

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 27.11.2022

(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: 26-11-2022 to 27-11-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 25-11-2022 to 26-11-2022 from 9:00 a.m. to 9:00 a.m.

L O C A T I O N	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)											L O C A T I O N	SANJAY PLACE AND AVAS VIKAS (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		RH %	WS m/s	WD	T °C		SR W/m ²	RF mm
								Max	Min											Max	Min		
	Today	Yesterday	Today	Yesterday										Today	Yesterday	Today	Yesterday						
4 / 97	107	95	56	50	60	0.7	WNW	28.6	11.8	129	0	Sanjay Place	153	147	95	88	50	1.6	NW	27.7	14.8	135	0
3 / 34	99	93	46	41	60	0.7	WNW	28.6	11.8	129	0	Avas Vikas											
Science Faculty	132	117	53	45	60	0.7	WNW	28.6	11.8	129	0		169	157	79	77	58	0.6	NE	28.6	13.0	74	0

Views of AQI Research Group: Particulate matter concentrations have increased at all sites of Dayalbagh. The Air Quality Index w.r.t. PM_{2.5} is in the *Moderate* category at Prem Nagar and in the *Unhealthy for Sensitive Groups* category at Vidyut Nagar and Science Faculty while w.r.t. PM₁₀ it remains in the *Good* category at Prem Nagar and has changed to the *Moderate* category at Vidyut Nagar and Science Faculty.

At Sanjay Place and Avas Vikas, Bodla also the concentrations of Particulate matter have increased, 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 at both the sites.

Why & How the relative category placements of PM 2.5 Microns & PM 10.0 Microns have unexpectedly been reversed for the first time, in fairly long history of their record (~ 107 Years), as available through BARC, ISRO, IARI & IMD?

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

Sunday, 27-11-2022, 05:31 PM
Received, Sunday, 27-11-2022, 12:22 PM

Good
0-50

Moderate
51-100

Unhealthy for Sensitive
Groups

Unhealthy for All
151 - 200

Very Unhealthy for All
201 - 300

Hazardous for All
301 - 400

Hazardous for All
401 - 500

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