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SHREE CEMENT LTD.

Regd. Office & Works :

BANGUR NAGAR, POST BOX NO.33, BEAWAR 305 901, RAJASTHAN, INDIA



SCL/RAS/ CPP /Env. Statement/2011-12/

Date: 20/9/2011
Regd. A.D

To,
The Member Secretary,
Rajasthan Pollution Control Board,
4, Institutional Area, Jhalana Doongri Road,
JAIPUR-302004 (Rajasthan).

Sub:- Environmental Statement for the period from April, 2010 to March, 2011 for 205 MW Power Plant (180 MW Thermal Power Generation & 25 MW Waste Heat Power Generation) including 1000 KVA D.G. Set of M/s Shree Cement Limited; situated at Village: Ras/Bhimgarh, Tehsil: Jaitaran, Dist: Pali (Raj).

Ref: - Consent to operate letter No. -
F (Tech)/ Pali (Jaitaran)/ 2 (1)/ 2008-2009/6389-6393 dated: 13/01/2011

Sir,
We are submitting herewith the Environmental Statement Report for the period from April, 2010 to March, 2011 for 205 MW Power Plant (180 MW Thermal Power Generation & 25 MW Waste Heat Power Generation) including 1000 KVA D.G. Set of M/s Shree Cement Limited; situated at Village: Ras / Bhimgarh, Tehsil: Jaitaran, Dist: Pali (Raj)

This is for your kind information please.

Thanking you,
Yours faithfully,

For Shree Cement Ltd;

(Rakesh Bhargava)
Jt. Vice President (Environment)

Copy to:-

1. Chief Conservator of Forests (Central), Ministry of Environment & Forests, Central Regional Office, Kendriya Bhawan, 5th Floor Sector H, Aliganj, Lucknow – 22602 (U.P.)
2. The Regional Officer (Regional Office), Rajasthan Board for the Prevention & Control of Pollution, S / A-6, Mandia Road, Industrial Area, Near Pali Urban Co-Operative Bank, PALI- MARWAR- 306401 (Raj.)

ENVIRONMENTAL STATEMENT
M/s Shree Cement Limited
Captive Power Plant Including D.G. Set
Period from : April, 2010 to : March, 2011.

FORM – V

PART – A

1.	Name and address of the Owner / Occupier of the Industry operation or process	<u>Captive Power Plant</u> <u>M/S Shree Cement Ltd</u> Village: Ras/Bhimgarh, Tehsil: Jaitaran, Dist:Pali - 306107 (Rajasthan)
2.	Industry Category Primary (S.T.C. Code) Secondary (S.T.C. Code)	Red Category
3.	Production Capacity	205 MW Thermal Power generation 1000 KVA D.G. Power generation
4.	Year of Establishment	Power Plant: 2007-2010 Waste Heat Power Plant: 2009-10 D.G. Set: 2006
5.	Date of the last Environmental Audit Report submitted	20/9/2010

PART – B

WATER AND RAW MATERIAL CONSUMPTION

(I) WATER CONSUMPTION:

Process & Cooling/ Construction : 313974 KL

Domestic : 72881 KL (Common for
Cement Plant & Power Plant)

Name of Product	Process Water Consumption per Unit of Product Output	
	During Previous Financial Year (2009-2010)	During Current Financial Year (2010-2011)
Power	0.000248 KL / KWH	0.000420 KL / KWH

(II) RAW MATERIAL CONSUMPTION:(Power Plant)

Name of Raw Material	Name of Product	Consumption of Raw Material Per Unit of Output (Power)	
		During Previous Financial year (2009-2010)	During Current Financial year (2010-2011)
1. Water	Power	0.000248 KL/KWH	0.000420 KL / KWH
2.Coal/ Petcoke		0.000373 MT/KWH	0.000483 MT/KWH

(III) RAW MATERIAL CONSUMPTION: (D.G. SET)

D.G. Set is not operated on continuous basis. D.G. Set is operated only during the breakdown/shutdown of Power Plant. The total fuel consumption during the year 2010-2011 was nil.

Name of Raw Material	Name of Product	Consumption of Raw Material per unit of Output (LTR / KWH)	
		During Previous Financial year (2009-2010)	During Current Financial year (2010-2011)
H.S. Diesel	Power	0.00	0.00

(IV) POWER CONSUMPTION (KWH/KWH OF POWER):

During Previous Financial Year (2009-2010)	During Current Financial Year (2010-2011)
0.0666	0.070

(V) TOTAL POWER PRODUCTION (KWH):

During Previous Financial Year (2009-2010)	During Current Financial Year (2010-2011)
614847121	748474216

(VI) TOTAL D.G. POWER PRODUCTION (KWH):

During Previous Financial Year (2009-2010)	During Current Financial Year (2010-2011)
0.00 K.W.H	0.00 K.W.H

PART – C

DISCHARGED TO ENVIRONMENTAL / UNIT OF OUTPUT

Pollutants	Quantity of Pollutants Discharged (Mass/Day)	Concentration of Pollutants in Discharge (Mass/Value)	Percentage of variation from prescribed standard with reasons
(a)	Water		Domestic waste water generated from the office toilet and canteen is disposed off in soak pit via septic tank. During the year 2010-2011 total 74067 KL waste water was generated from the Power plant. The entire waste water generated from the power plant is used for the ash quenching only.
(b)	Air		Please refer Annexure – 2 & 3

PART – D

HAZARDOUS WASTE

(As specified under Hazardous Wastes (Management, Handling & Trans boundary Movement Rule, 2010)

Hazardous Waste	Total Quantity (Ltrs.)	
	During Previous Financial Year (2009-2010)	During Current Financial Year (2010-2011)
a) From Process	<p>We are having common authorization for Hazardous Waste Management & Handling for Cement Plant, Power Plant, D.G.Set and Nimbeti Limestone Mines</p> <p>Section wise used oil generation from April, 2009 to March, 2010 is given as below:-</p> <p>Cement Plant : 11092 Ltrs. Power Plant : 184 Ltrs. D.G. Set : Nil Mines : 25715 Ltrs. Old Stock : 8475 Ltrs.</p> <hr/> <p>Total : 45466 Ltrs.</p> <p>Out of 45466 Ltrs., 23100 Ltrs. sell-out to authorized recyclers and rest 12387 Ltrs. self reused for lubrication in chains, Stacker & Reclaimer and balance was 9979 Ltrs.</p>	<p>We are having common authorization for Hazardous Waste Management & Handling for Cement Plant, Power Plant, D.G.Set and Nimbeti Limestone Mines.</p> <p>Total quantity generated from April, 2010 to March, 2011 = 34440 Ltrs. Old Stock = 9979 Ltrs. Total = 44419 Ltrs.</p> <p>Sold-out to authorized recyclers = 34020 Ltrs. Balance quantity = 10399 Ltrs.</p>
(b) From Pollution Control Facilities	N.A.	N.A.

PART – E
SOLID WASTE

		Total Quantity (MT)	
		During Previous Financial Year (2009-10)	During Current Financial Year (2010-11)
(a)	From Process	Bed Ash : 12610	Bed Ash : 22259
(b)	From Pollution Control Facility	Fly Ash : 18983	Fly Ash : 19173
(c)	1. Quantity rejected or re-utilized within the unit	Fly ash and Bed ash are generated from the power plant as a solid waste which are used in the cement manufacturing process of our existing cement plants	
	2. Sold	Nil	Nil
	3. Disposed	Nil	Nil

PART – F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both the categories of wastes:

Hazardous Wastes

Cement manufacturing is based on “Dry Process”. No Hazardous waste is generated from the process except used oil which is drained from Machineries / Equipments. The used oil is sold to CPCB authorized recyclers.

Solid Wastes:

Only Fly ash and Bed ash is generated from the power plant as a solid waste which is used in the cement manufacturing process of our existing cement plants.

PART – G

IMPACT OF THE POLLUTION CONTROL MEASURES ON CONSERVATION OF NATURAL RESOURCES AND CONSEQUENTLY ON THE COST OF PRODUCTION

Captive Power Plant is being operated on environmentally clean technology. The stack emissions from the plant are controlled by ESP's. Bag Filters are installed at various material transfer points to clean the process and arrest the fugitive emissions. The boiler Ash collected in the pollution control equipments is used in the process of existing cement plants, thus it can be said that the utilization of raw material is being done at their cost. Since the system is operated on total recycle, there is no effect on the cost of production.

PART – H

ADDITIONAL MEASURES / INVESTMENTS PROPOSAL FOR ENVIRONMENT PROTECTION INCLUDING ABATEMENT OF POLLUTION

Green belt development and tree plantation is our ongoing process. We have acquired around 187.56 hectare land and upto March, 2011 we have developed the plantation in an area of around 63.8 hectare with around 118205 trees, which is 34 % of the total land of plant area.

PART – I

ANY OTHER PARTICULATES FOR IMPROVING THE QUALITY OF ENVIRONMENT.

1. We have full-fledged Environment Department with three separate cells, one for monitoring, one for maintenance of pollution control equipment and one for Green Belt development.
2. Monitoring of stack emission and ambient air and water quality is being done regularly.
3. Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.
4. Civil dept taking care for of House keeping.
5. Horticulture Department is taking care of tree plantation and green belt development. Every year we are doing tree plantation.

On support of above, we are enclosing herewith following:-

- Annexure-1 : D.G. Set Detail.
Annexure-2 : Stack Emission monitoring report.
Annexure-3 : Ambient Air Quality (SPM, PM10, PM2.5, SO₂ and NO₂) & Ambient Noise Level monitoring report

Shree Cement Ltd; Ras**Details of D.G. Set**

S. No.	Make	Capacity (KVA)	Year of Installation	Nos. of Stacks	Stack Ht. (m)	Stack Height Above D.G. Room (m)	Stack Dia (m)
1	Cummins	1000	2006	2	12	5.5	0.25

Shree Cement Ltd; Ras
Captive Power Plant
Stack Emission Report (All values in mg/Nm³)
Year:- 2010-11

S. No.	Month	Boiler- I ESP	Boiler- II ESP	Boiler- III ESP	Boiler- IV ESP	Boiler- V ESP	Boiler- VI ESP	Boiler-VII ESP
1	Apr-10	32	34	36	33	37	NR*	NR*
2	May-10	35	31	38	41	43	NR*	NR*
3	Jun-10	32	33	35	37	39	NR*	NR*
4	Jul-10	37	34	37	39	40	43	NR*
5	Aug-10	35	37	33	36	38	39	NR*
6	Sep-10	38	32	37	40	43	39	NR*
7	Oct-10	37	NR*	NR*	38	42	44	NR*
8	Nov-10	37	34	NR*	NR	40	43	NR*
9	Dec-10	37	39	41	36	42	41	NR*
10	Jan-11	38	36	42	38	41	39	41
11	Feb-11	39	34	42	37	41	38	39
12	Mar-11	38	35	41	38	42	36	37
Average		36	35	38	38	41	40	39

* Boiler not running

Annexure: 2

Shree Cement Ltd, Ras																								
Ambient Air Quality ($\mu\text{g}/\text{M}^3$) & Noise Level Monitoring Report For The Period Of April 2010 To Sep 2010																								
Common for Cement plant & Power plant																								
Year:-2010-2011																								
Location →	Plant Boundary Near Main Gate					Plant Boundary Near Mess					Plant Boundary towards Stacker & Reclaimer					Plant boundary towards village Khera & Jawangarh								
Parameter →	AAQ in $\mu\text{g}/\text{M}^3$			Noise Level in dB(A)		AAQ in $\mu\text{g}/\text{M}^3$			Noise Level in dB(A)		AAQ in $\mu\text{g}/\text{M}^3$			Noise Level in dB(A)		AAQ in $\mu\text{g}/\text{M}^3$			Noise Level in dB(A)					
Month	SPM	SO ₂	NO ₂	Day time	Night time	SPM	SO ₂	NO ₂	Day time	Night time	SPM	SO ₂	NO ₂	Day time	Night time	SPM	SO ₂	NO ₂	Day time	Night time				
Apr-10	377	9	10	68.5	57.8	323	9	10	64.1	55.3	307	8	10	68.9	58	353	9	10	66.8	57.2				
May-10	389	8	9	69.8	59.3	304	8	10	67.2	58.1	327	8	9	69.2	59.0	371	9	10	65.8	56.5				
Jun-10	359	8	10	70.3	60.1	324	9	10	68.1	56.5	322	8	9	69.9	60	310	8	9	64.1	53.2				
Jul-10	321	8	11	71.5	61.4	296	9	10	66.5	55.7	271	8	9	70.1	59.2	255	8	10	62.1	51.5				
Aug-10	298	9	10	70.2	62.1	254	8	9	65.9	58.3	227	8	10	72	61.9	234	8	9	60.5	54.9				
Sep-10	329	8	10	72	60.3	274	8	9	63.5	55.9	307	9	9	69.6	62.1	264	8	10	57.1	48.3				
Average	345	8	10	70.4	60.2	296	8	10	65.9	56.6	294	8	9	70.0	60.0	298	8	10	62.7	53.6				
Ambient Air Quality ($\mu\text{g}/\text{M}^3$) & Noise Level Monitoring Report For The Period Of Oct. 2010 To March 2011																								
Location →	Plant Boundary Near Main Gate					Plant Boundary Near Mess					Plant Boundary towards Stacker & Reclaimer					Plant boundary towards village Khera & Jawangarh								
Parameter →	PM 2.5	PM-10	SO ₂	NO ₂	Day time	Night time	PM 2.5	PM 10	SO ₂	NO ₂	Day time	Night time	PM 2.5	PM 10	SO ₂	NO ₂	Day time	Night time	PM 2.5	PM 10	SO ₂	NO ₂	Day time	Night time
Oct-10	39	61	9	10	68.2	54.7	32	51	7	9	60.8	52.3	34	43	8	10	57.5	48.6	28	46	7	10	65.7	43.2
Nov-10	39	63	9	10	69.5	53.5	32	51	7	10	61.6	54.5	34	43	8	10	58.7	49.3	29	46	7	10	66.5	42.6
Dec-10	36	57	9	10	70	52.1	34	53	8	10	63.4	55.6	37	43	9	10	59.8	51.6	30	49	9	10	67.3	43.8
Jan-11	39	58	9	10	69.8	50.6	35	52	8	10	65.3	54.7	39	58	9	10	58.1	52.8	36	52	9	10	67.3	52.2
Feb-11	39	57	9	10	68.5	51.2	35	49	8	10	64.2	55.6	37	52	9	10	59.4	51.7	26	46	9	10	68.6	53.7
Mar-11	38	57	8	10	67.5	52.6	37	52	8	10	63.8	54.4	39	55	8	9	61.2	52.1	27	44	8	9	65.7	55.8
Average	38	59	9	10	68.9	52.5	34	51	8	10	63.2	54.5	37	49	8	10	59.1	51.0	29	47	8	10	66.9	48.6