AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 15.10.2022
(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: 14 -10-2022 to 15 -10-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 13 -10-2022 to 14 -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		SR W/m^2	RF mm	PM$_{2.5}$		PM$_{10}$		RH %	WS m/s	WD	T °C		SR W/m^2	RF mm
	Today	Yesterday	Today	Yesterday				Max	Min			Today	Yesterday	Today	Yesterday				Max	Min		
4 / 97	142	95	66	49	74	1.4	WNW	31.8	21.3	167	0	161	152	109	87							
3 / 34	142	97	62	48	74	1.4	WNW	31.8	21.3	167	0	161	152	109	87	63	0.2	SW	33.0	23.1	6.1* (108)	0
Science Faculty	154	107	65	42	74	1.4	WNW	31.8	21.3	167	0	161	152	109	87							

Views of AQI Research Group: The concentrations of particulate matter have increased at all the sites of Dayalbagh due to low Wind Speed resulting in less dispersion. The Air Quality Index has changed to *Unhealthy for Sensitive Groups* category at Vidyut Nagar and Prem Nagar and to the *Unhealthy for All* category at Science Faculty w.r.t. PM$_{2.5}$, while w.r.t. PM$_{10}$ it has changed to the *Moderate* category at all sites of Dayalbagh.

The pollutant concentrations have also increased at Sanjay Place also. The Air Quality index w.r.t. PM$_{2.5}$ remains in the *Unhealthy for All* category, while w.r.t. PM$_{10}$ it has changed to *Unhealthy for Sensitive Groups* category. *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".

Saturday, 15-10-2022, 02:35 PM
Received, Saturday, 15-10-2022, 12:38 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.