AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 9.11.2022 (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:7-11-2022 to 8-11-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 6-11-2022 to 7-11-2022 from 9:00 a.m. to 9:00 a.m.

L	DAYALBAGH (TIME WEIGHTED AVERAGE DATA) AQI Meteorological Parameters												AVAS VIKAS, BODLA (ARITHMETIC MEAN DATA) AQI Meteorological Parameters									
O C A T	PM _{2.5}		PM ₁₀						T CC			PM _{2.5}		PM ₁₀			1,10		°(
O N	Today	Yesterday	Today	Yesterday	RH %	WS m/s	WD	Max	Min	SR W/ m ²	RF mm	Today	Yesterday	Today	Yesterday	R H %	WS m/s	W D	Max	Min	SR W/ m²	R F m
4 / 97	147	144	71	71	58	0.9	SSE	35.2	18.2	104	21.6											
3 / 34	154	149	68	71	58	0.9	SSE	35.2	18.2	104	21.6	154	153	72	72	60	0.8	SE	35.5	17.5	65	0
Science Faculty	163	158	81	71	58	0.9	SSE	35.2	18.2	104	21.6											

Views of AQI Research Group: Concentrations of Particulate matter have marginally changed as compared to yesterday. The Air Quality Index w.r.t. PM_{2.5} remains in the *Unhealthy for Sensitive Groups* category at Vidyut Nagar and Prem Nagar but remains in the *Unhealthy for All* category at Science Faculty, while w.r.t. PM₁₀ it remains in the *Moderate* category at all sites of Dayalbagh.

At Avas Vikas, Bodla also there is a minor change in Particulate matter concentrations. The Air Quality Index w.r.t $PM_{2.5}$ is in the *Unhealthy for All* category while w.r.t PM_{10} it is in the *Moderate* category. The Rainfall sensor of this site also appears to be non-functional.

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 -

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

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