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o/c

SHREE CEMENT LTD.

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

SCL/Ras/Unit-III/Env. Statement /2019-20/ - 8963
- 8970
- 8971

Date : 10/09/2019
Speed Post

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

File No. C-057

Sub: - Environmental Statement for the period from April 2018 to March 2019 for Cement Plant Unit-III of M/s Shree Cement Limited situated at Village- Ras Bhimgarh, Tehsil- Jaitaran, Dist- Pali (Raj).

Ref: - (1) CTO No. F(Tech)/Pali(Jaitaran)/2(1)/2008-2009/1204-1206 dated 19/05/2017
(2) CTO No. F(Tech)/Pali(Jaitaran)/2(1)/2008-2009/3100-3102 dated 07/08/2018

Respected Sir,

We are submitting herewith Environmental Statement for the period from April 2018 to March 2019 for Cement Plant Unit-III 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;

(Dr. Anil Kumar Trivedi)
Sr. GM (Environment)

for

Encl: a/a

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.)

o/c Environment Department, Ras

ENVIRONMENTAL STATEMENT
M/s Shree Cement Limited: Unit- III
Period from: April 2018 to: March 2019

FORM - V

PART – A

1.	Name and address of the Owner / Occupier of the Industry operation or process	Cement Plant Unit-III M/s Shree Cement Ltd. Village: Ras/ Bhimgarh, Tehsil: Jaitaran, Dist: Pali-306107 (Rajasthan)
2.	Industry Category Primary (S.T.C. Code) Secondary (S.I.C. Code)	Red Category
3.	Production Capacity	1.55 Million TPA Clinker 2.2 Million TPA Cement
4.	Year of Establishment	2005
5.	Date of the last Environmental Statement submitted	22/9/2018

PART – B

WATER AND RAW MATERIAL CONSUMPTION

(I) WATER CONSUMPTION:

Process	:	N.A. (As plant is based on dry Process technology)
Cooling and dust Suppression	:	45140 KL
Domestic	:	70430 KL (Common for Cement Plants & Power Plants)

Name of Product	Process Water Consumption per Unit of Clinker & Cement Output	
	During Previous Financial Year (2017-2018)	During Current Financial Year (2018-2019)
Clinker	0.03713 KL/ MT of Clinker	0.03836 KL/ MT of Clinker
Cement	0.02887 KL/ MT of Cement	0.02973 KL/ MT of Cement

(II) RAW MATERIAL CONSUMPTION: (CEMENT)

Name of Raw Material	Name of Product	Consumption of Raw Material Per Unit of Output (Cement)	
		During Previous Financial Year (2017-2018)	During Current Financial Year (2018-2019)
1. Limestone	Cement	1.308	1.392
2. Laterite /Iron Ore		0.021	0.013
3. Gypsum		0.072	0.061
4. Coal & Pet Coke		0.091	0.084
5. Sludge		0.001	0.00

(III) POWER CONSUMPTION (KWH/T OF CEMENT):

During Previous Financial Year (2017-2018)	During Current Financial Year (2018-2019)
84.26	85.53

(IV) TOTAL CEMENT PRODUCTION (MT):

Product	During Previous Financial Year (2017-2018)	During Current Financial Year (2018-2019)
Clinker	1141691	1176879
Cement	1468331	1518263

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	As the plant is being operated on dry process technology, no liquid effluent is generated from the cement plant. The waste water generated from the office toilet and canteen is treated in STP and treated water & sludge generated is used in horticulture activities. Analysis Report of STP treated water is attached as **Annexure-3**	
(b)	Air	Please refer **Annexure – 1 & 2**	

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 (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 / Equipments)	Common authorization for Hazardous Waste Management & Handling for Cement Plant, Power Plant, D.G.Set and Nimbeti Limestone Mines. Total Quantity generated from April-2017 to March-2018 = 18270 Ltrs. Old Stock = 0 Ltrs. Total Used oil = 18270 Ltrs. Sold-out to registered recycler = 18270 Ltrs. Balance Quantity= 0 Ltrs	Common authorization for Hazardous Waste Management & Handling for Cement Plant, Power Plant, D.G.Set and Nimbeti Limestone Mines. Total Quantity generated from April-2018 to March-2019 = 12780 Ltrs. Old Stock = 0 Ltrs. Total Used oil = 12780 Ltrs. Sold-out to registered recycler = 0.0 Ltrs. Co-processed in cement kiln = 12780 Ltrs. Balance Quantity= 0 Ltrs
(b) From Pollution Control Facilities	N.A.	N.A.

PART – E

SOLID WASTE

		Total Quantity	
		During Previous Financial Year (2017-2018)	**During Current Financial Year (2018-2019)**
(a)	From Process	Nil	Nil
(b)	From Pollution Control Facility	Dust collected in the ESPs, Bag Houses and Bag Filters are recycled to the system.	
(c)	1. Quantity rejected or re-utilized within the unit	100%	100%
	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" technology. No Hazardous waste is generated from the process except used oil which is drained from machineries / equipment. The used oil & old lead acid batteries are 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.

Period	**Bio-Medical Waste Quantity (Kg) as per Color Coding**			
	Red	**Blue**	**Yellow**	**White**
April 2017 to March 2018	39.105	38.05	37.92	38.91
April 2018 to March 2019	39.21	28.448	41.065	32.01

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	
	During Previous Financial Year (2017-2018)	**During Current Financial Year (2018-2019)**
From Process	1740 Kg.	Nil
From Pollution Control Facility	Nil	Nil

Solid Wastes: - N.A.

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	**Previous Year 1st Apr 2017 to 31st Mar 2018**		**Current Year 1st Apr 2018 to 31st Mar 2019**	
	Category:	(i) No. of Batteries	(ii) Approximate Weight (In Metric Tonnes)	(i) No. of Batteries	(ii) Approximate Weight (In Metric Tonnes)
	(i) Automotive				
	a) Four wheeler	207	8.652	219	9.568
	b) Two wheeler	Nil	Nil	Nil	Nil
	(ii) Industrial				
	a) UPS	455	4.640	66	0.563
	b) Motive Power	Nil	Nil	Nil	Nil
	c) Stand –by	Nil	Nil	Nil	Nil
	(iii) Others	Nil	Nil	Nil	Nil
	Total	**662 Nos**	**13.292 MT**	**285 Nos**	**10.131 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	**Previous Year 1st Apr 2017 to 31st Mar 2018**		**Current Year 1st Apr 2018 to 31st Mar 2019**	
	Category:	(i) No. of Batteries	(ii) Approximate Weight (In Metric Tonnes)	(i) No. of Batteries	(ii) Approximate Weight (In Metric Tonnes)

	(i) Automotive				
	a) Four wheeler	164	5.438	301	7.854
	b) Two wheeler	Nil	Nil	Nil	Nil
	(ii) Industrial				
	a) UPS	449	3.592	112	0.896
	b) Motive Power	Nil	Nil	Nil	Nil
	c) Stand –by	Nil	Nil	Nil	Nil
	(iii) Others	Nil	Nil	Nil	Nil
	Total	**613 Nos**	**9.030 MT**	**413 Nos**	**8.750 MT**

Used battery scrap was sent to CPCB authorized recycler

PART – G

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

M/s Shree Cement Limited is being operated on dry process technology, which is cost effective and environmentally clean technology. The advantage of dry process is also in fuel economy. The stack emissions from the plant are controlled by equipment like ESPs & Bag Houses. Bag Filters installed at various material transfer points to clean the process and arrest the fugitive emissions. The particulate matter collected in the pollution control equipment is recycled in process and neutralizing the cost of operation of pollution control equipment and hence no cost impact on the production cost.

Synthetic Gypsum is being used in place of natural gypsum thus directly conserves the mineral gypsum. Waste Heat Recovery System (WHRS) is installed at Pre-heater and cooler section for trapping gasses of high temperatures are being used for generation of Green Power which has resulted in conservation of fuel, reduction of GHG emissions and water conservation.

PART – H

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

Green belt development and tree plantation is our ongoing process. Plantation has been carried out in an area of around 63.8 hectare with (Total land: 187.56 hc.)165311 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, for monitoring, maintenance of pollution control equipment and Green Belt development.
2. Monitoring of stack emission, ambient air, Noise & 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.
5. Horticulture Department is taking care of tree plantation and green belt development. Every year we are doing tree plantation and every year carbon sequestration being is carried out during 2018-19, 3810.66 Tons of CO2 was sequestrated.
6. Effective operation and maintenance of Bag House at Raw Mill & Kiln, Coal Mill, Cement mill and Cooler ESP.
7. Effective operation of cooler ESP transformer and control panel in first field to further reduce PM emission levels.
8. Constructed concreted roads at Stacker and Re-claimer area for further reduction of fugitive emissions.
9. Installed new bag filters at various application like DBC, transfer points etc.
10. Modification of Coal Mill Bag House for further reduction of Particulate emissions.
11. Installed NOx mitigation systems in all cement kilns (Uint-3-10) as pollution control measure to achieve prescribed standards.

We are enclosing herewith following documents: -

Annexure-1: Stack Emission monitoring report (PM, SO2 & NOx)

Annexure-2: Ambient Air Quality (PM10, PM2.5, SO_2 and NO_2) & Ambient Noise Level monitoring report

Annexure-3: STP treated water test report

Annexure: 1

Shree Cement Ltd, Ras
Unit-III
Stack Emission Monitoring Report (PM, SO_2 & NOx)
All values in mg/Nm^3
Year: 2018-19

S. No.	Month	Raw Mill & Kiln Stack			Coal Mill Stack	Cooler Stack	Cement Mill Stack
		PM	NOx	SO_2	PM	PM	PM
1	Apr-18	13	697	9.8	12	9	23
2	May-18	15	719	7.5	19	12	25
3	Jun-18	18	735	2.6	13	22	16
4	Jul-18	16	703	0	17	20	11
5	Aug-18	12	549	0	13	24	13
6	Sep-18	16	631	0	11	21	10
7	Oct-18	14	684	8.6	9	19	8
8	Nov-18	18	762	24	13	18	13
9	Dec-18	15	559	0	11	20	16
10	Jan-19	17	703	5	12	16	9
11	Feb-19	14	526	15	16	21	10
12	Mar-19	11	610.8	10.8	21	15	16
Average		**15**	**657**	**7**	**14**	**18**	**14**

Annexure: 2

Shree Cement Ltd, Ras																
Ambient Air Quality (µg/M^3) Monitoring Report For The Period Of April 2018 To March 2019																
Common for Cement plant & Power plant																
Year:-2018-2019																
Location →	**Plant Boundary Near Main Gate**				**Plant Boundary Near Mess**				**Plant Boundary towards Stacker & Reclaimer**				**Plant boundry towards village Khera & Jawangarh**			
	AAQ in µg/M^3				**AAQ in µg/M^3**				**AAQ in µg/M^3**				**AAQ in µg/M^3**			
Parameter →	**PM 2.5**	**PM-10**	**SO_2**	**NO_2**	**PM 2.5**	**PM 10**	**SO_2**	**NO_2**	**PM 2.5**	**PM 10**	**SO_2**	**NO_2**	**PM 2.5**	**PM 10**	**SO_2**	**NO_2**
Apr-18	36.1	54.8	7.9	12.1	31.0	48.6	8.2	11.0	28.3	47.8	7.7	11.1	25.6	46.8	7.2	10.8
May-18	34.6	53.3	7.7	11.3	31.6	48.3	9.2	11.4	30.6	47.0	8.1	10.8	27.1	46.9	7.5	10.6
Jun-18	33.6	51.1	7.9	10.9	32.5	44.8	8.6	10.8	31.8	47.8	7.7	10.6	29.0	46.3	7.3	10.3
Jul-18	30.8	48.3	7.9	10.4	31.0	47.6	8.4	10.5	31.5	45.4	7.8	10.3	29.1	44.8	7.4	9.9
Aug-18	28.5	46.3	8.1	10.7	28.9	46.5	8.6	10.1	27.8	43.3	8.0	10.4	25.0	39.3	7.6	10.1
Sep-18	29.0	48.4	8.2	10.3	29.4	49.0	8.3	10.6	31.1	48.0	8.0	10.6	28.4	44.9	7.6	10.2
Oct-18	30.1	45.1	8.4	10.9	34.4	45.1	9.0	11.1	37.6	45.9	8.9	10.9	33.1	44.6	8.4	10.5
Nov-18	28.5	41.9	8.6	10.6	36.5	45.9	8.8	10.9	37.3	43.8	9.0	10.8	33.5	45.5	8.6	10.3
Dec-18	33.4	49.6	9.3	11.7	30.4	43.0	10.	11.5	33.5	47.9	9.2	11.5	31.5	46.3	8.8	11.2
Jan-19	34.6	45.2	8.9	12.0	33.5	41.9	9.1	11.9	36.8	40.9	8.8	11.9	32.0	43.5	8.5	11.5
Feb-19	36.5	52.4	8.7	12.3	31.6	46.6	8.5	12.3	32.0	45.9	8.2	12.1	28.1	43.0	7.9	11.7
Mar-19	36.3	52.0	14.4	11.6	33.3	47.8	8.8	11.5	35.8	48.3	9.4	11.5	29.5	42.0	9.2	11.1
Average	**32.7**	**49.0**	**8.8**	**11.2**	**32.0**	**46.3**	**8.8**	**11.1**	**32.8**	**46.0**	**8.4**	**11.0**	**29.3**	**44.5**	**8.0**	**10.7**

Shree Cement Ltd, Ras								
Ambient Noise Level dB(A) Monitoring Report For The Period Of April 2018 To March 2019								
Common for Cement plant & Power plant								
Year:-2018-2019								
Location →	**Plant Boundary Near Main Gate**		**Plant Boundary Near Mess**		**Plant Boundary towards Stacker & Reclaimer**		**Plant boundry towards village Khera & Jawangarh**	
	Noise Level in dB(A)		**Noise Level in dB(A)**		**Noise Level in dB(A)**		**Noise Level in dB(A)**	
Parameter →	**Day time**	**Night time**	**Day time**	**Night time**	**Day time**	**Night time**	**Day time**	**Night time**
Apr-18	71.20	66.90	72.60	65.50	70.60	60.70	68.90	62.10
May-18	72.40	67.20	70.30	64.80	67.60	61.20	65.10	60.30
Jun-18	70.60	64.20	72.60	63.40	66.40	61.60	63.60	59.20
Jul-18	68.20	59.30	70.30	62.60	65.20	61.90	62.30	58.20
Aug-18	71.30	59.90	68.60	61.30	67.20	62.20	61.90	57.50
Sep-18	68.20	59.30	70.30	62.60	65.20	61.90	62.30	58.20
Oct-18	70.10	58.20	64.00	60.10	71.50	63.30	63.30	55.50
Nov-18	65.00	56.90	71.00	60.50	68.50	60.10	60.10	57.10
Dec-18	71.20	59.90	70.20	57.50	65.30	60.80	61.00	59.90
Jan-19	73.10	62.90	70.60	61.70	67.40	62.50	64.30	60.40
Feb-19	72.80	63.20	69.20	60.90	68.60	66.90	63.50	61.40
Mar-19	71.50	62.70	70.20	61.30	67.30	69.10	62.30	58.10
Average	**70.5**	**61.7**	**70.0**	**61.9**	**67.6**	**62.7**	**63.2**	**59.0**

Annexure: 3

(STP Treated Water Quality, Year 2018-2019)														
S. No.	**Parameter ↓**	**Apr-18**	**May-18**	**Jun-18**	**Jul-18**	**Aug-18**	**Sep-18**	**Oct-18**	**Nov-18**	**Dec-18**	**Jan-19**	**Feb-19**	**Mar-19**	**Avg.**
1	pH	7.29	7.3	7.33	7.26	7.66	7.36	7.26	7.31	7.22	7.39	7.5	7.44	**7.36**
2	Total Suspended Solids	42.3	46.3	48.2	42.1	46.6	48.2	56	43.2	40.3	43.6	40	42	**44.90**
3	Oil and Grease	3.1	3.4	3.1	3.9	2.95	1.56	2.04	1.8	1.8	2	<4.0	2.53	**3.1**
4	BOD 3days 27°C	18.4	17.5	15.7	13.2	15	16.7	15.3	17.9	11.2	13.3	11.9	24	**15.84**
5	COD	89.3	92.3	90.1	98.5	95.1	86.5	95.3	89.2	98.1	135	146	62.9	**98.19**