AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 17.11.2022
(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: 16-11-2022 to 17-11-2022 from 9:00 a.m. to 9:00 a.m. **Yesterday:** 15-11-2022 to 16-11-2022 from 9:00 a.m. to 9:00 a.m.

LOCATION	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)											LOCATION	SANJAY PLACE AND AVAS VIKAS (ARITHMETIC MEAN DATA)										
	AQI				Meteorological Parameters								AQI				Meteorological Parameters							
	$PM_{2.5}$		PM_{10}		RH %	WS m/s	WD	T ˚C		SR W/m²	RF mm		$PM_{2.5}$		PM_{10}		RH %	WS m/s	WD	T ˚C		SR W/m²	RF mm
	Today	Yesterday	Today	Yesterday				Max	Min				Today	Yesterday	Today	Yesterday				Max	Min		
4 / 97	129	152	65	72	58	0.9	WNW	29.3	14.1	107	0	Sanjay Place	134	160	79	112	56	0.8	NW	28.3	16.3	112	0
3 / 34	129	153	62	69	58	0.9	WNW	29.3	14.1	107	0	Avas Vikas	139	164	63	88	51	0.8	ENE	28.2	14.0	66	0
Science Faculty	142	154	66	69	58	0.9	WNW	29.3	14.1	107	0												

Views of AQI Research Group: Concentrations of Particulate matter have decreased at all sites of Dayalbagh due to more favourable Wind Direction i.e., WNW compared to less favourable WSW Wind Direction yesterday, decrease in Relative Humidity and a marginal increase in Wind Speed. The Air Quality Index w.r.t. $PM_{2.5}$ has improved to the *Unhealthy for Sensitive Groups* category, while w.r.t. PM_{10} it remains in the *Moderate* category at all sites of Dayalbagh.

At Sanjay Place and Avas Vikas, Bodla also concentrations of Particulate matter have decreased. At Sanjay Place, the Air Quality Index w.r.t $PM_{2.5}$ has improved to the *Unhealthy for Sensitive Groups* category and to the *Moderate* category w.r.t. PM_{10}. The Air Quality Index at Avas Vikas, Bodla has likewise improved to the *Unhealthy for Sensitive Groups* category w.r.t $PM_{2.5}$ but remains in the *Moderate* category w.r.t.PM_{10}.

Suggested experiments have been put in operation, beginning 17.11.2022, apparently after AQI Report of today.

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

Thursday, 17-11-2022, 05:21 PM
Received, Thursday, 17-11-2022, 01:31 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

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