Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 1.9.2022

(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: September 1 – August Yesterday August 31 – 30	$PM_{2.5}$	PM_{10}	RH %	WS m/s	WD	T ˚C Max	T ˚C Min	SR W/m^2	RF mm	Today: September 1 – August Yesterday August 31 – 30	$PM_{2.5}$	PM_{10}	RH %	WS m/s	WD	T ˚C Max	T ˚C Min	SR W/m^2	RF mm
4 / 97	Today	46	35	66	0.7	NNE	41.7	29.1	191	00	Today	97	69	64	1.2	E	39	30.7	204	00
	Yesterday	46	33	71	0.7	NE	37.9	26.9	174	3.0										
3 / 34	Today	66	30	66	0.7	NNE	41.7	29.1	191	00										
	Yesterday	68	30	71	0.7	NE	37.9	26.9	174	3.0										
Science Faculty	Today	63	30	66	0.7	NNE	41.7	29.1	191	00	Yesterday	95	62	70	1.0	ESE	36.3	28.3	176	11.5
	Yesterday	63	29	71	0.7	NE	37.9	26.9	174	3.0										

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, concentrations of $PM_{2.5}$ and PM_{10} are more or less similar to yesterday despite marginal changes in meteorological parameters. 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 concentrations of PM_{10} have appreciably increased. The Air Quality Index w.r.t. both $PM_{2.5}$ and PM_{10} remains in the *Moderate* category.

Better AQI at Dayalbagh relative to Sanjay Place may be attributed to the control measures (misting, spraying and restricted vehicular movement) being adopted at Dayalbagh.

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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