



SHREE RAIPUR CEMENT PLANT

(A UNIT OF SHREE CEMENT LIMITED)

Village : Khaparadih, Tehsil : Simga

Distt. : Baloda Bazar-Bhatapara (C.G.) Pin : 493 332, Ph. : 07727-203101

CIN No. : L26943RJ1979PLC001935

DIC



SRCP /BB//2017-18/88

Date: 05.09.17

To,
The Member Secretary,
Chhattisgarh Environment Conservation Board,
Paryavas Bhavan, North Block, Sector-19
Naya Raipur (C.G)

Sub: - Submission of Environment Statement of Shree Lime Stone mine for the year 2016-17 by Shree Raipur Cement Plant (A unit of Shree Cement Ltd.) mine located at Village Semaradih and Bharuwadih in Baloda Bazar - Bhatapara District (Chhattisgarh).

Ref: 1. Consent to Operate[Water]letter No.- 6111/TS/CECB/2017, dated 16/02/2017.
2. Consent to Operate (Air) letter No.- 6113/TS/CECB/2017, dated 16/02/2017.


Dear Sir,

Kindly referred to above subject matter and reference letter. In this regards, we are submitting herewith the Environmental Statement for the year 2016-17 of Shree lime Stone Mine located at Village Semaradih and Bharuwadih in Baloda Bazar - Bhatapara District (Chhattisgarh).

Hope you will find this in Order

Thanking you,

Yours faithfully,
For Shree Raipur Cement Plant
(A unit of Shree Cement Ltd.)


R K Vijay
AVP (Operations)

Enclosed: - As above.



CC to :- Regional Officer, Chhattisgarh Environment Conservation Board, Commercial Complex, Chhattisgarh Housing Board Colony Kabir Nagar, Raipur (C.G.) - 492099

ENVIRONMENTAL STATEMENT
FORM - V
Shree Raipur Cement Plant
(A Unit of Shree Cement Ltd)
(Shree Lime Stone Mine)
Period from: April 2016 to March 2017

PART - A

1.	Name and address of the Owner / Occupier of the Industry operation or process	Shree Lime Stone Mine M/s Shree Cement Ltd Village - Bharuadih - Semradih, Tahsil - Balodabazar, Distt - Baloda Bazar -Bhatapara Chhattisgarh - 493332
2.	Industry Category Primary (S.T.C. Code) Secondary (S.T.C. Code)	Red Category
3.	Production Capacity	4.16 Million TPA Limestone
4.	Year of Establishment	2015
5.	Date of the last Environmental Statement Submitted	14/09/2016

PART - B
WATER AND RAW MATERIAL CONSUMPTION

(I) WATER CONSUMPTION:

Process : N.A.

Cooling and dust Suppression : 102.18 KLD

Domestic : 530.90 KLD (Common for Cement Plant, WHRB, CPP & Mines)



Name of Product	Process Water Consumption per Unit of Product Output (KL/MT of Lime stone)	
	During Previous Financial Year (2015-16)	During Current Financial Year (2016-17)
Limestone mine	0.007	0.011

(II) RAW MATERIAL CONSUMPTION:

Name of Raw Materials	Name of Products	Consumption of raw material per unit of output	
		During Previous Financial Year (2015-16)	During Current Financial Year (2016-17)
Lime Stone		1979059 MT	2993943 MT

(III) POWER CONSUMPTION (KWH/T OF LIMESTONE):

During Previous Financial Year (2015-16)	During Current Financial Year (2016-17)
1.71	1.54

(IV) TOTAL LIMESTONE PRODUCTION (MT):

During Previous Financial Year (2015-16)	During Current Financial Year (2016-17)
1979059	1979059

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PART - C

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	Waste water generated from office toilets is treated with septic tank & soak pit & STP and treated effluent is used in plantation. & dust Suppression on haul Road in mines area. Waste water generated from washing ramp is being reutilized for washing after separating the oil & grease contaminant.	
(b)	Air	Please refer Annexure - 1 & 2	

PART - D

HAZARDOUS WASTE

((As specified under Hazardous & other wastes (Management and Transboundary Movement) Rule, 2016)

Hazardous Waste	Total Quantity (Ltrs.)	
	During Current Financial Year (2015-16)	During Current Financial Year (2016-17)
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)	NA	17 KL (Common for Cement Plant & Mines). Sold to authorized recycler.
(b) From Pollution Control Facilities	N.A.	N.A.

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PART – E
SOLID WASTE

		Total Quantity (MT)	
		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 rejected or re-utilized within the unit	Not Applicable	
	2. Solid	Not Applicable	
	3. Disposed (During mining of limestone disposed of overburden)		
	a. Top soil for reclamation (MT)	460440	359600
	a. Over burden (MT)	2548962	779376
	b. Total Qty (MT)	3009402	1138976

Note:- Overburden is being dumped along with mine lease area A Plantation is also being done on the overburden.

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:

Battery Wastes:

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

Number of new batteries of different categories purchased from the manufacturer / importer / dealer or any other agency.	During Current Financial Year April, 2016 to March, 2017	
	No of Batteries	Approximate Weight (In Tons)
Category:		
(i) Automotive		
a) Four wheeler	22	0.982

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b) Two wheeler	0	0
(ii) Industrial		
a) UPS (Vrla Type)	381	3.282
b) Motive Power	0	0
c) Stand -by	0	0
(iii) Others	Nil	Nil
Total	403 Nos.	4.264 MT

Number of used batteries of different categories sent to manufacturer/dealer/importer/registered recycler/or any other agency	During Current Financial Year April,2016 to March,2017	
	No of Batteries	Approximate Weight (In Tons)
Category:		
(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

Used battery scrap will be sent to CPCB authorized recycler

Hazardous Wastes

No Hazardous waste is generated from the process except used oil which is drained from HEMM / Equipment's. The used oil & Acid Lead will be sold to CPCB authorized recyclers.

E-WASTE

	Total Quantity (MT)	
	During Previous Financial (2015-16)	During Current Financial Year (2016-17)
April, 2016 to March,2017	Nil	Nil

Note- E-Waste Will be sold to approved E- Waste Recycler

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PART - G

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

1. Low grade limestone is used with high grade lime stone for conservation of lime stone.
2. Bag filter has been installed at crusher.
3. Wet drilling is being done by Wet drilling Machine.
4. Day time blasting is in practice.
5. Controlled blasting is being done by using shock tube detonators during day time to control noise level, vibration and fly rock etc.
6. Water Tanker for Water spray arrangement is provided on haul road.
7. Water spraying arrangement / Dust suppression system has been provided at the unloading point of limestone crusher hopper & Discharge end of belt conveyer
8. Fugitive dust at loading point is controlled by pressurized water mist spray arrangement.
9. Water spraying is being done on Haul Roads during HEMM movement.
10. Installed 1.5 km pipe conveyor system from mines to plant for transfer of raw material to reduce fugitive emissions.

PART - H

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

1. Garland drains all around the waste dump yard have been made.
2. As per approved mining plan, the over burden dumps will be stabilized with suitable native species.
3. Waste is dumped in non-mineralized zone/area. Waste dump yard is regularly dozed to keep it stabilized.
4. Overburden being dumped in non-mineralized zone/area with proper bench height to stablised the same as per approved mining plan.
5. At present there is no Inter burden generated.
6. 125632 plants have been planted in Mines area.
7. We have also planted 2,000 trees near School of Bharuwadih, Semradih, Khapradih, Chandi, Karahi & Parkidih villages and 13,000 trees planted about 10 KM of both side of road plantation from Bharuuwadih to chandi village under Hariyar Chhattisgarh project.

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8. We have regularly monitor mines primary crusher stack. Stack monitoring report enclosed.
9. Installed 1.5 KM pipe conveyor system from mines to plant for transfer of raw material to reduce fugitive emissions.

PART - I

ANY OTHER PARTICULATES FOR IMPROVING THE QUALITY OF ENVIRONMENT.

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 two Rock breaker machine 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. We are using wet drilling system with drilling while drilling so that dust is suppressed immediately.
4. Blasting is being done by using slurry explosive and ANFO, which has low velocity of detonation therefore air pollution, is very meager. Non electric blasting system is used to reduce ground vibration.
5. Construction of grease and oil catchers at washing ramp to avoid pollution. Separated oil and grease
6. We are providing all personal protective equipment's (PPE's) to all Mine Employee.
7. We have installed 4 numbers of online Ambient Air Quality Monitoring Stations.
8. Monitoring of stack emission and ambient air and water quality is being done regularly.
9. One number of piezometer installations at mines area for measurement of water level & quality monitoring.
10. Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.
11. Water spray arrangement provided in lime Stone hopper in crusher area to avoid dust emission during unloading.

12. Installed 1.5 KM pipe conveyor system from mines to plant for transfer of raw material to reduce fugitive emissions.
13. Rain water harvesting pond storage capacity about 2.5 Lakh KL developed in mine area.

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

Annexure-1 : Stack Emission monitoring report.

Annexure-2 : Ambient Air Quality Monitoring Station Report.

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Annexure - 1

Shree Lime Stone Mine
Stack Emission Report (PM All values in mg/Nm³)

S. No.	Month	Mines Crusher
1	Apr-16	16.0
2	May-16	22.0
3	Jun-16	23.0
4	Jul-16	12.6
5	Aug-16	11.2
6	Sep-16	9.6
7	Oct-16	10.6
8	Nov-16	29.0
9	Dec-16	18.2
10	Jan-17	26.9
11	Feb-17	24.7
12	Mar-17	23.1

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Annexure - 2

**Shree Raipur Cement Plant
(A Unit of Shree Cement Ltd)**

AMBIENT AIR QUALITY MONITORING STATION DATA

Location	Parameters	Unit	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	
AAQMS 1 (Mines boundary towards village Bharuwadih)	PM 10	µg/m ³	57.1	51.2	46.1	28	38.4	52.2	52.2	54.5	57.7	62.8	49.0	29.6	
	PM 2.5		12.7	14.7	44.8	24	15.8	24.6	24.6	24.6	36.2	27.7	31.1	17.7	10.1
	SO ₂		14.2	13.9	16.9	16.7	16.8	15.1	15.1	15.1	15.8	17.1	3.7	2.2	3.5
	NO ₂		14.4	13.4	13.6	10.5	11.5	10.2	10.2	10.2	7.5	7.3	6.7	5.9	3.5
AAQMS 2 (Mines boundary towards village Semradih)	PM 10		38.9	61.9	50.9	31.6	45.3	36	86.5	86.5	65.4	78.7	52.5	50.0	41.7
	PM 2.5		10.3	19.4	25	12.6	14.8	15.1	30.0	30.0	30.1	35.3	22.5	13.8	11.7
	SO ₂		6.6	3.2	1.1	1.5	2.7	3.6	4.7	4.7	7.3	8.9	6.5	9.0	8.6
	NO ₂		19.4	12.8	11.3	12.8	11.9	5.6	10.7	10.7	25.0	30.8	29.5	22.4	14.3
AAQMS 3 (Plant Boundary towards South Diection)	PM 10		56.2	32.7	55.4	70.6	57.3	48.9	48.9	48.9	22.5	72.4	50.6	39.5	36.7
	PM 2.5		30.7	14.1	30.2	23.1	31.3	28.9	28.9	28.9	4.0	48.9	26.2	21.0	18.9
	SO ₂		5.6	4.3	12.6	5.6	5.5	6.9	6.9	6.9	6.3	10.3	13.2	13.9	21.0
	NO ₂		13.8	13.7	17.8	13.8	13.8	12.6	12.6	12.6	6.8	12.5	2.7	2.6	5.0
AAQMS 4 (Plant Boundary towards village Khapradih)	PM 10		50.7	49.6	32.9	19.7	24.9	22.1	51.8	51.8	55.8	63.6	30.3	37.4	24.6
	PM 2.5		18.1	20.2	20.2	9.3	13.1	12.2	28.5	28.5	35.2	34.4	24.7	17.0	13.6
	SO ₂		13	7	7.2	7.4	8	8.3	9.1	9.1	14.1	11.9	5.0	9.8	7.1
	NO ₂		13.6	12.7	13	9.8	7.5	5.8	6.2	6.2	15.1	23.1	26.1	19.6	9.2

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