AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 22.10.2022 (BASED ON US-EPA AQI STANDARDS AND THE DAYALBAGH AQI COLOUR CODE)

Permissible Limits (24 Hour Mean): $PM_{10} = 150$; $PM_{2.5} = 35$, all units are in $\mu g/m^3$ Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

Today: 21 -10-2022 to 22 -10-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 20 -10-2022 to 21 -10-2022 from 9:00 a.m. to 9:00 a.m.

L O C A T I O N				TED AVERAGE DATA) Meteorological Parameters T C										AY PLACE FIC MEAN DATA) Meteorological Parameters T °C								
	Today	Yesterday	Today	Yesterday	RH %	WS m/s	WD	Max	Min	SR W/ m²	RF mm	Today	Yesterday	Today	Yesterday	R H %	WS m/s	WD	Ma x	Min	SR W/ m²	R F m
4 / 97 3 / 34	110 124	95 99	65 59	61 53	60 60	0.5 0.5	w w	36.5 36.5	19.3 19.3	212 212	0	169	156	132	105	50	0.2	N	35.7	22.9	5.6*	0
Science Faculty	147	129	66	60	60	0.5	W	36.5	19.3	212	0										(101)	

Views of AQI Research Group: Particulate matter concentrations have increased at all sites of Dayalbagh probably due change in Wind Direction and stagnant weather. The Air Quality Index w.r.t. PM_{2.5} has changed to the *Unhealthy for Sensitive Groups* category at Vidyut Nagar and Prem Nagar but still remains in this category as yesterday at Science Faculty 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

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 -

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

where: I = Air Quality Index; C = Pollutant Concentration (PM_{2.5}); C_{low} = Concentration Breakpoint $\leq C$; C_{high} = Concentration Breakpoint $\geq C$; C_{high} = Index Breakpoint corresponding to C_{low} ; C_{low} = Index Breakpoint corresponding to C_{high} ; *Multiplication Sign