AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 17.10.2022
(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 µg/m^3 Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

Today: 16 -10-2022 to 17 -10-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 15 -10-2022 to 16 -10-2022 from 9:00 a.m. to 9:00 a.m.

LOCATION	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 Max	T °C Min	SR W/m²	RF mm	$PM_{2.5}$		PM_{10}		RH %	WS m/s	WD	T °C Max	T °C Min	SR W/m²	RF mm
	Today	Yesterday	Today	Yesterday								Today	Yesterday	Today	Yesterday							
4 / 97	156	152	79	84	67	1.3	SW	36.2	20.5	168	0											
3 / 34	155	152	69	76	67	1.3	SW	36.2	20.5	168	0	170	180	134	138	58	0.2	WNW	34.8	23.3	6.1* (95)	0
Science Faculty	161	157	70	96	67	1.3	SW	36.2	20.5	168	0											

Views of AQI Research Group: There is a marginal increase in concentrations of particulate matter at all the sites of Dayalbagh which may be due to change in Wind Direction. The Air Quality Index remains in the *Unhealthy for All* category w.r.t. $PM_{2.5}$, and in the *Moderate* category w.r.t. PM_{10} at all sites of Dayalbagh.

The pollutant concentrations have marginally decreased at Sanjay Place, though Wind Direction remains the same here. The Air Quality index remains in the *Unhealthy for All* category w.r.t. $PM_{2.5}$, and in the *Unhealthy for Sensitive Groups* category w.r.t. PM_{10}. *SR value recorded at Sanjay Place appears to be erroneous. Value in parentheses is the SR value of Avas Vikas, Bodla, Agra.

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

Tuesday, 18-10-2022, 01:17 AM
Received, Monday, 17-10-2022, 01:48 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.