

Report on Ambient Air Quality and Ambient Noise Monitoring during Diwali, 2020

To study the impact of 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, 2020, from 07.11.2020 to 13.11.2020 (Pre Diwali monitoring), on 14.11.2020 (Diwali Day monitoring) and 15.11.2020 to 21.11.2020 (Post Diwali monitoring). Ambient air quality monitoring at Shimla, Parwanoo, Dharamshala, Damtal (Jassur), Sunder Nagar, Paonta Sahib, Kala Amb Una, Baddi, Nalagarh & Manali were carried out for parameters i.e. Respirable Particulate Matter (PM₁₀), Respirable Particulate Matter (PM_{2.5}), Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x), Ozone (O₃) and Ammonia (NH₃) for 24 hour a day. Ambient air quality monitoring for CO (Carbon Monoxide) was carried out at Shimla, Parwanoo and Dharamshala. Ambient air quality monitoring at Nalagarh was carried out for Respirable Particulate Matter (PM₁₀), Respirable Suspended Particulate Matter (PM_{2.5}), Sulphur Dioxide (SO₂) & Oxides of Nitrogen (NO_x) parameters for 24 hour a day. Ambient air quality at Manali and Baddi was carried out for Respirable Particulate Matter (PM₁₀), Respirable Particulate Matter (PM_{2.5}), Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x) & Ammonia (NH₃) parameters for 24 hour a day. Further, the heavy metal monitoring and analysis was carried out at Shimla for metal i.e. Lead, Nickel, and Arsenic in PM₁₀, and Aluminium, Barium and Iron in PM_{2.5}. The heavy metal monitoring and analysis was also carried out at Parwanoo, Dharamshala, Damtal, Sundernagar, Paonta Sahib and Kala Amb for metal i.e. Lead, Nickel, and Arsenic in PM₁₀, and Aluminium and Iron in PM_{2.5}. Ambient Noise monitoring were also carried out at Shimla, Parwanoo, Paonta Shaib, Una, Dharamshala, Baddi, Kullu, Bilaspur, Kinnaur, Rampur and Chamba. The detail of ambient air & noise monitoring data is enclosed at Annexure- I-II & III.

Ambient Air Quality Monitoring report of Himachal Pradesh during Diwali Festival, 2020 are as under:

SHIMLA

The ambient air quality monitoring at Shimla was carried out at one location Ridge, Shimla. The 24 hour average value of RSPM (PM₁₀) at Ridge was observed 68.3µg/m³ which is below the standard prescribed limit of 100 µg/m³ on Diwali day. The concentration of RSPM (PM₁₀) observed at Shimla during Diwali, 2020 was slightly higher than the concentration of RSPM (PM₁₀) observed during Diwali last year i.e. 68µg/m³. The maximum concentration of RSPM (PM₁₀) in the ambient air on Diwali day was observed as 92.8µg/m³ at Ridge during 2:00PM-10:00PM. Similarly, 24 hour average value of RSPM (PM_{2.5}) at Ridge Shimla was observed 38µg/m³, which is below than standard prescribed limit of 60µg/m³ on Diwali day. The concentration of RSPM (PM_{2.5}) observed at Shimla during Diwali, 2020 was comparatively lower than the concentration of RSPM (PM_{2.5}) observed during Diwali last year i.e. 39µg/m³. The concentration of SO₂ and NO_x was also observed well below the prescribed standards of 80µg/m³ for 24 hour at both locations. The average

concentration of SO₂ and NO_x was observed as 2.0 (BDL) & 14.3µg/m³ at Ridge respectively on Diwali day, which was well below the prescribed standard limit of 80µg/m³.

The State Board has started the monitoring of new parameters i.e. O₃, NH₃ & CO from last year. 8 hour average O₃ concentration at Ridge was observed within the standard prescribed limit of 100µg/m³ on Pre Diwali, Diwali & Post Diwali monitoring. The concentration of NH₃ at Ridge was observed 14.3µg/m³ during Diwali day which is below the standard prescribed limit of 400µg/m³. The 8 hour average concentration of CO at Shimla was observed within the standard prescribed limit of 2mg/m³ during Pre Diwali, Diwali & Post Diwali monitoring period.

Further, as per directions issued by the Central Pollution Control Board, the heavy metals monitoring and analysis were also carried out at Capital city. The concentrations of Lead, Nickel & Arsenic in PM₁₀ and Aluminium and Iron in PM_{2.5} at Shimla town were found within the standard prescribed limit during Pre Diwali, Diwali & Post Diwali monitoring period.

PARWANOO

The ambient air quality monitoring at Parwanoo was carried out at one locations i.e. Sector-IV Parwanoo. The 24 hour average RSPM (PM₁₀) concentration at Sector-IV Parwanoo on Diwali day was observed 113.8µg/m³ which are higher than the prescribed standard limit of 100µg/m³. The value of RSPM (PM₁₀) concentration observed on pre-Diwali & post Diwali are within the prescribed limit, shows the impact of bursting of fire crackers and other activities on the ambient air quality on Diwali festival 2020. The maximum concentration of RSPM (PM₁₀) in the ambient air on Diwali was observed as 164.4µg/m³ during 10:00PM-06:00AM. The concentration of RSPM(PM₁₀) at Sector-IV, Parwanoo was observed comparatively much lower than the concentration of RSPM(PM₁₀) observed during Diwali last year i.e. 191µg/m³. Similarly, 24 hour average RSPM (PM_{2.5}) concentration in Parwanoo at Sector-IV was observed 37.7µg/m³ which is within the standard prescribed limit of 60µg/m³ on Diwali day. The concentration of RSPM(PM_{2.5}) 37.7µg/m³ at Sector-IV, Parwanoo was observed comparatively much lower than the concentration of RSPM(PM₁₀) observed during Diwali last year i.e. 56µg/m³. The average concentration of SO₂ and NO_x at Sector-IV, Parwanoo was observed well below the prescribed standards of 80µg/m³ for 24 hour i.e. 2.0 (BDL) & 14.7µg/m³ on Diwali day.

The 8 hour average concentration of O₃ at **Sector-IV, Parwanoo** was observed **within** the standard prescribed limit of 100µg/m³ on Pre Diwali, Diwali day & Post Diwali. The value of NH₃ concentration was observed **0.19µg/m³** on Diwali day are within the prescribed limit of 400µg/m³. 8 hour average concentration of CO was observed within the standard prescribed limit of 2mg/m³ during Pre Diwali, Diwali & Post Diwali monitoring period.

The concentrations of metals Lead, Nickel & Arsenic in PM₁₀ and Aluminium & Iron in PM_{2.5} at Parwanoo 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 period.

DHARAMSHALA

The ambient air quality monitoring at Dharamshala was carried out at one location i.e. Dari, Dharamshala. The 24 hour average RSPM (PM_{10}) concentration at Dari, Dharamshala was observed higher than the prescribed standards of $100\mu\text{g}/\text{m}^3$ i.e. $108\mu\text{g}/\text{m}^3$ during Diwali day. The maximum concentration of RSPM (PM_{10}) in the ambient air on Diwali, 2020 was observed as $189.0\mu\text{g}/\text{m}^3$ during 2:00PM-10:00PM. The concentration of RSPM (PM_{10}) at Dari, Dharamshala was observed comparatively lower than the concentration of RSPM (PM_{10}) observed during Diwali last year $114\mu\text{g}/\text{m}^3$. Similarly, 24 hour average RSPM ($\text{PM}_{2.5}$) concentration was observed $64.0\mu\text{g}/\text{m}^3$ higher than the standard prescribed limit of $60\mu\text{g}/\text{m}^3$ on Diwali day. The concentration of RSPM ($\text{PM}_{2.5}$) at Dari, Dharamshala was observed comparatively lower than the concentration of RSPM ($\text{PM}_{2.5}$) observed during Diwali last year i.e. $82.0\mu\text{g}/\text{m}^3$. The average concentration on Diwali day of SO_2 and NO_x at Dari, Dharamshala was observed well below the prescribed standards of $80\mu\text{g}/\text{m}^3$ for 24 hour i.e. 2.0 (BDL) & $9.1\mu\text{g}/\text{m}^3$ respectively.

The 8 hour average O_3 concentration at Dari, Dharamshala was observed within the standard prescribed limit of $100\mu\text{g}/\text{m}^3$ on Pre Diwali, Diwali day & Post Diwali. The value of NH_3 concentration was observed $0.53\mu\text{g}/\text{m}^3$ on Diwali day is within the prescribed limit of $400\mu\text{g}/\text{m}^3$. 8 hour average concentration of CO at Dari, Dharamshala was observed within the standard prescribed limit of $2\text{mg}/\text{m}^3$ during Pre Diwali, Diwali & Post Diwali monitoring period.

The concentrations of metals Lead, Nickel & Arsenic in PM_{10} and Aluminium & Iron in $\text{PM}_{2.5}$ at Dharamshala town were also found within the standard prescribed limit 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 period.

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_{10}) concentration at Damtal, Jassur was observed below the prescribed standards of $100\mu\text{g}/\text{m}^3$ i.e. $97\mu\text{g}/\text{m}^3$ on Diwali day, 2020. The maximum concentration of RSPM (PM_{10}) in the ambient air was observed as $110\mu\text{g}/\text{m}^3$ on Diwali day during 2:00PM-10:00PM. The concentration of RSPM (PM_{10}) was observed relatively higher than the concentration of RSPM (PM_{10}) observed during Diwali last year $78.0\mu\text{g}/\text{m}^3$. Similarly, 24 hour average RSPM ($\text{PM}_{2.5}$) concentration at Damtal, Jassur was observed $53.0\mu\text{g}/\text{m}^3$ lower than the standard prescribed limit of $60\mu\text{g}/\text{m}^3$ on Diwali day. The concentration of RSPM ($\text{PM}_{2.5}$) $53.0\mu\text{g}/\text{m}^3$ was observed relatively higher than the concentration of RSPM ($\text{PM}_{2.5}$) observed during Diwali

last year i.e. $46.0\mu\text{g}/\text{m}^3$. The average concentration of SO_2 and NO_x was observed as $2.0\mu\text{g}/\text{m}^3$ (BDL) and $9.6\mu\text{g}/\text{m}^3$ respectively on Diwali day.

The 8 hour average O_3 concentration at Damtal was observed within the standard prescribed limit of $100\mu\text{g}/\text{m}^3$ on Pre Diwali, Diwali & Post Diwali monitoring. The value of NH_3 concentration was observed $0.65\mu\text{g}/\text{m}^3$ on Diwali day is within the prescribed limit of $400\mu\text{g}/\text{m}^3$.

The concentrations of metals Lead, Nickel & Arsenic in PM_{10} and Aluminium & Iron in $\text{PM}_{2.5}$ at Damtal 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 period.

SUNDER NAGAR

The ambient air quality monitoring at Sunder Nagar was carried out at one location i.e. Regional Laboratory, SunderNagar. The 24 hour average RSPM(PM_{10}) concentration at Sunder Nagar was observed within the prescribed standards of $100\mu\text{g}/\text{m}^3$ i.e. $100\mu\text{g}/\text{m}^3$ on Diwali day. The concentration of RSPM (PM_{10}) observed during Diwali, 2020 was comparatively lower than the concentration of RSPM (PM_{10}) observed during Diwali last year $113.0\mu\text{g}/\text{m}^3$. The maximum concentration of RSPM (PM_{10}) in the ambient air on Diwali was observed as $132.0\mu\text{g}/\text{m}^3$ during 10:00PM-06:00AM. Similarly, 24 hour average RSPM ($\text{PM}_{2.5}$) concentration was also observed $67.0\mu\text{g}/\text{m}^3$ higher than the standard prescribed limit of $60\mu\text{g}/\text{m}^3$ on Diwali day. The concentration of RSPM ($\text{PM}_{2.5}$) was observed relatively lower than the concentration of RSPM($\text{PM}_{2.5}$) observed during Diwali last year i.e. $75.0\mu\text{g}/\text{m}^3$. The concentration of SO_2 and NO_x was observed well below the prescribed standards of $80.0\mu\text{g}/\text{m}^3$ for 24 hour. The average concentration of SO_2 and NO_x was observed as $2.0\mu\text{g}/\text{m}^3$ (BDL) and $11.2\mu\text{g}/\text{m}^3$ (BDL) which is below the prescribed standard.

The 8 hour average O_3 concentration at Sunder Nagar was observed within the standard prescribed limit of $100\mu\text{g}/\text{m}^3$ on Pre Diwali, Diwali day & Post Diwali. The value of NH_3 concentration was observed $8.41\mu\text{g}/\text{m}^3$ on Diwali day is within the prescribed limit of $400\mu\text{g}/\text{m}^3$.

The concentrations of metals Lead, Nickel & Arsenic in PM_{10} and Aluminium & Iron in $\text{PM}_{2.5}$ at Sunder Nagar 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 period.

PAONTA SAHIB

The ambient air quality monitoring at Paonta Sahib was carried out at one location i.e. office building, Shubkhara, Paonta Sahib. The 24 hour average RSPM(PM_{10}) concentration at Paonta Sahib was observed higher than the prescribed standards of $100\mu\text{g}/\text{m}^3$

i.e. $150.5\mu\text{g}/\text{m}^3$ on Diwali day. The maximum concentration of RSPM(PM_{10}) in the ambient air was observed as $218.5\mu\text{g}/\text{m}^3$ on Diwali day, 2020 during 02:00PM-10:00PM indicating

the impact of bursting of crackers on the ambient air quality. The concentration of RSPM(PM_{10}) was observed relatively lower than the concentration of RSPM(PM_{10}) observed during Diwali last year $156.0\mu\text{g}/\text{m}^3$. Similarly 24 hour average RSPM($\text{PM}_{2.5}$) concentration was also observed $71.7\mu\text{g}/\text{m}^3$ higher than the standard prescribed limit of $60\mu\text{g}/\text{m}^3$ on Diwali day. The concentration of RSPM($\text{PM}_{2.5}$) was observed relatively lower than the concentration of RSPM($\text{PM}_{2.5}$) observed during Diwali last year i.e. $97.0\mu\text{g}/\text{m}^3$. The concentration of SO_2 and NO_x was observed well below the prescribed standards of $80\mu\text{g}/\text{m}^3$ for 24 hour. The average concentration of SO_2 and NO_x was observed as $6.1\mu\text{g}/\text{m}^3$ and $21.1\mu\text{g}/\text{m}^3$ respectively on Diwali day.

The 8 hour average 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 & Post Diwali monitoring. The value of NH_3 concentration was observed $1.93\mu\text{g}/\text{m}^3$ on Diwali day is within the prescribed limit of $400\mu\text{g}/\text{m}^3$.

The concentrations of metals Lead, Nickel & Arsenic in PM_{10} and Aluminium & Iron in $\text{PM}_{2.5}$ at Paonta Sahib 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 period .

KALA AMB

The ambient air quality monitoring at Kala Amb was carried out at one location i.e. Trilokpur. The 24 hour average RSPM(PM_{10}) concentration at Trilokpur was observed higher than the prescribed standards of $100\mu\text{g}/\text{m}^3$ i.e. $102.2\mu\text{g}/\text{m}^3$ on Diwali day. The maximum concentration of RSPM(PM_{10}) was observed as $119.8\mu\text{g}/\text{m}^3$ on Diwali, 2020 during 2:00PM-10:00PM. The concentration of RSPM(PM_{10}) was observed comparatively higher than the concentration of RSPM(PM_{10}) observed during Diwali last year $96\mu\text{g}/\text{m}^3$. Similarly, 24 hour average RSPM($\text{PM}_{2.5}$) concentration was observed $54.6\mu\text{g}/\text{m}^3$ lower than the standard prescribed limit of $60\mu\text{g}/\text{m}^3$ on Diwali day. The concentration of RSPM($\text{PM}_{2.5}$) was observed relatively lower than the concentration of RSPM($\text{PM}_{2.5}$) observed during Diwali last year i.e. $59.0\mu\text{g}/\text{m}^3$. The concentration of SO_2 and NO_x was observed well below the prescribed standards of $80\mu\text{g}/\text{m}^3$ for 24 hour. The average concentration of SO_2 and NO_x was observed as $5.7\mu\text{g}/\text{m}^3$ and $19.1\mu\text{g}/\text{m}^3$ which is below the prescribed standard of $80\mu\text{g}/\text{m}^3$ for 24 hour.

The 8 hour average O_3 concentration at Trilokpur, Kala Amb was observed within the standard prescribed limit of $100\mu\text{g}/\text{m}^3$ on Pre Diwali, Diwali day & Post Diwali. The value of NH_3 concentration was observed $1.52\mu\text{g}/\text{m}^3$ on Diwali day is within the prescribed limit of $400\mu\text{g}/\text{m}^3$.

The concentrations of metals Lead, Nickel & Arsenic in PM₁₀ and Aluminium & Iron in PM_{2.5} at Trilokpur town were also found within the standard prescribed limit of Lead 1.0µg/m³, Arsenic 6.0ng/m³ & Nickel 20.0ng/m³ on Pre Diwali, Diwali & Post Diwali monitoring period.

UNA

The ambient air quality monitoring at Una was carried out at one location i.e. Regional Office, Una. The 24 hour average RSPM(PM₁₀) concentration at Una was also observed lower than the prescribed standards of 100µg/m³ i.e. 85.9µg/m³ on Diwali day. The maximum concentration of RSPM(PM₁₀) in the ambient air was observed as 97.1µg/m³ on Diwali day, 2020 during 10:00PM-6:00AM it indicating the impact of bursting of crackers on the ambient air quality. The concentration of RSPM(PM₁₀) was observed comparatively much higher than the concentration of RSPM(PM₁₀) observed during Diwali last year i.e. 79µg/m³. The concentration of RSPM(PM_{2.5}) 30.4µg/m³ was observed on Diwali day and is within the standard prescribed limit of 60 µg/m³ on Diwali day. The concentration of NH₃ was observed 2.76µg/m which is well below the prescribed standards of 400µg/m³ on Diwali day.

BADDI

The ambient air quality monitoring at Baddi was carried out at one location i.e. Housing Board, Baddi. The 24 hour average RSPM(PM₁₀) concentration at Housing Board, Baddi was observed higher than the prescribed standards of 100 µg/m³ i.e. 150µg/m³ on Diwali day. The concentration of RSPM(PM₁₀) observed during Diwali, 2020 was comparatively much higher than the concentration of RSPM(PM₁₀) observed during Diwali last year i.e. 110.0µg/m³. The maximum concentration of RSPM(PM₁₀) in the ambient air on Diwali was observed as 165µg/m³ during 2:00PM-10:00PM. Similarly 24 hour average RSPM(PM_{2.5}) concentration was also observed 49.8µg/m³ lower than the standard prescribed limit of 60 µg/m³ on Diwali day. The concentration of RSPM(PM_{2.5}) 49.8µg/m³ was observed relatively higher than the concentration of RSPM(PM_{2.5}) observed during Diwali last year 46µg/m³. The average concentration of SO₂ and NO_x was observed as 2.0 µg/m³ (BDL) and 14.8µg/m³ on Diwali which is below the prescribed standard of 80µg/m³ for 24 hour.

The 24 hour average NH₃ concentration at Housing Board, Baddi, was observed 25.13µg/m³ which is within the prescribed standard limit of 400µg/m³ on Diwali day.

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(PM₁₀) concentration at Nalagarh was also observed higher than the prescribed standards of 100 µg/m³ i.e. 107µg/m³ on Diwali day. The concentration of RSPM(PM₁₀) observed during Diwali, 2020 was comparatively higher than the concentration of RSPM(PM₁₀) observed during Diwali last year 92.0µg/m³. The maximum concentration of RSPM(PM₁₀) in the ambient air on Diwali

was observed as $116\mu\text{g}/\text{m}^3$ during 02:00PM-10:00PM. Further; 24 hour average RSPM($\text{PM}_{2.5}$) concentration was observed $33.2\mu\text{g}/\text{m}^3$ within the standard prescribed limit of $60\mu\text{g}/\text{m}^3$ on Diwali day. The average concentration of SO_2 and NO_x was observed as $2.0\mu\text{g}/\text{m}^3$ (BDL) and $21.3\mu\text{g}/\text{m}^3$ on Diwali day.

MANALI

The ambient air quality monitoring at Manali was carried out at one location i.e. Nehru Park, Manali. The 24 hour average RSPM(PM_{10}) concentration at Nehru Park, Manali was observed higher than the prescribed standards of $100\mu\text{g}/\text{m}^3$ i.e. $103.4\mu\text{g}/\text{m}^3$ on Diwali day. The concentration of RSPM(PM_{10}) observed during Diwali, 2020 was comparatively much lower than the concentration of RSPM(PM_{10}) observed during Diwali last year $121.0\mu\text{g}/\text{m}^3$. The maximum concentration of RSPM(PM_{10}) observed was $166.7\mu\text{g}/\text{m}^3$ during 2:00PM-10:00PM on Diwali day indicating the impact of bursting of crackers on the ambient air quality. Similarly 24 hour average RSPM($\text{PM}_{2.5}$) concentration was observed $36.4\mu\text{g}/\text{m}^3$ within the standard prescribed limit of $60\mu\text{g}/\text{m}^3$ on Diwali day. The concentration of RSPM($\text{PM}_{2.5}$) was observed relatively lower than the concentration of RSPM($\text{PM}_{2.5}$) observed during Diwali last year i.e. $40\mu\text{g}/\text{m}^3$. The concentration of SO_2 and NO_x was observed well below the prescribed standards of $80\mu\text{g}/\text{m}^3$ for 24 hour. The average concentration of SO_2 and NO_x was observed as $4.4\mu\text{g}/\text{m}^3$ and $12.9\mu\text{g}/\text{m}^3$ which is below the prescribed standard of $80\mu\text{g}/\text{m}^3$ for 24 hour.

The 24 hour average NH_3 concentration at Nehru Park, Manali was observed $4.54\mu\text{g}/\text{m}^3$ which is within the prescribed standard limit of $400\mu\text{g}/\text{m}^3$ on Diwali day.

Ambient Noise monitoring report of Himachal Pradesh during Diwali Festival, 2020 are as under:

Himachal Pradesh State Pollution Control Board has also conducted ambient noise monitoring on the occasion of Diwali festival, 2020, to study the impact of bursting of crackers and other related activities on 09.11.2020 (Normal day monitoring) and 14.11.2020 (Diwali day monitoring). The data of the ambient noise monitoring observed are summarized as Annexure-I.

SHIMLA

The ambient noise level monitoring was conducted at Ridge during Diwali festival on 09.11.2020 and 14.11.2020. The average ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 09.11.2020 and 14.11.2020 was observed as 47.0 dB(A) and 77.8 dB(A) respectively. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed 110.1dB (A) between 10.00PM to 11.00PM. The ambient noise level 77.8 dB(A) at Shimla was observed lower than the noise level 78.6dB(A) observed during Diwali last year.

PARWANOO

The ambient noise level was monitored at Sector IV, Parwanoo during Diwali festival on 09.11.2020 and 14.11.2020. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 09.11.2020 & 14.11.2020 was observed as 47.8 dB(A) and 67.6dB(A) respectively. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed between 08:00PM to 09:00PM, where noise level (Leq) of 98.7 dB(A) was observed. The ambient noise level 67.6 dB (A) at Parwanoo was observed higher than the noise level 62.4 dB(A) observed during Diwali last year.

BILASPUR

The ambient noise level was monitored at Bilaspur town during Diwali festival on 09.11.2020 and 14.11.2020. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 09.11.2020, 14.09.2020 was observed as 52.9 dB(A) and 61.8 dB(A) respectively. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed between 08:00PM to 09:00PM and ambient noise level of 99.2 dB (A) was observed. The ambient noise level 61.8 dB(A) at Bilaspur was observed higher than the noise level 60.8 dB(A) observed during Diwali last year.

CHAMBA

The ambient noise level was monitored at Regional Office Chamba at Mugla (Residential zone). The ambient noise level (Leq) monitored at RO, Chamba at Mugla (Residential zone), from 18:00hrs-24:00hrs on 09.11.2020 and 14.11.2020 was observed as 43.6 dB(A) and 48.5 dB(A) respectively in residential zone. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed between 08:00PM to 09:00PM where noise level (Leq) of 79.2 dB(A) was observed.

PAONTA SAHIB

The ambient noise level was monitored at HIMUDA Colony, Shubkhera, Paonta Sahib during Diwali festival on 09.11.2020 and 14.11.2020. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 09.11.2020 & 14.11.2020 was observed as 49.9 dB(A) and 62.2 dB(A) respectively. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed between 09:00PM-10:00PM where noise level (Leq) of 97.6 dB(A) was observed. The ambient noise level 62.2 dB(A) at Paonta sahib was observed lower than the noise level 63.9 dB(A) observed during Diwali last year.

UNA

The ambient noise level was monitored at Rakkar Colony, Una (Residential zone) on 09.11.2020 and 14.11.2020 (Pre Diwali and Diwali day).The ambient noise level

(Leq) at Rakkar Colony, Una (Residential zone) was monitored from 18:00hrs-24:00hrs on 09.11.2020 and 14.11.2020 and the values were observed as 36.9 dB(A) and 52.4 dB(A) respectively in Residential zone. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed between 08:00PM to 10:00PM where noise level (Leq) of 88.8dB(A) was observed. The Ambient noise level 52.4 dB(A) at Una was observed higher than the level 46.9 dB(A) observed during Diwali last year.

BADDI

The ambient noise level was monitored at Phase-I, Baddi during Diwali festival on 09.11.2020 and 14.11.2020. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 09.11.2020 & 14.11.2020 was observed as 55.9 dB(A) and 66.8 dB(A) respectively. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed between 10:00PM-11:00PM where noise level (Leq) of 93.7 dB(A) was observed. The ambient noise level 66.8 dB(A) at Phase-I, Baddi for residential zone was observed lower than the noise level 71.7 dB(A) observed during Diwali last year.

RECONG PEO

The ambient noise level was monitored at Recong Peo, District Kinnaur during Diwali festival on 09.11.2020 and 14.11.2020. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 09.11.2020 & 14.11.2020 was observed as 53.8 dB(A), and 83.9 dB(A) respectively. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed between 08:00PM to 09:00PM where noise level (Leq) of 95.8 dB(A) was observed. The ambient noise level 83.9 dB(A) at Recong Peo was observed higher than the noise level 76.3 dB(A) observed during Diwali last year.

RAMPUR BUSHAR

The ambient noise level was monitored at Rampur, Distt. Shimla during Diwali festival on 09.11.2020 and 14.11.2020. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 09.11.2020 & 14.11.2020 was observed as 54.9 dB(A) and 81.2 dB(A) respectively. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed between 08:00PM to 09:00PM where noise level (Leq) of 94.1 dB (A) was observed. The ambient noise level 81.2 dB (A) at Rampur Bushar was also observed marginal higher the noise level 81.1 dB (A) observed during Diwali last year.

DHARAMSHALA

The ambient noise level was monitored on Regional office Dharamshala during Diwali festival on 09.11.2020 and 14.11.2020. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 09.11.2020, 14.11.2020 was observed as 42.5 dB(A) and 59.9 dB(A) respectively. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed between 07:00PM to 08:00PM where noise level

(Leq) of 90.9 dB(A) was observed. The ambient noise level 59.9 dB(A) at Dharamshala was observed lower than the noise level 64 dB(A) observed during Diwali last year.

KULLU

The ambient noise level was monitored near Dhalpur Ground, Kullu during Diwali festival on 09.11.2020 and 14.11.2020. The ambient noise level (Leq) monitored from 18:00hrs-24:00hrs on 09.11.2020 & 14.11.2020 was observed as 46.8 dB(A) and 65.4 dB(A) respectively. The maximum impact of bursting of crackers on the ambient noise level on Diwali day was observed between 07:00PM to 08:00PM where noise level (Leq) of 99.7 dB (A) was observed. The ambient noise level 65.4 dB(A) at near Dhalpur Ground, Kullu was observed higher than the noise level 52.3 dB(A) observed during Diwali last year.

CONCLUSION

The concentration of RSPM (PM₁₀ and PM_{2.5}), NO_x, SO₂, NH₃, O₃ & CO level in the ambient air observed on Diwali, 2020 was comparatively more than the values observed on the normal days which clearly indicates the impact of bursting of fire crackers and other activities on the ambient air quality. During Diwali, 2020 the concentration of SO₂, NO_x, NH₃, O₃ & CO were observed within the standard limit in all the monitoring stations whereas, the concentration of **RSPM(PM₁₀)** has **exceeded** the prescribed standard limit of 100µg/m³ for 24 hour at **Parwanoo, Dharamshala, Paonta Sahib, Kala Amb, Baddi, Nalagarh & Manali** however, the RSPM(PM₁₀) concentration was observed within the **prescribed standard at Shimla, Damtal, Sunder Nagar & Una on Diwali day**. Further, concentration of **RSPM(PM₁₀)** at **Shimla, Damtal, Kala Amb, Una, Baddi and Nalagarh** were observed **more** than the concentration observed during **Diwali, 2019** whereas, concentration of **RSPM(PM₁₀)** at **Parwanoo, Dharamshala, Sundernagar, Paonta Sahib and Manali** stations were observed comparatively **lower** than the concentration of RSPM observed during Diwali, 2019.

Similarly, the Concentration of RSPM(PM_{2.5}) has **exceeded** the prescribed standard limit of 60µg/m³ for 24 hour at **Dharamshala, Sunder Nagar & Paonta Sahib**, however, the RSPM(PM_{2.5}) concentration was observed within the **prescribed standard at Shimla, Parwanoo, Damtal, Kala Amb, Una, Baddi, Nalagarh & Manali on Diwali day**.

There was gradual decrease in the concentration of **RSPM (PM₁₀ & PM_{2.5}), SO₂, NO_x, NH₃, O₃ & CO** after Diwali festival at all the monitoring stations.

Further, as per directions issued by the Central Pollution Control Board, Delhi the **heavy metal analysis** were also carried out in all Laboratories i.e. **Shimla, Parwanoo, Paonta Sahib, Sunder Nagar & Dharamshala**. The concentrations of Lead, Nickel & Arsenic in PM₁₀ and Aluminium, Iron and Barium in PM_{2.5} was monitored at State capital **Shimla** for consecutive 15 days and all parameters were found within the prescribed limit on Pre Diwali, Diwali & Post Diwali period.

The concentrations of Lead, Nickel & Arsenic in PM₁₀ and Aluminium & Iron in PM_{2.5} except Barium was monitored at Central/Regional Laboratories **Parwanoo, Paonta Sahib, Sunder Nagar & Dharamshala** and found within the standard prescribed limit on Pre Diwali, Diwali & Post Diwali period.

It can be concluded from the ambient air quality monitoring carried out by the State Board that on Diwali day **Paonta Sahib and Baddi was highest polluted** and **Shimla at Ridge was cleanest** location/ town in the State with respect to RSPM(PM₁₀) concentration and with respect to RSPM(PM_{2.5}) concentration **Paonta Sahib was highest polluted and Una was cleanest** location/ town. With respect to **SO₂ & NO_x** concentrations all values are within the standard prescribed limit. The **SO₂** concentration was observed highest at **Paonta Sahib 6.1µg/m³** the concentration of **NO_x** was observed highest at **Nalagarh 21.3µg/m³**. The concentrations of **NH₃, O₃ and CO** at all locations were observed within the standard prescribed limit on Pre Diwali, Diwali and Post Diwali monitoring. The Concentration of metals in **Shimla, Parwanoo, Paonta Sahib, Dharamshala and Sunder Nagar** was observed within the standard prescribed limit on Pre Diwali, Diwali and Post Diwali monitoring period.

Annexure-I

Area	Zone	Location	Annexure-I-Data of Noise Level											
			Date						Date					
			09.11.2020						14.11.2020					
			18:00Hrs-24:00Hrs						18:00Hrs-24:00Hrs					
			dB (A) Leq	L _{max}	L _{min}	L ₁₀	L ₅₀	L ₉₀	dB (A) Leq	L _{max}	L _{min}	L ₁₀	L ₅₀	L ₉₀
Shimla	C	Ridge	47.0	74.2	32.1	46.5	42.4	39.3	77.8	110.1	49.0	75.3	56.5	49.3
Parwanoo	R	Sector-4, Parwanoo	47.8	67.3	42.0	49.1	46.0	44.2	67.6	98.7	41.9	64.5	54.7	50.2
Poanta Sahib	R	Himuda Colony, Shubkhera, Poanta Sahib	49.9	64.7	35.9	--	--	--	62.2	97.6	36.1	--	--	--
Una	R	Rakkar Colony	36.9	70.5	12.8	37.8	30.2	25.8	52.4	88.8	21.7	48.9	37.4	30.9
Dharamshala	R	Regional office Dharamshala	42.5	69.2	32.4	--	--	--	59.9	90.9	33.6	--	--	--
Baddi	C/R	Baddi Phase-I	55.9	82.1	40.9	56.2	52.5	47.7	66.8	93.7	36.9	69.5	61.4	52.5
Kullu	C	Near Dhalpur Ground, Kullu	46.8	68.6	41.0	48.5	45.2	43.6	65.4	99.7	41.3	62.8	53.8	49.1
Bilaspur	C/R	Bilaspur Town	52.9	75.6	36.5	--	--	--	61.8	99.2	37.8	--	--	--
Kinnaur	C	Recongpeo (Distt.Kinnaur)	53.8	78.8	32.0	--	--	--	83.9	95.8	55.4	--	--	--
Rampur	C	Rampur Bushar (Distt. Shimla)	54.9	80.0	33.0	--	--	--	81.2	94.1	51.6	--	--	--
Chamba	S	RO Chamba at Mugla	43.6	69.2	19.5	--	--	--	48.5	79.2	23.5	--	--	--

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

ANNEXURE-II (a)

RSPM(PM10) in ug/m³24 Hour Standard for Industrial, Residential & Others=100 ug/m³

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
Ridge Shimla	6AM-2PM	114.1	79.6	80.4	79.0	66.0	65.3	60.3	44.8	34.8	29.6	29.4	24.5	25.1	31.2	31.4
	2PM-10PM	91.1	113.1	89.6	70.5	83.6	86.9	50.5	92.8	56.2	38.5	37.7	35.4	35.9	44.4	35.1
	10PM-6AM	--	72.1	77.7	66.9	57.1	57.6	41.1	66.8	24.2	27.0	28.4	25.1	26.3	16.0	30.3
	24 hour Avg.	103.0	88.3	82.7	72.3	69.3	70.0	50.6	68.3	38.0	32.0	32.0	28.0	29.0	31.0	32.0
Parwanoo, Sector-IV	6AM-2PM	51.2	44.4	47.8	33.6	49.9	51.8	43.8	78.0	112.1	39.4	39.0	49.9	44.1	48.8	48.0
	2PM-10PM	49.4	46.3	48.5	48.5	51.9	50.7	63.3	99.0	62.4	44.8	46.5	46.7	46.5	50.2	51.1
	10PM-6AM	46.4	44.9	54.0	52.9	49.9	52.9	71.7	164.4	52.4	39.3	37.7	41.7	43.1	42.0	46.0
	24 hour Avg.	49.0	45.2	50.1	45.0	50.6	51.8	59.6	113.8	75.7	41.1	41.1	46.1	44.5	47.0	48.4
Dari, Dharamshala	6AM-2PM	44.0	72.0	36.0	52.0	69.0	52.0	41.0	65.0	87.0	41.0	21.0	36.0	36.0	42.0	55.0
	2PM-10PM	82.0	87.0	92.0	73.0	93.0	84.0	98.0	189.0	94.0	47.0	72.0	24.0	84.0	64.0	75.0
	10PM-6AM	31.0	48.0	46.0	23.0	22.0	20.0	33.0	70.0	33.0	39.0	19.0	27.0	28.0	25.0	48.0
	24 hour Avg.	52.0	69.0	58.0	49.0	61.0	52.0	57.0	108.0	71.0	42.0	37.0	29.0	49.0	44.0	59.0
Ram Gopal Mandir, Damtal	6AM-2PM	57.0	67.0	67.0	73.0	65.0	53.0	82.0	85.0	72.0	Rain	24.0	43.0	80.0	72.0	55.0
	2PM-10PM	90.0	55.0	94.0	98.0	92.0	101.0	94.0	110.0	54.0	27.0	52.0	64.0	38.0	85.0	73.0
	10PM-6AM	66.0	81.0	88.0	72.0	69.0	106.0	83.0	95.0	Rain	16.0	49.0	92.0	92.0	43.0	38.0
	24 hour Avg.	71.0	68.0	83.0	81.0	75.0	87.0	86.0	97.0	63.0	22.0	42.0	66.0	70.0	67.0	55.0

ANNEXURE-II (a)

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
Regional Laboratory, Sunder Nagar	6AM-2PM	69.0	82.0	85.0	112.0	73.0	81.0	74.0	73.0	90.0	42.0	71.0	51.0	67.0	61.0	69.0
	2PM-10PM	72.0	88.0	68.0	63.0	62.0	68.0	78.0	95.0	82.0	59.0	38.0	46.0	53.0	49.0	41.0
	10PM-6AM	47.0	61.0	92.0	69.0	90.0	64.0	66.0	132.0	70.0	72.0	39.0	26.0	26.0	50.0	47.0
	24 hour Avg.	63.0	77.0	81.0	81.0	75.0	71.0	73.0	100.0	81.0	58.0	49.0	41.0	49.0	53.0	52.0
Office Building, Shubkhera, Poanta Sahib	6AM-2PM	53.5	85.6	78.6	88.4	57.3	81.9	86.6	100.5	104.0	50.7	38.2	46.3	54.1	58.4	65.4
	2PM-10PM	67.4	94.1	97.5	93.4	107.6	105.4	103.4	218.5	99.4	58.5	58.3	60.2	74.5	67.0	54.8
	10PM-6AM	69.6	109.3	71.9	75.2	75.8	75.8	79.8	132.4	--	44.2	43.4	44.6	50.5	68.0	46.3
	24 hour Avg.	63.5	96.3	82.6	85.7	80.2	87.7	89.9	150.5	101.7	51.1	46.6	50.4	59.7	64.5	55.5
Trilokpur, Kala Amb	6AM-2PM	93.6	60.5	94.7	75.5	78.3	71.6	87.3	95.2	95.6	46.9	57.8	63.3	73.8	66.2	79.9
	2PM-10PM	86.5	78.7	74.5	82.9	84.4	78.3	79.2	119.8	87.0	59.5	59.9	66.7	82.7	82.7	74.0
	10PM-6AM	56.6	80.7	37.4	54.7	50.8	67.1	49.5	91.7	29.1	43.1	37.0	56.6	45.7	40.1	30.1
	24 hour Avg.	78.9	73.3	68.9	71.1	71.1	72.3	72.0	102.2	70.6	49.8	51.5	62.2	67.4	63.0	61.3
Regional Office, Una	6AM-2PM	51.2	54.9	63.4	60.7	61.7	60.1	63.7	72.0	75.4	62.6	54.5	52.4	47.7	50.6	49.6
	2PM-10PM	56.9	62.1	70.8	68.8	66.8	69.1	72.1	88.8	68.1	53.7	65.0	48.4	53.4	60.9	59.2
	10PM-6AM	45.7	57.5	59.2	56.3	58.7	54.6	74.2	97.1	R.F.	58.3	51.6	55.5	45.2	57.1	50.6
	24 hour Avg.	51.3	58.1	64.5	61.9	62.4	61.3	70.0	85.9	71.8	58.2	57.0	52.1	48.8	56.2	53.1
Housing Board, Baddi	6AM-2PM	111.0	92.0	119.0	107.0	115.0	134.0	122.0	130.0	121.0	98.0	78.0	107.0	119.0	140.0	142.0
	2PM-10PM	109.0	156.0	110.0	84.0	148.0	128.0	136.0	165.0	125.0	84.0	60.0	96.0	105.0	92.0	105.0
	10PM-6AM	123.0	108.0	101.0	127.0	128.0	158.0	146.0	157.0	107.0	80.0	95.0	112.0	137.0	122.0	141.0
	24 hour Avg.	114.0	118.0	110.0	106.0	130.0	140.0	134.0	150.0	126.0	87.0	77.0	105.0	120.0	118.0	129.0

ANNEXURE-II (a)

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
Duega Devi Temple, Nalagarh	6AM-2PM	103.0	94.0	81.0	62.0	106.0	76.0	92.0	98.0	67.0	95.0	53.0	64.0	57.0	55.0	96.0
	2PM-10PM	97.0	89.0	100.0	124.0	132.0	133.0	108.0	116.0	79.0	58.0	60.0	66.0	106.0	87.0	78.0
	10PM-6AM	106.0	102.0	121.0	114.0	126.0	81.0	94.0	108.0	64.0	62.0	62.0	57.0	57.0	91.0	79.0
	24 hour Avg.	102.0	95.0	100.0	100.0	121.0	96.0	98.0	107.0	70.0	71.0	58.0	62.0	73.0	77.0	84.0
Manali	6AM-2PM	24.2	25.0	34.9	49.5	49.3	34.5	63.8	85.7	92.6	50.2	26.3	23.7	42.6	29.6	20.3
	2PM-10PM	57.9	25.6	62.9	63.3	61.9	66.7	90.3	166.7	85.0	34.5	41.3	51.5	80.1	45.4	40.4
	10PM-6AM	18.0	17.8	19.9	22.4	21.2	25.6	20.1	57.7	--	22.0	12.3	22.2	27.1	26.5	12.1
	24 hour Avg.	33.4	22.8	39.2	45.1	44.1	42.9	58.1	103.4	88.8	35.6	26.6	32.5	50.0	33.8	24.3

ANNEXURE-II (d)																
RSPM(PM2.5) in ug/m ³																
24 Hour Standard for Industrial, Residential & Others=60 ug/m3																
Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
The Ridge Shimla	24 hour Avg.	32.0	40.0	27.0	27.0	24.0	27.0	25.6	38.0	22.0	12.0	17.0	15.0	13.0	--	16.0
Parwanoo, Sector-IV	24 hour Avg.	10.0	10.7	10.4	10.2	10.7	11.8	17.0	37.7	24.5	8.3	10.1	10.6	10.9	12.7	12.4
Dari, Dharamshala	24 hour Avg.	25.0	37.0	33.0	22.0	27.0	28.0	30.0	64.0	40.0	--	23.0	15.0	25.0	24.0	33.0
Ram Gopal Mandir Damtal	24 hour Avg.	39.0	35.0	45.0	46.0	34.0	45.0	46.0	53.0	35.0	12.0	24.0	38.0	40.0	38.0	30.0
Regional Office, Sunder Nagar	24 hour Avg.	46.0	56.0	57.0	58.0	45.0	45.0	52.0	67.0	53.0	35.0	30.0	24.0	28.0	31.0	29.0
Office Building, Shubkhera, Poanta Sahib	24 hour Avg.	30.9	48.6	31.5	36.5	39.6	42.4	46.0	71.7	47.3	20.0	21.2	25.4	29.8	34.1	33.9
Trilokpur, Kala Amb	24 hour Avg.	42.3	37.5	37.8	34.1	34.7	33.8	33.9	54.6	38.1	26.8	26.5	29.4	34.7	29.4	29.1
Regional Office, Una	24 hour Avg.	18.1	20.2	22.0	23.1	20.5	20.9	24.6	30.4	R.F.	19.4	21.4	18.4	16.9	18.5	19.8
Housing Board, Baddi	24 hour Avg.	29.0	25.0	29.1	29.0	33.2	37.2	33.2	49.8	33.7	20.9	24.9	25.0	28.9	33.2	33.3
Durga Devi Temple, Nalagarh	24 hour Avg.	16.5	13.6	20.8	25.0	20.8	29.2	28.9	33.2	22.6	13.0	12.4	16.7	16.6	24.8	24.9
Manali	24 hour Avg.	12.5	15.1	18.6	18.0	17.5	13.9	27.3	36.4	35.7	19.8	9.3	9.3	10.4	5.1	5.0

ANNEXURE-II (b)

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
Ram Gopal Mandir Damtal	6AM-2PM	4.88	8.67	7.31	7.32	6.91	6.50	6.09	8.13	7.72	Rain	6.91	7.32	6.50	6.10	6.91
		7.72	-	8.13	8.50	8.13	6.91	8.53	9.76	10.16	Rain	7.50	8.13	8.13	6.91	9.35
	2PM-10PM	9.76	8.13	9.34	-	9.76	10.16	11.79	10.57	11.38	Rain	9.99	9.76	10.57	8.54	8.54
		9.35	10.97	10.16	8.94	10.16	7.32	10.98	11.38	Rain	10.57	9.35	10.57	9.35	9.35	10.98
	10PM-6AM	6.50	8.87	8.94	9.76	8.54	5.69	10.57	10.98	Rain	7.72	8.54	8.94	9.76	7.72	10.57
		6.09	7.72	7.72	8.13	8.13	5.28	5.69	6.91	Rain	6.10	7.32	7.72	7.32	7.32	8.13
	24 hour Avg.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	9.6	BDL	BDL	BDL	BDL	BDL	BDL
Regional Office, Sunder Nagar	6AM-2PM	7.58	8.53	6.64	17.05	9.95	12.00	7.57	7.58	7.10	15.16	5.68	4.74	4.26	7.58	3.79
		8.05	12.62	10.73	6.64	8.53	8.05	8.53	13.26	8.53	8.53	6.31	5.68	5.21	9.47	4.74
	2PM-10PM	9.00	10.43	6.16	8.05	6.64	7.58	9.47	12.79	8.53	13.27	8.53	6.64	6.64	9.00	6.64
		9.47	6.64	9.00	9.95	8.05	6.64	9.00	12.32	9.47	8.05	6.64	5.21	7.58	9.95	7.58
	10PM-6AM	6.64	7.58	7.58	10.43	7.58	8.05	7.58	11.84	5.05	5.21	5.68	3.79	4.74	6.64	5.68
		6.16	6.16	8.53	9.00	6.64	7.10	6.16	9.47	--	4.26	4.74	8.52	6.08	5.68	4.74
	24 hour Avg.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	11.2	BDL	BDL	BDL	BDL	BDL	BDL
Office Building, Shubkhera, Poanta Sahib	6AM-2PM	10.98	11.43	9.60	7.77	10.98	10.52	11.43	15.55	16.00	10.06	10.98	10.06	10.52	9.60	10.07
		--	13.72	22.40	15.54	12.80	12.80	13.72	17.84	17.83	10.52	13.72	10.52	11.89	11.89	16.00
	2PM-10PM	--	19.66	19.21	22.87	21.03	21.04	10.98	20.58	15.54	11.43	15.55	16.92	15.55	16.46	14.64
		20.58	18.75	16.00	19.20	18.75	16.00	20.57	29.67	13.71	10.06	14.18	13.72	17.38	17.37	13.72
	10PM-6AM	16.46	16.92	10.98	13.72	13.72	15.09	18.29	22.40	--	9.15	12.80	12.35	12.80	13.72	11.90
		12.80	13.72	11.89	10.52	9.60	11.89	13.26	20.67	--	9.15	10.52	10.52	7.70	8.23	10.52
	24 hour Avg.	15.2	15.7	15.0	14.9	14.5	14.6	14.7	21.1	15.8	10.1	13.0	12.3	12.6	12.9	12.8

ANNEXURE-II (b)

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
Trilokpur, Kala Amb	6AM-2PM	9.15	21.95	8.69	9.60	9.76	10.98	9.76	14.63	13.71	--	10.98	9.61	9.15	10.51	11.44
		14.63	--	21.95	16.00	14.18	16.92	16.00	16.92	15.54	12.80	11.89	12.80	11.43	11.43	12.35
	2PM-10PM	17.38	--	18.75	20.12	20.58	19.66	20.12	19.21	13.41	10.98	12.80	17.38	14.63	16.00	13.73
		15.09	10.37	17.38	18.29	17.84	18.75	19.52	26.35	12.19	10.06	10.98	14.62	17.84	17.38	15.10
	10PM-6AM	20.12	11.89	15.09	15.09	16.46	13.26	14.63	20.58	11.43	9.15	9.60	13.26	14.63	13.72	13.26
		15.09	16.00	9.60	11.89	13.72	12.35	11.43	17.38	10.97	8.69	9.15	13.41	13.72	10.06	11.90
	24 hour Avg.	15.2	15.1	15.2	15.2	15.4	15.3	15.2	19.1	12.9	10.3	10.9	13.5	13.6	13.2	13.0
Housing Board, Baddi	6AM-2PM	14.2	11.3	8.0	8.8	11.6	11.3	8.0	10.9	11.3	5.0	7.5	10.1	6.7	5.9	8.4
		12.2	14.2	11.7	10.9	10.1	13.0	11.1	9.6	8.8	6.7	5.9	6.3	7.5	8.0	10.1
	2PM-10PM	16.3	16.8	11.6	15.5	8.0	9.6	14.2	16.3	14.2	11.3	9.2	11.7	10.5	6.3	11.7
		17.2	19.7	22.6	21.8	21.0	12.2	25.6	19.3	14.2	10.1	10.9	9.6	13.0	9.2	14.2
	10PM-6AM	7.5	24.3	14.2	20.1	15.5	13.0	22.6	21.4	10.9	8.8	12.6	7.6	12.2	10.1	7.1
		10.9	14.2	10.9	14.2	15.9	16.3	20.1	11.6	0.0	7.5	10.1	10.9	10.1	7.5	8.8
	24 hour Avg.	13.1	16.8	13.2	15.2	13.7	12.6	16.9	14.8	11.9	BDL	9.4	9.4	10.0	BDL	10.1
Durga Devi Temple, Nalagarh	6AM-2PM	24.3	8.4	5.4	8.4	18.0	7.5	6.3	10.1	10.1	8.8	4.2	4.6	7.1	4.2	8.0
		19.3	6.7	7.5	10.1	9.6	12.2	9.2	7.5	11.3	8.8	6.7	8.0	5.0	7.6	10.9
	2PM-10PM	10.9	11.3	10.9	12.2	8.4	10.1	16.8	11.3	8.1	11.3	5.4	10.9	9.6	5.9	7.5
		7.5	15.1	13.0	14.7	10.7	12.6	20.1	24.3	0.0	15.9	9.6	8.8	12.2	8.0	10.1
	10PM-6AM	9.2	17.2	15.5	11.3	20.1	15.1	23.5	34.4	0.0	11.6	11.4	7.5	8.8	8.4	10.9
		18.0	14.3	11.7	6.7	12.2	11.7	15.1	40.2	5.8	10.9	9.2	8.8	6.7	7.1	10.9
	24 hour Avg.	14.9	12.2	13.3	10.5	13.2	11.5	15.2	21.3	9.0	11.2	BDL	BDL	BDL	BDL	9.7

ANNEXURE-II (b)

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
Nehru Park, Manali	6AM-2PM	6.35	--	12.68	9.22	8.83	7.36	8.18	12.73	10.46	--	9.09	5.89	5.55	5.89	5.85
		8.18	7.72	10.09	--	9.47	9.17	10.58	15.37	15.20	13.99	12.73	6.81	6.67	9.23	5.75
	2PM-10PM	7.72	7.27	8.22	10.42	7.27	7.72	7.27	16.52	13.64	--	9.09	7.27	7.71	5.29	4.63
		6.81	6.35	7.72	8.18	6.81	6.35	6.81	16.40	13.18	13.68	7.72	5.89	4.13	4.02	5.24
	10PM-6AM	5.89	5.47	6.32	5.89	5.45	5.89	6.35	8.18	--	3.21	3.31	5.45	5.04	4.99	4.43
		5.89	5.45	6.35	5.89	5.45	5.89	6.35	8.18	--	3.21	3.31	4.99	4.99	4.99	4.43
	24 hour Avg.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	12.9	13.1	BDL	BDL	BDL	BDL	BDL

ANNEXURE-II (f)

CO in mg/m³24 Hour Standard for Industrial, Residential & Others=02 mg/m³

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
Ridge Shimla	6AM-2PM	0.2	0.2	1.9	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2
	2PM-10PM	0.2	0.1	1.6	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2
	10PM-6AM	0.2	0.2	2.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2
	24 hour Avg.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Parwanoo, Sector-IV	6AM-2PM	1.02	0.96	0.96	0.70	0.59	0.58	0.56	0.62	0.38	0.87	1.41	0.80	0.56	0.87	0.41
	2PM-10PM	0.87	0.76	0.83	0.61	0.49	0.44	0.50	0.79	0.74	0.98	1.73	0.55	0.42	0.68	0.77
	10PM-6AM	0.89	0.90	0.81	0.57	0.55	0.55	0.60	0.79	0.88	0.89	1.01	0.56	0.45	0.56	0.75
	24 hour Avg.	0.93	0.87	0.87	0.63	0.54	0.52	0.55	0.73	0.67	0.91	1.38	0.64	0.48	0.70	0.64
Dari, Dharamshala	6AM-2PM	0.062	0.083	0.101	0.127	0.096	0.024	0.105	0.115	0.090	0.069	0.058	0.068	0.081	0.074	0.068
	2PM-10PM	0.082	0.103	0.206	0.116	0.168	0.196	0.143	0.146	0.089	0.107	0.092	0.088	0.086	0.081	0.081
	10PM-6AM	0.080	0.102	0.109	0.059	0.040	0.067	0.077	0.120	0.047	0.046	0.045	0.051	0.077	0.072	0.072
	24 hour Avg.	0.08	0.10	0.14	0.10	0.10	0.10	0.11	0.13	0.08	0.07	0.07	0.07	0.07	0.08	0.08

ANNEXURE-II (e)																
O ₃ in ug/m ³																
24 Hour Standard for Industrial, Residential & Others=100 ug/m ³																
Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
Ridge Shimla	6AM-2PM	12.5	6.6	18.0	15.5	15.7	15.2	17.0	10.6	14.8	5.1	29.0	22.4	14.5	13.9	12.5
	2PM-10PM	13.8	37.7	16.9	9.4	16.3	16.1	17.7	15.2	12.8	13.9	27.0	26.6	22.4	15.1	14.0
	10PM-6AM	--	42.0	21.9	7.4	6.8	6.7	12.1	19.0	8.5	9.8	22.0	21.7	13.8	13.2	12.6
	24 hour Avg.	13.1	28.7	18.9	10.8	12.9	12.6	15.6	14.9	12.0	9.6	26.0	23.5	16.9	14.0	13.0
Parwanoo, Sector-IV	6AM-2PM	0.63	0.42	0.38	0.76	0.89	1.10	1.02	1.10	1.41	0.85	0.34	1.10	0.42	0.80	0.46
	2PM-10PM	1.10	0.59	0.51	0.55	0.59	0.76	1.14	1.49	1.02	1.10	0.72	0.55	0.68	0.55	0.72
	10PM-6AM	0.89	0.34	0.34	0.34	0.51	0.80	1.32	1.23	0.80	0.89	1.02	0.76	0.46	0.85	1.02
	24 hour Avg.	0.87	0.45	0.41	0.55	0.66	0.88	1.16	1.27	1.07	0.94	0.69	0.80	0.52	0.73	0.73
Dari, Dharamshala	6AM-2PM	1.53	1.30	2.49	1.17	1.48	1.53	1.66	2.02	1.08	1.83	1.71	1.30	1.57	1.68	1.84
	2PM-10PM	2.11	2.16	2.40	1.93	2.74	3.10	2.88	3.33	1.86	2.10	2.11	1.71	1.94	1.89	2.83
	10PM-6AM	1.44	1.71	1.89	1.71	1.26	1.35	1.53	2.61	1.68	1.71	1.44	1.21	1.21	1.57	1.08
	24 hour Avg.	1.69	1.72	2.26	1.60	1.83	1.99	2.02	2.65	1.54	1.88	1.75	1.41	1.57	1.51	1.92
Ram Gopal Mandir Damtal	6AM-2PM	1.71	2.58	1.12	2.18	1.71	3.06	1.66	2.70	2.20	Rain	1.70	1.30	1.21	1.44	3.19
	2PM-10PM	2.06	1.23	1.44	3.42	2.34	1.48	2.20	4.00	3.06	2.43	2.47	1.71	2.08	2.16	2.92
	10PM-6AM	2.61	1.92	1.84	3.01	2.02	1.80	2.74	2.92	Rain	2.16	1.44	1.89	1.66	1.30	2.96
	24 hour Avg.	2.13	1.91	1.47	2.87	2.02	2.11	2.20	3.21	2.63	2.30	1.96	1.63	1.65	1.63	3.02
Rgional Office, Sunder Nagar	6AM-2PM	4.74	5.60	5.51	5.87	4.82	4.66	5.22	5.06	3.74	4.77	4.66	3.99	3.99	4.32	4.49
	2PM-10PM	4.24	4.16	4.32	4.16	4.49	4.24	4.32	4.91	4.32	4.32	3.82	3.66	3.49	3.99	4.32
	10PM-6AM	3.58	3.41	3.58	3.24	3.41	3.24	3.49	4.16	6.20	2.66	3.49	3.32	2.99	3.33	3.91
	24 hour Avg.	4.19	4.39	4.44	4.42	4.24	4.05	4.34	4.71	4.75	3.92	3.99	3.66	3.49	3.88	4.24

ANNEXURE-II (e)

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
Office Building, Shubkhera, Poanta Sahib	6AM-2PM	1.34	1.01	1.07	1.34	1.54	1.81	1.88	2.98	1.01	0.45	1.01	0.84	0.84	1.31	1.22
	2PM-10PM	2.01	1.17	1.24	1.54	1.64	1.94	2.04	3.95	1.07	1.91	0.84	0.97	1.14	1.98	2.15
	10PM-6AM	1.37	1.41	1.44	1.74	1.81	2.41	2.45	1.96	0.84	1.21	0.91	0.91	0.74	1.41	1.45
	24 hour Avg.	1.57	1.20	1.25	1.54	1.66	2.05	2.12	2.96	0.97	1.19	0.92	0.91	0.90	1.57	1.61
Trilokpur, Kala Amb	6AM-2PM	1.61	1.34	1.80	1.78	1.49	2.08	1.57	2.65	1.34	0.72	1.11	1.17	1.11	1.54	1.28
	2PM-10PM	1.91	1.43	1.88	1.91	1.98	2.15	2.34	3.55	1.31	1.31	0.94	1.37	1.64	2.18	1.74
	10PM-6AM	2.08	1.17	2.08	2.08	2.18	1.74	2.28	1.98	1.17	1.17	0.87	1.39	1.27	1.54	1.54
	24 hour Avg.	1.87	1.31	1.92	1.92	1.88	1.99	2.06	2.73	1.27	1.07	0.97	1.31	1.34	1.75	1.52

ANNEXURE-II (g)

NH₃ in ug/m³

24 Hour Standard for Industrial, Residential & Others=400 ug/m³

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
Ridge Shimla	6AM-2PM	1.60	1.20	4.70	1.50	1.30	1.50	1.90	7.30	1.80	1.50	0.80	0.70	0.70	0.70	0.60
		2.00	1.50	1.60	2.00	2.80	2.60	2.80	7.80	1.60	1.60	2.70	2.70	1.30	1.20	0.90
	2PM-10PM	2.50	1.80	3.30	2.50	4.40	4.20	8.20	16.00	1.30	1.80	3.40	3.30	1.70	1.70	1.60
		2.80	1.30	8.90	3.70	8.40	4.00	10.00	20.60	1.40	1.70	1.70	1.60	1.40	1.30	1.30
	10PM-6AM	--	1.00	0.90	2.80	5.60	2.20	6.10	18.30	1.20	1.20	1.30	1.30	1.00	1.00	1.00
		--	1.10	3.70	2.10	4.50	2.10	5.10	16.00	1.00	1.00	0.60	0.90	0.50	0.70	0.50
24 hour Avg.		2.20	1.30	3.80	2.40	4.50	2.70	5.60	14.30	1.40	1.50	1.70	1.60	1.10	1.10	0.90
Sector-4-Residential Parwanoo	6AM-2PM	0.13	0.07	0.13	0.07	0.10	0.07	0.10	0.12	0.18	0.16	0.10	0.07	0.03	0.18	0.22
		0.10	0.11	0.19	0.13	0.16	0.13	0.15	0.16	0.16	0.13	0.55	0.19	0.10	0.12	0.15
	2PM-10PM	0.16	0.13	0.10	0.10	0.07	0.16	0.19	0.18	0.19	0.18	0.13	0.15	0.07	0.15	0.19
		0.20	0.10	0.13	0.16	0.13	0.11	0.22	0.27	0.22	0.23	1.11	0.22	0.13	0.10	0.12
	10PM-6AM	0.15	0.18	0.07	0.23	0.19	0.21	0.25	0.22	0.25	0.13	0.15	0.13	0.16	0.13	0.10
		0.11	0.15	0.00	0.22	0.15	0.16	0.21	0.17	0.10	0.17	0.10	0.20	0.11	0.11	0.16
24 hour Avg.		0.14	0.12	0.12	0.15	0.13	0.14	0.19	0.19	0.17	0.17	0.19	0.16	0.10	0.13	0.16
Dari, Dharamshala	6AM-2PM	0.15	0.18	0.52	0.15	0.14	0.15	0.23	0.43	0.37	0.26	0.31	0.23	0.36	0.20	0.27
	2PM-10PM	0.23	0.26	0.31	0.23	0.33	0.28	0.37	0.63	0.27	0.46	0.37	0.31	0.35	0.32	0.63
	10PM-6AM	0.19	0.20	0.17	0.26	0.18	0.23	0.17	0.52	0.27	0.29	0.24	0.26	0.27	0.27	0.37
	24 hour Avg.	0.19	0.20	0.33	0.21	0.22	0.22	0.26	0.53	0.30	0.34	0.31	0.27	0.33	0.26	0.42

ANNEXURE-II (g)

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring						
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020
Ram Gopal Mandir Damtal	6AM-2PM	0.17	0.38	0.24	0.28	0.25	0.15	0.55	0.50	0.36	Rain	0.27	0.24	0.24	0.15	0.37
	2PM-10PM	0.22	0.45	0.37	0.46	0.32	0.23	0.27	0.82	0.51	0.46	0.28	0.27	0.36	0.23	0.90
	10PM-6AM	0.28	0.31	0.28	0.31	0.27	0.27	0.43	0.62	Rain	0.31	0.23	0.19	0.32	0.20	0.83
	24 hour Avg.	0.22	0.38	0.35	0.35	0.28	0.22	0.42	0.65	0.44	0.39	0.26	0.23	0.31	0.19	0.70
Regional Office, Sunder Nagar	6AM-2PM	4.81	6.91	6.31	6.00	5.41	6.41	6.81	6.00	4.50	7.80	5.11	5.11	4.50	3.90	6.61
		6.00	6.41	6.81	4.20	6.31	4.80	6.30	10.81	5.41	3.30	8.00	5.41	6.00	5.41	5.71
	2PM-10PM	6.61	5.41	4.50	5.41	4.81	5.41	6.61	9.01	4.81	8.40	5.41	6.00	6.31	6.00	5.41
		6.91	6.00	6.61	5.11	4.20	5.71	7.21	9.31	6.00	4.81	4.81	4.81	6.61	6.61	4.50
	10PM-6AM	5.41	5.11	5.71	2.70	3.60	4.20	6.00	8.41	5.20	3.60	5.11	4.20	5.41	4.50	4.81
		6.00	3.90	5.41	4.81	3.90	4.81	4.81	6.91	--	3.00	4.50	6.00	4.81	3.90	4.20
	24 hour Avg.	5.96	5.62	5.90	4.70	4.70	5.22	6.29	8.41	5.18	5.15	5.49	5.26	5.61	5.05	5.20
Office Building, Shubkhera, Poanta Sahib	6AM-2PM	1.14	1.19	1.20	1.19	1.26	1.34	1.37	1.79	0.60	0.61	0.75	0.68	0.79	0.89	0.96
		1.14	1.19	1.20	1.19	1.26	1.34	1.37	1.79	0.60	0.61	0.75	0.68	0.79	0.89	0.96
	2PM-10PM	1.55	1.26	1.28	1.23	1.29	1.37	1.44	2.64	0.59	0.59	0.78	0.74	0.72	0.93	1.08
		1.55	1.26	1.28	1.23	1.29	1.37	1.44	2.64	0.59	0.59	0.78	0.74	0.72	0.93	1.08
	10PM-6AM	1.52	0.98	1.01	1.37	1.37	1.44	1.43	1.35	0.56	0.56	0.87	0.69	0.56	0.62	0.86
		1.52	0.98	1.01	1.37	1.37	1.44	1.43	1.35	0.56	0.56	0.87	0.69	0.56	0.62	0.86
	24 hour Avg.	1.40	1.14	1.16	1.26	1.31	1.38	1.41	1.93	0.58	0.59	0.80	0.70	0.69	0.81	0.97
Trilokpur, Kala Amb	6AM-2PM	1.65	1.10	1.91	1.37	1.20	1.52	1.18	1.23	0.83	0.65	1.08	0.86	1.01	1.02	1.04
		1.65	1.10	1.91	1.37	1.20	1.52	1.18	1.23	0.83	0.65	1.08	0.86	1.01	1.02	1.04
	2PM-10PM	1.49	1.01	0.49	1.34	1.37	1.73	1.27	1.96	0.86	0.48	0.96	0.93	0.78	1.07	0.80
		1.49	1.01	0.49	1.34	1.37	1.73	1.27	1.96	0.86	0.48	0.96	0.93	0.78	1.07	0.80
	10PM-6AM	1.64	1.56	1.62	1.44	1.35	1.92	1.44	1.37	0.54	0.38	1.16	0.60	0.50	0.60	0.63
		1.64	1.56	1.62	1.44	1.35	1.92	1.44	1.37	0.54	0.38	1.16	0.60	0.50	0.60	0.63
	24 hour Avg.	1.59	1.22	1.34	1.38	1.31	1.72	1.30	1.52	0.74	0.50	1.07	0.80	0.76	0.90	0.82

ANNEXURE-II (g)

Area and Location	Time of sampling	Pre Diwali Monitoring							Diwali Day	Post Diwali Monitoring							
		07.11.2020	08.11.2020	09.11.2020	10.11.2020	11.11.2020	12.11.2020	13.11.2020	14.11.2020	15.11.2020	16.11.2020	17.11.2020	18.11.2020	19.11.2020	20.11.2020	21.11.2020	
Regional Office, Una	6AM-2PM	36.04	34.37	37.17	45.41	--	ND	ND	--	ND	--	ND	ND	ND	ND	ND	ND
		24.17	26.90	30.58	31.90	--	ND	ND	--	ND	--	ND	ND	ND	ND	ND	ND
	2PM-10PM	17.58	ND	23.70	25.72	--	ND	ND	--	0.34	ND	ND	ND	ND	0.71	ND	ND
		ND	17.40	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10PM-6AM	ND	25.58	35.39	27.02	ND	--	--	ND	ND	--	ND	ND	ND	ND	ND	ND
		ND	27.01	ND	--	ND	ND	--	2.76	ND	ND	ND	ND	ND	4.52	ND	ND
	24 hour Avg.	25.93	26.25	31.71	32.51	0.10	0.10	0.10	2.76	0.30	0.10	0.10	0.10	0.10	4.52	0.71	0.10
Housing Board, Baddi	6AM-2PM	24.74	22.80	27.06	27.29	20.41	24.35	40.20	32.75	22.89	24.85	25.37	35.20	43.26	34.41	33.36	
		16.60	22.70	24.55	24.86	22.02	26.16	27.37	25.69	19.09	24.70	27.00	28.65	32.32	28.14	25.12	
	2PM-10PM	15.37	21.03	19.89	19.07	23.39	23.95	26.04	20.37	22.41	26.06	28.80	30.91	27.94	21.80	22.77	
		15.63	20.92	26.04	21.21	23.41	23.05	29.85	20.95	30.25	31.04	48.50	30.70	47.00	26.00	26.10	
	10PM-6AM	22.91	21.09	22.34	20.00	23.42	26.15	22.41	26.73	34.02	27.02	39.90	31.70	41.40	32.90	29.82	
		26.93	19.41	22.08	23.15	19.68	35.81	33.15	23.75	30.23	21.74	35.30	40.40	31.30	31.80	31.60	
	24 hour Avg.	20.35	21.20	22.21	22.64	22.05	26.62	29.72	25.13	26.02	25.90	34.15	32.90	37.20	28.46	28.13	
Manali	6AM-2PM	3.07	2.53	5.13	6.30	4.14	3.35	3.47	4.83	4.79	5.10	2.95	2.91	2.90	3.19	2.91	
	2PM-10PM	3.80	4.14	4.09	5.79	4.14	4.08	4.09	4.73	4.41	5.11	3.78	3.72	4.11	3.51	3.94	
	10PM-6AM	2.70	2.80	2.81	2.70	2.83	2.68	2.90	4.05	--	2.76	2.70	2.68	2.68	2.67	2.66	
	24 hour Avg.	3.19	3.16	4.01	4.93	3.70	3.37	3.48	4.54	4.60	4.32	3.14	3.10	3.23	3.12	3.17	