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SHREE CEMENT LTD.

o/c
Regd. Office:

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



SCL/Nimbeti Mines/Env. Statement /2018-19/ 0336

Date: 22/09/2018

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 2017 to March 2018 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)/100(1)/2017-2018/8221-8225 dated 28/12/2017

Sir,

We are submitting herewith the Environmental Statement for the period from April 2017 to March 2018 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;

(Rakesh Bhargava)
Sr. 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.)

o/c Environment Department, Ras

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 2017 to March 2018

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	25.3 Million TPA Limestone
4.	Year of Establishment	1997
5.	Date of the last Environmental Statement Submitted	20/09/2017

PART – B

WATER AND RAW MATERIAL CONSUMPTION

Water consumption	
Process (Dust suppression, Crusher)	105760 KL
Domestic	68924 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 (2016-17)	During Current Financial Year (2017-18)
Mining of Limestone	0.00532	0.00548

2. Raw Material Consumption:

Name of Raw Materials	Name of Products	Consumption of raw material per unit of output	
		During Previous Financial Year (2016-17)	During Current Financial Year (2017-18)
Not Applicable			

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

During Previous Financial Year (2016-17)	During Current Financial Year (2017-18)
1.288	1.14

4. Total Limestone Production (in Lac Tones):

During Previous Financial Year (2016-17)	During Current Financial Year (2017-18)
169.8	192.756

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 (2016-17)	During Current Financial Year (2017-18)
(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-2016 to March-2017 = 6720 Ltrs.</p> <p>Old Stock = 0 Ltrs.</p> <p>Total Used oil = 6720 Ltrs.</p> <p>Sold-out to registered recycler = 6720 Ltrs.</p> <p>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-2017 to March-2018 = 18270 Ltrs.</p> <p>Old Stock = 0 Ltrs.</p> <p>Total Used oil = 18270 Ltrs.</p> <p>Sold-out to registered recycler = 18270 Ltrs.</p> <p>Balance Quantity= 0 Ltrs.</p>
(b) From Pollution Control Facilities	N.A.	N.A.

PART – E
SOLID WASTE

		Total Quantity	
		During Previous Financial Year (2016-17)	During Current Financial Year (2017-18)
(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) *	28.50	23.60

- 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 2017 to March 2018 under the Bio-Medical Waste (Management & Handling) Rules 2016, are as follows.

Period	Bio-Medical Waste Quantity (Kg) as per Color Coding			
	Red	Blue/White	Yellow	Black
April 2016 to March 2017	39.44	39.19	40.31	39.96
April 2017 to March 2018	39.105	38.05	37.92	38.91

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 (2016-17)	During Current Financial Year (2017-18)
From Process	1370 Kg.	1740 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 2017 to 31 st Mar 2018
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Category:	(i) No. of Batteries	(i) No. of Batteries
(i) Automotive		
a) Four wheeler	207	8.652
b) Two wheeler	Nil	Nil
(ii) Industrial		
a) UPS	455	4.640
b) Motive Power	Nil	Nil
c) Stand –by	Nil	Nil
(iii) Others	Nil	Nil
Total	662 Nos	13.292 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 2017 to 31 st Mar 2018	
	Category:	(i) No. of Batteries	(i) No. of Batteries
	(i) Automotive		
	a) Four wheeler	164	5.438
	b) Two wheeler	Nil	Nil
	(ii) Industrial		
	a) UPS	449	3.592
	b) Motive Power	Nil	Nil
	c) Stand –by	Nil	Nil
	(iii) Others	Nil	Nil
Total	613 Nos	9.030 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.

Shree Cement Ltd, Ras														
Year:-2017-2018														
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)	SO ₂ (µg/M3)	Nox (µg/M3)	PM 2.5 (µg/M3)	PM 10 (µg/M3)	SO ₂ (µg/M3)	Nox (µg/M3)	SPM (µg/M3)	SO ₂ (µg/M3)	Nox (µg/M3)	SPM (µg/M3)	SO ₂ (µg/M3)	Nox (µg/M3)
Apr-17	36	53	9.3	11.4	32	49.5	9.1	10.9	375	9.5	11.1	345	8.9	10.8
May-17	29	48.5	9.6	11.5	33	51.5	9	10.8	355	9.4	11.2	339	9.1	11.4
Jun-17	32.5	52.5	9.3	11.4	33.5	54	9	11.4	338	9.4	11.4	339.5	8.9	11
Jul-17	29	42.5	9.4	11.1	25	38.5	9.3	11.3	308	8.9	11.5	299.5	9.5	11.3
Aug-17	31	45.5	9.4	11.2	25.5	41.5	9.6	11.2	325.5	9.2	11.1	297.5	9	11.2
Sep-17	35.5	49.5	9.8	11.4	28	44	9.4	11.2	310	9.6	11.2	283	8.4	10.8
Oct-17	30.5	48.5	9.9	11.7	30.5	44.5	9.5	11	325.5	9.2	11.4	333	8	11.2
Nov-17	32	50.5	10.1	11.7	28	43.5	9.6	11	318	8.8	11.3	258	8.8	11.1
Dec-17	35.5	49.5	10.1	11.7	28	44	9.6	11.2	318	8.8	11.5	269.5	8.3	11.1
Jan-18	32	47	9.6	12.5	26.5	41.5	9.4	11.8	336	9	12	278.5	8.7	11.5
Feb-18	29.5	44.5	9.4	12.0	29	43.5	8.7	12.4	292	8.8	12.6	290	8.5	12.6
Mar-18	25	42	9.2	12.5	24	45.5	8.9	12.7	312.5	8.2	12.1	321	8.2	12.1
Average	31.5	47.8	9.6	11.7	28.6	45.1	9.3	11.4	326.1	9.1	11.5	304.5	8.7	11.3

* 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.

Ambient Noise Level monitoring report

Annexure-2

Shree Cement Ltd, Ras								
Year:-2017-2018								
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-17	72.1	63.1	63.5	57.05	70.8	62.1	64.5	57
May-17	71.9	62.3	61.65	58.85	71.25	62.3	65.4	59.9
Jun-17	73.2	61.05	65.65	57.75	70.2	62.9	66.9	58.5
Jul-17	73.1	62.65	66.5	55.7	69.35	65.7	59.9	60.2
Aug-17	72.2	61.6	67.7	57.35	70.65	63.7	59	56.6
Sep-17	72.5	61.6	67.7	57.35	70.35	63.7	62.4	59.5
Oct-17	72.1	64.3	66.2	56.4	69.1	65.7	63	59.2
Nov-17	72.2	63.7	66.1	56.9	72.4	63.9	64	59.8
Dec-17	72.9	64.3	65.4	58.9	73.1	62	60.9	58.2
Jan-18	72.1	64	65.7	58.2	72.2	62.1	61.4	56.9
Feb-18	71.9	63	65.7	58.5	73.2	61.4	61.8	58.2
Mar-18	72.5	62.1	66.5	57.9	72.6	60.6	62.1	57.3
Average	72.4	62.8	65.7	57.6	71.3	63.0	62.6	58.4

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	Sr. Vice President (Environment)
2	Sh. Pankaj Agarwal	Assistant Vice President (Mines)
3	Sh. Manish Bohra	Addi. General Manager (Mines)
4	Sh. A. K. Jain	GM (Environment)
5	Sh. G. L. Yadav	Senior Officer (Environment)
6	Sh. Piyush Singh Brijvasi	Officer (Environment)
7	Sh. Mohit Kumar	Assistant Officer (Environment)
8	Sh. Rajesh Yadav	Manager (Horticulture)

Annexure: 4

(STP Treated Water Quality, Year 2017-2018)

S. No.	Parameter ↓	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Avg
1	pH	7.26	7.32	7.22	7.48	7.35	7.23	7.41	7.33	7.41	7.49	7.38	7.33	7.35
2	Suspended Solids	70.6	72.1	78.2	39.5	51.3	54.2	54.2	65.2	45.5	36.4	40.2	38.1	53.79
3	Oil and Grease	1.86	2.02	1.56	2.18	1.57	1.95	2.48	1.05	1.35	1.84	1.99	2.04	1.82
4	BOD 3days 27°C	21.5	19.5	18.5	20.1	18.2	16.2	16.4	18.3	19.8	21.2	19.4	17.5	18.88
5	COD	51.6	48.2	52.6	62.4	51.3	58.2	65.5	74.3	78.9	83.4	77.6	85.7	65.81

