Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING REPORT – Dated: 6.04.2021

Permissible Limits: $PM_{10} = 100$; $PM_{2.5} = 60$, all units are in $\mu g/m^3$

| | Duration of Sampling | DAYALBAGH | | | | SANJAY PLACE @ 40 feet (Arithmetic Mean) | | | | AIR QUALITY INDEX (AQI) ON THE BASIS OF PM _{2.5} CONCENTRATION | | | |
|---------------------------------|-------------------------|---------------------------------------|------------------------|--|------------------------|---|---------------------|---|------------------------|--|------------------------|---------------------------|------------------------|
| Sampling Site and Height | | PM ₁₀ [μg/m ³] | | PM _{2.5} [μg/m ³] | | PM ₁₀ [µg/m³] Calculated on the basis of PM ₁₀ /PM _{2.5} ratio at Dayalbagh | | PM _{2.5} [μg/m ³] @ 40 feet | | DAYALBAGH | | SANJAY PLACE @ 40 feet | |
| | | Today 6.04.2021 | Yesterday 5.04.2021 | Today 6.04.2021 | Yesterday 5.04.2021 | Today 6.04.2021 | Yesterday 5.04.2021 | Today 6.04.2021 | Yesterday 5.04.2021 | Today 6.04.2021 | Yesterday 5.04.2021 | Today 6.04.2021 | Yesterday 5.04.2021 |
| 4/97 @ 20 feet | 7:15 – 8:15 AM | ✓195↑↑ | 396 | √111 ↓ | 95↑ | 221↑↑ | 519 | 126↑ | 181 | 180 MODERATE | 171 MODERATE | 187 MODERATE | 231 POOR |
| 3/34 @ 40 feet | 8:30 – 9: 30AM | ✓363↓↓ | 176 | √91 ↑ | 98 | 274↑ | 332 | 156↑ | 185 | 169 MODERATE | 173 MODERATE | 206 POOR | 235 POOR |
| Science Faculty @ 20 feet | 10:00 – 11:00AM | √178↑ | 210 | √92↓ | 62 | 273↑ | 335 | 141↓ | 99 | 170 MODERATE | 154 MODERATE | 195 MODERATE | 173 MODERATE |
| Dairy @ 6 feet | 11:45 – 12:45 PM | √176 ↓ | 138 | √ +65↓↓ | 30 | 314 | 317 | 116↓↓ | 69 | 156 MODERATE | 89 SATISFACTORY | 182 MODERATE | 158 MODERATE |
| Control Room @ 6 feet | 1:00 – 2:00 PM | √164↓ | 112 | √ +45↓↓ | 25 | 338↓↓ | 233 | 93↓↓ | 52 | 124 MODERATE | 78 SATISFACTORY | 170 MODERATE | 142 MODERATE |

Sampling was performed on 6.04.2021

NOTE: 1 A continuous study conducted as part of **Dayalbagh Sigma Six Qualities and Values Model** implementation.

2 DEI is using United States Environmental Protection Agency (USEPA) methodology and online calculators to calculate AQI. For fair comparison with UPPCB Sanjay Place Weather Station readings, their PM_{2.5} concentration readings are fed in USEPA online calculator for AQI calculation.

3 Formula for AQI calculation for a Pollutant -

$$I = \frac{I_{\text{high}} - I_{\text{low}}}{C_{\text{high}} - C_{\text{low}}} * (C - C_{\text{low}}) + I_{\text{low}}$$

where, I = Air Quality Index, C=Pollutant Concentration (PM_{2.5}), C_{low} =Concentration Breakpoint \leq C, C_{high} =Concentration Breakpoint \geq C, C_{h

- 4 ↑ Denotes improvement in quality (↓ Inverse)
- $\uparrow \uparrow$ Denotes significant improvement in quality ($\downarrow \downarrow$ Inverse)
- ✔ Denotes Dayalbagh readings are better than or equivalent to Sanjay Place
- +Denotes values are near or within permissible limits

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AIR QUALITY MONITORING REPORT – Dated: 6.04.2021

Location : North of Canal Time : 4: 00 – 5:00 PM

Wind Speed: 7.1 km/h

Permissible Limits: $PM_{10} = 100$; $PM_{2.5} = 60$, all units are in $\mu g/m^3$

| Data Type | PM ₁₀ [μg/m ³] | PM _{2.5} [μg/m ³] | AIR QUALITY INDEX (AQI) ON THE BASIS OF PM _{2.5} CONCENTRATION |
|----------------------------|---------------------------------------|--|---|
| Field Data (TWA) @6feet | √171 | √+ 33 | 95 – SATISFACTORY |
| Sanjay Place @ 40feet | 228 | + 44 | 122 – MODERATE |

Sampling was performed on 5.04.2021

 $NOTE: 1 \ A \ continuous \ study \ conducted \ as \ part \ of \ \textbf{\textit{Dayalbagh Sigma Six Qualities and Values Model}} \ implementation.$

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$$I = \frac{I_{\text{high}} - I_{\text{low}}}{C_{\text{high}} - C_{\text{low}}} * (C - C_{\text{low}}) + I_{\text{low}}$$

where, I = Air Quality Index, C=Pollutant Concentration (PM_{2.5}), C_{low} =Concentration Breakpoint \leq C, C_{high} =Concentration Breakpoint \geq C, C_{low} =Index Break point corresponding to C_{low} , C_{low} =Index Breakpoint corresponding to C_{low} , C_{low} =Index Breakpoint corresponding to C_{low} .

- 4 \uparrow Denotes improvement in quality $(\downarrow$ Inverse)
- $\uparrow \uparrow$ Denotes significant improvement in quality ($\downarrow \downarrow$ Inverse)
- ✔ Denotes Dayalbagh readings are better than or equivalent to Sanjay Place
- +Denotes values are near or within permissible limits