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SHREE CEMENT LTD.

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

SCL/BWR/SPP-3/2019-20/ 9905

Date: 18/09/2019

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 2018-March 2019.

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.)

(Dr. Anil Kumar Trivedi)
Sr. G.M. Environment

Copy to:-

1. Chief Conservator of Forests (Central), Ministry of Environment & Forests, Central Regional Office, Kendriya Bhawan, 5th 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.

ENVIRONMENTAL STATEMENT
FORM – V
Shree Power
(A Unit of M/s Shree Cement Ltd.)
Beawar, Rajasthan
Period from : April, 2018 to : March, 2019

PART – A

1.	Name and address of the Owner / Occupier of the Industry operation or process	M/s Shree Cement Ltd BangurNagar 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 : 261975

Domestic : 315733 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	0.00013 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	0.00013 KL/KWh
2. Coal (Indian & Imported)		0.000365 MT/ KWh	0.000341 KL/KWh

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

During Previous Financial Year	During Current Financial Year
0.0738	0.0661

4. TOTAL POWER PRODUCTION (KWH):

During Previous Financial Year	During Current Financial Year
1323745472	1899886402

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	The RO reject water generated from the power plant is being utilized in the Synthetic Gypsum plant. Domestic waste water generated from residential colony and office toilets is treated in STP and treated water and sludge is used in horticulture activities. Total quantity of treated domestic waste water during the year 2018-19 was 79439 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 **Annexure – 1 & 2**	

HAZARDOUS WASTE

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

Hazardous Waste	Total Quantity (Ltrs.)	
	During Previous Financial Year (2017-2018)	**During Current Financial Year (2018-2019)**
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 / Equipment)	We have Common authorization for Hazardous Waste Management & Handling for Unit 1& 2, D.G. Sets, Power Plants, Synthetic Gypsum and Mines. Total Quantity generated from April-2017 to March-2018 = 8400Ltrs. Old Stock = 0Ltrs. Total Used oil = 8400Ltrs. Sold-out to registered recycler = 8400Ltrs. Balance Quantity= 0Ltrs	We have Common authorization for Hazardous Waste Management & Handling for Unit 1& 2, D.G. Sets, Power Plants, Synthetic Gypsum and Mines. Total Quantity generated from April-2018 to March-2019 = 800Ltrs. Old Stock = 0Ltrs. Total Used oil = 800Ltrs. Sold-out to registered recycler = 0Ltrs. Quantity Co processed = 800 Ltrs. Balance Quantity= 0 Ltrs
(b) From Pollution Control Facilities	N.A.	N.A.

PART – E

SOLID WASTE

		Total Quantity (Tons)	
		During Current Financial Year (2017-2018)	**During Current Financial Year (2018-2019)**
(a)	From Process	Nil	
(b)	From Pollution Control Facility	Fly Ash :147247 Synthetic Gypsum : 292632	Fly Ash : 192220 Synthetic Gypsum:61425
(c)	1. Quantity rejected or re-utilized within the unit 2. Sold 3. Disposed	Fly ash and Bed ash are generated from the power plant as a solid waste are characterized as Synthetic gypsum due to limestone feeding for Desulfurization.	Fly ash and Bed ash are generated from the power plant. These solid wastes are characterized as Synthetic gypsum because of calcium content due to limestone feeding for Desulfurization process. This waste is utilized in during cement manufacturing process.

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 –

1.	Number of new batteries of different categories purchased from the manufacturer / importer / dealer or any other agency	During 1st Apr 2018 to 31st Mar 2019	
	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	119	2.567
	b) Two wheeler	37	1.150
	(ii) Industrial		
	a) UPS	132	2.3803
	b) Motive Power	Nil	Nil
	c) Stand –by	Nil	Nil
	(iii) Others	Nil	Nil
	Total	**288 Nos**	6.0973 **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 1st Apr 2018 to 31st Mar 2019	
	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	78	3.276
	b) Two wheeler	16	0.008
	(ii) Industrial	Nil	Nil
	a) UPS	65	0.156
	b) Motive Power	Nil	Nil
	c) Stand –by	Nil	Nil
	(iii) Others	Nil	Nil
	Total	**159 Nos.**	**3.440 MT**

Used battery scrap was sent to CPCB authorized recycler.

Hazardous Wastes

No hazardous waste is being 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 2018 to March 2019 under the Bio-Medical Waste (Management & Handling) Rules 2016, are as follows.

	Bio-Medical Waste Quantity (Kg) as per Color Coding			
	Yellow	**Red**	**Blue**	**White**
April 2018 to March 2019	275	231	259	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 **(2017-2018)**	During Current Financial Year **(2018-2019)**
From Process	Nil	Nil
From Pollution Control Facility	Nil	Nil
Others	0.055	0.0

Solid Wastes:- Only Fly ash and Bed ash is generated from the power plants 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

Power plant is being operated on environmental friendly clean technology. The stack emissions from the plants 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 equipment 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 18-19, 721 new trees have been planted. Up to March 2019 total green area is around 82.83 hectare with around 227356 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. To further reduce fugitive emissions, we have a big size truck mounted and 04 nos of small 3D TPS sweeping machines for regular sweeping and cleaning of paved area. All the material transfer belts are covered and transfer points are equipped with pollution control equipment. Truck parking area and vehicle movement area are concreted to avoid any fugitive emissions.

6. Horticulture Department is taking care of tree plantation and green belt development. Every year we are doing tree plantation.

7. Air cooled condensers have been installed at all the boilers for water conservation.

8. Waste water generated is reused in synthetic gypsum plant.

9. We are committed and maintaining Zero Liquid Discharge (ZLD) from our premises.

10. We create environment awareness for all our stakeholders through meetings, training programs, world environment day celebrations etc.

We are enclosing herewith following documents:-

Annexure-1 : Stack Emission monitoring report.
Annexure-2 :Ambient Air Quality (PM10, PM2.5, SO_2 and NO2), Ambient Noise Level monitoring report.
Annexure-3 : Treated Domestic Wastewater analysis report.

Annexure: 1

Shree Cement Ltd, Beawar

Stack Emission monitoring Report (PM All values in mg/Nm^3)
Year: 2018-19

S. No.	Month	44 MW Power Plant	300 MW Power Plant	
		FGD (Non FGD Stack)	Boiler1	Boiler 2
1	Apr-18	23	30	27
2	May-18	15	30	31
3	Jun-18	17	23	16
4	Jul-18	25	26	26
5	Aug-18	18	27	29
6	Sep-18	23	32	30
7	Oct-18	23	42	34
8	Nov-1 8	24	32	33
9	Dec-18	SD	SD	26
10	Jan-19	SD	33	23
11	Feb-19	24	18	30
12	Mar-19	SD	33	32
Average		**16**	**27.2**	**28.1**

Annexure: 2

Shree Cement Ltd, Beawar

Ambient Air Quality (µg/M^3)& Noise Level Monitoring Report For The Period Of April 2018 To Mar 2019

Common for Cement plant & Power plant

Year:-2018-2019

Location →	Plant boundary towards village Sarakana						Residential Colony						Plant boundary towards Power Plant						Main Gate					
	AAQ in µg/M3				Noise Level in dB(A)		AAQ in µg/M3				Noise Level in dB(A)		AAQ in µg/M3				Noise Level in dB(A)		AAQ in µg/M3				Noise Level in dB(A)	
Parameter →	PM 2.5	PM-10	SO2	NO2	Day time	Night time	PM 2.5	PM 10	SO2	NO2	Day time	Night time	PM 2.5	PM 10	SO2	NO2	Day time	Night time	PM 2.5	PM 10	SO2	NO2	Day time	Night time
Apr	33	64	10	12	64.6	48.6	30	58	8	11	65.2	48.5	32	66	10	11	62.7	55.3	30	69	10	11	68.5	53.5
May	37	69	12	12	64.3	48.5	29	58	8	13	61.8	47.6	37	71	8	13	63.2	55.1	33	68	10	12	68.3	53.1
Jun	30	63	11	12	63.6	48.8	26	56	8	13	64.5	47.5	34	67	10	12	63.2	55.6	30	68	9	11	66.7	54.3
Jul	23	49	10	9	63.4	48.6	24	45	9	9	62.5	46.7	26	48	10	9	64.1	56.1	25	44	8	9	66.8	55.2
Aug	33	65	9	11	62.3	49.2	32	61	8	13	61.4	47.2	35	69	9	12	63.7	55.8	33	67	9	11	67.4	54.8
Sep	34	66	11	10	63.6	50.3	31	62	9	11	62.4	47.6	37	70	11	10	64	56.4	35	68	10	11	66.9	55.3
Oct	33	62	10	8	64.2	51.4	30	56	8	12	61.8	46.9	36	67	11	9	65.7	57.3	36	70	9	12	64.7	53.5
Nov	35	61	11	8	63.8	52.3	31	54	8	11	62.8	48.2	36	66	11	8	66.2	58.6	39	70	8	13	65.3	54.1
Dec	33	58	10	7	62	54	30	53	6	12	52	46	31	64	12	9	65	56	38	66	7	12	68	57
Jan	38	60	12	9	64	53	32	56	8	11	55	48	36	58	13	10	68	59	37	63	9	13	70	60
Feb	22	39	13	8	62	51	30	42	8	12	58	42	17	22	12	8	65	56	15	20	8	13	62	50
Mar	32	42	8	8	60	52	35	49	9	10	61	47	39	52	10	10	62	51	33	46	8	9	65	55
Average	**31.9**	**58.2**	**10.6**	**9.5**	**63.2**	**50.6**	**30.0**	**54.2**	**8.1**	**11.5**	**60.7**	**46.9**	**33**	**60**	**10.6**	**10.1**	**64.4**	**56.0**	**32**	**59.9**	**8.8**	**11.4**	**66.6**	**54.7**

Annexure: 3

S.N	Parameter	Apr-18	May-18	June-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Avg
1	pH	8.2	8.45	7.87	8.28	8.36	8.42	8.38	8.2	8.74	8.58	8.72	8.38	8.4
2	Suspended Solids	55	62	54	68	72	64	60	54	90	84	82	88	69.4
3	COD	48	80	90	120	128	110	120	142	220	210	210	226	142.0
4	BOD 3 days 27°C	18.4	16.2	18.6	22.4	22.8	20.8	19.2	20.8	26.8	25.6	24.6	25.6	21.8
5	Oil & Grease	0.31	0.52	0.58	1.2	1.28	1.1	0.8	1.1	1	1.4	1.2	1.62	1.0