

# AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 7.10.2022

## (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)

**Today:** 6 -10-2022 to 7 -10-2022 from 9:00 a.m. to 9:00 a.m. **Yesterday:** 5 -10-2022 to 6 -10-2022 from 9:00 a.m. to 9:00 a.m.

L O C A T I O N	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)											SANJAY PLACE (ARITHMETIC MEAN DATA)										
	AQI				Meteorological Parameters							AQI				Meteorological Parameters						
	PM <sub>2.5</sub>		PM <sub>10</sub>		RH %	WS m/s	W D	T °C		SR W/ m²	RF mm	PM <sub>2.5</sub>		PM <sub>10</sub>		RH %	WS m/s	W D	T °C		SR W/ m²	RF mm
								Max	Min										Max	Min		
	Today	Yesterday	Today	Yesterday				Max	Min			Today	Yesterday	Max	Min							
4 / 97	55	25	25	10	85	1.2	SE	27.2	23.0	48	Faint drizzle	53	53	28	31	82	1.6	SE	27.8	23.9	6.3*	0.5
3 / 34	53	38	20	11	85	1.2	SE	27.2	23.0	48	Faint drizzle											
Science Faculty	76	42	31	12	85	1.2	SE	27.2	23.0	48	Faint drizzle											

**Views of AQI Research Group:** The particulate matter concentrations have increased at the Dayalbagh sites, this increase may be attributed to resuspension due to “Dhan Jhadaai” and more traffic movement. The increase is greater at Science Faculty due to its proximity to the “Dhan Jhadaai” sites (Bhandara Ground and Dairy premises). The Air Quality Index has changed to the *Moderate* category w.r.t. PM<sub>2.5</sub> and remains in the *Good* category w.r.t. PM<sub>10</sub>. It is recommended that misting and spraying may be enhanced in and around the “Dhan Jhadaai” sites.

The data for Sanjay Place was now available for the last two days also. The particulate concentrations and the Air Quality indices here remain more or less constant.

Relative Humidity continues to be on the wet side rather on the dry side and it would appear that Mulching, based on somewhat reduced RH on a specific day, was a rather hasty decision!

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



Friday, 07-10-2022, 04:53 PM  
Received, Friday, 07-10-2022, 01:55 PM

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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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<sub>2.5</sub> concentration readings are fed in USEPA online calculator for AQI calculation.

3 Formula for AQI calculation for a Pollutant –

$$I = \frac{I_{\text{high}} - I_{\text{low}}}{C_{\text{high}} - C_{\text{low}}} * (C - C_{\text{low}}) + I_{\text{low}}$$

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>; \*Multiplication Sign