

## JAYPEE HIMACHAL CEMENT PLANT - BAGA (ARKI) SOLAN HP

(A UNIT OF JAIPRAKASH ASSOCIATES LTD.)

## STACK MONITORING FOR PARTICULATE EMISSION

## HALF YEARLY STATISTICAL REPORT (December'2011 - March' 2012)

## Location 1 :- Main Stack attached to Raw Mill / Kiln

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	432	13.72	7.61
Minimum	394	9.63	4.38
Average	412.92	11.5	5.89
Standard Deviation	12.8	1.41	0.9
Coefficient of Variation	0.03	0.12	0.15

All values are in µg/m<sup>3</sup>

## Location 2 :- Coal Mill Stack

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	390	5.67	14.5
Minimum	349	3.79	6.16
Average	368.38	5.08	10.99
Standard Deviation	14.66	0.48	2.66
Coefficient of Variation	0.04	0.09	0.24

All values are in µg/m<sup>3</sup>

## Location 3 :- Cooler Stack

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	426	6.24	13.29
Minimum	387	5.37	10.34
Average	401.62	5.71	11.46
Standard Deviation	10.08	0.26	1.03
Coefficient of Variation	0.03	0.05	0.09

All values are in µg/m<sup>3</sup>

## Location 4 :- Cement Mill Stack

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	356	4.06	8.95
Minimum	349	3.4	6.25
Average	352.5	3.73	7.6
Standard Deviation	4.95	0.47	1.91
Coefficient of Variation	0.01	0.13	0.25

All values are in µg/m<sup>3</sup>

## MONTHLY REPORT (March' 2012)

### Location 1 :- Main Stack attached to Raw Mill / Kiln

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	432	13.72	7.02
Minimum	422	12.86	5.53
Average	426.75	13.4	6.24
Standard Deviation	4.27	0.4	0.64
Coefficient of Variation	0.01	0.03	0.1

All values are in µg/m<sup>3</sup>

### Location 2 :- Coal Mill Stack

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	371	5.67	14.52
Minimum	349	3.79	6.16
Average	358	4.97	10.89
Standard Deviation	9.83	0.87	4.25
Coefficient of Variation	0.03	0.18	0.39

All values are in µg/m<sup>3</sup>

### Location 3 :- Cooler Stack

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	406	5.84	11.89
Minimum	387	5.63	10.34
Average	396.75	5.71	11.13
Standard Deviation	7.93	0.1	0.8
Coefficient of Variation	0.02	0.02	0.07

All values are in µg/m<sup>3</sup>

### Location 4 :- Cement Mill Stack

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	349	3.4	8.95
Minimum	349	3.4	8.95
Average	349	3.4	8.95
Standard Deviation	0	0	0
Coefficient of Variation	0	0	0

All values are in µg/m<sup>3</sup>

## MONTHLY REPORT (February' 2012)

### Location 1 :- Main Stack attached to Raw Mill / Kiln

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	422	11.53	7.61
Minimum	399	9.94	4.38
Average	410.5	10.78	5.61
Standard Deviation	11.676	0.679	1.396

Coefficient of Variation	0.028	0.063	0.249
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All values are in  $\mu\text{g}/\text{m}^3$

### Location 2 :- Coal Mill Stack

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	388	5.34	12.94
Minimum	369	4.96	10.68
Average	379.75	5.11	11.91
Standard Deviation	8.884	0.164	1.066
Coefficient of Variation	0.023	0.032	0.09

All values are in  $\mu\text{g}/\text{m}^3$

### Location 3 :- Cooler Stack

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	413	6.03	13.29
Minimum	389	5.64	11.67
Average	402	5.85	12.67
Standard Deviation	10.165	0.192	0.718
Coefficient of Variation	0.025	0.033	0.057

All values are in  $\mu\text{g}/\text{m}^3$

### Location 4 :- Cement Mill Stack

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	356	4.06	6.25
Minimum	356	4.06	6.25
Average	356	4.06	6.25
Standard Deviation	0	0	0
Coefficient of Variation	0	0	0

All values are in  $\mu\text{g}/\text{m}^3$

## MONTHLY REPORT (January' 2012)

### Location 1 :- Main Stack attached to Raw Mill / Kiln

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	415	10.77	5.89
Minimum	415	10.77	5.89
Average	415	10.77	5.89
Standard Deviation	0	0	0
Coefficient of Variation	0	0	0

All values are in  $\mu\text{g}/\text{m}^3$

### Location 2 :- Coal Mill Stack

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	390	5.01	9.83
Minimum	390	5.01	9.83
Average	390	5.01	9.83
Standard Deviation	0	0	0
Coefficient of Variation	0	0	0

All values are in  $\mu\text{g}/\text{m}^3$

**Location 3 :- Cooler Stack**

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	426	5.37	11.06
Minimum	426	5.37	11.06
Average	426	5.37	11.06
Standard Deviation	0	0	0
Coeffecient of Variation	0	0	0

All values are in µg/m<sup>3</sup>**MONTHLY REPORT (December' 2011)****Location 1 :- Main Stack attached to Raw Mill / Kiln**

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	410	11.06	6.77
Minimum	394	9.63	4.9
Average	401	10.52	5.81
Standard Deviation	6.831	0.658	0.775
Coefficient of Variation	0.017	0.063	0.133

All values are in µg/m<sup>3</sup>**Location 2 :- Coal Mill Stack**

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	379	5.55	13.79
Minimum	349	4.85	7.18
Average	362	5.17	10.47
Standard Deviation	12.57	0.291	2.701
Coeffecient of Variation	0.035	0.056	0.258

All values are in µg/m<sup>3</sup>**Location 3 :- Cooler Stack**

STACK MONITORING	Stack gas Temp.	Stack gas Velocity	Dust Conc.
	(°K)	(m/sec)	(mg/Nm <sup>3</sup> )
Maximum	403	6.24	11.23
Minimum	397	5.37	10.34
Average	400	5.68	10.72
Standard Deviation	2.582	0.395	0.382
Coeffecient of Variation	0.006	0.069	0.036

All values are in µg/m<sup>3</sup>