Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 31.8.2022

(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 µg/m^3 Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

	Date	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)									Date	SANJAY PLACE (ARITHMETIC MEAN DATA)								
		Air Quality Index		Meteorological Parameters								AQI		Meteorological Parameters						
	Today: August 31 – 30 Yesterday August 30 – 29	$PM_{2.5}$	PM_{10}	RH %	WS m/s	WD	T °C Max	T °C Min	SR W/m^2	RF mm	Today: August 31 – 30 Yesterday August 30 – 29	$PM_{2.5}$	PM_{10}	RH %	WS m/s	WD	T °C Max	T °C Min	SR W/m^2	RF mm
4 / 97	Today	46	33	71	0.7	NE	37.9	26.9	174	3.0	Today	95	62	70	1.0	ESE	36.3	28.3	176	11.5
	Yesterday	46	34	74	0.8	E	39.8	27.0	140	2.0										
3 / 34	Today	68	30	71	0.7	NE	37.9	26.9	174	3.0										
	Yesterday	59	29	74	0.8	E	39.8	27.0	140	2.0										
Science Faculty	Today	63	29	71	0.7	NE	37.9	26.9	174	3.0	Yesterday	82	93	73	1.2	NNE	37.9	28	148	14.75
	Yesterday	57	26	74	0.8	E	39.8	27.0	140	2.0										

Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy for All	Very Unhealthy for All	Hazardous for All	Hazardous for All
0 - 50	51 - 100	101 - 150	151 - 200	201 - 300	301 - 400	401 - 500

Views of AQI Research Group: At Dayalbagh sites, the increase in concentrations of $PM_{2.5}$ relative to yesterday might be ascribed to moderate Relative Humidity, low Wind Speed causing stagnation of particulate matter. Marginal decrease in PM_{10} may have occurred due to wash-out of these coarse particles by rain shower. The Air Quality Index w.r.t. $PM_{2.5}$ remains in the *Good* category at Vidyut Nagar and in the *Moderate* category at Science Faculty and Prem Nagar, while w.r.t to PM_{10} it remains in the *Good* category at all three locations of Dayalbagh.

At Sanjay Place $PM_{2.5}$ have increased. The Air Quality Index w.r.t. both $PM_{2.5}$ and PM_{10} remains in the *Moderate* category. (*PM_{10} values were available only till 2:00 am yesterday morning)

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 –

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

where: I = Air Quality Index; C = Pollutant Concentration ($PM_{2.5}$); C_{low} = Concentration Breakpoint ≤C; C_{high} = Concentration Breakpoint ≥C; I_{low} = Index Break point corresponding to C_{low}; I_{high} = Index Breakpoint corresponding to C_{high}; *Multiplication Sign

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