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# SHREE CEMENT LTD.

Regd. Office:

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



SCL/BWR/SPP-3/2018-19/ 2340 > 18/19

Date: 25/09/2018

To,

File No. P-130

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

Sub:- Environmental Statement of Power Units of M/s Shree Cement Ltd, Village –  
Andheri Deori, Tehsil Masuda, District Ajmer (Raj) for the period of April 2017-  
March 2018.

Ref: - CTO No. - F (CPM)/ Ajmer (MASUDA)/1(1)/2010-2011/807-809 dated –  
07/09/2015.

Dear Sir,

Kindly refer to above subject matter and referred letter. In this regard, we are submitting  
herewith the Environmental statement of Power Units.

This is for your kind information please.

Thanking you,

Yours faithfully,  
For Shree Power  
(A Unit of Shree Cement Ltd.)

(Rakesh Bhargava)

Sr. Vice President (Environment)

Copy to:-

1. Chief Conservator of Forests (Central), Ministry of Environment & Forests, Central  
Regional Office, Kendriya Bhawan, 5<sup>th</sup> Floor Sector H, Aliganj, Lucknow – 226024  
(U.P.)
2. The in charge (Regional office), Rajasthan state pollution control board, SPL-II, 5th phase,  
RIICO Ind area, Kishangarh.

011 ENVT

JAIPUR OFFICE : SB-187, Bapu Nagar, Opp. Rajasthan University, JLN Marg, Jaipur-302 015  
Phone : 0141 4241200, 4241204, Fax : 0141 4241219

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**ENVIRONMENTAL STATEMENT**  
**FORM – V**  
**Shree Power**  
**(A Unit of M/s Shree Cement Ltd.)**  
**Beawar, Rajasthan**  
**Period from : April, 2017 to : March, 2018**

**PART – A**

1.	Name and address of the Owner / Occupier of the Industry operation or process	M/S Shree Cement Ltd Bangur Nagar P.O. Box No. 33 Beawar- 305901 Distt. Ajmer (Rajasthan)
2.	Industry Category Primary (S.T.C. Code) Secondary (S.T.C. Code)	Red Category
3.	Production Capacity	300 MW + 44MW + 3MW + 21MW (WHR)
4.	Year of Establishment	2003-2011
5.	Date of the last Environmental Statement submitted	25/09/2017

**PART – B**

**WATER AND RAW MATERIAL CONSUMPTION**

1. **WATER CONSUMPTION:**

Process : 271536

Domestic : 176081 KL (Common for Cement Plants & Power Plants)

Name of Product	Process Water Consumption per Unit of Clinker Output	
	During Previous Financial Year	During Current Financial Year
Power	0.00021 KL/KWh	0.00021 KL/KWh

2. **RAW MATERIAL CONSUMPTION:**



Name of Raw Material	Name of Product	Consumption of Raw Material Per Unit of Output (Cement)	
		During Previous Financial Year	During Current Financial Year
1. Water	POWER	0.00021 KL/ KWh	0.00021 KL/ KWh
2. Coal & Pet Coke (Indian & Imported)		0.000358 MT/ KWh	0.000365 MT/ KWh

**3. POWER CONSUMPTION (KWH/KWH OF POWER):**

During Previous Financial Year	During Current Financial Year
0.0697	0.0738

**4. TOTAL POWER PRODUCTION (KWH):**

During Previous Financial Year	During Current Financial Year
1849873104	1323745472

**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 residential colony and office toilets is treated in STP and treated water is used in plantation activities. Total quantity of treated domestic waste water during the year 2017-18 was 103880 KL. Residential colony is common for Shree Cement Limited Unit 1& 2, Mines and Power Plants. Analysis report of STP treated water is attached as annexure.	
(b)	Air	Please refer <b>Annexure – 1 &amp; 2</b>	



**PART – D**

**HAZARDOUS WASTE**

(As specified under Hazardous Wastes (Management, Handling & Trans boundary Movement Rule, 2016)

Hazardous Waste	Total Quantity (Ltrs.)	
	During Previous Financial Year (2016-2017)	During Current Financial Year (2017-2018)
a) From Process (Cement manufacturing is based on “Dry Process” No Hazardous waste is generated from the process except used oil which is drained from Machinery / Equipments)	<p>We have Common authorization for Hazardous Waste Management &amp; Handling for Unit 1&amp; 2, D.G. Sets, Power Plants, Synthetic Gypsum and Mines</p> <p>Total Quantity generated from April-2016 to March-2017 = 7980 Ltrs.                      Old Stock = 6930 Ltrs.                      Total Used oil = 14910 Ltrs.                      Sold-out to registered recycler = 14910 Ltrs.                      Balance Quantity= 0 Ltrs</p>	<p>We have Common authorization for Hazardous Waste Management &amp; Handling for Unit 1&amp; 2, D.G. Sets, Power Plants, Synthetic Gypsum and Mines, Cement Plant.</p> <p>Total Quantity generated from April-2017 to March-2018 = 8400 Ltrs.                      Old Stock = 0 Ltrs.                      Total Used oil = 8400 Ltrs.                      Sold-out to registered recycler = 8400 Ltrs.                      Balance Quantity= 0 Ltrs</p>
(b) From Pollution Control Facilities	N.A.	N.A.

**PART – E**

**SOLID WASTE**

		Total Quantity	
		During Previous Financial Year (2016-2017)	During Current Financial Year (2017-2018)
(a)	From Process	Nil	Nil
(b)	From Pollution Control Facility	Fly Ash : 0 Synthetic Gypsum : 234407	Fly Ash : 147247 Synthetic Gypsum : 292632
(c)	1. Quantity rejected or re-utilized within the unit	Fly ash and Bed ash are generated from the power	Fly ash and Bed ash are generated from the power plant as a solid waste are
	2. Sold		





	3. Disposed	plant as a solid waste are characterized as Synthetic gypsum due to limestone feeding for Desulfurization.	characterized as Synthetic gypsum due to limestone feeding for Desulfurization, which is utilized in cement manufacturing process.
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**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:**

**Battery Wastes:**

As specified under Batteries (Management and Handling) Amendment Rules, 2010, we have purchased following new batteries of different categories is common for cement plant, power plant and mines -

	Number of new batteries of different categories purchased from the manufacturer / importer / dealer or any other agency	During 1 <sup>st</sup> Apr 2017 to 31 <sup>st</sup> Mar 2018	
	Common for Unit 1 & 2, Power plants, D.G.Sets, Synthetic Gypsum plant & Mines		
1	Category:	(i) No. of Batteries	(ii) Approximate Weight (In Metric Tonnes)
	(i) Automotive		
	a) Four wheeler	40	1.328
	b) Two wheeler	Nil	Nil
	(ii) Industrial		
	a) UPS	Nil	Nil
	b) Motive Power	Nil	Nil
	c) Stand –by	Nil	Nil
	(iii) Others	Nil	Nil
	Total	40 Nos	1.328 MT
2	Number of used batteries of categories mentioned in Sl. No 3 and Tonnage of scrap sent manufacturer/dealer/importer/registered recycler/or any other agency to whom the used batteries scrap was sent	During 1 <sup>st</sup> Apr 2017 to 31 <sup>st</sup> Mar 2018	

Common for Unit 1 & 2, Power plants, D.G.Sets, Synthetic Gypsum plant & Mines		
Category:	(i) No. of Batteries	(ii) Approximate Weight (In Metric Tonnes)
(i) Automotive		
a) Four wheeler	36	2.59
b) Two wheeler	12	0.05
(ii) Industrial	Nil	Nil
a) UPS	10	0.6
b) Motive Power	Nil	Nil
c) Stand –by	Nil	Nil
(iii) Others	Nil	Nil
<b>Total</b>	<b>58 Nos.</b>	<b>3.24 MT</b>

Used battery scrap was sent to CPCB authorized recycler

### **Hazardous Wastes**

No Hazardous waste is generated from the process except used oil which is sold to CPCB authorized recyclers.

### **Bio-Medical Wastes:**

Bio-medical waste generated is common for cement plant, power plant and mines during current financial year April 2017 to March 2018 under the Bio-Medical Waste (Management & Handling) Rules 2016, are as follows.

	<b>Bio-Medical Waste Quantity (Kg) as per Colour Coding</b>			
	<b>Yellow</b>	<b>Red</b>	<b>Blue</b>	<b>White</b>
<b>April 2017 to March 2018</b>	262	212	241	0

Above mentioned waste has been sent to Sales Promoter, CBWTF Bio Medical Treatment Facility, Jaipur Bye Pass Road, Ajmer (Raj.) for disposal.

**E- Wastes:**

	Total Quantity (tons)	
	During Previous Financial Year (2016-2017)	During Current Financial Year (2017-2018)
From Process	Nil	Nil
From Pollution Control Facility	Nil	Nil
Others	11.71	0.055

**Solid Wastes:** - Only Flyash and Bedash is generated from the power plant as a solid waste which is used in the process of existing cement plants. Quantity of generation of both solid wastes is mentioned in part E.

**PART – G**

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

Shree Power is being operated on environmentally clean technology. The stack emissions from the plant are controlled by ESP's and Bag house. Bag Filters 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. In the year 17-18, 2056 new trees have been planted. Up to March 2018 total green area is around 82.83 hectare with around 226707 nos. of trees which is ~35 % of the total land of plant and colony area (231.94 Ha.).

**PART – I**

**ANY OTHER PARTICULATES FOR IMPROVING THE QUALITY OF ENVIRONMENT.**

1. We have full-fledged Environment Department with three separate cells, for monitoring, maintenance of pollution control equipment and 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 of Housekeeping and water supply department is taking care of operation of STP.
5. Horticulture Department is taking care of tree plantation and green belt development. Every year we are doing tree plantation.
6. Air cooled condensers have been installed at all the boilers for water conservation.
7. Waste water generated is reused in synthetic gypsum plant.

We are enclosing herewith following documents:-

Annexure-1 : Stack Emission monitoring report.

Annexure-2 : Ambient Air Quality (PM10, PM2.5, SO<sub>2</sub> and NO<sub>2</sub>), Ambient Noise Level monitoring report.

Annexure-3 : Treated Domestic Wastewater analysis report.

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**Shree Cement Ltd, Beawar****Unit-I****Stack Emission monitoring Report ( PM All values in mg/Nm<sup>3</sup>)****Year: 2017-18**

S. No.	Month	44 MW Power Plant	300 MW Power Plant	
		FGD	Boiler1	Boiler2
1	Apr-17	ND	25	NR
2	May-17	ND	27	NR
3	Jun-17	ND	25	21
4	Jul-17	ND	22	30
5	Aug-17	ND	23	30
6	Sep-17	ND	27	NR
7	Oct-17	ND	30	NR
8	Nov-17	NR	29	27
9	Dec-17	NR	18	NR
10	Jan-18	NR	22	NR
11	Feb-18	NR	24	NR
12	Mar-18	NR	34	29
<b>Average</b>		-	26	27





**Annexure: 2**

**Shree Cement Ltd, Beawar**

**Ambient Air Quality ( $\mu\text{g}/\text{M}^3$ ) & Noise Level Monitoring Report For The Period Of April 2017 To Mar 2018**

**Common for Cement plant & Power plant**

**Year:-2017-2018**

Location →	Plant boundary towards				Residential Colony				Plant boundary towards				Main Gate											
	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)									
Parameter →	PM 2.5	PM-10	SO <sub>2</sub>	NO <sub>2</sub>	Day time	Night time	PM 2.5	PM 10	SO <sub>2</sub>	NO <sub>2</sub>	Day time	Night time	PM 2.5	PM 10	SO <sub>2</sub>	NO <sub>2</sub>	Day time	Night time						
Apr	28	50	8	9	67.1	46.7	25	47	8	8	59.9	45.8	30	53	10	10	64.8	53.4	26	47	9	9	65.4	49.7
May	29	52	9	6	66.1	47.5	28	51	6	5	65.2	58.2	23	47	8	8	72.4	56.4	27	49	10	11	67.1	56.1
Jun	27	51	10	7	72.1	46.2	24	44	8	8	65.8	55.8	28	50	9	10	70.4	59.8	28	51	11	9	69.9	52.4
Jul	28	50	9	6	71.2	49.2	25	48	9	9	67.1	46.6	27	52	7	10	69.8	50.2	27	50	10	10	66.8	50.2
Aug	28	52	10	11	70.5	45.9	27	50	10	10	66.5	50.2	29	52	9	12	71.6	58.6	29	51	9	8	71.2	51.9
Sep	29	51	8	9	71.2	46.3	28	50	9	9	67.2	51.2	32	58	10	10	70.1	59.8	27	49	8	8	72.2	52.4
Oct	30	49	9	10	68.1	42.5	27	51	8	8	63.1	47.9	28	48	11	11	65.4	54.2	29	50	9	9	70.2	51.4
Nov	30	50	9	9	66.4	44.2	27	52	9	8	67.2	45.7	30	50	10	10	62.7	53.4	30	51	10	9	69.4	52.4
Dec	30	49	9	9	65.4	46.8	27	51	9	8	60.2	48.5	29	49	10	10	68.9	55.9	29	51	10	9	69.4	49.5
Jan	30	50	10	10	65.8	44.5	28	52	9	9	66.8	45.5	30	51	11	10	62.4	53.8	29	54	10	10	68.7	51.8
Feb	29	51	10	10	66.1	44.9	30	50	8	9	65.4	46.2	27	52	10	8	62.1	54.2	32	55	10	9	67.5	52.1
Mar	31	55	10	10	64.6	48.6	28	52	9	9	65.2	48.5	32	57	10	9	62.7	55.3	28	55	10	9	68.5	53.5
Average	27	51	9	9			25	48	8	8			26	52	9	9			27	51	9	8		



**Annexure: 3**

<b>(STP Treated Water Quality, Year 2017-2018)</b>														
S. No.	Parameter ↓	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Avg
1	pH	7.12	7.17	7.14	7.56	7.62	7.47	7.31	7.28	7.21	7.33	7.39	7.13	7.22
2	Suspended Solids	86	78	70	52	58	62	58	62	72	80	90	82	76.75
3	COD	74.6	74.6	76.8	52	54	56	56	58	56	48	52	74.4	82.37
4	BOD 3days 27°C	18.4	18.6	18.2	12.2	12.4	12.6	12.4	12.6	12.8	12.2	13.2	19.2	15.75
5	Oil and Grease	1.03	1.01	1.52	0.4	0.44	0.48	0.42	0.38	0.42	0.58	0.47	1.07	1.05

