CIN No. : L26943RJ1979PLC001935

Phone : 01462 228101-6
Toll Free : 1800 180 6003 / 6004
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lail : shreebwr@shreecementitd.com

Website : www.shreecement.in



SHREE CEMENT LTD.

Olc

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





SCL/Ras/Unit-III/Env. Statement /2020-21/6037

Date: 10/09/2020

Speed Post

To,

The Member Secretary,

File No. C-057

Rajasthan Pollution Control Board,

4, Institutional Area, Jhalana Doongri Road,

JAIPUR-302004 (Rajasthan)

Sub:- Environmental Statement for the period from April 2019 to March 2020 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 2019 to March 2020 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)

Encl: a/a
Copy to:-

1. Chief Conservator of Forests (Central), Ministry of Environment & Forests, Central Regional Office, Kendriya Bhawan, 5th Floor Sector II, Aliganj, Lucknow – 226024 (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.)

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

NEW DELHI OFFICE : 122-123, Hans Bhawan, 1, Bahadurshah Zafar Marg, New Delhi 110 002

Phone: 011 23370828, 23379218, 23370776, Fax: 011 23370499

CORP. OFFICE: 21, Strand Road, Kolkata 700 001 Phone: 033-22309601-4 Fax: 033 22434226

of SCL Ras



ENVIRONMENTAL STATEMENT

FORM - V

M/s. Shree Cement Limited: Unit - III Period from: April 2019 to: March 2020

PART - A

100	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	10/09/2019

PART - B

WATER AND RAW MATERIAL CONSUMPTION

(I) <u>WATER CONSUMPTION:</u>

Process

N.A. (As plant is based on dry Process

technology)

Cooling and dust

43866 KL

Suppression

Domestic

63987 KL (Common for Cement Plant,

Power Plant Synthetic Cement Plant &

Mines)



Name of	Process Water Consumption per Unit of Clinker & Cement Output			
Product	During Previous Financial Year (2018-2019)	During Current Financial Year (2019-2020)		
Clinker	0.03836 KL/ MT of Clinker	0.04234 KL/ MT of Clinker		
Cement	0.02973 KL/ MT of Cement	0.03362 KL/ MT of Cement		

(II) RAW MATERIAL CONSUMPTION: (CEMENT/CLINKER)

	Name of	Consumption of Raw Material Per Unit of Output (Cement)		
Name of Raw Material	Product	During Previous Financial Year (2018-2019)	During Current Financial Year (2019-2020)	
1. Limestone		1.392	1.276	
2. Laterite /Iron Ore	Cement/	0.013	0.019	
3. Gypsum	Clinker	0.061	0.066	
4. Coal & Pet Coke		0.084	0.086	
5. Fly Ash		0.00	0.034	

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

Product	During Previous Financial Year (2018-2019)	During Current Financial Year (2019-2020)
Clinker	85.53	80.96
Cement	55.96	51.38

(IV) TOTAL CLINKER & CEMENT PRODUCTION (MT):

Product	During Previous Financial Year (2018-2019)	During Current Financial Year (2019-2020)
Clinker	1176879	1035971
Cement	1518263	1304879



<u>PART – C</u> <u>DISCHARGED TO ENVIRONMENTAL / UNIT OF OUTPUT</u>

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 of technology, no liquid efflucement plant. The waste water generated canteen is being treated in sludge generated is being horticulture activities. Analysis Report of STP treatments of STP treatments.	from the office toilet and STP and treated water & used in planation &
(b)	Air	Please refer Annexure – 1	& 2



PART – D

HAZARDOUS WASTE

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

Hazardous	Total Quantity (Ltrs.)			
Waste	During Previous Financial	During Current Financial Year		
	Year (2018-2019)	(2019-2020)		
a)From	Common authorization for	Common authorization for		
Process	Hazardous Waste	Hazardous Waste Management &		
(Cement	Management & Handling for	Handling for Cement Plant, Power		
manufacturing	Cement Plant, Power Plant,	Plant, Synthetic Gypsum Plant,		
is based on	Synthetic Gypsum Plant,	D.G.Set and Nimbeti Limestone		
"Dry Process"	D.G.Set and Nimbeti	Mines.		
No Hazardous	Limestone Mines.			
waste is				
generated	Total Quantity generated from	Total Quantity generated from April-		
from the	April-2018 to March-2019	2019 to March-2020		
process except	= 12780 Ltrs.	= 26820 Ltrs.		
used oil which	Old Stock $= 0$ Ltrs.	Old Stock $= 0$ Ltrs.		
is drained	Total Used oil = 12780 Ltrs.	Total Used oil = 26820 Ltrs.		
from	Sold-out to registered recycler	Sold-out to registered recycler		
Machinery /	= 0.0 Ltrs.	= 0.0 Ltrs.		
Equipments)	Co-processed in cement kiln =	Co-processed in cement kiln = 26820		
	12780 Ltrs.	Ltrs.		
	Balance Quantity= 0 Ltrs	Balance Quantity= 0 Ltrs		
(b) From				
Pollution	N.A.	N.A.		
Control	11.71.	IN.A.		
Facilities				



<u>PART – E</u> SOLID WASTE

Sr.	Particulars	Total Quantity		
No.		During Previous Financial Year (2018-2019)	During Current Financial Year (2019-2020)	
(a)	From Process	Nil	Nil	
(b)	From Pollution Control Facility	Dust collected in the E Bag Filters are recycled		
(c)	1. Quantity rejected or reutilized 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

A. 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. Used oil is being Co-processed in cement kiln as authorization obtained from RSPCB. Old and scrap lead acid batteries are sold to CPCB authorized recyclers.

Sr.	Sr. Particulars Total Quantity		
No.		During Previous Financial Year (2018-2019)	During Current Financial Year (2019-2020)
1	Used oil (Co processed in Cement Kiln)	12780 KL	26820 KL
2	Lead acid battery waste (Sell to authorized recycler)	7.854 MT	4.986 MT

B. Hazardous wastes were received and co-processed as specified under Hazardous Wastes (Management, Handling &Trans boundary Movement Rule, 2016) during





the Current Financial Year (2019-2020) – (During the Period of April -2019 to March-2020

S. No.	Type of hazardous waste	Category	Quantity (MT)
1	a) Paint Sludge	21.1	1913.782
2	b) ETP/CETP Sludge	35.3	21572.714
3	c)Phosphate sludge	12.5	199.395
4	d) Oil soaked cotton, Industrial Waste, residue containing oil, Grinding sludge etc.	5.2	4526.749
5	e) Spent acid	26.3	33072.88
6	f) Incineration ash	36.2	95.685
7	g) SOBM	2.1	32126.544
8	h) Cotton rags	33.2	68.645
9	i) Spent Clay	4.5	501.973
10	j) Waste or residues	23.1	2099.45
11	k) Organic Residue	4.4	33.402
12	1) Spent Carbon	28.3	293.33
13	m) Co-Incenerable waste	28.2	668.12
14	n)Distillation residue	28.1	684.92
15	o) Spent Solvent	28.6	551.915
16	p) Plastic waste	33.1	25.42
17	q) Iron Sludge	26.1	1036.34
18	r) Other Waste	N.A	354.84
Total	Quantity		99826.104



Bio-Medical Wastes:

Bio-medical waste generated is common for cement plant, power plant and mines. During current financial year April-2019 to March-2020 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 2018 to March 2019	39.21	28.448	41.065	32.01
April 2019 to March 2020	49.00	46.3	19.83	24.171

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

E- Wastes:

Particulars	Total Quantity		
	During Previous Financial Year (2018-2019)	During Current Financial Year (2019-2020)	
From Process	Nil	Nil	
From Pollution Control Facility	Nil	Nil	

<u>Solid Wastes</u>: - Other Municipal solid waste generated from all units (Cement Plant, Power Plant, Synthetic Gypsum plant and Nimbeti Limestone Mines) of the entire campus is being collected, manage and disposed as per MSW Rules, 2016.



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:

1.7	Number of new batteries of different categories purchased from the manufacturer / importer / dealer or any other agency		ear Financial pr 2018 to 31st	Current Year Financial Year (1st Apr 2019 to 31st Mar 2020)			
	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	219	9.568	195	4.917		
	b) Two wheeler	Nil	Nil	Nil	Nil		
	(ii) Industrial						
	a) UPS	66	0.563	310	9.166		
	b) Motive Power	Nil	Nil	Nil	Nil		
	c) Stand –by	Nil	Nil	Nil	Nil		
	(iii) Others	Nil	Nil	3	0.004		
	Total	285 Nos	10.131 MT	508 Nos	14.087 MT		
2.	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		ear Financial pr 2018 to 31st	Current Year Financial Year (1st Apr 2019 to 31st Mar 2020)			
	Category:	(i) No. of Batteries	(ii) Approximate Weight (In	(i) No. of Batteries	(ii) Approximate Weight (In Metric Tonnes)		
		Datteries	Metric Tonnes)	Datteries	Metric Tonnes)		
	(i) Automotive	Datteries		Batteries	,		
	(i) Automotive a) Four wheeler	301		168	,		
	- 3.2	1	Metric Tonnes)		Metric Tonnes)		
	a) Four wheeler	301	Metric Tonnes) 7.854	168	Metric Tonnes) 4.986		
	a) Four wheeler b) Two wheeler	301	Metric Tonnes) 7.854	168	Metric Tonnes) 4.986		
	a) Four wheeler b) Two wheeler (ii) Industrial	301 Nil	Metric Tonnes) 7.854 Nil	168 Nil	Metric Tonnes) 4.986 Nil		
	a) Four wheeler b) Two wheeler (ii) Industrial a) UPS	301 Nil	7.854 Nil	168 Nil	Metric Tonnes) 4.986 Nil		
	a) Four wheeler b) Two wheeler (ii) Industrial a) UPS b) Motive Power	301 Nil 112 Nil	7.854 Nil 0.896 Nil	168 Nil 0 Nil	Metric Tonnes) 4.986 Nil 0 Nil		

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 pollution control 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 back 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 Preheater 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.

Company has separate AFR cell looking after the utilization of alternative fuels and raw materials. Unit is utilizing ETP sludge, Paint sludge, oily rags, waste mix solids, phosphate sludge, etc.

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. Plantation has been carried out in an area of around 63.8 hectare with (Total land: 187.56 ha.) 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 basis.



Continuation sheet

- 3. Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.
- 4. Civil dept. taking care of Housekeeping.
- 5. Truck parking area and vehicle movement areas are paved and concreted to avoid any fugitive emissions.
- 6. 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 and every year carbon sequestration being is carried out during 2018-2019, 3810.66 Tons of CO2 was sequestrated.
- 7. Effective operation and maintenance of Bag House at Raw Mill & Kiln, Coal Mill, Cement mill and Cooler ESP.
- 8. Effective operation of cooler ESP transformer and control panel in first field to further reduce PM emission levels.
- 9. Constructed concreted roads at Stacker and Re-claimer area for further reduction of fugitive emissions.
- 10. Installed new bag filters at various application like DBC, transfer points etc.
- 11. Modification of Coal Mill Bag House for further reduction of Particulate emissions.
- 12. Installed NOx mitigation systems in all cement kilns (Uint-3-10) as pollution control measure to achieve prescribed standards.
- 13. Covered shed and silos have been constructed for raw material storage.
- 14. Domestic waste water generated from office toilets and canteen is being treated at Sewage Treatment Plant (STP) and treated water is being utilized in plantation & gardening.
- 15. We are committed and maintaining Zero Liquid Discharge (ZLD) from our premises.

We are enclosing herewith following documents: -

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

Annexure-2: Ambient Air Quality (PM10, PM2.5, SO₂ and NO₂) & 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, SO₂ & NO_x)

All values in mg/Nm³ Year: 2019-2020

S. No.	Month		Raw Mill & Kiln Stack		Coal Mill Stack	Cooler Stack	Cement Mill Stack	
5. 110.	Wionen	PM	NOx	SO ₂	PM	PM	PM	
1	Apr-2019	15	607	6.8	13	21	20	
2	May-2019	12	678	4.5	20	10	24	
3	Jun-2019	15	426	0	13.2	21.6	13.4	
4	Jul-2019	16	538	0	13	8	12	
5	Aug-2019	ig-2019 12		0	15	9	16	
6	Sep-2019	23.9	421	BDL	16.3	11.8	13.8	
7	Oct-2019	16	433	18.2	23	9	12	
8	Nov-2019	NR	NR	NR	NR	NR	18	
9	Dec-2019	27.4	462.9	0	16.9	6.9	18.3	
10	Jan-2020	12	436	0	15	20	13	
11	Feb-2020	10	423	0	13	20	23	
12	Mar-2020	15	462	0	20	14	19	
Av	erage	16	501	3	16	14	17	

Annexure: 2

	Am	bient A	ir Ouali	ity (μg/m	³) Mon			ent Ltd t For Tl		d Of A	oril 20	19 To M	larch 2	020					
					Commo									-					
						Ye	ar:-20	19-2020											
Location →	Plant Boundary Near Main Gate				Plant Boundary Near Mess				Plant Boundary towards Stacker & Reclaimer				Plant boundry towards village Khera & Jawangarh						
		AAQ ii	n μg/m³			AAQ in	μg/m	3		AAQ in	μg/m ³	3		AAQ in	μg/m	g/m³			
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-2019	34.5	48.1	8.4	11.2	35.1	46.3	7.3	10.9	33.6	46.3	8.0	10.9	32.3	40.5	7.7	10.5			
May-2019	32.9	46.8	8.7	12.0	33.8	43.6	8.7	11.2	32.5	44.6	8.4	11.3	31.8	41.4	8.0	10.9			
Jun-2019	34.6	48.3	8.5	11.3	34.9	46.9	8.4	11.6	34.3	43.9	8.2	11.2	31.6	43.1	7.8	10.8			
Jul-2019	28.9	41.8	8.1	10.4	29.4	41.0	8.1	10.8	31.1	42.9	8.0	10.7	28.9	39.6	7.5	10.1			
Aug-2019	20.5	30.0	8.2	9.7	21.4	30.9	8.4	9.6	21.4	31.6	7.9	9.3	20.3	29.0	7.6	9.0			
Sep-2019	26.8	36.3	8.2	9.7	25.5	36.1	8.2	9.7	28.0	38.8	6.9	9.5	25.3	35.5	7.6	9.1			
Oct-2019	31.2	42.7	8.4	9.9	30.1	41.5	8.4	9.7	35.5	46.9	7.0	9.6	29.8	39.3	7.6	9.3			
Nov-2019	33.4	53.3	8.9	12.1	32.5	48.0	8.9	11.9	31.8	44.8	7.5	11.8	27.5	44.0	8.1	11.4			
Dec-2019	35.4	50.5	9.4	12.7	33.3	47.8	9.2	13.3	32.0	45.8	7.8	12.7	28.6	45.3	8.5	12.2			
Jan-2020	36.9	53.9	9.8	13.9	29.9	49.4	10.	14.9	31.4	47.4	8.4	14.0	26.9	46.6	9.1	13.5			
Feb-2020	35.6	51.8	10.3	14.1	34.3	52.3	10.	14.2	30.9	49.8	8.8	13.7	29.6	49.0	9.4	13.1			
Mar-2020	33.7	53.0	9.9	12.8	31.5	51.5	9.9	13.0	29.0	51.8	7.6	12.9	28.5	48.2	9.0	12.3			
Average	32.0	46.3	8.9	11.6	31.0	44.6	8.8	11.7	30.9	44.5	7.9	11.5	28.4	41.8	8.2	11.0			





			<u>Sh</u>	ree Cement L	td, Ras				
	Ambient No	ise Level dB(A)	Monitoring	Report For T	he Period O	f April 2019 T	o March 202	20	
		<u>C</u>	ommon for (Cement plant	& Power pla	<u>nt</u>			
			<u>Y</u>	ear:-2019-202	20				
$\begin{array}{c} \textbf{Location} \\ \rightarrow \end{array}$		undary Near in Gate		ndary Near less	towards	Soundary Stacker & aimer	Plant boundry towards village Khera & Jawangarh Noise Level in dB(A)		
	Noise Le	vel in dB(A)	Noise Lev	el in dB(A)	Noise Lev	el in dB(A)			
Parameter →	Day time	Night time	Day time	Night time	Day time	Night time	Day time	Night time	
Apr-2019	72.60	63.40	71.20	62.80	65.80	67.30	68.10	60.10	
May-2019	71.80	66.20	7.2.1	62.80	66.90	65.80	62.60	59.90	
Jun-2019	72.40	65.20	71.00	61.80	67.90	63.80	64.60	60.80	
Jul-2019	71.90 64.10		70.50	61.40	68.90	64.50	64.60	60.90	
Aug-2019	19 73.70 64.70		71.10	60.30	72.60	62.50	68.60	59.30	
Sep-2019	73.20	67.20	72.00	63.20	69.50	62.00	67.50	61.00	
Oct-2019	74.10	68.10	70.20	65.40	68.60	62.30	65.90	61.30	
Nov-2019	72.30	67.60	65.60	58.80	70.60	65.80	67.20	62.40	
Dec-2019	71.60	66.60	68.50	57.90	69.50	64.50	65.20	58.90	
Jan-2020	71.90	65.60	64.60	59.60	72.60	62.20	62.60	59.60	
Feb-2020	70.50	63.70	64.00	58.60	73.20	63.40	61.50	57.20	
Mar-2020	71.90	60.60	64.90	59.40	72.20	61.70	60.30	56.80	
Average	72.33	65.25	68.51	61.00	69.86	63.82	64.89	59.85	



Continuation sheet

Annexure: 3

	(STP Treated Water Quality, Year 2019-2020)													
S. No.	Parameter ↓	Apr- 19	May- 19	Jun- 19	Jul- 19	Aug- 19	Sep- 19	Oct- 19	Nov- 19	Dec- 19	Jan- 20	Feb- 20	Mar- 20	Avg.
1	рН	7.38	7.51	7.29	7.3	7.12	7.37	7.26	7.36	7.35	7.54	7.46	7.33	7.36
2	Total Suspended Solids	32	30	34	39	42	36	53	68	32	59	53	65	45.25
3	Oil and Grease	2	2.9	3.1	2.5	2.9	2.8	1.89	1.44	<4.0	2.84	1.85	2.03	2.39
4	BOD 3days 27°C	10	11	15	13	16	12	11	10	18	14.6	12.4	16.2	13.27
5	COD	79.9	61.2	58.4	60	55	43	59	74	47.8	75.1	89.5	93.2	66.34