

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 23.10.2022

(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)

Today: 22 -10-2022 to 23 -10-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 21 -10-2022 to 22 -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 _{2.5}		PM ₁₀		RH %	WS m/s	WD	T °C		SR W/ m ²	RF mm	PM _{2.5}		PM ₁₀		R H %	WS m/s	WD	T °C		SR W/ m ²	R F m m
	Today	Yesterday	Today	Yesterday				Max	Min			Today	Yesterday	Today	Yesterday				Ma x	Min		
4 / 97	158	110	89	65	59	0.7	WN W	35.2	19.3	158	0											
3 / 34	158	124	79	59	59	0.7	WN W	35.2	19.3	158	0	177	169	136	132	50	0.2	WNW	35.4	21.8	7.1* (104)	0
Science Faculty	160	147	96	66	59	0.7	WN W	35.2	19.3	158	0											

Views of AQI Research Group: Particulate matter concentrations have increased at all sites of Dayalbagh probably due to change in Wind Direction, stagnant weather and some contribution from firecrackers. The Air Quality Index w.r.t. PM_{2.5} has changed to the *Unhealthy for All* category while, w.r.t. PM₁₀ it remains in the *Moderate* category at all sites of Dayalbagh.

The pollutant concentrations have increased at Sanjay Place also, the Air Quality index still remains in the *Unhealthy for All* category w.r.t. PM_{2.5}, and in the *Unhealthy for Sensitive Groups* category w.r.t. PM₁₀. *SR value recorded at Sanjay Place appears to be erroneous. Value in parentheses is the SR value of Avas Vikas, Bodla, Agra.

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_{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