



SHREE CEMENT LTD.

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



SCL/KKG/Env/2018-19/ 1409
File No. C-015

Date: 25/09/2018
Th.:F.F. 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, 2017 to March, 2018 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, 2017 to March, 2018 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, 2017 to MARCH, 2018)

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, BEAWAR 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, 2017

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 : 13254 KL

Domestic : 25051 KL

Name of Product	Cooling & Dust Suppression Water Consumption per unit of Product Output	
	During Previous Financial Year	During Current Financial Year
Cement	0.00552 KL /Metric Ton of Cement	0.00500 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 (2016-17)	During Current Financial year (2017-18)
Clinker		0.5737	0.6127
Fly Ash		0.3409	0.2998
Gypsum		0.0853	0.0875

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 2016-17 Financial year	During 2017-18 Financial year
Fuel/Diesel	Power	0.4750	0.4607
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 (2016-17)	During Current Financial Year (2017-18)
31.21	30.84

(IV) TOTAL CEMENT PRODUCTION (Metric Tonnes):

During previous financial year (2016-17) in Metric Tonnes	During current financial year (2017-18) Metric Tonnes
2455317	2648960

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	As the plant is being operated on dry process technology, no liquid effluent is generated from the cement plant. Waste water generated from office toilets and mess is being treated through Sewage Treatment Plant. The STP treated water is being utilized in plantation & gardening. 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 Transboundary Movement) Rules, 2016)

Hazardous Waste	Total Quantity (Ltrs.)	
	During Current Financial Year (April,2016 to March,2017)	During Current Financial Year (April,2017 to March,2018)
	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 2016-17 : 2730 Ltrs Old Stock : 0 Ltrs Sale out : 2730 Ltrs Balance : 0 Ltrs	Total Quantity Generated in 2017-18 : 2730 Ltrs Old Stock : 0 Ltrs Sale out : 2730 Ltrs Balance : 0 Ltrs
(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". No Hazardous waste is generated from the process except used oil which is drained from machineries /equipments. Used oil is sold to the CPCB/RSPCB authorized recyclers/self used for lubrication.

Battery Waste:

As specified under Batteries(Management & Handling)Amendment Rules,2010, we have purchased following new batteries of different categories.

Year 2017-18

Number of new batteries of different categories purchased from the manufacturer / importer / dealer or any other agency.	During 1 st April, 2017 to 31st March, 2018	
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

Number of used batteries of categories and Tonnage of scrap sent to manufacturer/ dealer/importer/registered recycler/or any other agency to whom the used batteries scrap was sent.	During 1 st April, 2017 to 31st March, 2018	
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, 2017 to March, 2018 under the Bio-Medical Waste (Management & Handling) Rules, 2016 are as follows.

Year 2017-18

April, 17 to March, 18	Bio-Medical Waste Quantity (Kg) as per colour coding			
	Red	Blue	Yellow	White
	0.243 Kg	0.000 Kg	0.825 Kg	0.108 Kg
TOTAL	1.176 Kg			

Above mentioned bio-medical waste has been sent to Govt. CHC, Tapukara for further proper treatment & 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 being operated on dry process technology, which is cost effective and environmentally 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 equipments and hence no cost impact on the production cost.

PART - H

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

Green belt development and tree plantation is our ongoing process within plant area and outside of the area. Every year we plant new tree plantation to increase the bio-diversity of the area. Upto 31 March, 2018, we have covered 3.76 hectare, around 6570 trees with the 6169 survived with a survival rate of 93.0 %, this is around 35.98 % green area of the total plant area (10.45 hect.). Additional to this we have planted 6830 tree saplings survived with a No. 6425 upto 31 March, 2018. Addition to this, outside plant areas we have planted 7179 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 82.8 %.

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. Monitoring of stack emission, ambient air quality, ambient noise and ground water quality & level.
3. Maintenance Department is doing regular checking and scheduled maintenance of all the pollution control devices i.e. bag filters.
4. Civil and Personal & Administration departments taking care for of House keeping.
5. To reduce fugitive emissions, we have procured a big size truck mounted and 02 Nos of small 3D TPS sweeping machine for regular sweeping and cleaning of paved area.
6. Horticulture section is taking care of tree plantation and green belt development. Every year we are growing new tree plantation inside and outside of the plant area.
7. We have Installed Continuous Emission Monitoring System (CEMS) to display the data on CPCB/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 from our premises.
10. We create environment awareness for all our stakeholders.

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

- Annexure-I** : Monthly treated domestic effluent Report for the year 2017-18
Annexure-II : Ambient Air Quality Monitoring Report for the year 2017-18
Annexure-III : Stack Emission Level Monitoring Report for the year 2017-18
Annexure-IV : Ambient Noise level Monitoring Report for the year 2017-18
Annexure-V : Yearly plantation Report & for the year 2017-18

MONTHLY TREATED DOMESTIC EFFLUENT

QUANTITY OF STP TREATED DOMESTIC EFFLUENT(Monthly)		
YEAR: 2017-18		
MONTH	MONTHLY VOLUME (KL)	DAILY AVERAGE (KLD)
April,17	212	7.067
May,17	168	5.419
June,17	148	4.933
July,17	124	4.000
August,17	168	5.419
September,17	205	6.833
October,17	217	7.000
November,17	139	4.633
December,17	200	6.452
January,18	202	6.516
February,18	144	5.143
March,18	222	7.161
Total	2149	

QUALITY OF STP TREATED DOMESTIC EFFLUENT(Quarterly)					
YEAR: 2017-18					
Parameters	Observed value(mg/l)except pH				Prescribed Standard Limit (mg/l) except pH
	Jun,17	Sep.,17	Dec.,17	Mar.,18	
Total Suspended Solids	39.0	36.0	29.0	48.0	100
pH Value	7.25	7.23	7.21	8.30	5.5-9.0
Oil and Grease	2.10	2.50	2.70	1.20	10
Total Residual Chlorine	N.D.	N.D.	N.D.	BDL	1.0
Ammonical Nitrogen (as N)	3.50	3.15	5.50	6.70	50
Biochemical Oxygen Demand (3 days at 27°C)	13.50	20.6	23.9	24.5	30
Chlorides	185.0	171.0	295.0	342.0	1000
Chemical Oxygen Demand	132.0	156.0	146.0	110.0	250

ANNEXURE-II**AMBIENT AIR QUALITY MONITORING REPORT APRIL,2017 TO MARCH,2018 ($\mu\text{g}/\text{m}^3$)**

S. No	Location → Month ↓	Plant boundary towards Arjun Road				Plant boundary towards Dharuheda Road				Plant boundary towards Khushkhera Village			
		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,17	33	51	11.9	23.4	35	53	12.1	21.3	37	55	11.9	22.8
2	May,17	35	53	10.4	21.9	36	55	10.6	22.2	38	57	10.5	21.8
3	June,17	29	47	13.6	25.1	33	52	14.5	26.7	36	56	14.3	25.5
4	July,17	30	49	12.0	21.9	34	53	12.6	22.2	35	55	12.2	21.8
5	August,17	32	51	13.4	22.5	35	54	12.9	23.1	36	56	13.3	22.7
6	September,17	33	48	14.2	20.9	35	52	13.8	21.4	37	54	13.5	22.2
7	October,17	30	50	10.6	22.4	33	53	11.0	21.9	36	55	10.9	22.1
8	November,17	31	48	13.9	24.3	34	53	13.8	24.1	34	52	13.9	24.2
9	December,17	32	47	16.2	25.6	30	45	15.4	24.7	37	55	16.1	25.0
10	January,18	33	44	19.4	26.3	35	47	19.2	25.8	37	53	18.9	26.0
11	February,18	31	46	21.9	25.3	34	49	20.4	24.8	36	55	21.5	25.1
12	March,18	34	47	19.6	22.1	36	51	19.8	23.1	38	56	18.5	22.7
AVERAGE		32	48	14.8	23.5	34	51	14.7	23.4	36	55	14.6	23.5

ANNEXURE-III

Stack emission level (PM in mg/Nm³) for the Period of April,2017 to March,2018

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)	Average Value of Opacity meter (mg/Nm3)	Monitored Value(mg/Nm3)	Average Value of Opacity meter (mg/Nm3)
1	April,17	16	15.2	24	24.3
2	May,17	25	24.7	21	21.2
3	June,17	18	17.4	25	23.9
4	July,17	17	15.6	26	20.5
5	August,17	22	21.5	18	16.4
6	September,17	20	21.2	24	20.8
7	October,17	25	24.2	22	21.9
8	November,17	20	21.5	26	25.7
9	December,17	17	16.3	24	25.1
10	January,18	23	22.0	15	16.8
11	February,18	20	18.1	16	14.9
12	March,18	15	12.9	13	13.2
	AVERAGE	19.8	19.2	21.2	20.4

Stack emission level of 1000 KVA DG Set(mg/Nm³) for the Period of April,2017 to March,2018

S. No	Date & Month ↓	Stack attached with 1000 KVA DG Set		
			Monitored Value (mg/Nm3)	Prescribed Standard Limit (mg/Nm3)
1	October,17 (Monitored on 08.10.2017 during major power shutdown of JVVNL)	CO	57.9	150
		NMHC	32.6	100
		NOx	128.3	710
		Particulate Matter	32	75

ANNEXURE-IV

AMBIENT NOISE MONITORING REPORT FROM APRIL,2017 TO MARCH,2018(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,17	63.0	65.1	65.9	62.7	67.7	64.3
May,17	64.3	62.8	66.9	61.7	68.2	63.4
June,17	66.9	64.1	68.4	63.8	70.0	65.5
July,17	67.2	63.8	69.4	64.7	70.9	63.6
August,17	65.8	62.9	67.6	63.5	68.7	65.9
September,17	69.4	63.7	70.4	64.0	71.8	65.2
October,17	64.9	66.0	67.3	65.2	69.3	66.7
November,17	61.3	63.4	63.7	60.8	69.5	68.6
December,17	65.4	60.9	65.8	63.1	71.4	65.5
January,18	66.3	61.2	64.9	62.8	70.3	66.0
February,18	64.0	62.9	65.1	61.8	69.5	63.7
March,18	62.3	59.1	64.8	61.7	68.5	64.2
AVERAGE	65.1	63.0	66.7	63.0	69.7	65.2

ANNEXURE-V

YEARWISE PLANTATION

Year	No. of plant saplings planted	No. of plant saplings survived
2017-18	973	835
2016-17	699	613
2015-16	1069	888
2014-15	1067	989
2013-14	1318	1245
2012-13	636	592
2011-12	1083	1039
2010-11	2501	2219
2009-10	1363	1226
2008-09	1200	1100
2007-08	2100	1629
Total	14009	12375