AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 18.11.2022 (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: 17-11-2022 to 18-11-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 16-11-2022 to 17-11-2022 from 9:00 a.m. to 9:00 a.m.

L O	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)												SANJAY PLACE AND AVAS VIKAS (ARITHMETIC MEAN DATA)										
C A T	PM _{2.5}		QI PM ₁₀			Me	teorolo	~	Paran ℃	ieters		A T I	PM _{2.5}		QI PM ₁₀			Met	teorolo	ogical I		eters	
O N	Today	Yesterday	Today	Yesterday	RH %	WS m/s	WD	Max	Min	SR W/m²	RF mm	O N	Today	Yesterday	Today	Yesterday	RH %	WS m/s	WD	Max	Min	SR W/m²	RF mm
4 / 97	134	129	61	65	60	1.0	WNW	27.1	13.6	127	0	Sanjay Place	147	134	80	79	51	1.5	NW	27.0	15.9	131	0
3 / 34	134	129	58	62	60	1.0	WNW	27.1	13.6	127	0	Avas Vikas		139	66	63	57	0.8	ENE	27.0	13.8	77	
Science Faculty	139	142	56	66	60	1.0	WNW	27.1	13.6	127	0		149										0

Views of AQI Research Group: Particulate matter concentrations have marginally increased at Vidyut Nagar and Prem Nagar and lowered at Science Faculty probably due to misting from DEI Gate to Jubilee Gate. At all Dayalbagh locations, the Air Quality Index continues to fall into the *Unhealthy for Sensitive Groups* category w.r.t. PM_{2.5} and the *Moderate* category w.r.t. PM₁₀, respectively.

At Sanjay Place and Avas Vikas, Bodla also concentrations of Particulate matter have increased with marginal increase in Relative Humidity and drop in Temperature. The Air Quality Index at both of these sites remains in the *Unhealthy for Sensitive Groups* category w.r.t $PM_{2.5}$ and in the *Moderate* category w.r.t. PM_{10} .

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_{low} = Index Breakpoint corresponding to C_{low} ; C_{low} ; C_{low} ; C_{low} = Index Breakpoint corresponding to C_{high} ; *Multiplication Sign