

Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 6.8.2022 (BASED ON US-EPA AQI STANDARDS AND THE DAYALBAGH AQI COLOUR CODE)

Permissible Limits (24 Hour Mean): PM₁₀ = 150; PM_{2.5} = 35, all units are in µg/m³ Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

	Date	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)									Date	SANJAY PLACE (ARITHMETIC MEAN DATA)									
	Today:	Air Quality Index			Meteorological Parameters						Today:	AQI			Meteorological Parameters						
	August 6 – 5										Today										August 5 – 4
	Yesterday	PM _{2.5}	PM ₁₀	RH %	WS m/s	WD	T °C		SR W/m ²	RF mm	Yesterday	PM _{2.5}	PM ₁₀	RH %	WS m/s	WD	T °C		SR W/m ²	RF mm	
						Max	Min										Max	Min			
4 / 97	Today	70	31	75	0.9	ESE	36.7	28.1	162	0	Today	91	44	71	1.3	NNE	36.8	30.2	185	01	
	Yesterday	53	20	79	1.0	SE	36.2	27.2	124	0.75											
3 / 34	Today	87	39	75	0.9	ESE	36.7	28.1	162	0	Yesterday	74	34	73	1.1	S	35.9	28.5	120	0	
	Yesterday	66	25	79	1.0	SE	36.2	27.2	124	0.75											
Science Faculty	Today	80	31	75	0.9	ESE	36.7	28.1	162	0											
	Yesterday	66	21	79	1.0	SE	36.2	27.2	124	0.75											

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 significantly increased at all locations of Dayalbagh. However, 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} still remains in the *Moderate* category and in the *Good* category w.r.t PM₁₀.

The increase in particulate matter concentrations may probably be ascribed to increase in Solar insolation and favourable Humidity conditions which may have promoted atmospheric processing of secondary particulate matter.

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