Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 7.8.2022 (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 $\mu g/m^3$ Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

	Date	DAYALBAGH							Date	SANJAY PLACE										
	Today: August 7 – 6 Yesterday	(TIME WEIGHTED AVERAGE DATA)								Todaw	(ARITHMETIC MEAN DATA)									
		Air Quality Index		Meteorological Parameters						Today:	Α	AQI Meteorological Para				ramete	ieters			
		ust 7 – 6	PM2.5 PM10	RH %	WS m/s		и и D С	г	SR W/m ²	DE	August 7 – 6 Yesterday	PM _{2.5}	PM 10	RH %	WS m/s	WD	°C		SR	DE
		day PM _{2.5}				WD		C		mm										Kr
						-	Max	Min			August 6 E						Max	Min	W/m^2	mm
	August 6 – 5						WIAN	WIIII			August o – S						WIAX	14111		
4 / 97	Today	80	42	76	0.6	ESE	35.7	27.3	121	3.8	Today	107	52	71	0.9	N	36.2	29.3	124	0
	Yesterday	70	31	75	0.9	ESE	36.7	28.1	162	0										
3 / 34	Today	99	49	76	0.6	ESE	35.7	27.3	121	3.8										
	Yesterday	87	39	75	0.9	ESE	36.7	28.1	162	0										
Science	Today	84	36	76	0.6	ESE	35.7	27.3	121	3.8	3.8Yesterday0	91	1 44	71	1.3	NNE	36.8	30.2	185	01
Faculty	Yesterday	80	31	75	0.9	ESE	36.7	28.1	162	0										

Good 0 - 50	Moderate 51 - 100	Unhealthy for Sensitive Groups 101 - 150	Unhealthy for All 151 - 200	Very Unhealthy for All 201 - 300		Hazardous for All 301 - 400		Hazardous for All 401 - 500
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Views of AQI Research Group: In comparison to yesterday, concentrations of PM_{2.5} and PM₁₀ have increased at all locations of Dayalbagh. The Air Quality Index w.r.t. PM_{2.5} remains in the *Moderate* category, and in the *Good* category w.r.t. PM₁₀ at all three locations of Dayalbagh.

At Sanjay Place also, the concentrations of both PM_{2.5} and PM₁₀ have increased. The Air Quality Index w.r.t PM_{2.5} has changed from *Moderate* to the *Unhealthy for Sensitive Groups* category and w.r.t PM₁₀ has changed from *Good* to *Moderate* category.

Despite rain, the rise in particulate matter levels is likely due to the predominance of stagnant weather, which is characterized by high relative humidity, low wind speed, and low solar insolation. These conditions limit the dispersion of pollutants and promote the processing of secondary particulate matter in the atmosphere.

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Sunday, 07-08 2022, 05:46 PM Received, Sunday, 07-08-2022, 12:33 PM

NOTE: 1 A continuing 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; I_{low} = Index Break point corresponding to C_{low} ; I_{high} = Index Breakpoint corresponding to C_{high} ; *Multiplication Sign