## Radhasoami Dayal Ki Daya Radhasoami Sahai

## AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 21.7.2022 (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)

	Date	te DAYALBAGH								Date SANJAY PLACE										
	Today: July 21 – 20 Yesterday	(TIME WEIGHTED AVERAGE DATA)								Today:	(ARITHMETIC MEAN DATA)									
		Air Qua	ality Index		Meteorological Parameters						Today.	A	QI	Meteorological Parameters						
		ly 21 – 20					Т		CD	RF	July 21 – 20						т		SR	RF
		erday PM <sub>2.5</sub>	<b>PM</b> <sub>10</sub>	RH %	WS m/s WD	WD	0		SR W/m <sup>2</sup>		Yesterday	PM2.5	<b>PM</b> 10	RH %	WS m/s	WD	°C		SK W/m <sup>2</sup>	
	July 20 – 19	)					Max	Min	- vv/III-	mm	July 20 – 19						Max	Min	VV/111 <sup>-</sup>	mm
4/97	Today	33	14	79	2.8	S	36.8	27.2	145	Trace	Today Yesterday	61	41	71	3.1	SE	38.6	28.1	149	0
4/9/	Yesterday	53	25	68	2.5	S	39.5	30.9	208	0										
3/34	Today	57	19	80	2.8	S	36.8	27.0	145	Trace										
5754	Yesterday	76	28	68	2.5	S	39.4	30.7	208	0		97	57	59	1.9	SE	41.4	32.3	261	0
Science	Today	50	15	81	2.8	S	36.0	27.2	145	Trace										
Faculty	Yesterday	68	25	70	2.5	S	39.3	30.7	208	0										

Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy for All	Very Unhealthy for All	Hazardous for All	Hazardous for All
0 - 50	51 - 100	101 - 150	151 - 200	201 - 300	301 - 400	401 - 500

**Views of AQI Research Group**: In comparison to yesterday, the concentrations of both PM<sub>2.5</sub> and PM<sub>10</sub> have significantly decreased at all locations of Dayalbagh. The Air Quality Index is in *Good* category w.r.t. PM<sub>2.5</sub> at Vidyut Nagar and Science Faculty and in Moderate category at Prem Nagar, while w.r.t. PM<sub>10</sub> it is in the *Good* category at all the three locations of Dayalbagh.

At Sanjay Place also, the concentrations of PM<sub>2.5</sub> and PM<sub>10</sub> have significantly decreased. The Air Quality Index remains in the *Moderate* category w.r.t. PM<sub>2.5</sub> and has improved from *Moderate* to *Good* category w.r.t PM<sub>10</sub>.

The lowering in particulate matter concentrations may probably be due to their removal from the atmosphere by inclusion or dissolution in atmospheric water vapour, causing PM levels to decrease, while Relative Humidity increased.

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

Thursday, 21-07-2022, 03:20 PM Received, Thursday, 21-07-2022, 12:37 PM

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<sub>2.5</sub> concentration readings are fed in USEPA online calculator for AQI calculation.

3 Formula for AQI calculation for a Pollutant -

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

where: I = Air Quality Index; C = Pollutant Concentration (PM<sub>2.5</sub>);  $C_{low}$  = Concentration Breakpoint  $\leq$ C;  $C_{high}$  = Concentration Breakpoint  $\geq$ C;  $I_{low}$  = Index Break point corresponding to  $C_{low}$ ;  $I_{high}$  = Index Breakpoint corresponding to  $C_{high}$ ; \*Multiplication Sign