Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 1.6.2022

(BASED ON WHO GUIDELINES - 2021)

Permissible Limits (24 Hour Mean): PM_{10} = 45; $PM_{2.5}$ = 15, all units are in µg/m³

	Date	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)									Date	SANJAY PLACE (ARITHMETIC MEAN DATA)								
		Concentration (µg/m³)		Meteorological Parameters								Concentration (µg/m³)		Meteorological Parameters						
							T°C										T °C			
	Today: June 1 – May 31 / Yesterday: May 31 – 30	$PM_{2.5}$	PM_{10}	RH %	WS m/s	WD	Max	Min	SR W/m²	RF mm	Today: June 1 – May 31 / Yesterday: May 31 – 30	$PM_{2.5}$	PM_{10}	RH %	WS m/s	WD	Max	Min	SR W/m²	RF mm
4 / 97	Today	27↓	145↓↓	47	3.4	SE	41.6	29.0	153	0	Today	88↓	358↓↓	42	2.7	SE	43.7	32	216	0
	Yesterday	15	77	52	3.3	S	41.1	28.2	140	0										
3 / 34	Today	35↓	84↓↓	50	3.4	SE	41.4	28.4	169	0										
	Yesterday	22	49	53	3.3	S	40.3	28.4	147	0	Yesterday	52	197	46	1.9	ENE	42.8	30.2	203	0
Science Faculty	Today	35↓	88↓↓	52	3.4	SE	40.6	27.7	162	0										
	Yesterday	19	45	53	3.3	S	40.6	28.1	146	0										

Within WHO 2021 Limits | Beyond WHO 2021 Limits

Views of AQI Research Group: In comparison to yesterday, concentrations of both $PM_{2.5}$ and PM_{10} have increased significantly at all locations of Dayalbagh and are beyond the WHO permissible limits.

The concentrations of $PM_{2.5}$ and PM_{10} at Sanjay Place have also increased dramatically as compared to yesterday, remaining well 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.

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

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AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 1.6.2022

(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: June 1 – May 31 Yesterday May 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: June 1 – May 31 Yesterday May 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	82	96	47	3.4	SE	41.6	29.0	153	0	Today	168	205	42	2.7	SE	43.7	32	216	0
	Yesterday	57	62	52	3.3	S	41.1	28.2	140	0										
3 / 34	Today	99	65	50	3.4	SE	41.4	28.4	169	0										
	Yesterday	72	45	53	3.3	S	40.3	28.4	147	0	Yesterday	142	122	46	1.9	ENE	42.8	30.2	203	0
Science Faculty	Today	99	67	52	3.4	SE	40.6	27.7	162	0										
	Yesterday	66	42	53	3.3	S	40.6	28.1	146	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: In comparison to yesterday, concentration of both $PM_{2.5}$ and PM_{10} have increased significantly at all locations of Dayalbagh. However, the Air Quality Index w.r.t. both $PM_{2.5}$ and PM_{10} is in the *Moderate* category at all locations of Dayalbagh.

$PM_{2.5}$ and PM_{10} concentrations at Sanjay Place have also increased significantly compared to yesterday. The Air Quality Index is in the *Unhealthy for All* category w.r.t. $PM_{2.5}$ and *Very Unhealthy for All* category w.r.t. PM_{10}.

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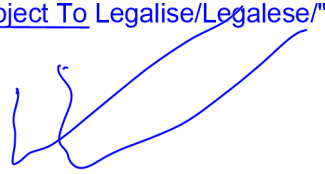
Subject To Legalise/Legalese/"Laws of the Land".



Wednesday, 01-06-2022, 03:00 PM
Received, Wednesday, 01-06-2022, 12:41 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 $PM_{2.5}$ 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 (PM2.5), Clow=Concentration Breakpoint ≤C, Chigh=Concentration Breakpoint ≥C, Ilow=Index Break point corresponding to Clow, Ihigh=Index Breakpoint corresponding to Chigh

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