Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 15.12.2021
(BASED ON US-EPA AQI STANDARDS AND THE DAYALBAGH AQI COLOUR CODE)

Permissible Limits (24 Hour Mean) : PM_{10} = 150; $PM_{2.5}$ = 35, all units are in µg/m³

Site Location	Sampling Time (24 hrs)	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)										SANJAY PLACE (ARITHMETIC MEAN DATA)									
		AQI				Meteorological Parameters @ Dayalbagh Today / Yesterday						AQI				Meteorological Parameters @ Sanjay Place Today / Yesterday					
		$PM_{2.5}$		PM_{10}								$PM_{2.5}$		PM_{10}							
		Today Dec 15 – Dec 14	Yesterday Dec 14 – Dec 13	Today Dec 15 – Dec 14	Yesterday Dec 14 – Dec 13	RH %	WS m/s	WD	T °C	SR W/m²	RF mm	Today Dec 15 – Dec 14	Yesterday Dec 14 – Dec 13	Today Dec 15 – Dec 14	Yesterday Dec 14 – Dec 13	RH %	WS m/s	WD	T °C	SR W/m²	RF mm
4 / 97	09:00 am – 09:00am	163 UH	171 UH	108 US	100 M	72 ---- 69	1.5 ---- 1.3	E ---- E	17 ---- 17	45 ---- 50	0 ---- 0	172 UH	176 UH	108 US	114 US	65 ---- 62	1.1 ---- 0.8	SSE ---- SSE	14 ---- 14	85 ---- 103	0 ---- 0
3 / 34	09:00 am – 09:00am	166 UH	161 UH	154 UH	147 US	75 ---- 72	1.4 ---- 1.3	ESE ---- E	16 ---- 16	31 ---- 51	0 ---- 0										
Science Faculty	09:00 am – 09:00 am	179 UH	189 UH	151 UH	111 US	77 ---- 75	2.1 ---- 2.0	SSW ---- SSE	17 ---- 16	42 ---- 48	0 ---- 0										

Views of AQI Group: The PM2.5 readings of Dayalbagh are marginally higher or equal to Sanjay Place. At Vidyut Nagar PM10.0 is same as Sanjay Place. Numerically expressed for 4 out of 6 AQI data points, Dayalbagh is better than Sanjay Place. This is despite higher RH and Temperature at Dayalbagh compared to Sanjay Place. In the reporting time frame, Dayalbagh could have had 35% more water vapour in Ambient Air than Sanjay Place. Upon condensation / coagulation it amplifies pollution by a) Bringing down pollution in the Atmospheric Boundary Layer (ABL) and b) Converts particles of sub PM2.5 µm into bigger particles like PM2.5 and PM10.

Remarks of Revered Chairman-ACE: Frequency of Misting may be increased in respect of 3/34 site-location.

ednesday, 15 December 2021, 10:43 AM

5 December 2021,

Good -G | Moderate- M | ensitive Groups- US | Unhealthy for All-UH | Very Unhealthy for All-VUH | Hazardous for All- H | Hazardous for All-H

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 –

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

where, I = Air Quality Index, C=Pollutant Concentration (PM2.5), Clow=Concentration Breakpoint ≤C, Chigh=Concentration Breakpoint ≥C, Ilow=Index Break point corresponding to Clow, Ihigh=Index Breakpoint corresponding to Chigh