2.5 (ug/m <sup>3</sup> )	O <sub>3</sub> ug/m <sup>3</sup>	NH <sub>3</sub> ug/m <sup>3</sup>	Pb (ug/m <sup>3</sup> )	Ni (ng/m <sup>3</sup> )	As (ng/m <sup>3</sup> )	Metals/Elements in PM 2.5		
										In ug/m <sup>3</sup>		
										Al	Fe	Ba
10/24/2024	0.8	6.4	72.0	34.0	0.8	4.27	ND	ND	ND	ND	ND	0.057
10/25/2024	0.8	6.7	57.0	27.0	0.8	4.80	ND	ND	ND	ND	ND	0.325
10/26/2024	0.8	6.7	72.0	35.0	0.9	4.91	ND	ND	ND	ND	ND	0.122
10/27/2024	0.9	6.6	125.0	56.0	0.8	2.85	ND	ND	ND	ND	0.112	ND
10/28/2024	0.8	6.6	93.0	24.0	0.8	2.95	ND	ND	ND	ND	0.088	0.225
10/29/2024	1.0	6.8	76.0	36.0	0.8	3.00	ND	ND	ND	ND	ND	0.283
10/30/2024	0.8	6.6	98.0	45.0	0.8	2.60	ND	ND	ND	ND	0.151	0.324
10/31/2024	1.1	7.3	106.0	52.0	0.9	3.75	ND	ND	ND	ND	0.159	1.075
11/1/2024	0.9	7.4	122.0	59.0	0.9	2.90	ND	ND	ND	ND	0.144	0.228
11/2/2024	1.0	7.5	77.0	40.0	0.9	3.05	ND	ND	ND	ND	ND	0.265
11/3/2024	1.0	6.4	92.0	49.0	0.7	2.85	ND	ND	ND	ND	ND	0.225
11/4/2024	0.8	5.9	86.0	43.0	0.8	3.15	ND	ND	ND	ND	ND	0.372
11/5/2024	0.8	5.8	92.0	38.0	0.8	3.05	ND	ND	ND	ND	ND	0.081
11/6/2024	0.8	6.4	92.0	43.0	0.8	2.95	ND	ND	ND	ND	ND	0.294
11/7/2024	0.9	6.6	102.0	52.0	0.9	3.15	ND	ND	ND	ND	0.123	0.163

## ANNEXURE-III

Office Building, Shubkhera, Poanta Sahib (117)

Date	Regulatory Parameters							Metals in PM10			Proposed New Parameters		
	SO <sub>2</sub> (ug/m <sup>3</sup> )	NO <sub>x</sub> (ug/m <sup>3</sup> )	PM10 (ug/m <sup>3</sup> )	PM 2.5 (ug/m <sup>3</sup> )	O <sub>3</sub> ug/m <sup>3</sup>	NH <sub>3</sub> ug/m <sup>3</sup>	CO mg/m <sup>3</sup>	Pb (ug/m <sup>3</sup> )	Ni (ng/m <sup>3</sup> )	As (ng/m <sup>3</sup> )	Metals/Elements in PM 2.5		
											In ug/m <sup>3</sup>		
											Al	Fe	Ba
10/24/2024	4.1	8.1	128.4	42.0	3.2	1.43	0.64	0.01	BDL	BDL	BDL	0.3	1.94
10/25/2024	4.3	8.2	105.7	22.2	3.5	1.19	0.58	BDL	BDL	BDL	BDL	BDL	1.84
10/26/2024	4.4	8.6	117.6	28.1	3.4	1.14	0.59	BDL	BDL	BDL	BDL	0.05	0.28
10/27/2024	4.8	8.7	123.7	30.4	3.4	1.17	0.43	BDL	BDL	BDL	BDL	BDL	0.48
10/28/2024	4.9	8.9	124.4	29.2	3.7	1.41	0.25	BDL	BDL	BDL	BDL	BDL	6.30
10/29/2024	5.2	9.0	118.9	44.5	3.8	1.44	0.46	BDL	BDL	BDL	BDL	0.24	BDL
10/30/2024	5.3	9.4	129.3	56.1	3.8	1.80	0.79	BDL	BDL	BDL	BDL	0.26	BDL
10/31/2024	6.0	10.1	167.2	53.2	4.1	2.03	0.34	0.42	8.0	BDL	BDL	0.04	BDL
11/1/2024	6.3	10.4	122.7	42.6	4.1	2.11	0.39	0.075	14.0	BDL	BDL	1.79	1.23
11/2/2024	5.8	9.5	73.0	30.9	3.8	1.96	0.87	0.01	8.0	BDL	BDL	0.53	2.32
11/3/2024	5.5	8.8	97.4	18.9	3.1	1.92	0.51	0.07	7.0	BDL	BDL	0.62	9.22
11/4/2024	4.3	7.6	95.7	53.5	3.1	1.63	0.60	0.052	BDL	BDL	BDL	0.04	47.22
11/5/2024	4.0	8.2	127.2	45.7	3.2	1.69	0.45	0.073	BDL	BDL	BDL	1.62	BDL
11/6/2024	4.1	8.4	125.8	44.1	3.3	1.53	0.74	0.057	6.0	BDL	BDL	0.88	28.10
11/7/2024	3.7	7.8	128.5	35.0	3.2	1.49	0.43	0.059	BDL	BDL	BDL	0.78	3.41

## ANNEXURE-III

## Trilokpur, Kala Amb (530)

Date	Regulatory Parameters							Metals in PM10			Proposed New Parameters		
	SO <sub>2</sub> (ug/m <sup>3</sup> )	NO <sub>x</sub> (ug/m <sup>3</sup> )	PM10 (ug/m <sup>3</sup> )	PM 2.5 (ug/m <sup>3</sup> )	O <sub>3</sub> ug/m <sup>3</sup>	NH <sub>3</sub> ug/m <sup>3</sup>	CO mg/m <sup>3</sup>	Pb (ug/m <sup>3</sup> )	Ni (ng/m <sup>3</sup> )	As (ng/m <sup>3</sup> )	Metals/Elements in PM 2.5		
											In ug/m <sup>3</sup>		
											Al	Fe	Ba
10/24/2024	4.6	9.1	24.2	8.2	2.7	1.10	0.95	0.013	BDL	BDL	BDL	BDL	2.87
10/25/2024	4.7	8.9	31.3	18.0	3.2	1.07	0.72	BDL	BDL	BDL	BDL	0.69	16.81
10/26/2024	4.5	8.8	45.1	26.4	3.1	1.10	0.64	0.097	BDL	BDL	BDL	BDL	10.52
10/27/2024	4.9	8.8	40.6	19.8	3.1	1.10	0.69	BDL	BDL	BDL	BDL	BDL	BDL
10/28/2024	5.1	9.1	56.5	25.5	3.6	1.23	0.59	BDL	BDL	BDL	BDL	BDL	0.10
10/29/2024	5.0	8.9	55.5	33.3	3.9	1.53	0.62	BDL	BDL	BDL	BDL	BDL	BDL
10/30/2024	5.7	10.0	67.1	33.5	4.0	1.77	0.68	0.015	BDL	BDL	BDL	0.85	0.72
10/31/2024	6.5	10.6	84.2	41.9	4.1	2.07	0.72	0.60	12.0	BDL	1.0	1.01	55.23
11/1/2024	5.3	9.5	52.8	35.0	4.2	2.20	0.70	0.42	10.0	BDL	BDL	0.74	2.06
11/2/2024	5.1	9.1	52.4	25.7	4.1	2.13	0.65	0.18	6.0	BDL	BDL	0.42	0.03
11/3/2024	4.6	8.2	54.4	26.8	3.4	1.90	0.54	0.102	5.0	BDL	BDL	BDL	24.30
11/4/2024	4.0	7.2	51.6	26.9	3.6	1.97	0.46	0.04	BDL	BDL	BDL	0.39	BDL
11/5/2024	4.2	8.5	67.7	25.5	3.8	1.90	0.58	0.1	BDL	BDL	BDL	BDL	58.25
11/6/2024	3.9	7.9	62.9	33.0	3.7	1.80	0.37	0.13	BDL	BDL	BDL	0.81	10.88
11/7/2024	3.9	8.1	92.8	41.0	3.6	1.97	0.52	0.09	7.0	BDL	BDL	BDL	1.32

**ANNEXURE-III**

Date	Regional Office, Una (667)												
	Regulatory Parameters							Metals in PM10			Proposed New Parameters		
	SO2 (ug/m3)	NOx (ug/m3)	PM10 (ug/m3)	PM 2.5 (ug/m3)	O3 ug/m3	NH3 ug/m3	CO mg/m3				Metals/Elements in PM 2.5		
											In ug/m3		
							Pb (ug/m3)	Ni (ng/m3)	As (ng/m3)	Al	Fe	Ba	
10/24/2024	5.2	6.0	84.9	39.4	2.9	13.8	0.2	0.33	ND	ND	ND	0.33	7.78
10/25/2024	3.8	8.6	94.8	39.0	2.4	6.8	0.5	0.14	ND	ND	ND	ND	3.3
10/26/2024	8.1	4.1	109.9	41.2	0.1	10.6	0.1	0.24	ND	ND	ND	ND	8.84
10/27/2024	10.9	5.6	143.9	40.6	0.6	7.1	0.3	ND	ND	ND	ND	ND	38.25
10/28/2024	7.9	4.8	99.3	32.5	4.3	10.5	0.5	0.18	ND	ND	ND	ND	11.93
10/29/2024	5.2	10.8	108.1	28.2	3.7	11.2	0.2	0.070	ND	ND	ND	ND	10.53
10/30/2024	8.0	3.3	86.0	62.5	4.9	10.6	0.4	0.14	ND	ND	ND	ND	5.28
10/31/2024	8.8	6.8	113.3	66.7	6.2	4.3	0.7	0.15	ND	ND	ND	ND	6.66
11/1/2024	9.9	10.0	104.1	79.2	4.2	6.8	1.0	ND	ND	ND	ND	ND	3.41
11/2/2024	6.2	3.2	131.2	68.8	3.5	6.7	1.1	0.09	ND	ND	ND	ND	1.89
11/3/2024	11.2	19.4	84.7	43.8	2.4	2.7	0.3	ND	ND	ND	ND	ND	1.8
11/4/2024	2.3	14.5	64.3	31.3	5.1	3.7	0.3	0.08	ND	ND	ND	ND	4.19
11/5/2024	2.0	8.3	141.1	50.0	1.3	5.2	0.4	ND	ND	ND	ND	ND	0.55
11/6/2024	3.1	9.7	136.2	43.8	2.3	5.5	0.3	0.05	ND	ND	ND	ND	0.52
11/7/2024	4.6	10.2	115.0	37.5	2.1	6.7	0.3	ND	ND	ND	ND	ND	0.34



## ANNEXURE-III

Date	Housing Board, Baddi (563)				MC, Nalagarh (565)				Nehru Park, Manali (670)										
	Regulatory Parameters				Regulatory Parameters				Regulatory Parameters					Metals in PM10			Proposed New Parameters		
	SO2 (ug/m3)	NOx (ug/m3)	PM10 (ug/m3)	PM 2.5 (ug/m3)	SO2 (ug/m3)	NOx (ug/m3)	PM10 (ug/m3)	PM 2.5 (ug/m3)	SO2 (ug/m3)	NOx (ug/m3)	PM10 (ug/m3)	PM 2.5 (ug/m3)	NH3 ug/m3	Metals in PM10			Metals/Elements in PM 2.5		
														Pb (ug/m3)	Ni (ng/m3)	As (ng/m3)	Al	Fe	Ba
														In ug/m3					
													Pb (ug/m3)	Ni (ng/m3)	As (ng/m3)	Al	Fe	Ba	
10/24/2024	2.6	14.9	99.7	41.7	1.9	11.8	85.3	37.5	1.5	4.1	28.0	12.9	1.66	ND	ND	ND	ND	ND	109.359
10/25/2024	2.2	14.3	90.7	41.7	1.7	11.9	88.0	37.4	1.3	4.1	26.4	8.8	1.68	ND	ND	ND	ND	0.052	10.324
10/26/2024	2.2	14.4	89.3	42.5	2.1	12.6	83.3	37.5	1.5	4.5	27.9	9.2	1.93	ND	ND	ND	ND	0.066	173.855
10/27/2024	2.7	14.4	97.8	45.6	2.2	12.8	90.3	41.7	1.5	4.9	30.6	9.5	2.04	ND	ND	ND	ND	ND	9.44
10/28/2024	2.9	14.6	102.7	50.0	1.4	12.8	89.3	41.7	1.6	5.3	44.4	14.9	2.22	ND	ND	ND	ND	ND	11.33
10/29/2024	2.7	13.3	96.0	42.4	1.6	14.0	87.0	37.5	2.4	5.2	46.5	14.0	2.27	ND	ND	ND	ND	ND	558.459
10/30/2024	3.0	14.0	100.7	45.8	2.4	12.8	94.0	41.4	2.9	6.6	49.3	14.8	2.58	ND	ND	ND	ND	0.162	14.643
10/31/2024	3.2	15.2	158.0	59.4	2.7	14.0	142.7	50.9	4.7	11.1	80.4	22.7	3.41	ND	ND	ND	ND	0.178	310.879
11/1/2024	2.7	13.5	110.0	51.0	2.4	12.4	102.0	46.6	3.6	8.8	59.9	14.1	3.10	ND	ND	ND	ND	0.197	154.795
11/2/2024	1.9	12.8	103.0	45.8	1.7	11.2	100.0	41.7	2.5	8.7	52.6	13.6	2.66	ND	ND	ND	ND	0.091	11.533
11/3/2024	1.9	12.5	95.3	41.7	1.4	11.9	89.3	37.5	2.0	6.9	40.1	9.9	2.42	ND	ND	ND	ND	ND	53.551
11/4/2024	2.3	13.6	91.0	45.7	1.8	11.8	86.0	38.2	1.6	5.1	32.6	8.6	2.02	ND	ND	ND	ND	ND	28.93
11/5/2024	2.1	13.0	94.0	45.8	1.5	12.3	86.0	37.5	1.4	4.7	27.7	12.6	1.86	ND	ND	ND	ND	ND	13.391
11/6/2024	2.1	13.2	92.3	50.9	1.4	12.0	80.3	37.5	1.8	5.4	30.1	14.0	2.01	ND	ND	ND	ND	ND	160.041
11/7/2024	2.6	14.2	118.3	54.2	1.5	11.8	85.7	41.7	1.8	4.9	39.3	14.2	1.93	ND	ND	ND	ND	ND	17.24