

**Table I: - Comparative Data of Ambient Air Quality Monitoring Residential Area of Cities {24 Hr Average Values of RSPM, SO<sub>2</sub> & NO<sub>x</sub> (µg/m<sup>3</sup>)} during Diwali Days (2012-2016).**

RESIDENTIAL AREA OF CITIES																										
MONITORING DAYS	PARAMETERS	MANDI GOBINDGARH					PATIALA					JALANDHAR					LUDHIANA					AMRITSAR				
		2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Normal Day	RSPM	138	154	147	156	110	122	115	104	116	130	192	210	162	160	159	303	240	183	84	118	188	199	177	165	180
Diwali day		284	220	232	214	230	250	244	220	180	187	285	305	285	239	247	390	206	316	148	302	360	345	355	254	270
Normal Day	SO <sub>2</sub>	7	6	6	8	8	4	4	4	4	4	17	16	12	12	10	20	12	9	10	11	9	11	12	12	10
Diwali day		20	18	16	12	20	12	10	6	6	7	26	30	26	19	20	30	22	22	12	21	20	19	19	17	18
Normal Day	NO <sub>x</sub>	20	19	18	32	18	18	15	12	14	13	29	28	29	26	28	35	26	23	25	20	29	33	31	29	27
Diwali day		40	38	34	34	32	24	22	20	15	19	33	34	36	34	36	45	40	38	31	39	39	38	40	35	43

**Permissible Limits:-**

Parameter	Time Weighted Average	Concentration in Ambient Air	
		Commercial, Residential Areas	Sensitive Areas
RSPM (µg/m <sup>3</sup> )	24 Hours	100	100
SO <sub>2</sub> (µg/m <sup>3</sup> )	24 Hours	80	80
NO <sub>x</sub> (µg/m <sup>3</sup> )	24 Hours	80	80

**Table II :- Comparative Data of Ambient Air Quality Monitoring Commercial Area of Cities {24 Hr Average Values of RSPM, SO<sub>2</sub> & NO<sub>x</sub> (µg/m<sup>3</sup>)} during Diwali Days (2012-2016).**

COMMERCIAL AREA OF CITIES																										
MONITORING DAYS	PARAMETERS	MANDI GOBINDGARH					PATIALA					JALANDHAR					LUDHIANA					AMRITSAR				
		2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Normal Day	RSPM	152	172	165	172	124	132	123	112	124	120	201	232	167	154	164	364	263	272	210	205	231	223	216	204	213
Diwali day		292	250	241	204	255	238	196	179	132	160	294	270	261	221	230	648	549	546	289	405	358	370	353	296	302
Normal Day	SO <sub>2</sub>	8	7	6	6	6	5	5	4	6	7	18	17	14	11	13	19	15	9	10	11	10	11	11	14	11
Diwali day		20	18	16	10	18	10	9	4	6	8	24	21	20	17	19	24	18	24	18	20	21	20	19	18	20
Normal Day	NO <sub>x</sub>	20	22	20	30	20	16	14	12	14	14	28	28	27	26	27	41	29	30	23	30	34	34	33	35	36
Diwali day		32	32	34	32	30	22	20	16	12	17	35	34	33	31	32	51	46	50	40	48	43	44	42	40	49

**Table III :- Comparative Data of Ambient Air Quality Monitoring Sensitive Area of Cities {24 Hr Average Values of RSPM, SO<sub>2</sub> & NO<sub>x</sub> (µg/m<sup>3</sup>)} during Diwali Days (2012-2016).**

<b>SENSITIVE AREA OF CITIES</b>																										
<b>MONITORING DAYS</b>	<b>PARA METERS</b>	<b>MANDI GOBINDGARH</b>					<b>PATIALA</b>					<b>JALANDHAR</b>					<b>LUDHIANA</b>					<b>AMRITSAR</b>				
		2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
<b>Normal Day</b>	RSPM	150	120	116	125	113	118	110	90	96	101	160	181	143	128	146	247	229	250	90	190	213	192	190	170	192
<b>Diwali day</b>		222	206	188	147	175	150	142	128	102	116	215	196	201	175	186	321	308	362	179	260	361	350	333	268	258
<b>Normal Day</b>	SO <sub>2</sub>	6	6	6	6	8	4	4	4	4	5	15	17	10	9	10	13	10	10	8	10	12	12	10	11	11
<b>Diwali day</b>		13	12	8	6	13	6	6	4	4	6	22	20	19	14	17	17	15	20	11	19	21	18	18	16	17
<b>Normal Day</b>	NO <sub>x</sub>	18	14	16	20	20	13	12	10	14	13	27	27	26	24	25	27	25	28	15	28	32	32	28	31	29
<b>Diwali day</b>		26	26	22	24	28	19	18	16	12	16	33	32	30	28	29	36	32	42	27	35	41	39	38	36	42

### **Shri Darbar Sahib Amritsar**

<b>MONITORING DAYS</b>	<b>PARA METERS</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Normal Day	RSPM	189	202	185	163	86
Diwali day		390	371	363	244	322
Normal Day	SO <sub>2</sub>	9	11	12	12	4
Diwali day		23	20	21	15	22
Normal Day	NO <sub>x</sub>	24	32	33	30	14
Diwali day		43	41	40	34	60

**Table IV: - Comparative Data of Noise Level Monitoring during Diwali Days (2012-2016).**

Station	Residential					Sensitive					Commercial				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
<b>Jalandhar</b>	72.7	72	71	60	61	57.4	51	48	53	51	73.6	66	65	71	69
<b>Ludhiana</b>	74.1	70.8	75.4	66.3	73.7	73.4	72.9	74.7	69.1	73.2	80.5	78.6	78.3	72.1	76.02
<b>Patiala</b>	70.1	70.7	69.5	72.7	71.1	63.5	61.4	60.6	64.5	63.28	71.4	71.2	70.4	76.2	75.03
<b>Amritsar</b>	67	66	65	62	62	65	63	66	65	66	73	70	71	67	68
<b>Mandi Gobindgarh</b>	73.1	74.9	74.5	68	67.7	73.8	74.8	72	60	63	73.5	73.9	73.5	66	67.97