

Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 28.6.2022

(BASED ON WHO GUIDELINES - 2021)

Permissible Limits (24 Hour Mean): $PM_{10} = 45$; $PM_{2.5} = 15$, all units are in $\mu\text{g}/\text{m}^3$

	Date Today: June 28 – 27 Yesterday June 27 – 26	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)									Date Today: June 28 – 27 Yesterday June 27 – 26	SANJAY PLACE (ARITHMETIC MEAN DATA)								
		Concentration (µg/m³)		Meteorological Parameters								Concentration (µg/m³)		Meteorological Parameters						
		PM _{2.5}	PM ₁₀	RH %	WS m/s	WD	T °C		SR W/m²	RF mm		PM _{2.5}	PM ₁₀	RH %	WS m/s	WD	T °C		SR W/m²	RF mm
	Max						Min	Max			Min									
4 / 97	Today	31↓	48↓	56	3.7	SE	41.2	32.8	162	0	Today	57↓	106↑	49	2.2	NNE	44.3	34.4	241	0
	Yesterday	23	38	54	4.8	SE	40.5	33.0	180	0										
3 / 34	Today	45↓	50↓	57	3.7	SE	41.0	32.6	163	0	Yesterday	52	113	49	3.4	N	43.6	33.9	236	0
	Yesterday	32	38	55	4.8	SE	40.3	32.1	181	0										
Science Faculty	Today	40↓	48↓	57	3.7	SE	41.1	32.6	163	0										
	Yesterday	32	38	55	4.8	SE	40.3	33.2	181	0										

COLOUR-CODE:

Within WHO 2021 Limits

Outside WHO 2021 Limits

Views of AQI Research Group: In comparison to yesterday, the concentrations of $PM_{2.5}$ and PM_{10} have increased at all the three locations of Dayalbagh. Concentrations of $PM_{2.5}$ are outside the WHO permissible limits at all the three locations of Dayalbagh, while that of PM_{10} are within the WHO permissible limits.

At Sanjay Place, concentrations of $PM_{2.5}$ have increased and PM_{10} have decreased, they are outside the WHO permissible limits.

Perused [By Way of Information Only](#),
[Subject To Legalise/Legalese/"Laws of the Land"](#).

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Since WHO (World Health Organization) Guidelines only provide a single value for permissible $PM_{2.5}$ and PM_{10} pollutant concentrations and do not provide concentration bands for the different Air Quality Index (AQI) categories ranging from **Good to Hazardous for All**, as does the US EPA (United States Environmental Protection Agency), the Report 2 annexed based on US EPA norms may be referred to, for [Air Quality Index \(AQI\) & Water Quality Index \(WQI\) categories](#).

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AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 28.6.2022 (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					
	June 28 – 27										Today									
	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
June 27 – 26						Max	Min			June 27 – 26						Max	Min			
4 / 97	Today	91	44	56	3.7	SE	41.2	32.8	162	0	Today	152	76	49	2.2	NNE	44.3	34.4	241	0
	Yesterday	74	35	54	4.8	SE	40.5	33.0	180	0										
3 / 34	Today	124	46	57	3.7	SE	41.0	32.6	163	0	Yesterday	142	80	49	3.4	N	43.6	33.9	236	0
	Yesterday	93	35	55	4.8	SE	40.3	32.1	181	0										
Science Faculty	Today	112	44	57	3.7	SE	41.1	32.6	163	0	Yesterday	142	80	49	3.4	N	43.6	33.9	236	0
	Yesterday	93	35	55	4.8	SE	40.3	33.2	181	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, the concentrations of PM_{2.5} and PM₁₀ have increased at all the three locations of Dayalbagh. The Air Quality Index w.r.t. PM_{2.5} is in the *Moderate* category at Vidyut Nagar and in the *Unhealthy for Sensitive Groups* category at Prem Nagar and Science Faculty, while w.r.t. PM₁₀, it is in the *Good* category at the three locations of Dayalbagh.

At Sanjay Place, concentrations of PM_{2.5} have increased and PM₁₀ have decreased. The Air Quality Index w.r.t. PM_{2.5} is in the *Unhealthy for All* category, while w.r.t. PM₁₀, it is in the *Moderate* category.

Requisite Research Investigations may be carried out expeditiously.

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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