CIN No. : L26943RJ1979PLC001935 Phone : 01462 228101-6 Toll Free : 1800 180 6003 / 6004 Fax : 01462 228117 / 228119 E-Mail : shreebwr@shreecement.com Website : www.shreecement.com



An ISO 9001, 14001, 45001 & 50001 Certified Company

OC

Regd. Office:

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

SCL/Ras/Unit-IV/Env. Statement /2020-2021/ 6037

Date : 10/09/2020 Speed Post

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

File No. C-053

- Sub:-Environmental Statement for the period from April 2019 to March 2020 for Cement Plant Unit-IV 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)/2008-2009/9645-9647 dated 21/02/2018 (2) CTO No. -F(CPM)/Pali(Jaitaran)/1024(1)/2013-2014/3106-3108 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-IV** 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:-
- Chief Conservator of Forests (Central), Ministry of Environment & Forests, Central Regional Office, Kendriya Bhawan, 5th Floor Sector H, Aliganj, Lucknow – 226024 (U.P.)
- 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 302015 Phone : 0141 4241200, 4241204 NEW DELHI OFFICE : 122-123, Hans Bhawan, 1, Bahadurshah Zafar Marg, New Delhi 110002 Phone : 011 23370828, 23379218, 23370776 CORP. OFFICE : 21, Strand Road, Kolkata 700001 Phone : 033 22309601-4 Fax : 033 22434226

ENVIRONMENTAL STATEMENT

$\underline{FORM - V}$

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

$\underline{PART - A}$

1.	Name and address of the Owner / Occupier of the Industry operation or process	Cement Plant Unit-IV M/s Shree Cement Ltd. Village: Ras/Bhimgarh, Tehsil: Jaitaran, Dist:Pali - 306107 (Rajasthan)
2.	Industry Category Primary (S.T.C. Code) Secondary (S.T.C. Code)	Red Category
3.	Production Capacity SCL Unit-IV	1.55 Million TPA Clinker2.2 Million TPA Cement
4.	Year of Establishment	2007
5.	Date of the last Environmental Statement Submitted	10/09/2019

<u>PART – B</u>

WATER AND RAW MATERIAL CONSUMPTION

(I) WATER CONSUMPTION:

Process	;	N.A. (As plant is based on dry Process technology)
Cooling and dust Suppression	5	45499 KL
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	0.04557 KL / MT of Clinker	0.04526 KL / MT of Clinker	

sh	Shree
- m.m.	CONTRACTOR OF A

Cement 0.02646 KL / MT of Cement	0.02902 KL / MT of Cement
----------------------------------	---------------------------

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

	Name of	Consumption of Raw Material P Unit of Output (Cement)	
Name of Raw Material	Product	During Previous Financial Year (2018-2019)	During Current Financial Year (2019-2020)
1. Limestone		1.409	1.399
2. Laterite/Iron Ore	Cement/	0.012	0.020
3. Gypsum	Clinker	0.060	0.066
4. Coal & Pet Coke		0.085	0.089
5. Sludge		0.00	0.00

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

Product	During Previous Financial Year (2018-2019)	al During Current Financial Year (2019-2020)	
Clinker	80.87	81.68	
Cement	52.29	52.27	

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

Product	During Previous Financial Year (2018-2019)	During Current Financial Year (2019-2020)
Cement	1720156	1568100
Clinker	998723	1005233

SI Shree

<u>PART – C</u>

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	technology, no liquid of the cement plant. The waste water gener and canteen is being the water & sludge gener planation & horticultur	operated on dry process effluent is generated from ated from the office toilet reated in STP and treated erated is being used in re activities. P treated water is attached
(b)	Air	Please refer Annexure	-1&2

<u>PART – D</u>

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 (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 / Equipments)	Cement Plant, Power Plant,			
(b) From Pollution Control Facilities	N.A.	N.A.		

<u> PART – E</u>

SOLID WASTE

Sr.	Particulars	Total Quantity	
No.		During Previous Financial Year (2018-2019)	
(a)	From Process	Nil	(a)
(b)	From Pollution Control Facility	ntrol Dust collected in the ESPs, Bag Houses Bag Filters are recycled to the system.	
(c)	1. Quantity rejected or re- utilized within the unit	100%	(c)
	2. Sold	Nil	
	3. Disposed	Nil	

<u> PART – F</u>

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.	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

SI Shree Cement

Continuation sheet

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	l) 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.

	Bio-Medical Waste Quantity (Kg) as per Colour Coding									
Period	Red	Blue/White	Yellow	Black						
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						

Solid Wastes: • 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.

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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		ear Financial pr 2018 to 31 st	Current Year Financial Year (1 st Apr 2019 to 31 st 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 31 st	Current Year Financial Year (1 st Apr 2019 to 31 st 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	301	7.854	168	4.986		
	b) Two wheeler	Nil	Nil	Nil	Nil		
	(ii) Industrial						
	a) UPS	112	0.896	0	0		
	b) Motive Power	Nil	Nil	Nil	Nil		
	c) Stand –by	Nil	Nil	Nil	Nil		
1							
	(iii) Others	Nil	Nil	Nil	Nil		

Used battery scrap was sent to CPCB authorized recycler.

<u>PART – G</u>

IMPACTOFTHEPOLLUTIONCONTROLMEASURESONCONSERVATIONOFNATURALRESOURCESANDCONSEQUENTLYONTHE 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 and 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 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.

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.

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. 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 ha.)165311 trees, which is ~34 % of the total land of plant area.

<u>PART – I</u>

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 basis.
- 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 2018-19, 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 Reclaimer 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.

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

S. No.	Month		aw Mill & Kiln Stack		Coal Mill Stack	Cooler Stack	Cement Mill Stack	
		PM	NOx	SO ₂	PM	PM	PM	
1	Apr-2019	7	589	10	21	12	23	
2	May-2019	15	646	3.6	18	9.4	20	
3	Jun-2019	15	426	0	10.4	6.6	24.3	
4	Jul-2019	12	524	0	15	17	9	
5	Aug-2019	17	439	0	21	6	10	
6	Sep-2019	23.9	552	0	13.2	8,1	22.6	
7	Oct-2019	13	539	14.2	20	11	14	
8	Nov-2019	11	407	0	15	8	12	
9	Dec-2019	27.4	462.9	0	14.8	4.2	21.7	
10	Jan-2020	10	468	0	22	5	17.5	
11	Feb-2020	12	411	0	20	7	14	
12	Mar-2020	13	426	0	17	9	21	
Av	verage	15	491	2	17	9	17	

Shree Cement Ltd, Ras : Unit-IV Stack Emission Monitoring Report (PM, SO₂ & NOx) <u>All values in mg/Nm³</u> <u>Year: 2018-19</u>

NR*-Not Running

Annexure: 2

						Sh	ree Cei	nent Lt	d. Ras					1 811	licxuri	
	An	nbient A	Air Qua	lity (µg	/m ³) Mo					od Of A	April 2	019 To	March	2020		
						non for										
						1	ear:-2	019-202	0							
Location \rightarrow	Pla	nt Bour Main	ndary N Gate	lear	Pla	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	РМ- 10	SO ₂	NO ₂	PM 2.5	РМ 10	SO ₂	NO ₂	PM 2.5	РМ 10	SO 2	NO ₂	PM 2.5	РМ 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	10.0	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	10.5	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

				ee Cement L					
<u>Am</u>	bient Nois	e Level dB(A)	Monitoring l	Report For 7	The Period O	f April 2019	9 To March	2020	
		<u>Co</u>	mmon for C	ement plant	& Power pla	ant			
			<u>Ye</u>	ear:-2019-20	20				
Location \rightarrow		undary Near in Gate		idary Near ess	Plant Bo towards S Recla	Stacker &	Plant boundry towards village Khera & Jawangarh Noise Level in dB(A)		
	Noise Le	evel in dB(A)	Noise Leve	el in dB(A)	Noise Leve	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	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	

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Annexure: 3

				(STP T	reated W	ater Qua	lity, Yea	ar 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