

**REPORT ON NOISE LEVEL & AMBIENT  
AIR QUALITY MONITORING  
CONDUCTED ON OCCASION OF  
DEEPAWALI FESTIVAL**

**(2018)**



Prepared By  
**RAJASTHAN STATE POLLUTION CONTROL BOARD**

## PREFACE

Deepawali is considered as the festival of light and is celebrated with utmost enthusiasm all over India. Bursting of firecrackers and illumination of sources is seen as a symbol of joy and prosperity. Noise and Air pollution due to these fire crackers is well known. It therefore becomes necessary to conduct Noise and Ambient Air monitoring during this festival to understand the level of pollution.

Noise Level Monitoring was conducted on **01.11.2018 (Pre-Deepawali Day) & 07.11.2018 (On Deepawali)** at **32** different locations in fourteen cities viz. Alwar, Balotra, Bharatpur, Bhilwara, Bhiwadi, Bikaner, Chittorgarh, Jaipur, Jodhpur, Ajmer, Kota, Pali, Sikar and Udaipur. Ambient Air Quality Monitoring was also carried out on 01.11.2018 (Pre-Deepawali Day) from 06:00 AM 01.11.2018 to 06:00 AM 02.11.2018 as well as on 07.11.2018 (Deepawali day) from 06:00 AM 07.11.2018 to 06:00 AM 08.11.2018 at **31** different locations in eight cities namely; Alwar, Bhiwadi, Bharatpur, Chittorgarh, Jaipur, Jodhpur, Kota and Udaipur.

This report is a compilation of Noise Level and Ambient Air Quality monitoring data of the monitored cities of the state of Rajasthan. The data of previous year have also been incorporated so as to compare with data of previous four years.

A special gratitude to Smt. Aparna Arora, Chairperson, RSPCB for guiding and encouraging us to coordinate this monitoring programme. I sincerely acknowledge the effort of all officials associated with the work for monitoring of noise and air pollution levels on Deepawali festival as per the protocol prescribed by CPCB. It would not have been possible to compile and complete this report on ambient noise and ambient air quality without their sincere support and efforts.

**Member Secretary**

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## Rajasthan State Pollution Control Board

### Deepawali Festival Monitoring Report, 2018

In order to assess the impact of bursting of fire crackers and other predominating noise and air polluting activities on the occasion of Deepawali Rajasthan State Pollution Control Board undertook Noise Level and Ambient Air Quality Monitoring (AAQM) at several locations in the state. With a view to maintain uniformity in monitoring, the entire Noise Level and Ambient Air Quality Monitoring were conducted as per the CPCB protocol.

#### Noise Level Monitoring

Noise Level Monitoring was conducted on **01.11.2018 (Pre-Deepawali Day)** & **07.11.2018 (On Deepawali Day)** at **32** different locations in fourteen cities viz. Alwar, Balotra, Bharatpur, Bhilwara, Bhiwadi, Bikaner, Chittorgarh, Jaipur, Jodhpur, Ajmer, Kota, Pali, Sikar and Udaipur. The Noise level monitoring was conducted during day time (18:00 hrs to 22:00 hrs) and night time (22:00 hrs to 24:00 hrs) continuously at each location with sampling frequency of one second. Residential, Commercial, and Silence zones were selected in respect of Noise Standards prescribed under the provisions of Noise Pollution (Regulation & Control) Rules, 2000. The monitoring network consisted of a total of 32 noise monitoring locations across fourteen cities of Rajasthan.

<b>Table 1: Noise Level Monitoring locations</b>		
<b>S. No.</b>	<b>Name of the city</b>	<b>No. Monitoring locations</b>
1	Alwar	3
2	Ajmer	1
3	Balotra	1
4	Bharatpur	1
5	Bhilwara	2
6	Bhiwadi	2
7	Bikaner	2
8	Chittorgarh	2
9	Jaipur	6
10	Jodhpur	2
11	Kota	3
12	Pali	3
13	Sikar	1
14	Udaipur	3
<b>Total</b>		<b>32</b>



## Rajasthan State Pollution Control Board

### Deepawali Festival Monitoring Report, 2018

The comparative statement of noise level monitoring on the occasion of Deepawali festival Pre-Deepawali & on Deepawali Day i.e. 01.11.2018 & 07.11.2018 respectively is as under:

City	Name of the Station	Date	Day/ Night	Pre-Deepawali Day			On Deepawali		
				01.11.2018			07.11.2018		
				Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Alwar	Kala Kuan, Alwar (Residential)	18:00 to 19:00 Hr	Day Time	39.2	105.1	66.4	37.2	90.6	53.2
		19:00 to 20:00 Hr		40.5	110.8	69.9	36.9	109.9	72.5
		20:00 to 21:00 Hr		37.5	73.8	50.7	32.4	110.9	76.0
		21:00 to 22:00 Hr	Night	40.0	73.8	48.8	36.0	112.8	80.5
		22:00 to 23:00 Hr		31.0	95.1	54.1	34.9	68.6	47.7
		23:00 to 24:00 Hr		34.8	79.2	51.4	34.6	73.6	45.9
Alwar	General Hospital, Alwar (Sensitive Zone)	18:00 to 19:00 Hr	Day Time	50.8	84.5	62.4	47.5	93.7	62.5
		19:00 to 20:00 Hr		50.2	87.5	62.5	48.0	102.4	68.5
		20:00 to 21:00 Hr		48.7	88.9	60.0	50.6	100.8	68.4
		21:00 to 22:00 Hr	Night	48.3	89.7	56.8	51.1	101.4	69.4
		22:00 to 23:00 Hr		46.5	79.6	53.7	48.8	97.2	70.1
		23:00 to 24:00 Hr		43.5	83.2	60.5	44.5	88.6	61.3
Alwar	Hope Circus, Alwar (Commercial)	18:00 to 19:00 Hr	Day Time	59.8	90.2	74.2	49.5	108.4	89.2
		19:00 to 20:00 Hr		59.1	89.9	72.1	52.7	113.2	86.3
		20:00 to 21:00 Hr		57.2	93.4	71.6	50.8	113.6	85.2
		21:00 to 22:00 Hr	Night	41.0	99.9	75.7	54.9	106.4	79.6
		22:00 to 23:00 Hr		48.0	94.8	67.8	49.1	98.5	73.2
		23:00 to 24:00 Hr		51.8	90.2	68.1	43.5	110.6	81.4
Ajmer	Kutchery Road, Ajmer (Residential Zone)	18:00 to 19:00 Hr	Day Time	59.0	101.5	79.6	37.9	119.5	79.3
		19:00 to 20:00 Hr		55.5	99.3	79.2	46.7	111.2	79.6
		20:00 to 21:00 Hr		41.0	96.7	72.8	54.0	108.2	78.6
		21:00 to 22:00 Hr	Night	57.8	96.6	71.7	48.1	106.4	79.4
		22:00 to 23:00 Hr		52.6	95.7	71.8	50.6	100.0	77.4
		23:00 to 24:00 Hr		42.2	90.5	70.6	23.6	105.6	74.0
Balotra	Maheshwari Bhawan, Near IInd railway Crossing, Balotra (Commercial)	18:00 to 19:00 Hr	Day Time	43.8	77.0	49.1	44.3	105.6	73.1
		19:00 to 20:00 Hr		43.5	104.9	65.9	45.4	108.7	77
		20:00 to 21:00 Hr		42.2	90.9	62.5	43.2	101.4	72.1
		21:00 to 22:00 Hr	Night	35.6	96.1	59.9	41.6	106.0	73.7
		22:00 to 23:00 Hr		35.8	71.7	43.4	37.0	95.3	64.2
		23:00 to 24:00 Hr		35.0	74.2	47.9	38.3	68.6	52.5
Bharatpur	Regional Office, RSPCB, Bharatpur (Residential)	18:00 to 19:00 Hr	Day Time	50.3	82.3	62.8	47.3	89.9	67.3
		19:00 to 20:00 Hr		51.4	90.8	68.1	47.6	96.7	72.4
		20:00 to 21:00 Hr		50.1	92.7	66.1	45.4	94.4	69.7
		21:00 to 22:00 Hr	Night	42.5	83.5	60.1	46.7	95.5	68.2
		22:00 to 23:00 Hr		45.2	90.3	64.1	50.5	97.1	72.1
		23:00 to 24:00 Hr		43.8	89.1	59.8	49.1	101.5	70.3



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City	Name of the Station	Date	Day/ Night	Pre-Deepawali Day			On Deepawali		
				01.11.2018			07.11.2018		
				Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Bhilwara	Near C-209, Azad Nagar, Bhilwara (Residential)	18:00 to 19:00 Hr	Day Time	43.9	88.6	58.8	41.9	87.6	61.6
		19:00 to 20:00 Hr	Day Time	44.9	81.2	57.0	46.8	97.5	69.4
		20:00 to 21:00 Hr	Day Time	45.0	92.1	55.4	49.7	97.5	70.1
		21:00 to 22:00 Hr	Day Time	41.1	83.4	51.0	46.3	98.8	70.8
		22:00 to 23:00 Hr	Night Time	39.1	68.7	49.6	41.0	93.9	65.8
		23:00 to 24:00 Hr	Night Time	37.7	82.7	51.0	36.7	94.2	67.8
Bhilwara	Near Kumbha Circle, Azad Nagar, Bhilwara (Commercial Zonel)	18:00 to 19:00 Hr	Day Time	46.3	108.5	82.0	58.9	93.3	70.5
		19:00 to 20:00 Hr	Day Time	60.1	90.7	77.0	60.2	99.4	76.8
		20:00 to 21:00 Hr	Day Time	59.3	88.8	77.4	61.8	104.8	79.7
		21:00 to 22:00 Hr	Day Time	51.9	85.3	74.1	58.8	103.4	78.1
		22:00 to 23:00 Hr	Night Time	31.9	87.5	69.4	58.0	107.2	78.8
		23:00 to 24:00 Hr	Night Time	52.8	74.2	56.3	57.7	91.4	72.7
Bhiwadi	Ashiana Garden Society, Bhiwadi (Residential)	18:00 to 19:00 Hr	Day Time	44.1	94.7	62.2	43.4	100.0	65.7
		19:00 to 20:00 Hr	Day Time	46.3	92.0	56.7	46.7	102.2	71.1
		20:00 to 21:00 Hr	Day Time	54.5	93.2	46.5	56.8	115.4	86.5
		21:00 to 22:00 Hr	Day Time	43.1	84.2	53.5	53.0	121.2	81.5
		22:00 to 23:00 Hr	Night Time	50.3	91.6	57.1	49.5	123.8	85.1
		23:00 to 24:00 Hr	Night Time	22.0	89.7	52.8	41.3	98.6	69.2
Bhiwadi	Star Hospital, Bhiwadi (Silent)	18:00 to 19:00 Hr	Day Time	47.4	97.6	62.1	41.4	101.2	68.6
		19:00 to 20:00 Hr	Day Time	48.1	77.1	66.4	43.6	107.2	75.0
		20:00 to 21:00 Hr	Day Time	47.7	87.6	61.8	49.5	103.5	78.2
		21:00 to 22:00 Hr	Day Time	46.0	83.9	59.3	46.3	103.1	77.0
		22:00 to 23:00 Hr	Night Time	45.0	82.5	57.5	35.8	104.3	68.2
		23:00 to 24:00 Hr	Night Time	44.9	86.2	57.7	27.6	99.5	69.3
Bikaner	Near Shivbari Chauraha, K.K.Colony (Residential)	18:00 to 19:00 Hr	Day Time	47.0	104.9	73.8	41.6	103.8	75.6
		19:00 to 20:00 Hr	Day Time	45.5	103.2	77.0	43.9	106.9	80.9
		20:00 to 21:00 Hr	Day Time	42.7	101.5	71.3	48.2	112.3	82.6
		21:00 to 22:00 Hr	Day Time	41.6	102.6	72.1	53.6	118.5	84.8
		22:00 to 23:00 Hr	Night Time	41.6	102.7	78.7	52.8	110.4	81.7
		23:00 to 24:00 Hr	Night Time	54.0	103.9	70.7	44.6	105.6	74.9
Bikaner	Junagarh (Commercial)	18:00 to 19:00 Hr	Day Time	62.7	99.1	71.8	61.8	100.6	75.3
		19:00 to 20:00 Hr	Day Time	61.8	93.1	70.9	59.4	103.1	76.0
		20:00 to 21:00 Hr	Day Time	58.2	91.4	69.1	60.9	104.1	75.1
		21:00 to 22:00 Hr	Day Time	58.5	100.0	70.6	61.4	111.1	77.8
		22:00 to 23:00 Hr	Night Time	55.6	101.2	70.8	62.1	111.7	80.2
		23:00 to 24:00 Hr	Night Time	38.0	95.1	67.4	46.1	113.4	79.4



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City	Name of the Station	Date	Day/ Night	Pre-Deepawali Day			On Deepawali		
				01.11.2018			07.11.2018		
				Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Chittorgarh	Public Park, Chittorgarh (Commercial)	18:00 to 19:00 Hr	Day Time	54.5	87.7	66.0	60.5	105.7	81.6
		19:00 to 20:00 Hr		53.7	90.5	68.2	57.2	95.6	74.7
		20:00 to 21:00 Hr		53.2	88.4	66.1	57.9	97.6	74.2
		21:00 to 22:00 Hr		48.9	87.5	63.8	59.6	110.5	78.2
		22:00 to 23:00 Hr	Night Time	51.1	98.4	70.5	59.1	109.9	80.4
		23:00 to 24:00 Hr		22.9	98.7	65.3	45.6	122.4	85.7
Chittorgarh	Near Home Guard Office, Kumbha Nagar, Chittorgarh (Residential)	18:00 to 19:00 Hr	Day Time	42.5	96.8	67.6	45.1	104.0	74.4
		19:00 to 20:00 Hr		43.4	90.1	66.1	44.6	111.4	78.5
		20:00 to 21:00 Hr		46.3	102.5	70.9	45.4	109.4	79.6
		21:00 to 22:00 Hr		39.0	95.7	64.0	50.1	115.1	81.1
		22:00 to 23:00 Hr	Night Time	38.8	83.6	59.8	48.2	124.6	90.1
		23:00 to 24:00 Hr		35.4	84.5	55.3	42.3	117.0	83.3
Jaipur	Gandhi Nagar (Residential)	18:00 to 19:00 Hr	Day Time	44.2	90.1	59.0	40.7	119.1	79.1
		19:00 to 20:00 Hr		47.7	85.9	59.1	37.6	104.7	72.2
		20:00 to 21:00 Hr		45.7	79.1	54.6	50.1	107.3	78.1
		21:00 to 22:00 Hr		47.0	82.3	55.2	54.1	105.4	77.8
		22:00 to 23:00 Hr	Night Time	47.1	75.1	52.6	42.0	116.3	85.9
		23:00 to 24:00 Hr		46.4	91.2	55.8	36.1	100.1	69.6
Jaipur	Jawahar Nagar (Residential)	18:00 to 19:00 Hr	Day Time	49.2	88.6	67.4	42.2	82.9	61.5
		19:00 to 20:00 Hr		45.8	98.1	59.3	45.2	90.2	62.8
		20:00 to 21:00 Hr		50.1	88.7	62.5	48.2	92.8	67.2
		21:00 to 22:00 Hr		45.6	90.5	61.7	47.2	88.0	67.1
		22:00 to 23:00 Hr	Night Time	44.8	89.5	61.2	49.4	97.5	71.2
		23:00 to 24:00 Hr		44.7	82.1	58.0	45.6	100.6	75.1
Jaipur	Raja Park (Commercial)	18:00 to 19:00 Hr	Day Time	53.3	105.0	79.6	48.1	98.3	77.6
		19:00 to 20:00 Hr		48.7	98.5	78.1	51.7	103.1	78.9
		20:00 to 21:00 Hr		50.6	101.0	78.8	56.1	105.3	84.4
		21:00 to 22:00 Hr		52.4	98.7	70.9	55.9	105.2	84.7
		22:00 to 23:00 Hr	Night Time	49.3	98.4	70.1	56.7	105.7	84.8
		23:00 to 24:00 Hr		48.9	85.1	69.1	56.3	104.7	82.1
Jaipur	Mansarovar (Commercial)	18:00 to 19:00 Hr	Day Time	49.4	88.0	65.9	43.9	89.3	62.8
		19:00 to 20:00 Hr		45.2	91.1	65.5	41.8	105.5	73.2
		20:00 to 21:00 Hr		43.1	85.6	62.8	55.8	97.4	73.7
		21:00 to 22:00 Hr		42.7	87.0	63.8	53.5	97.9	73.6
		22:00 to 23:00 Hr	Night Time	42.3	88.9	61.5	52.1	99.4	77.6
		23:00 to 24:00 Hr		41.6	88.9	58.6	44.9	101.1	74.9



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City	Name of the Station	Date	Day/ Night	Pre-Deepawali Day			On Deepawali		
				01.11.2018			07.11.2018		
				Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Jaipur	SDM Hospital (Silence)	18:00 to 19:00 Hr	Day Time	55.3	94.4	66.7	49.7	90.5	65.1
		19:00 to 20:00 Hr		54.5	88.6	62.7	50.0	92.4	64.2
		20:00 to 21:00 Hr		52.4	90.2	62.7	52.1	95.0	66.5
		21:00 to 22:00 Hr		51.2	83.8	60.6	53.5	96.5	75.7
		22:00 to 23:00 Hr	Night Time	50.2	85.5	59.1	53.7	92.2	71.4
		23:00 to 24:00 Hr		49.4	85.1	60.3	51.8	101.0	69.3
Jaipur	Civil Lines (Silence)	18:00 to 19:00 Hr	Day Time	58.3	88.4	66.1	54.3	101.8	54.3
		19:00 to 20:00 Hr		57.7	88.5	66.6	56.2	110.4	56.2
		20:00 to 21:00 Hr		59.2	86.8	70.3	58.8	114.9	58.8
		21:00 to 22:00 Hr		55.9	88.1	72.1	62.4	108.6	62.4
		22:00 to 23:00 Hr	Night Time	53.3	87.3	61.5	61.2	109.8	61.2
		23:00 to 24:00 Hr		35.9	91.1	64.2	56.3	111.7	56.3
Jodhpur	Shashtri Nagar Police Station (Commercial)	18:00 to 19:00 Hr	Day Time	58.4	81.8	66.5	56.9	106.1	70.3
		19:00 to 20:00 Hr		57.8	84.5	67.0	56.3	121.3	86.2
		20:00 to 21:00 Hr		54.5	86.6	64.7	57.6	108.0	81.3
		21:00 to 22:00 Hr		54.5	83.6	63.7	56.1	103.5	74.2
		22:00 to 23:00 Hr	Night Time	51.9	87.3	62.5	59.0	102.3	76.4
		23:00 to 24:00 Hr		47.6	83.2	61.8	55.4	103.9	76.1
Jodhpur	Maha Mandir Police Station (Residential)	18:00 to 19:00 Hr	Day Time	52.7	88.6	66.6	50.1	103.5	73.3
		19:00 to 20:00 Hr		51.2	88.4	65.1	50.3	113.7	82.1
		20:00 to 21:00 Hr		49.5	100.5	67.0	51.4	109.3	81.7
		21:00 to 22:00 Hr		49.3	100.8	67.7	53.4	109.2	80.1
		22:00 to 23:00 Hr	Night Time	49.5	102.0	69.5	55.1	121.8	83.7
		23:00 to 24:00 Hr		44.6	81.7	56.6	52.2	115.7	81.9
Kota	MBS Hospital (Silence)	18:00 to 19:00 Hr	Day Time	47.3	87.9	65.8	47.8	77.3	61.0
		19:00 to 20:00 Hr		47.4	93.7	70.4	47.4	78.8	61.9
		20:00 to 21:00 Hr		45.9	91.4	69.0	50.5	82.2	63.8
		21:00 to 22:00 Hr		46.7	90.5	68.2	51.1	82.3	66.0
		22:00 to 23:00 Hr	Night Time	50.5	94.1	72.3	56.2	78.7	61.5
		23:00 to 24:00 Hr		49.8	101.5	74.3	45.1	78.9	59.0
Kota	Dadawada (Residential)	18:00 to 19:00 Hr	Day Time	43.5	79.2	53.8	47.1	89.7	64.3
		19:00 to 20:00 Hr		43.4	84.1	53.0	41.9	91.6	65.0
		20:00 to 21:00 Hr		43.1	73.9	52.5	44.4	92.3	70.2
		21:00 to 22:00 Hr		43.1	85.5	57.8	47.4	98.1	73.5
		22:00 to 23:00 Hr	Night Time	41.8	79.7	55.5	52.0	92.4	72.1
		23:00 to 24:00 Hr		42.4	83.9	66.1	40.9	91.0	64.9





# Rajasthan State Pollution Control Board

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City	Name of the Station	Date	Day/ Night	Pre-Deepawali Day			On Deepawali		
				01.11.2018			07.11.2018		
				Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Kota	Gumanpura (Commercial)	18:00 to 19:00 Hr	Day Time	54.3	91.3	68.8	55.6	100.9	71.3
		19:00 to 20:00 Hr		51.4	90.8	69.1	61.9	103.0	81.5
		20:00 to 21:00 Hr		50.9	92.7	68.1	48.9	118.5	85.8
		21:00 to 22:00 Hr		49.5	93.5	68.1	51.7	119.2	82.5
		22:00 to 23:00 Hr	Night Time	45.0	90.3	64.1	64.9	100.7	84.8
		23:00 to 24:00 Hr		43.8	92.9	62.9	56.1	102.5	71.1
Pali	Near M/s Maharaja Shree Umed Mills, Pali (Residential)	18:00 to 19:00 Hr	Day Time	43.6	78.8	50.8	38.8	106.7	74.2
		19:00 to 20:00 Hr		45.1	79.6	63.7	33.6	98.6	61.1
		20:00 to 21:00 Hr		39.4	86.6	64.9	34.8	75.1	53.3
		21:00 to 22:00 Hr		43.3	88.7	61.4	48.8	78.1	62.6
		22:00 to 23:00 Hr	Night Time	43.2	72.8	64.6	52.8	80.1	68.6
		23:00 to 24:00 Hr		38.8	70.8	51.8	42.7	78.2	60.5
Pali	Surajpol, Near Townhall, Pali (Commercial)	18:00 to 19:00 Hr	Day Time	47.4	51.4	50.4	38.5	106.3	74.5
		19:00 to 20:00 Hr		42.6	98.4	69.5	23.1	98.9	61.8
		20:00 to 21:00 Hr		43.1	89.4	63.3	31.1	75.4	53.7
		21:00 to 22:00 Hr		38.4	86.3	64.7	33.8	96.2	60.6
		22:00 to 23:00 Hr	Night Time	46.8	55.3	50.6	33.7	87.9	63.3
		23:00 to 24:00 Hr		41.2	111.5	74.6	36.2	91.2	70.9
Pali	Govt. Bangur Hospital, Pali (Sensitive)	18:00 to 19:00 Hr	Day Time	31.8	76.8	53.8	36.5	104.3	72.5
		19:00 to 20:00 Hr		32.6	74.6	48.6	25.1	96.6	63.8
		20:00 to 21:00 Hr		37.4	58.6	46.2	33.1	71.4	51.7
		21:00 to 22:00 Hr		34.8	86.2	54.3	46.2	72.2	61.2
		22:00 to 23:00 Hr	Night Time	31.6	72.2	52.2	54.2	82.2	66.1
		23:00 to 24:00 Hr		30.6	62.1	46.1	41.6	72.6	62.2
Sikar	Shivsinghpura Housing Board, Nawalgarh Road, Sikar (Residential Zone)	18:00 to 19:00 Hr	Day Time	44.0	91.9	57.0	43.2	97.4	65.4
		19:00 to 20:00 Hr		41.1	94.7	55.6	44.9	102.5	72.7
		20:00 to 21:00 Hr		40.0	86.0	52.3	45.4	97.3	71.8
		21:00 to 22:00 Hr		37.4	102.5	63.1	40.7	103.0	74.8
		22:00 to 23:00 Hr	Night Time	37.8	78.1	47.0	34.9	100.5	66.7
		23:00 to 24:00 Hr		28.7	70.7	47.5	33.8	102.6	65.2
Udaipur	Near Suraj Pole Gate, Udaipur (Commercial)	18:00 to 19:00 Hr	Day Time	70	99.8	82.7	53.2	88.3	67.3
		19:00 to 20:00 Hr		67.6	91.3	79.1	50.2	98.8	72.9
		20:00 to 21:00 Hr		65.8	91.6	79.8	54.2	98.1	71.9
		21:00 to 22:00 Hr		62.6	99.2	80.3	54.6	92.4	73.5
		22:00 to 23:00 Hr	Night Time	62.6	99.2	78.9	54.6	74.2	74.2
		23:00 to 24:00 Hr		49.8	88.4	67.8	71.2	94.5	85.9



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City	Name of the Station	Date	Day/ Night	Pre-Deepawali Day			On Deepawali		
				01.11.2018			07.11.2018		
				Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Udaipur	M.B. Hospital, Udaipur (Silence)	18:00 to 19:00 Hr	Day Time	53.2	88.3	67.3	60.6	62.4	61.9
		19:00 to 20:00 Hr		50.2	98.8	72.9	60.5	90.1	70.9
		20:00 to 21:00 Hr		54.2	98.1	71.9	61.3	88.7	69.4
		21:00 to 22:00 Hr	Night Time	46	82.8	60.5	67.8	93.5	70.2
		22:00 to 23:00 Hr		44	80.6	61.0	65.8	91.1	66.9
		23:00 to 24:00 Hr		40.6	62.8	52.8	42.2	68.2	56.4
Udaipur	Amba Mata Scheme, Udaipur (Residential)	18:00 to 19:00 Hr	Day Time	44.4	82.4	72.4	51.6	94	71.8
		19:00 to 20:00 Hr		50.2	86.4	70.2	54.8	98.2	73.6
		20:00 to 21:00 Hr		49.1	95.8	80.4	52.4	96.4	76.2
		21:00 to 22:00 Hr	Night Time	67.5	91.3	78.9	56.8	98.4	80.2
		22:00 to 23:00 Hr		42.6	83.9	63.6	50.2	99.2	74.6
		23:00 to 24:00 Hr		39.8	80.1	58.6	42.2	84.6	64.5

STANDARD LIMITS in dB(A) Leq*		
Category of Area / Zone	DAY	NIGHT
COMMERCIAL	65	55
RESIDENTIAL	55	45
SILENCE	50	40

#### Interpretation:

Noise levels in Leq dB(A) on Pre-Deepawali Day and Deepawali day during Day and Night Time from 2014 - 2018 in different cities of Rajasthan have been compiled at **Annexure A**. City-wise detailed observations are as under:

#### Ajmer:

In Ajmer city, Noise level monitoring was carried out at one location i.e. Kutchery Road, Ajmer (Residential). In comparison to 2017, both on Pre-Deepawali Day and on Deepawali Day, the concentration of Leq dB(A) during day and night time in 2018 has increased at the monitoring location.

#### Alwar:

In Alwar city, Noise level monitoring was carried out at three locations, namely, Kala Kuan (Residential), General Hospital (Silence) and Hope Circus (Commercial).

On Pre-Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day and night time in 2018 has increased at the monitoring locations except at Kala Kuan (both day and night time); while on Deepawali day, the concentration of Leq dB(A)



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during day and night time has decreased at all the monitoring locations except at Hope Circus during day time.

#### **Balotra:**

In Balotra city, Noise level monitoring was carried out at one location i.e. Maheshwari Bhawan, Near IInd Railway Crossing (Commercial). In comparison to 2017, both on Pre-Deepawali Day and on Deepawali Day, the concentration of Leq dB(A) during day and night time in 2018 has increased at the monitoring location.

#### **Bharatpur:**

In Bharatpur city, Noise level monitoring was carried out at one location i.e. Regional Office, RSPCB, Bharatpur (Residential). Noise monitoring levels observed at the monitoring location cannot be compared with 2017 since this station was not monitored in 2017.

#### **Bhilwara:**

In Bhilwara city, Noise level monitoring was carried out at two locations, namely, near C-209, Azad Nagar, Bhilwara (Residential) and near Kumbha Circle, Azad Nagar, Bhilwara (Commercial).

In comparison to 2017, both on Pre-Deepawali Day and on Deepawali Day, the concentration of Leq dB(A) during day and night time in 2018 has decreased at location near C-209, Azad Nagar. At monitoring location near Kumbha Circle, Azad Nagar, on Pre-Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) in 2018 has increased both during day and night time, while on Deepawali Day, the concentration of Leq dB(A) has decreased both during day and night time.

#### **Bhiwadi:**

In Bhiwadi city, Noise level monitoring was carried out at two locations namely, Ashiana Garden Society (Residential) and Star Hospital (Silence).

On Pre-Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day and night time in 2018 has decreased at the monitoring location except at Ashiana Garden Society during night time. On Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) both during day and night time has increased at Ashiana Garden Society while decreased at Star Hospital.

#### **Chittorgarh:**

In Chittorgarh city, Noise level monitoring was carried out at two locations i.e. Public Park (Commercial) and Near Home Guard Office, Kumbha Nagar (Residential).



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On Pre-Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day and night time in 2018 has increased at the monitoring locations except at Public Park (day time) and Near Home Guard Office, Kumbha Nagar (night time); while on Deepawali day, the concentration of Leq dB(A) during day and night time has increased at both the monitoring locations except Near Home Guard Office, Kumbha Nagar (day time).

#### **Pali:**

In Pali city, Noise level monitoring was carried out at three locations, namely, Near M/s Maharaja Shree Umaid Mills, Pali (Residential), Surajpol, Near Townhall, Pali (Commercial) and Govt. Bangur Hospital, Pali (Silence).

On Pre-Deepawali Day and on Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day time in 2018 has decreased at all monitoring locations except at Govt. Bangur Hospital.

On Pre-Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during night time in 2018 has increased at all monitoring locations; while on Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during night time in 2018 decreased at all monitoring locations except at Govt. Bangur Hospital.

#### **Bikaner:**

In Bikaner city, Noise level monitoring was carried out at two locations i.e. Near Shivbari Chauraha, K.K.Colony (Residential) and Junagarh, Bikaner (Commercial).

At Junagarh, on Pre-Deepawali Day and on Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day and night time in 2018 has decreased at both monitoring locations except at night time on Pre-Deepawali Day.

Noise levels observed Near Shivbari Chauraha, K.K.Colony cannot be compared with 2017 since this station was not monitored in 2017.

#### **Jaipur:**

In Jaipur city, Noise level monitoring was carried out at six locations, namely, Gandhi Nagar (Residential), Jawahar Nagar (Residential), Raja Park (Commercial), Mansarovar (Commercial), SDM Hospital (Silence) and Civil Lines (Silence).

On Pre-Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day time in 2018 has decreased at all monitoring locations except at Raja Park and Civil Lines; while on Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day time in 2018 has decreased at all monitoring locations except at Gandhi Nagar and Raja Park.



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On Pre-Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during night time in 2018 has increased at all monitoring locations except at Mansarovar, SDM Hospital and Civil Lines; while on Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during night time in 2018 decreased at all monitoring locations except at Gandhi Nagar and Raja Park.

#### **Jodhpur:**

In Jodhpur city, Noise level monitoring was carried out at two locations i.e. Mahamandir, Jodhpur (Residential cum Commercial) and Shastri Nagar Police Station, Jodhpur (Residential cum Commercial).

On Pre-Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day time in 2018 has decreased at all monitoring locations while it has increased at all monitoring locations during night time. On Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day and night time in 2018 has increased at all monitoring locations.

#### **Kota:**

In Kota city, Noise level monitoring was carried out at three locations, namely M.B.S. Hospital, (Silence), Dadawada (Residential) and Gumanpura (Commercial).

On Pre-Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day and night time in 2018 has increased at all monitoring locations except at Dadawada (day time) and Gumanpura (night time); while On Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day and night time in 2018 has increased at all monitoring locations except at MBS Hospital (day and night time) and Dadawada (night time).

#### **Sikar:**

In Sikar city, Noise level monitoring was carried out at one location i.e. Shvingshpura Housing Board, Nawalgarh Road, (Residential).

On Pre-Deepawali, in comparison to 2017, the concentration of Leq dB(A) during day and night time in 2018 has decreased at the monitoring location; while on Deepawali day, in comparison to 2017, the concentration of Leq dB(A) has increased during day time and decreased during night time in 2018.

#### **Udaipur:**

In Udaipur city, Noise level monitoring was carried out at three locations, namely, Near Suraj Pole Gate, Udaipur (Commercial), M.B. Hospital, (Silence) and Amba Mata Scheme, Udaipur (Residential).



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On Pre-Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day time in 2018 has increased at all monitoring locations; while On Deepawali Day, in comparison to 2017, the concentration of Leq dB(A) during day time in 2018 has decreased at all monitoring locations except at Amba Mata Scheme.

On Pre-Deepawali, in comparison to 2017, the concentration of Leq dB(A) during night time in 2018 has increased at all monitoring locations except at MB Hospital; while on Deepawali day, in comparison to 2017, the concentration of Leq dB(A) during night time in 2018 has decreased at all monitoring locations.

#### Ambient Air Quality Monitoring:

AAQM was also carried out on 01.11.2018 (Pre-Deepawali Day) from 06:00 AM 01.11.2018 to 06:00 AM 02.11.2018 as well as on 07.11.2018 (Deepawali day) from 06:00 AM 07.11.2018 to 06:00 AM 08.11.2018 at 31 different locations in seven cities namely; Alwar, Bhiwadi, Bharatpur, Chittorgarh, Jaipur, Jodhpur, Kota and Udaipur. The manual ambient air quality monitoring was carried out for minimum 24 hours as per the NAMP format of CPCB on both the days of monitoring. During this period samples of ambient air for Particulate Matter (PM<sub>10</sub>), Sulphur Dioxide (SO<sub>2</sub>) and Nitrogen Dioxide (NO<sub>2</sub>) were collected and analyzed.

Table 3: Ambient Air Quality Monitoring locations		
S. No.	Name of the city	No. of Monitoring locations
1	Alwar	2
2	Bharatpur	2
3	Bhiwadi	2
4	Chittorgarh	3
5	Jaipur	8
6	Jodhpur	7
7	Kota	4
8	Udaipur	3
<b>Total</b>		<b>31</b>

Ambient Air Quality Levels in ( $\mu\text{g}/\text{m}^3$ ) on Pre-Deepawali Day and Deepawali Day (2014 – 2018) in different cities of Rajasthan have been compiled at **Annexure B and C** respectively. The concentration of SO<sub>2</sub> and NO<sub>2</sub> has remained well within the prescribed limits on both days of monitoring whereas the concentration of PM<sub>10</sub> has exceeded the prescribed limits on both days of monitoring at all monitoring locations except at Amba Mata, Udaipur on Pre-Deepawali Day.



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On Pre-Deepawali Day, the concentration of SO<sub>2</sub> has ranged between 5.5 to 20.3 µg/m<sup>3</sup>, while same on Deepawali day has ranged between 7.4 to 36 µg/m<sup>3</sup>.

On Pre-Deepawali Day, the concentration of NO<sub>2</sub> has ranged between 21.7 to 58.5 µg/m<sup>3</sup>, while same on Deepawali day has ranged between 28.3 to 64.6 µg/m<sup>3</sup>.

On Pre-Deepawali Day, the concentration of PM<sub>10</sub> has ranged between 117 to 670 µg/m<sup>3</sup>, while same on Deepawali day it has ranged between 117 to 670 µg/m<sup>3</sup>. The maximum PM<sub>10</sub> value of 670 µg/m<sup>3</sup> was reported at Kudi Bhagtasni Police Station on Deepawali Day

City-wise detailed observations are as under:

#### **Alwar:**

In Alwar city, ambient air quality monitoring was carried out at two locations i.e. Gaurav Solvex and RIICO Pump House, Alwar.

On Pre-Deepawali Day, PM<sub>10</sub> level has ranged between 236 to 273 µg/m<sup>3</sup>, while same on Deepawali day it has ranged between 263 to 265 µg/m<sup>3</sup>. The maximum PM<sub>10</sub> value of 265 µg/m<sup>3</sup> was reported at Gaurav Solvex on Deepawali Day.

On Pre-Deepawali Day, in comparison to 2017, the concentration of all three monitored parameters has increased at both the monitoring locations; On Deepawali day, in comparison to 2017, the concentration of PM<sub>10</sub> has increased at Gaurav Solvex and decreased at RIICO Pump House, Alwar; the concentration of SO<sub>2</sub> has increased at all locations ; the concentration of NO<sub>2</sub> has increased at Gaurav Solvex and decreased at RIICO Pump House, Alwar .

#### **Bharatpur:**

In Bharatpur city, ambient air quality monitoring was carried out at two locations i.e. RIICO Office Building and Khadi Gramodyog Samiti, Bharatpur.

On Pre-Deepawali Day, PM<sub>10</sub> level has ranged between 307 to 319 µg/m<sup>3</sup>, while same on Deepawali day it has ranged between 281 to 501 µg/m<sup>3</sup>. The maximum PM<sub>10</sub> value of 501 µg/m<sup>3</sup> was reported at RIICO Office Building, Bharatpur.

On Pre-Deepawali Day, in comparison to 2017, the concentration of PM<sub>10</sub> has increased at both the monitoring locations; the concentration of SO<sub>2</sub> has increased at Khadi Gramodyog Samiti, Bharatpur and decreased at RIICO Office Building, Bharatpur; the concentration of NO<sub>2</sub> has decreased at both the monitoring locations. On Deepawali day, in comparison to 2017, the concentration of PM<sub>10</sub> and NO<sub>2</sub> has increased at RIICO Office Building, Bharatpur and decreased at Khadi Gramodyog Samiti, Bharatpur; the concentration of SO<sub>2</sub> has increased at both the monitoring locations.



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#### **Bhiwadi:**

In Bhiwadi city, ambient air quality monitoring was carried out at two locations i.e. RO Building, and Uttam Strips, Bhiwadi.

On Pre-Deepawali Day, in comparison to 2017, the concentration of PM<sub>10</sub> and SO<sub>2</sub> has increased at RO Building, Bhiwadi; the concentration of NO<sub>2</sub> has decreased at RO Building, Bhiwadi. On Deepawali day, in comparison to 2017, the concentration of all three monitored parameters has increased at Uttam Strips, Bhiwadi.

#### **Chittorgarh:**

In Chittorgarh city, ambient air quality monitoring was carried out at three locations i.e. RO Building, Chanderiya, Veterinary Hospital, Meera Nagar and PHED Pump House, Segwa, Bharatpur.

On Pre-Deepawali Day, PM<sub>10</sub> level has ranged between 123 to 238 µg/m<sup>3</sup>, while same on Deepawali day it has ranged between 177 to 265 µg/m<sup>3</sup>. The maximum PM<sub>10</sub> value of 265 µg/m<sup>3</sup> was reported at Veterinary Hospital, Meera Nagar. Ambient Air Quality Monitoring levels observed at the monitoring locations cannot be compared with 2017 since these stations were not monitored in 2017.

#### **Jaipur:**

In Jaipur city, ambient air quality monitoring was carried out at eight locations, namely, Jhalana (Residential Area), Regional Office Jaipur (Residential Area) Ajmeri Gate (Residential Area), V.K.I.A. (Vishwakarma Industrial Area), M.I.A. (Malviya Industrial Area), Sitapura (Industrial Area), Baees Godam (Industrial Area) and Mansarovar (Residential Area).

On Pre-Deepawali Day, PM<sub>10</sub> level has ranged between 113 to 268 µg/m<sup>3</sup>, while same on Deepawali day it has ranged between 125 to 283 µg/m<sup>3</sup>. The maximum PM<sub>10</sub> value of 283 µg/m<sup>3</sup> was reported at Regional Office, Jaipur (N) on Deepawali Day.

On Pre-Deepawali Day, in comparison to 2017, the concentration of PM<sub>10</sub> has increased at all monitoring locations except at Vishwakarma Industrial Association (VKIA) and Malviya Industrial Area (MIA); the concentration of SO<sub>2</sub> has increased at all locations except at Jhalana, Regional Office, Jaipur (N), Ajmeri Gate and Mansarovar; the concentration of NO<sub>2</sub> has increased at all locations except at Jhalana. On Deepawali day, in comparison to 2017, the concentration of PM<sub>10</sub> has decreased at all monitoring locations except at Baees Godam; the concentration of SO<sub>2</sub> has increased at all locations; the concentration of NO<sub>2</sub> has decreased at all locations except at Ajmeri Gate.





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#### **Jodhpur:**

In Jodhpur city, ambient air quality monitoring was carried out at seven locations, namely, District Industrial Corporation, Regional Office, RSPCB, Jodhpur, Shastri Nagar Police Station, Sojati Gate, Sangaria Police Sub Station, Kudi Bhagtasni Police Station and Soor Sagar Police Station.

On Pre-Deepawali Day, PM<sub>10</sub> level has ranged between 170 to 394 µg/m<sup>3</sup>, while same on Deepawali day it has ranged between 327 to 670 µg/m<sup>3</sup>. The maximum PM<sub>10</sub> value of 670 µg/m<sup>3</sup> was reported at Kudi Bhagtasni Police Station on Deepawali Day.

On Pre-Deepawali Day, in comparison to 2017, the concentration of PM<sub>10</sub> has increased at all monitoring locations except at Sangaria Police Sub Station; the concentration of SO<sub>2</sub> has decreased at all locations except at Regional Office, RSPCB, Jodhpur and Sangaria Police Sub Station; the concentration of NO<sub>2</sub> has increased at all locations except at District Industrial Corporation and Regional Office, RSPCB, Jodhpur. On Deepawali day, in comparison to 2017, the concentration of PM<sub>10</sub> has decreased at all monitoring locations except at Soor Sagar Police Station; the concentration of SO<sub>2</sub> has decreased at all locations; the concentration of NO<sub>2</sub> has increased at all locations.

#### **Kota:**

In Kota city, ambient air quality monitoring was carried out at four locations, namely, Krishi Vigyan Kendra, Borkhera, Regional Office, RSPCB, Kota, Common STP Balita and Fire Station, S.N. Puram.

On Pre-Deepawali Day, PM<sub>10</sub> level has ranged between 120 to 185 µg/m<sup>3</sup>, while same on Deepawali day it has ranged between 153 to 197 µg/m<sup>3</sup>. The maximum PM<sub>10</sub> value of 197 µg/m<sup>3</sup> was reported at Krishi Vigyan Kendra, Borkhera on Deepawali Day.

On Pre-Deepawali Day, in comparison to 2017, the concentration of PM<sub>10</sub> has decreased at all monitoring locations except at Common STP, Balita and Fire Station, S.N.Puram; the concentration of SO<sub>2</sub> has decreased at all locations; the concentration of NO<sub>2</sub> has increased at all locations except at Common STP, Balita. On Deepawali day, in comparison to 2017, the concentration of PM<sub>10</sub> has decreased at all monitoring locations except at Regional Office, RSPCB, Kota and Fire Station, S.N.Puram; the concentration of SO<sub>2</sub> has increased at all locations except at Regional Office, RSPCB, Kota; the concentration of NO<sub>2</sub> has decreased at all locations except at Krishi Vigyan Kendra and Fire Station, S.N.Puram.

#### **Udaipur:**

In Udaipur city, ambient air quality monitoring was carried out at three locations namely, Town Hall, Amba Mata, Near Police Chouki and Regional Office, RSPCB, Udaipur.



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On Pre-Deepawali Day, PM<sub>10</sub> level has ranged between 82 to 198 µg/m<sup>3</sup>, while same on Deepawali day it has ranged between 117 to 201 µg/m<sup>3</sup>. The maximum PM<sub>10</sub> value of 201 µg/m<sup>3</sup> was reported at Town Hall on Deepawali Day.

On Pre-Deepawali Day, in comparison to 2017, the concentration of PM<sub>10</sub> and SO<sub>2</sub> has increased at all monitoring locations except at Amba Mata, Near Police Chouki where the concentration has remained same; the concentration of NO<sub>2</sub> has increased at all locations except at Amba Mata, Near Police Chouki. On Deepawali day, in comparison to 2017, the concentration of PM<sub>10</sub> has decreased at all monitoring locations except at Town Hall; the concentration of SO<sub>2</sub> has increased at all locations except at Regional Office, RSPCB, Udaipur where the concentration has remained same; the concentration of NO<sub>2</sub> has decreased at all locations except at Regional Office, RSPCB, Udaipur.

### CONCLUSION

- Noise Level Monitoring was conducted on **01.11.2018 (Pre-Deepawali Day)** & **07.11.2018 (On Deepawali Day)** at 32 different locations in fourteen cities. On comparison of noise monitoring levels of 2017 & 2018, decrease in noise level was observed on Normal Day at 16 locations during day time and 12 locations during night time. While on Deepawali Day, decrease in noise level was observed at 16 locations during day time and 19 locations during night time.
- On comparison of noise monitoring levels of Pre-Deepawali Day and Deepawali Day, decrease in noise level was observed on Deepawali Day at 6 locations during day time and 4 locations during night time at all other locations noise level has increased from Pre-Deepawali Day to Deepawali Day.
- Out of the 32 monitored locations, only three locations i.e. Mansarovar, Jaipur (Pre-Deepawali Day- day time), Dadawada, Kota (Pre-Deepawali Day- day time) and Maheshwari Bhawan, Near IInd Railway Crossing, Balotra (Pre-Deepawali Day- day & night time), have complied the Noise Standards prescribed under the provisions of Noise Pollution (Regulation & Control) Rules, 2000.
- State Board has also conducted Ambient Air Quality Monitoring at 31 locations of 08 (Eight) cities of Rajasthan. On comparison of Ambient Air Quality monitoring levels of 2017 & 2018, decrease in concentration of pollutants was observed on Normal Day from 6:00 AM (01.11.2018) to 6:00 AM (02.11.2018) for SO<sub>2</sub> at 11 locations, for NO<sub>2</sub> at 07 locations while for PM<sub>10</sub> at 05 locations, similarly on Deepawali day from 6:00 AM (07.11.2018) to 6:00 AM (08.11.2018) decrease in level for SO<sub>2</sub> at 8 locations, for NO<sub>2</sub> at 13 locations while for PM<sub>10</sub> at 19 locations was observed.



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## Annexure A

## Noise levels in Leq dB(A) 2014 - 2018 in different cities of Rajasthan

City Name	Name of Monitoring location		2014		2015		2016		2017		2018		
			Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	Pre-Deepawali Day	Deepawali Day	
Jaipur	Gandhi Nagar (Residential)	Day Time	69.8	73.3	70.7	76.3	59.7	80.1	59.7	71.2	57.5 ↓	77.5 ↑	
		Night Time	58.4	76.2	59.5	77.2	61.2	77.1	54.4	73.9	54.5 ↑	83.0 ↑	
	Jawahar Nagar (Residential)	Day Time	63.9	67.0	56.3	80.9	60.8	89.3	68.8	74.5	63.8 ↓	65.3 ↓	
		Night Time	53.2	74.9	54.2	80.9	55.6	82.8	56.2	82.5	59.9 ↑	73.6 ↓	
	Raja Park (Commercial)	Day Time	76.6	83.1	75.6	80.6	67.1	75.3	68.0	73.3	77.9 ↑	82.5 ↑	
		Night Time	57.9	77.5	59.4	77.9	57.0	65.6	62.8	77.4	69.6 ↑	83.7 ↑	
	Mansarovar (Commercial)	Day Time	—	—	—	—	71.4	74.2	64.9	78.8	64.7 ↓	72.4 ↓	
		Night Time	—	—	—	—	67.4	65.0	61.2	79.1	60.3 ↓	76.5 ↓	
	SDM Hospital (Silence)	Day Time	76.7	73.7	72.1	75.5	70.2	71.8	80.8	73.2	63.8 ↓	70.7 ↓	
		Night Time	65.4	72.6	65.2	73.1	64.1	73.0	70.3	84.7	59.7 ↓	70.5 ↓	
	Civil Lines (Silence)	Day Time	64.3	70.1	63.3	68.6	63.1	68.7	65.7	71.9	69.5 ↑	59.0 ↓	
		Night Time	62.4	73.7	59.7	66.4	59.7	66.1	69.7	77.7	63.1 ↓	59.4 ↓	
	Kishangarh	Kutchery Road, Ajmer (Residential)	Day Time	—	—	—	—	62.2	73.0	63.6	75.4	77.2 ↑	79.2 ↑
			Night Time	—	—	—	—	56.9	72.3	59.5	75.7	71.2 ↑	76.0 ↑
Bhilwara	Near C-209, Azad Nagar, Bhilwara (Residential)	Day Time	—	—	—	—	—	—	67.0	84.4	56.4 ↓	69.1 ↓	
		Night Time	—	—	—	—	—	—	64.8	89.8	50.4 ↓	66.9 ↓	
	Near Kumbha Circle, Azad Nagar, Bhilwara (Commercial)	Day Time	—	—	—	—	69.4	75.6	67.3	83.8	78.6 ↑	77.3 ↓	
		Night Time	—	—	—	—	57.8	70.0	62.2	83.6	66.6 ↑	76.7 ↓	
Pali	Near M/s Maharaja Shree Umed Mills, Pali (Residential)	Day Time	65.4	80.0	51.6	67.5	71.6	90.0	63.9	74.4	62.4 ↓	68.7 ↓	
		Night Time	52.8	76.6	55.7	62.2	53.5	93.7	56.2	81.6	61.8 ↑	66.2 ↓	
	Surajpol, Near Townhall, Pali (Commercial)	Day Time	—	—	—	—	69.7	74.3	69.7	88.4	65.5 ↓	68.9 ↓	
		Night Time	—	—	—	—	58.8	60.4	64.1	70.3	71.6 ↑	68.6 ↓	
	Govt. Bangur Hospital, Pali (Silence)	Day Time	—	—	—	—	63.8	75.6	48.7	66.6	51.9 ↑	67.3 ↑	
		Night Time	—	—	—	—	53.4	70.5	45.8	54.4	50.1 ↑	64.6 ↑	
Bikaner	Near Shivbari Chauraha, K.K.Colony (Residential)	Day Time	—	—	—	—	—	—	—	—	74.1	82.1	
		Night Time	—	—	—	—	—	—	—	—	76.3	79.5	
	Junagarh, Bikaner (Commercial)	Day Time	78.8	76.2	74.8	78.9	75.6	77.5	74.6	78.4	70.7 ↓	76.2 ↓	
		Night Time	71.6	76.7	73.6	82.0	68.8	81.1	68.3	85.4	69.4 ↑	79.8 ↓	
Jodhpur	Mahamandir, Jodhpur (Residential cum Commercial)	Day Time	73.4	77.7	64.8	90.4	70.4	79.7	73.6	78.2	66.7 ↓	80.4 ↑	
		Night Time	72.1	77.4	59.1	76.5	62.6	86.8	61.4	82.1	66.7 ↑	82.9 ↑	

Jodhpur	Shastri Nagar Police Station, Jodhpur (Residential cum Commercial)	Day Time	64.0	71.4	69.1	76.4	65.0	87.4	69.4	71.0	65.7 ↓	81.7 ↑
		Night Time	66.4	73.7	64.1	75.7	65.4	83.6	58.2	75.0	62.2 ↑	76.3 ↑
Kota	M.B.S. Hospital, Kota (Silence)	Day Time	53.3	64.1	70.8	73.1	61.4	62.8	66.3	64.5	68.7 ↑	63.6 ↓
		Night Time	51.1	60.4	44.8	55.4	61.0	67.0	69.8	65.8	73.4 ↑	60.4 ↓
	Dadawada (Residential)	Day Time	60.9	65.2	—	—	47.9	31.5	57.4	67.7	54.8 ↓	69.9 ↑
		Night Time	54.9	64.7	—	—	50.7	34.5	45.4	72.0	63.5 ↑	69.8 ↓
	Gumanpura (Commercial)	Day Time	—	—	—	—	67.1	86.8	67.2	79.3	68.5 ↑	82.5 ↑
		Night Time	—	—	—	—	63.0	82.8	64.3	75.5	63.5 ↓	82.0 ↑
Udaipur	Near Suraj Pole Gate, Udaipur (Commercial)	Day Time	66.9	82.6	76.9	80.1	75.1	87.0	77.8	87.9	80.7 ↑	72.0 ↓
		Night Time	68.4	86.8	72.7	77.3	64.0	85.9	73.3	83.5	76.2 ↑	83.2 ↓
	M.B. Hospital, Udaipur (Silence)	Day Time	60.5	64.0	58.2	67.0	63.6	73.9	69.7	78.5	70.2 ↑	69.2 ↓
		Night Time	52.9	67.8	58.7	75.1	65.3	65.0	68.1	67.9	58.6 ↓	64.3 ↓
	Amba Mata Scheme, Udaipur (Residential)	Day Time	67.2	74.0	63.4	71.9	72.4	72.6	66.6	72.1	77.3 ↑	76.6 ↑
		Night Time	68.0	83.0	63.5	90.5	71.3	79.0	59.1	75.0	61.8 ↑	72.0 ↓
Alwar	Kala Kuan, Alwar (Residential)	Day Time	67.3	80.8	63.6	76.1	59.4	76.9	66.2	79.9	65.5 ↓	76.3 ↓
		Night Time	47.2	84.2	55.7	75.3	51.4	71.1	53.3	66.0	53.0 ↓	46.9 ↓
	General Hospital, Alwar (Silence)	Day Time	—	—	—	—	62.2	79.2	57.6	76.3	61.0 ↑	67.9 ↓
		Night Time	—	—	—	—	54.2	65.7	55.6	69.6	58.3 ↑	67.6 ↓
	Hope Circus, Alwar (Commercial)	Day Time	—	—	—	—	66.4	82.6	68.1	79.9	73.7 ↑	86.2 ↑
		Night Time	—	—	—	—	59.4	97.1	57.9	84.1	67.9 ↑	79.0 ↓

Bhiwadi	Ashiana Garden Society, Bhiwadi (Residential)	Day Time	—	—	—	—	—	—	58.2	81.1	57.8 ↓	81.8 ↑
		Night Time	—	—	—	—	—	—	49.8	73.5	55.5 ↑	82.2 ↑
	Star Hospital, Bhiwadi (Silent)	Day Time	—	—	—	—	—	—	71.4	78.2	63.2 ↓	75.9 ↓
		Night Time	—	—	—	—	—	—	68.3	69.3	57.6 ↓	68.8 ↓
Sikar	Smrvsinghpura Housing Board, Nawalgarh Road, Sikar (Residential)	Day Time	—	—	—	—	59.8	69.7	62.6	68.6	58.9 ↓	72.3 ↑
		Night Time	—	—	—	—	54.0	61.5	50.9	61.5	47.3 ↓	66.0 ↓
Chittorgarh	Public Park, Chittorgarh (Commercial)	Day Time	—	—	—	—	70.2	76.9	66.5	75.7	66.3 ↓	78.2 ↑
		Night Time	—	—	—	—	64.7	80.5	62.9	79.2	68.6 ↑	83.8 ↑
Chittorgarh	Near Home Guard Office, Kumbha Nagar, Chittorgarh (Residential)	Day Time	—	—	—	—	73.9	79.1	67.3	84.6	67.9 ↑	79.0 ↓
		Night Time	—	—	—	—	55.1	82.2	61.6	82.1	58.1 ↓	87.9 ↑
Bharatpur	Regional Office, RSPCB, Bharatpur (Residential)	Day Time	—	—	—	—	—	—	—	—	65.3	69.9
		Night Time	—	—	—	—	—	—	—	—	62.5	71.3
Balotra	Bhawan, Near IInd Railway Crossing, Balotra (Commercial)	Day Time	—	—	—	—	—	—	56.5	72.8	62.3 ↑	74.4 ↑
		Night Time	—	—	—	—	—	—	42.0	53.4	46.2 ↑	61.5 ↑

STANDARD LIMITS in dB(A) Leq*		
Category of Area / Zone	DAY	NIGHT
COMMERCIAL	65	55
RESIDENTIAL	55	45
SILENCE	50	40

## Annexure B

Ambient Air Quality Levels in ( $\mu\text{g}/\text{m}^3$ ) on Pre-Deepawali Day 2014 - 2018

City	Location	SO <sub>2</sub>					NO <sub>2</sub>					RSPM (PM <sub>10</sub> )				
		2014	2015	2016	2017	2018	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
Jaipur	Jhalana (Residential Area)	4.6	6.8	7.4	7.6	6.0↓	30.6	34.5	28.7	30.2	25.3↓	45	119	150	112	114↑
	Regional Officer Jaipur (Residential Area)	5.4	7.9	8.9	9.0	7.9↓	36.5	41.7	36.9	38.2	43.2↑	147	259	233	217	268↑
	Ajmeri Gate (Residential Area)	4.7	7.5	9.6	9.2	7.6↓	33.8	36.3	35.5	36.9	58.5↑	45	177	167	169	212↑
	V.K.I.A. (Vishwakarma Industrial Area)	5.6	8.1	9.8	9.9	11.8↑	36.0	40.4	42.0	39.4	41.8↑	116	307	278	275	113↓
	M.I.A. (Malviya Industrial Area)	4.4	7.0	7.1	7.2	8.5↑	32.6	33.5	32.8	29.0	30.3↑	43	117	146	115	114↓
	Sitapura (Industrial Area)	—	—	—	7.4	8.2↑	—	—	—	33.8	37.3↑	—	—	—	124	126↑
	Baees Godam (Industrial Area)	—	—	—	8.4	10.1↑	—	—	—	37.3	41.0↑	—	—	—	175	194↑
	Mansarovar (Residential Area)	—	—	—	7.4	6.3↓	—	—	—	28.6	37.3↑	—	—	—	120	189↑
Alwar	Gaurav Solvex, Alwar	—	7.9	8.2	8.6	16.9↑	—	30.3	34.8	36.2	42.2↑	—	202	157	118	273↑
	RIICO Pump House, Alwar	—	7.5	9.1	8.6	14.7↑	—	31.4	33.4	35.6	37.7↑	—	212	167	98	236↑
Jodhpur	District Industrial Corporation	5.2	23.1	9.9	6.3	8.6↑	26.2	23.1	16.1	33.5	33.3↓	107	117	182	179	261↑
	Regional Office, RSPCB, Jodhpur	5.6	18.5	8.1	11.5	8.1↓	21.1	18.5	22.4	30.8	25.8↓	129	221	174	163	170↑
	Shastri Nagar Police Station	6.6	19.7	7.2	5.2	6.6↑	35.0	19.7	24.9	24.8	27.9↑	150	148	179	220	255↑
	Sojati Gate	6.8	29.0	5.3	7.1	9.6↑	26.2	29.0	29.3	29.6	50.0↑	206	240	154	183	284↑
	Sangaria Police Sub Station	—	—	—	8.1	7.1↓	—	—	—	17.4	37.9↑	—	—	—	311	298↓
	Kudi Bhagtasni Police Station	—	—	—	4.8	6.4↑	—	—	—	18.5	38.5↑	—	—	—	305	394↑
	Soor Sagar Police Station	—	—	—	5.4	5.5↑	—	—	—	20.9	30.3↑	—	—	—	180	197↑
Kota	Krishi Vigyan Kendra, Borkhera	6.0	6.8	6.1	6.3	6.1↓	33.5	31.8	23.5	24.4	25.2↑	50	127	278	192	185↓
	Regional Office, RSPCB, Kota	6.2	8.3	8.0	8.7	8.6↓	34.1	36.8	25.3	22.1	23.3↑	86	176	70	162	159↓
	Common STP Balita	—	—	7.2	7.4	7.2↓	—	—	21.5	21.9	21.7↓	—	—	76	124	129↑
	Fire Station, S.N. Puram	—	—	8.2	7.8	7.5↓	—	—	19.9	21.0	23.4↑	—	—	98	90	120↑
Udaipur	Town Hall	6.7	8.1	8.2	6.5	7.4↑	35.4	27.8	29.3	42.1	52.5↑	75	104	60	108	144↑
	Amba Mata, Near Police Chouki	5.6	5.5	5.6	5.5	5.5	29.2	26.3	27.2	37.7	30.7↓	94	100	52	82	82
	Regional Office, RSPCB, Udaipur	7.0	6.4	6.4	6.6	8.5↑	34.8	34.8	35.5	37.8	42.8↑	243	266	263	183	198↑
Bhiwadi	RO Building, Bhiwadi	—	7.4	—	12.4	20.3↑	—	31.7	—	28.4	25.9↓	—	197	—	376	380↑
Bharatpur	RIICO Office Building, Bharatpur	—	—	—	8.3	7.2↓	—	—	—	25.8	25.1↓	—	—	—	204	319↑
	Khadi Gramodyog Samiti, Bharatpur	—	—	—	7.2	9.7↑	—	—	—	28.0	25.7↓	—	—	—	234	307↑
Chittorgarh	RO Building, Chanderiya, Chittorgarh	—	—	—	—	7.4	—	—	—	27.8	—	—	—	—	190	
	Veterinary Hospital, Meera Nagar, Chittorgarh	—	—	—	—	6.5	—	—	—	32.9	—	—	—	—	238	
	PHED Pump House, Segwa, Chittorgarh	—	—	—	—	5.9	—	—	—	22.2	—	—	—	—	123	
<b>STANDARDS</b>		<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>





Ambient Air Quality Levels in ( $\mu\text{g}/\text{m}^3$ ) on Deepawali Day 2014 - 2018

City	Location	SO <sub>2</sub>					NO <sub>2</sub>					RSPM (PM <sub>10</sub> )				
		2014	2015	2016	2017	2018	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
Jaipur	Jhalana (Residential Area)	8.2	9.9	9.7	9.6	10.5↑	48.1	54.2	45.7	44.9	29.8↓	231	330	265	245	179↓
	Regional Officer Jaipur (Residential Area)	12.5	13.0	12.7	13.6	19.0↑	53.0	62.4	51.9	53.2	48.0↓	359	446	351	331	283↓
	Ajmeri Gate (Residential Area)	10.4	11.1	11.6	10.5	17.3↑	52.0	53.9	53.0	53.8	64.6↑	280	326	345	324	204↓
	V.K.I.A. (Vishwakarma Industrial Area)	12.0	12.5	13.0	13.6	22.2↑	62.4	63.6	63.3	64.5	47.8↓	374	436	457	496	152↓
	M.I.A. (Malviya Industrial Area)	9.2	9.8	10.7	11.1	16.6↑	51.4	53.1	51.8	52.5	37.2↓	126	219	255	270	125↓
	Sitapura (Industrial Area)	—	—	—	12.2	19.3↑	—	—	—	50.5	41.0↓	—	—	—	290	138↓
	Baees Godam (Industrial Area)	—	—	—	10.3	36.3↑	—	—	—	44.8	42.5↓	—	—	—	232	250↑
	Mansarovar (Residential Area)	—	—	—	12.4	31.8↑	—	—	—	43.2	40.0↓	—	—	—	222	168↓
Alwar	Gaurav Solvex, Alwar	—	6.8	8.4	8.8	12.7↑	—	28.7	31.9	35.2	37.3↑	—	251	162	134	265↑
	RIICO Pump House, Alwar	—	8.2	8.5	9.4	12.1↑	—	34.5	32.8	38.9	32.2↓	—	159	165	278	263↓
Jodhpur	District Industrial Corporation	11.6	31.4	14.7	12.2	11.7↓	31.2	31.4	36.2	24.3	37.9↑	237	149	270	616	437↓
	Regional Office, RSPCB, Jodhpur	10.3	34.0	26.1	24.5	10.1↓	28.9	34.0	38.5	22.2	41.4↑	154	185	257	362	327↓
	Shastri Nagar Police Station	17.2	40.1	21.5	25.7	9.4↓	38.9	40.1	41.0	31.5	36.4↑	360	203	298	588	522↓
	Sojati Gate	27.5	47.7	18.8	38.3	13.9↓	35.6	47.7	40.2	46.2	49.1↑	379	179	337	634	376↓
	Sangaria Police Sub Station	—	—	—	22.9	10.7↓	—	—	—	30.7	40.0↑	—	—	—	573	536↓
	Kudi Bhagtasni Police Station	—	—	—	41.7	9.0↓	—	—	—	25.3	35.2↑	—	—	—	734	670↓
	Soor Sagar Police Station	—	—	—	10.3	10.1↓	—	—	—	23.8	42.0↑	—	—	—	360	365↑
Kota	Krishi Vigyan Kendra, Borkhera	7.4	8.5	7.0	7.1	9.0↑	36.2	46.0	38.2	40.5	40.7↑	230	180	306	199	197↓
	Regional Office, RSPCB, Kota	9.2	8.7	7.2	7.8	7.5↓	43.8	44.2	46.1	43.6	40.0↓	178	223	214	182	188↑
	Common STP Balita	—	—	6.2	6.8	7.8↑	—	—	32.4	37.7	37.4↓	—	—	293	207	153↓
	Fire Station, S.N. Puram	—	—	6.0	6.8	7.8↑	—	—	32.4	33.8	39.0↑	—	—	293	144	165↑
Udaipur	Town Hall	8.6	11.1	11.0	9.5	9.8↑	38.8	43.5	44.7	53.9	46.3↓	248	273	205	166	201↑
	Amba Mata, Near Police Chouki	8.5	9.0	9.2	5.7	7.4↑	39.1	47.9	52.5	42.4	40.3↓	140	204	143	183	117↓
	Regional Office, RSPCB, Udaipur	7.8	11.5	12.5	6.9	6.9	36.7	41.1	42.1	38.5	43.2↑	236	336	229	202	169↓
Bhiwadi	Uttam Strips Bhiwadi	—	—	—	14.5	35.4↑	—	—	—	31.2	45.4↑	—	—	—	404	425↑
Bharatpur	RIICO Office Building, Bharatpur	—	—	—	7.1	9.5↑	—	—	—	23.0	30.3↑	—	—	—	203	501↑
	Khadi Gramodyog Samiti, Bharatpur	—	—	—	8.0	9.9↑	—	—	—	30.0	28.3↓	—	—	—	305	281↓
Chittorgarh	RO Building, Chanderiya, Chittorgarh	—	—	—	—	7.9	—	—	—	—	42.3	—	—	—	—	257
	Veterinary Hospital, Meera Nagar, Chittorgarh	—	—	—	—	8.3	—	—	—	—	41.2	—	—	—	—	265
	PHED Pump House, Segwa, Chittorgarh	—	—	—	—	7.4	—	—	—	—	29.0	—	—	—	—	177
<b>STANDARDS</b>		<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

