



SHREE CEMENT LTD.

SP3-II (A 1), RIICO INDUSTRIAL AREA, KHUSHKHERA-301707
BHIWADI, DISTT. ALWAR, RAJASTHAN



SCL/KKG/Env/ESR/2019-20/2161
File No. C-015

Date: 17/09/2019
Th.:DTDC Courier

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

Sub.: Environment Statement Report of M/s. Shree Cement Limited, Khushkhera for the period from April, 2018 to March, 2019 under Environment Protection Act, 1986.

Ref: Consent to operate letter No.F (Tech)/Alwar (Tijara)/100(1)/ 2009-2010/10605-10607 dated 14/02/2017 .

Dear Sir,

We are submitting herewith the Annual Environment Statement Report for the period from April, 2018 to March, 2019 for M/s. Shree Cement Limited, situated at Plot No. SP3-II/A-1, RIICO Industrial Area, Khushkhera-Bhiwadi, Distt.-Alwar - (Rajasthan).

This is for your kind information please.

Thanking you,
Yours Faithfully,

For SHREE CEMENT LIMITED,

K. L. MAHAJAN
Jt. Vice-President (O)

- Copy to: 1. The Regional Officer, Rajasthan State Pollution Control Board,
Plot No. G.O. I, RIICO Industrial Area, Bhiwadi, (Rajasthan)-301019.
2. The Chief Conservator of Forest (C), Regional Office (Central Region), Ministry of Environment & Forest, Kendriya Bhawan, 5th Floor, Sector 'H' Aliganj, LUCKNOW- 226024

o/c Environment Deptt.

ENVIRONMENT STATEMENT

FORM-V

(See Rule-14)

(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 LIMITED Post Box No.33 Bangur Nagar, BEA WAR Distt.- AJMER (Rajasthan) PIN-305901
2.	Industry Category Primary (S.T.C. Code) Secondary (S.T.C. Code)	Red Category
3.	<u>Production Capacity</u> Cement : D. G. Set :	4.50 Million Tons Per Annum 1000 KVA
4.	Year of Establishment	2007
5.	Date of the last Environment-Statement submitted.	25 th September, 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 : 18471 KL

Domestic : 20416 KL

Name of Product	Cooling & Dust Suppression Water Consumption per unit of Product Output	
	During previous financial year (2017-18) Metric Tonnes	During current financial year (2018-19) Metric Tonnes
Cement	0.00500 KL / Metric Ton of Cement	0.00655 KL / Metric Ton of Cement

(II) **RAW MATERIAL CONSUMPTION: (CEMENT PLANT)**

Name of Raw Material	Name of Product	Consumption of Raw Material per unit of Output (Cement)	
	Cement	During previous financial year (2017-18) Metric Tonnes	During current financial year (2018-19) Metric Tonnes
Clinker		0.6127	0.6183
Fly Ash		0.2998	0.2916
Gypsum		0.0875	0.0900

RAW MATERIAL CONSUMPTION: (1000 KVA D.G. SET)

Name of Raw Material	Name of Product	Consumption of Raw Material per unit of Output (Ltrs / KWH)	
		During previous financial year (2017-18) Metric Tonnes	During current financial year (2018-19) Metric Tonnes
Fuel/Diesel	Power	0.4607	0.3710
		D.G. Set not operated so far. It is being used in emergency conditions or power failure only to operate office lights and computers.	

(III) **POWER CONSUMPTION (Kwh/T OF CEMENT):**

During Previous Financial Year (2017-18)	During Current Financial Year (2018-19)
30.84	31.14

(IV) **TOTAL CEMENT PRODUCTION (Metric Tonnes):**

During previous financial year (2017-18) Metric Tonnes	During current financial year (2018-19) Metric Tonnes
2648960	2821414

PART-C
DISCHARGED TO ENVIRONMENTAL / UNIT OF OUTPUT

Pollutants	Quantity of Pollutants Discharged (Mass/Day)	Concentration of Pollutants in Discharges (Mass/Value)	Percentage of variation from prescribed standard with reasons
(a)	Water	The plant is being operated on dry process technology and therefore no liquid effluent is generated from the cement plant. Waste water generated from office toilets and canteen is being treated through Sewage Treatment Plant (STP). The STP treated water is being utilized in horticulture activities. Monthly quantity & quarterly quality of treated domestic effluent is given in Annexure-I	
(b)	Air	Please refer Annexures- II & III	
(c)	Noise	Please refer Annexure- IV	

PART - D

HAZARDOUS WASTE

(As specified under Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2016)

Hazardous Waste	Total Quantity (Ltrs.)	
	During Previous Financial Year (April,2017 to March,2018)	During Current Financial Year (April,2018 to March,2019)
	We are having common authorization for Hazardous Waste Management & Handling for Clinker Grinding Unit (Cement 4.50 MTPA & 1000 KVA D. G. Set)	
a) From Process Cement manufacturing (Grinding) is based on "Dry Process" No Hazardous waste is generated from the process except used oil which is drained from Machinery / Equipments	Total Quantity Generated in 2017-18 : 2730 Ltrs Old Stock : 0 Ltrs Sale out : 2730 Ltrs Balance : 0 Ltrs	Total Quantity Generated in 2018-19 : 0 Ltrs Old Stock : 0 Ltrs Sale out : 0 Ltrs Balance : 0 Ltrs The used oil generated is being used in co-processing in cement kiln.
(b) From Pollution Control Facilities	N.A.	N.A.

PART - E
SOLID WASTE

		Total Quantity	
		During Previous Financial Year	During Current Financial Year
(a)	From Process	Nil	Nil
(b)	From Pollution Control Facility	Dust collected in the Bag Houses and Bag Filters is recycled/ reused in process.	
(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. Used oil is sold to the CPCB/RSPCB authorized recyclers/self used for lubrication. The used oil generated is being used in co-processing in cement kiln.

Battery Waste:

As specified under Batteries (Management & Handling) Amendment Rules, 2010, Details of Lead-Acid batteries are as under:-

Year 2018-19

Number of new batteries of different categories purchased from the manufacturer / importer / dealer or any other agency.		During 1 st April, 2018 to 31 st March, 2019	
Category:		(i) No. of Batteries	(ii) Approximate Weight (In Metric Tonnes)
(i) Automotive			
a) Four wheeler		05	0.165
b) Two wheeler		Nil	Nil
(ii) Industrial			
a) UPS		157	1.123
b) Motive Power		Nil	Nil
c) Stand -by		Nil	Nil
(iii) Others		Nil	Nil
Total		162	1.358
Number of used batteries of categories and Tonnage of scrap sent to manufacturer/ dealer/importer/registered recycler/or any other		During 1 st April, 2018 to 31 st March, 2019	

agency to whom the used batteries scrap was sent.		
Category:	(i) No. of Batteries	(ii) Approximate Weight (In Metric Tonnes)
(i) Automotive		
a) Four wheeler	Nil	Nil
b) Two wheeler	Nil	Nil
(ii) Industrial		
a) UPS	Nil	Nil
b) Motive Power	Nil	Nil
c) Stand -by	Nil	Nil
(iii) Others	Nil	Nil
Total	Nil	Nil

Bio-Medical Waste:

Bio-Medical Waste generated during current financial year April, 2018 to March, 2019 under the Bio-Medical Waste (Management & Handling) Rules, 2016 are as follows.

Year 2018-19

April, 18 to March, 19	Bio-Medical Waste Quantity (Kg) as per colour coding			
	Red	Blue	Yellow	White
	0.103 Kg	0.000 Kg	0.461 Kg	0.189 Kg
TOTAL	0.753 Kg			

Bio-medical waste was being sent to Government CHC, Tapukara for further environment friendly treatment & disposal. Right now it is being sent to M/s HOSWIN Incinerator (CBWFT) at Alwar for proper disposal.

E- Wastes:

Source	Total Quantity	
	During Previous Financial Year	During Current Financial Year
From Process	Nil	Nil
From Pollution Control Facility	Nil	Nil

Solid Wastes: - N.A.

PART – G

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

Clinker grinding unit is operated on dry process technology, which is cost effective and environmental clean technology. The advantage of roller press for pre grinding of clinker is an energy conservation process. The stack emissions from the plant are controlled by equipment like 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 / reused in process and neutralizing the cost of

operation of pollution control equipment and hence no cost impact on the production cost. Further fly ash is also being utilized in the production of PPC cement thus eliminating the harmful impacts on environment.

PART – H

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

Green belt development and tree plantation is our ongoing process activity within the plant area and outside of the area. Every year plantation activities are being done to increase the bio-diversity of the area. Till 31st March, 2019, we have covered 3.76 hectare, around 7174 nos. of trees with 6495 nos. survival with a survival rate of 90.53 % , this is around 35.98 % green belt area of the total plant area (10.45 hect.). In addition to this, outside plant areas we have planted 7577 nos. of tree saplings at Nearby Govt schools (Govt. Primary Schools-Khushkhera & Govt Sec. School, Maheshra) outside plant area, both side of RIICO road, Dharuhera road-Budhi Bawal Road, Kasola Road, Mahaeshra village road with a survival rate is 79.2 %. During the FY 2019- 20 we have a target of planting around 500 nos. of tree species.

PART – I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

1. We have full-fledged Environment Department with three separate cells, one for monitoring, one for maintenance of pollution control equipment and one for green belt development.
2. Regular monitoring of stack emissions, ambient air quality, ambient noise and ground water quality & levels. Data analysis is being done to further improve the environment quality of the plant area.
3. Maintenance Department is performing regular checking and scheduled maintenance of all the pollution control devices i.e. bag filters etc.
4. Civil and Personal & Administration departments are taking care of entire House keeping of the Plant area.
5. To further reduce fugitive emissions, we have a big size truck mounted and 02 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 section is taking care of tree plantation and green belt development. Every year we are planting tree species inside and outside of the plant area.
7. We have installed Continuous Emission Monitoring System (CEMS) to display the data on CPCB and RPCB web sites.
8. Domestic waste water is being treated at Sewage Treatment Plant (STP). This treated water is being utilized in plantation & gardening.
9. We are maintaining Zero Liquid Discharge (ZLD) from our premises.
10. We create environment awareness for all our stakeholders through meetings, training programs, day celebrations etc.

On support of above, we are enclosing herewith following Annexures:-

Annexure-I : Monthly treated domestic effluent Report for the year 2018-19

Annexure-II : Ambient Air Quality Monitoring Report for the year 2018-19

Annexure-III : Stack Emission Level Monitoring Report for the year 2018-19

Annexure-IV : Ambient Noise level Monitoring Report for the year 2018-19

Annexure-V : Yearly plantation Report & for the year 2018-19

ANNEXURE-I

MONTHLY TREATED DOMESTIC EFFLUENT

QUANTITY OF STP TREATED DOMESTIC EFFLUENT(Monthly)		
YEAR: 2018-19		
MONTH	MONTHLY VOLUME (KL)	DAILY AVERAGE (KLD)
April,18	233	7.77
May,18	271	8.74
June,18	226	7.53
July,18	244	7.87
August,18	256	8.26
September,18	215	7.17
October,18	228	7.36
November,18	166	5.53
December,18	286	9.23
January,19	221	7.13
February,19	191	6.82
March,19	233	7.52
Total	2770	7.58

QUALITY OF STP TREATED DOMESTIC EFFLUENT(Quarterly)					
YEAR: 2018-19					
Parameters	Observed value(mg/L) except pH				Prescribed Standard Limit (mg/l) except pH
	June,18	Sep,18	Dec,18	Mar,19	
Total Suspended Solids	49.00	18.00	62.00	67.00	100
pH Value	8.12	7.27	7.11	8.05	5.5-9.0
Oil and Grease (O&G)	1.30	1.30	3.70	3.60	10
Total Residual Chlorine	BDL	BDL	BDL	BDL	1.0
Ammonical Nitrogen (as N)	3.20	26.80	33.00	21.50	50
Biochemical Oxygen Demand (3 days at 27°C)	18.60	19.10	21.80	18.70	30
Chlorides	185.00	180.10	165.00	174.80	1000
Chemical Oxygen Demand	93.00	88.00	139.00	129.00	250

ANNEXURE-II

AMBIENT AIR QUALITY MONITORING REPORT APR, 2018 TO MAR, 2019 ($\mu\text{g}/\text{m}^3$)

S. No	Location →	Plant boundary towards Arjun Road				Plant boundary towards Dharuheda Road				Plant boundary towards Khushkhera Village			
	Month ↓	PM _{2.5}	PM ₁₀	SO ₂	NO _x	PM _{2.5}	PM ₁₀	SO ₂	NO _x	PM _{2.5}	PM ₁₀	SO ₂	NO _x
1	April,18	36	49	17.4	25.3	38	55	18.3	25.1	35	48	17.2	24.9
2	May,18	33	47	19.2	27.6	36	53	18.9	27.1	38	55	19.1	26.9
3	June,18	31	45	20.4	28.2	35	51	19.7	27.5	36	54	20.1	27.3
4	July,18	29	43	14.2	30.1	34	55	13.7	29.8	33	52	14.6	31.2
5	August,18	32	46	13.8	29.6	35	51	14	28.9	34	53	13.3	28.5
6	September,18	30	45	15.2	27.4	33	49	15.6	27.9	36	54	14.8	27.5
7	October,18	35	49	17.6	30.5	37	53	17.1	29.9	34	54	16.8	30.2
8	November,18	33	53	26.5	29.7	36	56	25.1	30.2	35	57	26.3	29.5
9	December,18	32	50	29.2	34.6	34	54	29.5	32.8	37	55	28.4	33.7
10	January,19	29	42	23.7	30.1	32	49	22.9	31.5	36	50	21.7	28.6
11	February,19	31	46	27.4	33.2	33	52	26.8	32.0	35	54	27.3	33.4
12	March,19	34	50	24.8	31.9	36	53	25.1	33.4	38	56	25.2	32.7
AVERAGE		32	47	20.8	29.9	35	53	20.6	29.7	36	54	20.4	29.5

ANNEXURE-III

Stack emission level (PM in mg/Nm³) for the Period of Apr, 2018 to Mar, 2019

S. No	Months ↓	Stack attached with Bag house of Cement mill-1	Stack attached with Bag house of Cement mill-2
		Monitored Value(mg/Nm3)	Monitored Value(mg/Nm3)
1	April,18	14	21
2	May,18	18	25
3	June,18	16	19
4	July,18	14	21
5	August,18	23	15
6	September,18	17	13
7	October,18	15	17
8	November,18	18	14
9	December,18	20	24
10	January,19	13	18
11	February,19	16	15
12	March,19	22	13
	AVERAGE	17.2	17.9

Stack emission level of 1000 KVA DG Set (mg/Nm³) for the Period of April,2018 to March,2019

S. No	Date & Month ↓	Stack attached with 1000 KVA DG Set		
		Parameters	Monitored Value (mg/Nm3)	Prescribed Standard Limit (mg/Nm3)
1	June,2018 (Monitored on 17.06.2018 during major power shutdown of JVVNL)	CO	64.8	150
		NMHC	28.4	100
		NOx	142.5	710
		Particulate Matter	36.9	75

ANNEXURE-IV

AMBIENT NOISE MONITORING REPORT FROM APR,2018 TO MAR,2019(Leq-dB(A)

Location → Months ↓	Plant boundary towards Arjun Road		Plant boundary towards Dharuheda Road		Plant boundary towards Khushkhera Village	
	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
April,18	63.4	61.2	65.7	62.8	67.9	63.6
May,18	62.0	64.5	66.1	64.6	65.9	62.7
June,18	64.2	63.1	67.5	63.1	66.3	64.4
July,18	65.0	63.7	66.9	64.3	65.4	62.8
August,18	63.0	64.2	65.1	63.9	67.3	64.5
September,18	64.9	62.7	66.5	61.8	65.4	63.2
October,18	63.8	61.4	68.3	64.6	64.7	60.9
November,18	56.3	62.9	61.1	65.4	54.3	63.7
December,18	60.1	64.7	61.3	63.4	64.8	62.5
January,19	57.8	60.1	67.5	62.9	65.5	63.3
February,19	61.4	63.3	55.7	60.5	64.4	67.0
March,19	60.6	61.7	63.9	62.3	66.2	64.2
AVERAGE	61.9	62.8	64.6	63.3	64.8	63.6

ANNEXURE-V

YEARWISE PLANTATION DETAILS

Year	No. of plant saplings planted	No. of plant saplings survived	Rate of Survival (%)
2018-19	742	675	90.97
2017-18	973	835	85.81
2016-17	699	613	87.69
2015-16	1069	888	83.06
2014-15	1067	989	92.68
2013-14	1318	1245	94.46
2012-13	636	592	93.08
2011-12	1083	1039	95.93
2010-11	2501	2219	88.72
2009-10	1363	1226	89.94
2008-09	1200	1100	91.66
2007-08	2100	1629	77.57
Total	14751	13171	