O/C

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SHREE CEMENT LTD.

An ISO 9001, 14001, 45001 & 50001 Certified Company

Regd. Office:
BANGUR NAGAR, POST BOX NO.33, BEAWAR 305901, RAJASTHAN, INDIA

SCL/BWR/SPP-3/2020-21/ 6101 Date: 22/09/2020

To, **File No. P-130**

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

Sub:- Environmental Statement Report of Power Units of M/s Shree Cement Ltd, Village – Andheri Deori, Tehsil Masuda, District Ajmer (Raj) for the period of April 2019 - March 2020.

Ref: - CTO No. - F (CPM)/ Ajmer (MASUDA)/1(1)/2010-2011/889-891 dated – 14/05/2018.

Dear Sir,
Kindly refer to above subject matter and referred letter. In this regard, we are submitting herewith the Environmental Statement Report of Power Units of M/s Shree Cement Ltd, Village – Andheri Deori, Tehsil Masuda, District Ajmer (Raj) for the period of April 2019 - March 2020.

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 & Climate Change, 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 Industrial Area, Kishangarh, Ajmer (Raj).

ENVIRONMENTAL STATEMENT
FORM – V
Shree Power
(A Unit of M/s Shree Cement Ltd.)
Beawar, Rajasthan
Period from: April, 2019 to March, 2020

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	18/09/2019

PART – B

WATER AND RAW MATERIAL CONSUMPTION

1. **WATER CONSUMPTION:**

Process : 228530

Domestic : 265923 KL (Common for Cement Plants & Power Plants)

Name of Product	**Process Water Consumption per Unit of Power Output**	
	During Previous Financial Year (2018-19)	**During Current Financial Year (2019-20)**
Power	0.00013 KL/KWh	0.00016 KL/KWh

2. RAW MATERIAL CONSUMPTION:

Name of Raw Material	Name of Product	Consumption of Raw Material Per Unit of Output (Power)	
		During Previous Financial Year (2018-19)	During Current Financial Year (2019-20)
1. Water	POWER	0.00013 KL/KWh	0.00016 KL/KWh
2. Coal (Indian & Imported)		0.000341 MT/KWh	0.000365 MT/KWh

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

During Previous Financial Year (2018-19)	During Current Financial Year (2019-20)
0.0661	**0.0648**

4. TOTAL POWER PRODUCTION (KWH):

During Previous Financial Year (2018-19)	During Current Financial Year (2019-20)
1899886402	1349684506

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, canteen, guest house and office toilets of all units cement and power plant is being treated in STP and treated water and sludge generated is used in horticulture activities. Total quantity of treated domestic waste water during FY 2019-20 was 88,670 KL. Residential colony and guest house 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	

PART – D

HAZARDOUS WASTE

As specified under Hazardous & Other Wastes (Management & Trans boundary Movement Rule, 2016) & Amendment rule, 2019.

Hazardous Waste	Total Quantity (Ltrs.)	
	During Previous Financial Year (2018-2019)	**During Current Financial Year (2019-2020)**
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 Cement Plant (Unit 1 & 2), D.G. Sets, Power Plants, Synthetic Gypsum Plant and Mines. Total Quantity generated from April-2018 to March-2019 = 800 Ltrs. Old Stock = 0 Ltrs. Total Used oil = 800 Ltrs. Sold-out to registered recycler = 0 Ltrs. Quantity Co- processed = 800 Ltrs. Balance Quantity= 0 Ltrs	We have Common authorization for Hazardous Waste Management & Handling for Cement Plant (Unit 1 & 2), D.G. Sets, Power Plants, Synthetic Gypsum Plant and Mines. Total Quantity generated from April-2019 to March-2020 = 1200 Ltrs. Old Stock = 0 Ltrs. Total Used oil = 1200 Ltrs. Sold-out to registered recycler = 0 Ltrs. Quantity Co- processed = 1200 Ltrs. Balance Quantity= 0 Ltrs
(b)From Pollution Control Facilities	N.A.	N.A.

PART – E

SOLID WASTE

		Total Quantity (Tons)	
		During Previous Financial Year (2018-2019)	**During Current Financial Year (2019-2020)**
(a)	From Process	Nil	Nil
(b)	From Pollution Control Facility	Fly Ash : 192220 Synthetic : 61425	Fly Ash : 126165 Synthetic : 21895
(c)	1. Quantity rejected or re-utilized within the unit	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	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
	2. Sold		
	3. Disposed		

		during cement manufacturing process	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 (Unit 1 & 2), D.G. Sets, Power Plants, Synthetic Gypsum Plant and Mines:

1.	Number of new batteries of different categories purchased from the manufacturer / importer / dealer or any other agency	During 1st Apr 2019 to 31st Mar 2020	
	Common for Cement Plant (Unit 1 & 2), D.G. Sets, Power Plants, Synthetic Gypsum Plant and Mines		
	Category:	(i) No. of Batteries	(ii) Approximate Weight (In Metric Tonnes)
	(i) Automotive		
	a) Four wheeler	84	0.915
	b) Two wheeler	10	0.296
	(ii) Industrial		
	a) UPS	120	1.0
	b) Motive Power	Nil	Nil
	c) Stand –by	Nil	Nil
	(iii) Others	Nil	Nil
	Total	**214 Nos**	**2.211 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. 2019 to 31st Mar. 2020	
	Common for Cement Plant (Unit 1 & 2), D.G. Sets, Power Plants, Synthetic Gypsum Plant and Mines		

	Category:	(i) No. of Batteries	(ii) Approximate Weight (In Metric Tonnes)
	(i) Automotive		
	a) Four wheeler	105	5.82
	b) Two wheeler	30	0.345
	(ii) Industrial	Nil	Nil
	a) UPS	212	2.575
	b) Motive Power	Nil	Nil
	c) Stand –by	Nil	Nil
	(iii) Others	Nil	Nil
	Total	**347Nos.**	**8.74 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/co-processed in cement kiln.

Bio-Medical Wastes:

Bio-medical waste generated is common for Cement Plant (Unit 1 & 2), D.G. Sets, Power Plants, Synthetic Gypsum Plant and Mines during previous and current financial year under the Bio-Medical Waste (Management & Handling) Rules 2016 & amended on 2019, are as follows.

Bio-Medical Waste Quantity (Kg) as per Color Coding							
During Previous Financial Year (April 2018 to March 2019)				**During Current Financial Year (April 2019 to March 2020)**			
Yellow	**Red**	**Blue**	**White**	**Yellow**	**Red**	**Blue**	**White**
275	**231**	**259**	**0.0**	**282**	**219**	**247**	**0.0**

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 (2018-2019)	**During Current Financial Year (2019-2020)**
From Process	Nil	Nil
From Pollution Control Facility	Nil	Nil

Others	0.0	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 within our plant area and also outside the plant boundary. Every year we are doing new tree plantation to increase the density and bio-diversity of the area. In the FY19-20, 924 new trees have been planted. Up- to March 2020 total green area is around 82.83 hectare with around 228280 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.

6. All the material transfer belts are covered and transfer points are equipped with pollution control equipment.

7. Truck parking area and vehicle movement areas are paved and concreted to avoid any fugitive emissions.

8. Horticulture Department in coordination with environment department is taking care of tree plantation and green belt development. Every year during monsoon season, we are doing new tree plantation.

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

10. We are committed and maintaining Zero Liquid Discharge (ZLD) from our premises.
11.
12. Domestic waste water generated from Colony, guesthouse, office toilets and canteen is being treated at Sewage Treatment Plant (STP) and treated water is being utilized in plantation & gardening.

13. 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, SO2 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/Nm3)
Year: 2019-20

S. No.	Month	44 MW Power Plant	300 MW Power Plant	
		FGD (Non FGD Stack)	Boiler1	Boiler 2
1	Apr-19	23	29	36
2	May-19	20	23	31
3	Jun-19	21	32	27
4	Jul-19	18	27	34
5	Aug-19	21	29	27
6	Sep-19	20	29	27
7	Oct-19	SD	SD	SD
8	Nov-19	SD	SD	SD
9	Dec-19	SD	22	22
10	Jan-20	SD	20.1	28
11	Feb-20	19.2	22.9	29.2
12	Mar-20	18.6	23.5	33
Average		20.1	25.75	29.42

Annexure: 2

Shree Cement Ltd, Beawar

Ambient Air Quality (µg/m^3)& Noise Level Monitoring Report For The Period Of April 2019 To Mar 2020

Common for Cement plant & Power plant

Year:-2019-2020

Location →	Plant boundary towards village Sarakana						Residential Colony						Plant boundary towards Power Plant						Main Gate					
	AAQ in µg/m^3				Noise Level in dB(A)		AAQ in µg/m^3				Noise Level in dB(A)		AAQ in µg/m^3				Noise Level in dB(A)		AAQ in µg/m^3				Noise Level in dB(A)	
Parameter →	PM 10	PM-2.5	SO_2	NO_2	Day time	Night time	PM 10	PM-2.5	SO_2	NO_2	Day time	Night time	PM 10	PM 2.5	SO_2	NO_2	Day time	Night time	PM 2.5	PM 10	SO_2	NO_2	Day time	Night time
Apr	55.0	36.0	10.0	7.0	59.0	50.0	56.0	33.0	9.0	10.0	64.0	49.0	50.0	40.0	9.0	13.0	63	49.0	52.0	34.0	10.0	4.0	67.0	53.0
May	50.0	40.0	9.0	8.0	60.0	51.0	59.0	41.0	7.0	12.0	64.0	49.0	55.0	42.0	8.0	9.0	59	50.0	54.0	33.0	8.0	11.0	67.0	53.0
Jun	59.0	45.0	8.0	9.0	62.0	46.0	51.0	45.0	11.0	8.0	59.0	43.0	64.0	52.0	10.0	8.0	60	48.0	54.0	49.0	6.0	9.0	64.0	50.0
Jul	60.0	40.0	9.0	8.0	60.0	45.0	59.0	41.0	7.0	12.0	58.0	42.0	55.0	42.0	8.0	9.0	62	45.0	54.0	33.0	8.0	11.0	62.0	49.0
Aug	55.0	46.0	8.0	9.0	65.0	43.0	54.0	38.0	7.0	8.0	54.0	40.0	56.0	44.0	7.0	8.0	57	42.0	60.0	37.0	10.0	8.0	62.0	50.0
Sep	55.0	28.0	8.0	6.0	66.0	44.0	53.0	30.0	7.0	7.0	59.0	41.0	53.0	26.0	8.0	8.0	59	43.0	56.0	29.0	6.0	9.0	58.0	47.0
Oct	55.0	46.0	8.0	9.0	70.0	48.0	54.0	38.0	7.0	8.0	60.0	39.0	56.0	44.0	7.0	8.0	62	40.0	60.0	37.0	10.0	8.0	65.0	50.0
Nov	57.0	26.0	7.0	7.0	67.0	42.0	59.0	27.0	7.0	7.0	59.0	35.0	51.0	26.0	8.0	8.0	65	36.0	58.0	25.0	6.0	8.0	69.0	48.0
Dec	55.0	23.0	8.0	8.0	65.0	41.0	58.0	25.0	8.0	7.0	58.0	42.0	50.0	25.0	9.0	9.0	68	42.0	56.0	24.0	7.0	9.0	70.0	55.0
Jan	51.0	20.0	9.0	9.0	72.0	42.0	54.0	24.0	9.0	8.0	65.0	45.0	48.0	22.0	10.0	10.0	62	39.0	54.0	23.0	8.0	10.0	65.0	45.0
Feb	51.0	25.0	9.0	9.0	68.0	55.0	53.0	26.0	10.0	10.0	72.0	60.0	52.0	27.0	9.0	9.0	70	44.0	53.0	25.0	8.0	11.0	66.0	52.0
Mar	50.0	23.0	9.0	10.0	66.0	49.0	44.0	27.0	8.0	9.0	62.0	49.0	49.0	30.0	10.0	11.0	**65**	**55.0**	**48.0**	**26.0**	**13.0**	**12.0**	**69.0**	**53.0**
Average	**54.4**	**33.2**	**8.5**	**8.3**	**65.0**	**46.3**	**54.5**	**32.9**	**8.1**	**8.8**	**61.2**	**44.5**	**53.3**	**35.0**	**8.6**	**9.2**	**62.7**	**44.4**	**54.9**	**31.3**	**8.3**	**9.2**	**65.3**	**50.4**

Annexure: 3

S.N	Parameter	Apr-19	May-19	June-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Avg
1	pH	8.58	8.7	8.78	8.38	8.48	8.56	8.38	7.88	8.8	8.62	7.2	7.2	8.3
2	Suspended Solids	68	52	48	56	44	52	32	90	75	59	36	34	53.8
3	COD	220	212	198	216	196	220	228	218	215	212	71.2	68.6	189.6
4	BOD 3 days 27°C	22.4	22.6	21.8	24.6	22.6	24.2	22.8	15.2	21.2	18.5	16	15	20.6
5	Oil & Grease	1.8	1.9	1.8	1.3	1.32	1.28	1.2	1.62	1.8	1.3	1.2	1.5	1.5