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SHREE CEMENT LTD.

Regd. Office:

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



SCI./Nimbeti Mines/Env. Statement /2017-18/

Date: 22/09/2017

Mines Cell

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

Sub:- Environmental Statement for the period from April 2016 to March 2017 for Nimbeti Limestone Mines of M/s Shree Cement Limited situated near Village- Nimbeti Ras, Tehsil- Jaitaran, Dist- Pali (Raj)

Ref: - CTO No.-F(Mines)/Pali(Jaitaran)/81(1)/2015-2016/3118-3122 dated 08/06/2016

Sir,
We are submitting herewith the Environmental Statement for the period from April 2016 to March 2017 for Nimbeti Limestone Mines (A Captive Mine of M/s Shree Cement Ltd.) situated near Village- Nimbeti Ras, Tehsil- Jaitaran, Dist- Pali (Raj).

This is for your kind information please.

Thanking you,
Yours faithfully,

For Shree Cement Limited;

R. Bhargava

(Rakesh Bhargava)
Vice President (Environment)

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 – 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.)

OLC Environment Department, Pali.

JAIPUR OFFICE : SB-187, Bapu Nagar, Opp. Rajasthan University, JLN Marg, Jaipur-302 015

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ENVIRONMENTAL STATEMENT
Nimbeti Limestone Mine
M/s Shree Cement Limited
Period from : April 2016 to : March 2017

FORM - V

PART – A

1.	Name and address of the Owner / Occupier of the Industry operation or process	Nimbeti Limestone Mine M/s Shree Cement Ltd; Village: Nimbeti/Ras, Tehsil: Jaitaran, Dist: Pali -306107 (Rajasthan)
2.	Industry Category Primary (S.T.C. Code) Secondary (S.T.C. Code)	Red Category
3.	Production Capacity	19.6 Million TPA Limestone
4.	Year of Establishment	1997
5.	Date of the last Environmental Statement Submitted	20/09/2016

PART – B

WATER AND RAW MATERIAL CONSUMPTION

Water consumption	
Process (Dust suppression, Crusher)	90292 KL
Domestic	70209 KL (Common for Cement Plant, Power Plant, Mines and Colony)

1. Water Consumption

Name of Products	Process Water Consumption Per Unit of Output (KL / MT of Limestone)	
	During Previous Financial Year (2015-16)	During Current Financial Year (2016-17)
Mining of Limestone	0.0052	0.00532

2. Raw Material Consumption:

Name of Raw Materials	Name of Products	Consumption of raw material per unit of output	
		During Previous Financial Year (2014-15)	During Current Financial Year (2015-16)
Not Applicable			

3. Power Consumption (KWH/T of Limestone) :

During Previous Financial Year (2015-16)	During Current Financial Year (2016-17)
1.37	1.288

4. Total Limestone Production (in Lac Tones):

During Previous Financial Year (2015-16)	During Current Financial Year (2016-17)
164.2	169.8

PART – C

DISCHARGED TO ENVIRONMENT / UNIT OF OUTPUT

Pollutants	Quantity of pollutants discharged (mass/day)	Concentration of pollutants in discharges (mass/volume)	Prevent age of variation from prescribed standards with reasons
(a) Water	Waste water generated from office toilets is treated in STP and treated effluent is used in plantation. Analysis Report of STP treated water is attached as Annexure-4. Waste water generated from mines work shop is being used for dust suppression after removing the oil & grease traces.		
(b) Air	Please refer Annexure – 1 & 2		

PART – D
HAZARDOUS WASTES

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

Hazardous Waste	Total Quantity (Kg.)	
	During Previous Financial Year (2015-2016)	During Current Financial Year (2016-2017)
(a)From Process	<p>Common authorization for Hazardous Waste Management & Handling for Cement Plant, Power Plant, D.G.Set and Nimbeti Limestone Mines.</p> <p>Total Quantity generated from April-2015 to March-2016 = 22470 Ltrs. Old Stock = 0 Ltrs. Total Used oil = 22470 Ltrs. Sold-out to registered recycler = 22470 Ltrs. Balance Quantity= 0 Ltrs</p>	<p>Common authorization for Hazardous Waste Management & Handling for Cement Plant, Power Plant, D.G.Set and Nimbeti Limestone Mines.</p> <p>Total Quantity generated from April-2016 to March-2017 = 6720 Ltrs. Old Stock = 0 Ltrs. Total Used oil = 6720 Ltrs. Sold-out to registered recycler = 6720 Ltrs. Balance Quantity= 0 Ltrs</p>
(b)From Pollution Control Facilities	N.A.	N.A.

PART – E
SOLID WASTE

		Total Quantity	
		During previous financial year (2015-16)	During current financial year (2016-17)
(a)	From process	Not Applicable	
(b)	From pollution control facility	Not Applicable	
(c)	1. Quantity recycled or re-utilized within the unit	Not Applicable	
	2. Sold	Not Applicable	
	3. Disposed: During mining of limestone disposed of overburden. (in Lac tones) *	35.24	28.50

- Overburden is being dumped in overburden dump yard.

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. The used oil & 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 2016 to March 2017 under the Bio-Medical Waste (Management & Handling) Rules 2016, are as follows.

	Bio-Medical Waste Quantity (Kg) as per Colour Coding			
	Red	Blue/White	Yellow	Black
April 2016 to March 2017	39.44	39.19	40.31	39.96

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 (2015-2016)	During Current Financial Year (2016-2017)
From Process	Nil	1370 Kg.
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	During 1 st Apr 2016 to 31 st Mar 2017	
	Category:	(i) No. of Batteries	(i) No. of Batteries
	(i) Automotive		
	a) Four wheeler	163	6.41
	b) Two wheeler	Nil	Nil
	(ii) Industrial		
	a) UPS	66	0.536
	b) Motive Power	Nil	Nil
	c) Stand –by	Nil	Nil
	(iii) Others	Nil	Nil
Total	229 Nos	6.946 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	During 1 st Apr 2016 to 31 st Mar 2017	
	Category:	(i) No. of Batteries	(i) No. of Batteries
	(i) Automotive		
	a) Four wheeler	140	4.952
	b) Two wheeler	Nil	Nil
	(ii) Industrial	Nil	Nil
	a) UPS	291	2.328
	b) Motive Power	Nil	Nil
	c) Stand –by	Nil	Nil
	(iii) Others	Nil	Nil
Total	431 Nos.	7.28 MT	

Used battery scrap was sent to CPCB authorized recycler

PART - G

In respect of the pollution abatement measures taken up on conservation of natural resources and on the cost of production: -

1. Low grade limestone is used with high grade lime stone for conservation of lime stone.
2. Fine mist water spraying system installed for water spraying on haulage road.

PART – H

Additional measures / investment proposal for environment protection including abatement & prevention of pollution: -

1. Blasting is being done by using of shock tube detonators (Down line detonators in combination of Noise less trunk line detonators) which is latest technology available, resulting in reduction of noise level and ground vibration to a great extent.
2. We are using Rock breakers for breaking of oversize boulders instead of secondary blasting which eliminated vibration, noise, fly rocks & reducing greenhouse gases which have caused due to secondary blasting.
3. Massive plantation has been carried out within and outside mine lease area. Upto March 2017 total 87440 nos. of trees has been planted.
4. Operator independent truck dispatch system has been installed for reducing down time heavy earth equipment's thereby reducing emissions.
5. Closed unloading hopper with water sprinkling arrangement is provided for unloading of limestone.

PART - I

Any other particular for improving the quality of the environment: -

1. Wet drilling system/dust cyclone precipitator with drilling machine is used while drilling so that dust is suppressed immediately and the same drill cutting is being used as stemming material for blast hole.
2. The haul road is maintained using motor grader and soil compactor. Water is sprayed on haul road by sprinkler attached with tipper (water tanker).
3. Dust generated during unloading of limestone in hopper is suppressed by Water spraying in the form shower with pressure from nozzle fitted to main water pipe line (Atomized water sprinkler system) in both of crusher, so that dust generated while crushing is suppressed. Water is sprinkled at material transfer chute to prevent generation of dust.
4. Control Blasting is being done which has low velocity of detonation therefore air pollution, is very meager. Non electric blasting system is used to reduce ground vibration.
5. All personal protective equipments (PPE's) provided to all Mine Employee i.e. Dust-Masks (Respirator), Ear Plug, Eye Goggle, Ear Mark etc concern to them as additional measures of air & noise control.
6. Construction of grease and oil catchers at washing ramp to avoid pollution. Separated oil and grease from above catchers is sent to plant with used oil.
7. We have an organizational structure for Environment Management to carry out implementation of environment measures envisaged in the EMP (Please refer Annexure-3)
8. Full flashed environment laboratory monitors ambient air quality for PM 10, PM 2.5, SO₂, NO₂ and Noise level.

Annexure-1 : Ambient Air Quality (PM10, PM2.5, SO₂ and NO₂)

Shree Cement Ltd, Ras														
Year:-2016-2017														
Ambient Air Quality at Nimbeti Mine (µg/M3)														
Location Month	Mines office				Near Nimbeti village				Near Mines crusher			Near Mines phase		
	PM 2.5 (µg/M3)	PM 10 (µg/M3)	SO2 (µg/M3)	Nox (µg/M3)	PM 2.5 (µg/M3)	PM 10 (µg/M3)	SO2 (µg/M3)	Nox (µg/M3)	SPM (µg/M3)	SO2 (µg/M3)	Nox (µg/M3)	SPM (µg/M3)	SO2 (µg/M3)	Nox (µg/M3)
Apr-16	22.0	41.0	7.5	10.9	22.0	41.0	7.9	11.1	328.0	7.3	11.0	345.0	7.8	10.9
May-16	18.0	36.0	7.2	10.2	19.0	38.0	7.7	10.6	333.0	7.2	10.7	338.0	7.4	10.5
Jun-16	30.0	45.0	7.6	10.1	31.0	53.0	7.7	10.6	336.0	7.3	10.3	332.0	7.4	10.3
Jul-16	30.0	44.0	8.4	10.5	30.0	50.0	8.7	10.7	333.0	7.8	10.9	343.0	7.6	10.7
Aug-16	29.0	44.0	8.3	10.0	28.0	48.0	8.6	10.3	312.0	7.6	10.6	322.0	7.3	10.3
Sep-16	29.0	46.0	9.1	10.3	26.0	46.0	9.6	10.6	322.0	9.0	9.7	328.0	9.1	9.8
Oct-16	31.5	52.0	9.9	11.2	29.5	45.5	9.7	11.0	326.0	9.4	11.3	347.0	9.6	11.2
Nov-16	31.5	51.0	10.4	11.3	31.0	51.0	9.7	11.0	328.5	9.6	11.6	331.5	9.9	11.3
Dec-16	31.0	50.5	10.1	11.5	30.5	50.0	9.8	11.2	339.5	9.8	11.8	323.0	10.1	11.5
Jan-17	32.5	52.5	10.3	12.1	29.5	51.5	9.7	11.6	350.0	9.6	12.0	336.0	9.5	12.0
Feb-17	33.0	54.0	10.1	11.9	30.5	47.0	9.4	11.3	361.0	9.6	11.5	338.5	9.3	11.2
Mar-17	31.0	51.5	9.9	11.7	31.5	49.5	9.2	11.1	342.5	9.4	11.3	327.5	9.1	11.0
Average	29	47.3	9.1	11	28.2	47.5	9	10.9	334.3	8.6	11.1	334.3	8.7	10.9

* Suspended Particulate Matter (µg/M3)

NOTE:- Frequency of mines monitoring changed from Quarterly to Twice in a month by MoEF by the Circular dated 14/5/2009& 27/5/2009.

Annexure-2: Ambient Noise Level monitoring report

Shree Cement Ltd, Ras								
Year:-2016-2017								
Ambient Noise Level (Leq-dB(A) Mines								
Location Month	Near Mines Office		Near Nimbeti Village		Near Mines Crusher		Near Mines Phase	
	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
Apr-16	63.6	56.8	57.5	50.5	59.4	51.8	64.3	53.3
May-16	61.8	53.3	56.3	49.2	65.7	50.3	66.4	53.3
Jun-16	70.7	59.0	61.6	50.1	69.9	60.5	66.9	58.5
Jul-16	71.2	58.8	62.3	50.4	71.0	61.1	66.3	58.1
Aug-16	71.3	59.2	62.3	50.8	70.6	62.0	66.6	57.8
Sep-16	70.5	59.8	62.3	51.7	70.2	61.8	67.3	57.3
Oct-16	71.1	60.4	62.8	53.1	70.9	63.9	66.8	58.2
Nov-16	71.8	62.9	65.6	58.6	72.2	64.5	68.0	60.2
Dec-16	70.5	60.6	62.7	54.5	70.2	62.9	66.9	58.5
Jan-17	70.9	60.5	64.1	55.5	70.2	62.1	67.0	57.9
Feb-17	72.0	61.6	64.8	56.5	69.7	63.2	68.7	60.3
Mar-17	73.2	61.5	65.7	57.8	70.2	62.9	66.9	58.5
Average	69.9	59.5	62.3	53.2	69.2	60.6	66.8	57.7

Annexure- 3: Organizational Structure for Environment Management

NIMBETI LIMESTONE MINES Organizational Structure for Environment Management

We have an Environment Management Cell to carry out implementation of Environment Measures envisaged in the EMP., as follows: -

S.No.	Name	Designation
1	Sh. R. Bhargava	Vice President (Environment)
2	Sh. Pankaj Agarwal	Assistant Vice President (Mines)
3	Sh. Manish Bohra	Dy. General Manager (Mines)
4	Sh. A. K. Jain	Addl. GM (Environment)
5	Sh. G. L. Yadav	Senior Officer (Environment)
6	Sh. Adil Habib	Officer (Environment)
7	Sh. Piyush Singh Brijvasi	Assistant Officer (Environment)
8	Sh. Rajesh Yadav	Manager (Horticulture)

Annexure: 4

(STP Treated Water Quality, Year 2016-2017)														
S. No.	Parameter	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Avg
1	pH	7.2	7.1	6.9	6.9	7.0	7.2	7.3	7.2	7.5	7.3	7.2	7.2	7.2
2	Suspended Solids	60.1	58.3	56.5	57.8	55.4	56.8	60.4	58.4	60.1	55.8	68.4	75.9	60.3
3	Oil and Grease	0.1	0.1	0.1	0.7	0.9	0.8	0.7	1.2	1.1	0.9	1.1	1.5	0.8
4	BOD 3days 27°C	10.3	10.2	9.5	10.1	10.5	11.8	18.1	17.3	20.1	18.2	17.6	19.1	14.4
5	COD	80.5	79.5	77.5	81.2	78.4	70.4	64.2	61.5	68.4	57.1	61.5	57.4	69.8