AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 28.10.2022

(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: 27 -10-2022 to 28 -10-2022 from 9:00 a.m. to 9:00 a.m. **Yesterday:** 26 -10-2022 to 27 -10-2022 from 9:00 a.m. to 9:00 a.m.

LOCATION	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)											AVAS VIKAS, BODLA, AGRA (ARITHMETIC MEAN DATA)										
	AQI				Meteorological Parameters							AQI				Meteorological Parameters						
	$PM_{2.5}$		PM_{10}					T °C				$PM_{2.5}$		PM_{10}					T °C			
	Today	Yesterday	Today	Yesterday	RH %	WS m/s	WD	Max	Min	SR W/m^2	RF mm	Today	Yesterday	Today	Yesterday	RH %	WS m/s	WD	Max	Min	SR W/m^2	RF mm
4 / 97	151	151	108	100	59	0.3	SW	38.3	18.4	146	0	174	231	95	127	58	0.4	E	36.4	19.0	103	0
3 / 34	158	156	105	98	59	0.3	SW	38.3	18.4	146	0											
Science Faculty	168	160	121	118	59	0.3	SW	38.3	18.4	146	0											

Views of AQI Research Group: Particulate concentrations have marginally increased at all Dayalbagh sites probably due to change in Wind Direction. The Air Quality Index w.r.t. $PM_{2.5}$ remains in the *Unhealthy for All* category while, w.r.t. PM_{10} it remains in the *Moderate* category at Vidyut Nagar and Prem Nagar and in the *Unhealthy for Sensitive Groups* category at Science Faculty.

Particulate concentrations have decreased at Avas Vikas, Bodla, Agra. The Air Quality Index w.r.t. $PM_{2.5}$ has improved to the *Unhealthy for All* category, while w.r.t. PM_{10} it has improved to the *Moderate* category. The PM_{10} levels at Dayalbagh sites may be higher in comparison to Avas Vikas probably due to agricultural activities there being no in the neighbourhood of Avas Vikas, Bodla Monitoring Station (unlike Dayalbagh)

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

Friday, 28-10-2022, 05:22 PM
Received, Friday, 28-10-2022, 01:43 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.