

# Radhasoami Dayal Ki Daya Radhasoami Sahai

## AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 31.5.2022

### (BASED ON WHO GUIDELINES - 2021)

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

	Date Today: May 31 – 30  Yesterday May 30 – 29	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)									Date May 31 – 30  Yesterday May 30 – 29	SANJAY PLACE (ARITHMETIC MEAN DATA)								
		Concentration ( $\mu g/m^3$ )		Meteorological Parameters								Concentration ( $\mu g/m^3$ )		Meteorological Parameters						
		PM <sub>2.5</sub>	PM <sub>10</sub>	RH %	WS m/s	WD	T °C		SR W/m <sup>2</sup>	RF mm		PM <sub>2.5</sub>	PM <sub>10</sub>	RH %	WS m/s	WD	T °C		SR W/m <sup>2</sup>	RF mm
							Max	Min									Max	Min		
4 / 97	Today	15↑	77↑	52	3.3	S	41.1	28.2	140	0	Today	52↑	197↑	46	1.9	ENE	42.8	30.2	203	0
	Yesterday	20	93	62	3.1	SSE	44.3	28.4	134	18.5		Yesterday	54	234	56	2.1	SE	44.8	29.2	166
3 / 34	Today	22↑	49↑	53	3.3	S	40.3	28.4	147	0	Yesterday		54	234	56	2.1	SE	44.8	29.2	166
	Yesterday	28	61	60	3.0	SSE	42.7	28.1	148	18.5		Yesterday	54	234	56	2.1	SE	44.8	29.2	166
Science Faculty	Today	19↑	45↑	53	3.3	S	40.6	28.1	146	0	Yesterday		54	234	56	2.1	SE	44.8	29.2	166
	Yesterday	23	58	64	3.2	SSE	42.0	27.3	138	18.5		Yesterday	54	234	56	2.1	SE	44.8	29.2	166

Within WHO 2021 Limits

Beyond WHO 2021 Limits

**Views of AQI Research Group:** In comparison to yesterday, concentration of both  $PM_{2.5}$  and  $PM_{10}$  have decreased at all locations of Dayalbagh.  $PM_{2.5}$  concentration at Vidyut Nagar and  $PM_{10}$  concentration at Science Faculty are within the WHO permissible limits.

At Sanjay Place also, concentration of  $PM_{2.5}$  and  $PM_{10}$  have decreased but are still beyond the WHO permissible limits.

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) categories.

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## AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 31.5.2022 (BASED ON US-EPA AQI STANDARDS AND THE DAYALBAGH AQI COLOUR CODE)

Permissible Limits (24 Hour Mean): PM<sub>10</sub> = 150; PM<sub>2.5</sub> = 35, all units are in µg/m<sup>3</sup> 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						
		PM <sub>2.5</sub>	PM <sub>10</sub>	RH %	WS m/s	WD	T °C		SR W/m <sup>2</sup>	RF mm		PM <sub>2.5</sub>	PM <sub>10</sub>	RH %	WS m/s	WD	T °C		SR W/m <sup>2</sup>	RF mm
Max	Min						Max	Min												
	Today: May 31 – 30																			
	Yesterday May 30 – 29																			
4 / 97	Today	57	62	52	3.3	S	41.1	28.2	140	0	Today	142	122	46	1.9	ENE	42.8	30.2	203	0
	Yesterday	68	70	62	3.1	SSE	44.3	28.4	134	18.5										
3 / 34	Today	72	45	53	3.3	S	40.3	28.4	147	0										
	Yesterday	84	54	60	3.0	SSE	42.7	28.1	148	18.5										
Science Faculty	Today	66	42	53	3.3	S	40.6	28.1	146	0	Yesterday	147	140	56	2.1	SE	44.8	29.2	166	17
	Yesterday	74	52	64	3.2	SSE	42.0	27.3	138	18.5										

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, concentration of both PM<sub>2.5</sub> and PM<sub>10</sub> have decreased at all locations of Dayalbagh. The Air Quality Index w.r.t. PM<sub>2.5</sub> at all locations of Dayalbagh is in the *Moderate* category, while w.r.t. to PM<sub>10</sub> it is in the *Good* category at Prem Nagar and Science Faculty and *Moderate* at Vidyut Nagar.

PM<sub>2.5</sub> and PM<sub>10</sub> concentrations at Sanjay Place have also decreased compared to yesterday. The Air Quality Index, however remains in the *Unhealthy for Sensitive Groups* category w.r.t. both the particulate pollutants.

Perused By Way of Information Only.  
Subject To Legalise/Legalese/"Laws of the Land".

Tuesday, 31-05-2022, 02:41 PM  
Received, Tuesday, 31-05-2022, 12:23 PM

NOTE: 1 A continuous 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<sub>2.5</sub> 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<sub>2.5</sub>), C<sub>low</sub>=Concentration Breakpoint ≤C, C<sub>high</sub>=Concentration Breakpoint ≥C, I<sub>low</sub>=Index Break point corresponding to C<sub>low</sub>, I<sub>high</sub>=Index Breakpoint corresponding to C<sub>high</sub>

Communicated by Dr. Anita Lakhani, Associate Professor, Department of Chemistry, Faculty of Science, Dayalbagh Educational Institute, Dayalbagh, Agra.