

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 4.11.2022

(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: 3-11-2022 to 4-11-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 3-11-2022 to 2-11-2022 from 9:00 a.m. to 9:00 a.m.

L O C A T I O N	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)											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/ m²	RF mm	PM _{2.5}		PM ₁₀		R H %	WS m/s	W D	T °C		SR W/ m²	R F m m
								Max	Min										Max	Min		
	Today	Yesterday	Today	Yesterday								Today	Yesterday	Today	Yesterday							
4 / 97	204	137	141	71	66	0.3	WN W	34.9	18.7	101	0	175	181	157	176	55	0.5	N	34.5	22.1	120	0
3 / 34	263	156	148	68	66	0.3	WN W	34.9	18.7	101	0											
Science Faculty	263	164	148	75	66	0.3	WN W	34.9	18.7	101	0											

Views of AQI Research Group: Hourly inspection of the data revealed that concentrations of particulate matter increased yesterday due to stagnant meteorological conditions associated with increase in Relative Humidity, decrease in Solar Radiation and Wind Speed. In addition, stubble burning activities in the States of Punjab, Haryana and UP are contributing to elevated levels of particulate matter (Wind Direction is WNW, favouring transport of pollutants from these regions). The Air Quality Index w.r.t. PM_{2.5} has changed to *Very Unhealthy for All* category while, w.r.t. PM₁₀ it has changed to *Unhealthy for Sensitive Groups* category at all sites of Dayalbagh.

At Sanjay Place concentrations of particulate matter have decreased, but the Air Quality Index w.r.t. to both PM_{2.5} and PM₁₀ remains in the *Unhealthy for All* category.

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

Friday, 04-11-2022, 04:22 PM
Received, Friday, 04-11-2022, 02:22 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