

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 10.11.2022

(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: 9-11-2022 to 10-11-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 8-11-2022 to 9-11-2022 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	95	147	49	71	78	0.3	S	30.8	19.3	85	0	Sanjay Place	89	84	66	67	72	0.3	SE	29.3	21.0	92	0
3 / 34	87	154	46	68	78	0.3	S	30.8	19.3	85	0	Avas Vikas	142	153	64	72	83	0.3	E	29.8	19.9	52	0
Science Faculty	99	163	39	81	78	0.3	S	30.8	19.3	85	0												

Views of AQI Research Group: Concentrations of Particulate matter have substantially decreased on account of intense Rainfall yesterday morning. The Air Quality Index w.r.t. PM_{2.5} has improved to the *Moderate* category while w.r.t. PM₁₀ it has improved to the *Good* category at all sites of Dayalbagh.

* At Sanjay Place, concentrations of Particulate matter as recorded are unexpectedly very low as compared to nearby sites. At Avas Vikas, Bodla also Particulate matter concentrations have decreased. The Air Quality Index w.r.t PM_{2.5} has improved to *Unhealthy for Sensitive Groups* category while w.r.t. PM₁₀ although the Air Quality Index has improved but remains in the *Moderate* category.

Considering that recently Dayalbagh Team had tested Sanjay Place Metering by using their own instruments and found it satisfactory, why is there this underlined remark?

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

Thursday, 10-11-2022, 03:00 PM
Received, Thursday, 10-11-2022, 01:28 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

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

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