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J.K. Cement Works Kailash Nagar - 312617, Nimbahera Distt. Chittorgarh (Raj.) INDIA

CIN : L17229UP1994PLC017199 ISO 9001:2008, ISO 14001:2004 & OHSAS 18001 : 2007 CERTIFIED COMPANY

Ref. No.: NBH-PC-13/ 4126

Date: 23.09.2015

To,

The Member Secretary Rajasthan State Pollution Control Board 4, Industrial Area Jhalana Dungri JAIPUR – 302004 (Raj)

SUBJECT: Environmental Statement for the year 2014-2015 (02 Copies)

Dear Sir,

Kindly find herewith enclosed Environment Statement Report of Maliakhera Limestone Mine for the year 2014-2015 for your reference and record. We trust you will find the same in order.

Thanking You.

Yours Faithfully For J.K. Cement Works, Nimbahera

S.K. Acharya Astt. V.P. (E & I)

Encl. : a / a

Copy to -

The Regional Officer, Rajasthan State Pollution Control Board, Near FCI Godown, Chanderia, Distt.- CHITTORGARH (RAJ)

The Director, Ministry of Environment and Forests, Regional office (Central Region), Kendriya Bhawan, 5th Floor, Sector 'H', ALIGANJ, LUCKNOW- 226020 (U.P.)



Corporate & Registered Office : Kamla Tower, Kanpur-208001, (U. P.) INDIA Phone : +91-512-2371478 to 81 Fax : 2399854 E-mail : ho.grey@jkcement.com

J. K. Cement Works, Nimbahera J. K. Cement Works Mangrol J. K. Power, Bamania J. K. Cement Works, Muddapur J. K. White Cement Works, Gotan



Government of India Ministry of Environment and Forest "FORM – V" (See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE $31^{\rm st}$ MARCH 2015

Mailakhera Mine of M/s J.K. Cement works, NIMBAHERA (Raj.)

PART – A

(II)	Name & Address of the	S K Rathore
(1)	Owner / Occupier of the Industry	Unit Head
	Operation or Process	J.K. Cement Works, NIMBAHERA Kailash Nagar : 312 617
		NIMBAHERA, Chittorgarh (Raj.)
	a	
(II)	Industry Category Primary (STC CODE) Secondary (SIC CODE)	Polluting (Non – Hazardous) PRIMARY STC Category
(III)	Production Capacity	3.20 MMTPA (Limestone)
(IV)	Year of Establishment	Year 1989
(V)	Date of last Environmental Statement Submitted	September, 2014

PART – B

Water & Raw Material Cnsumption

A. Water

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i) Over All Consumption	-	KLD
Process	-	141 (Spray on Road / Mining, Drilling etc.)
Cooling:	ni teng	Nil
Domestic	14 <u>-</u> 141	1.0
Total	-	142.0
Domestic Total	_	<u>1.0</u> 142.0

(ii) Consumption per unit of production

Name of the Product	Process Water Cons Product	sumption per unit of t Output
	During the Previous Financial Year	During the Current Financial Year
Limestone	25.561 Ltrs / Unit	32.051 Ltrs / Unit

B. Raw Material Consumption

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PART - C

Pollutant Discharge To Environment / Unit of Output

(Parameters as specified in the consent issued)

(I)	Pollutants	Quantity of Pollutants Discharged (Mass / day)	Concentrations of Pollutants in discharged (Mass / volume)	Percentage of variation from prescribed standard with reasons
(a)	Water			
(I)	Colonial	NIL		
(ii)	Industrial	NIL		

WATER ANALYSES RESULTS

Post Monsoon dated 03.11.2014

SAMPLE	MINE PIT WATER	MINE HAND PUMP WATER	HAND PUMP WATER NEAR VILLAGE PIPLIA
COLOUR & ODOUR	Clear & Natural	Clear & Natural	Clear & Natural
PH	8.11	7.04	7.62
TSS	18	24	20
TOTAL HARDNESS	168	302	168
Ca+ HARDNESS	140	296	140
Mg+ HARDNESS	28	6	28
CONDUCTIVITY	483	773	483
TDS	290	464	290
CHLORIDES	34	41	34
TURBIDITY	1.24	3.61	1.24

*All the parameters are expressed in mg/ltr except PH.

AMBIENT AIR QUALITY MONITORING DATA

(SPM Monthly Average in µg/M³)

J.K.CEMENT WORKS, NIMBAHERA

Maliakhera MINE

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Year : 2014-15

Month	NEAR MINE OFFICE	NEAR RAVANA OFFICE
Apr-14 398.157		345.079
May-14	369.993	315.044
Jun-14	387.974	328.986
Jul-14	329.99	370.03
Aug-14	375.01	352.18
Sep-14	368.00	337.00
Oct-14	373.99	342.98
Nov-14	381.99	338.99
Dec-14	361.00	326.97
Jan-15	356.04	320.98
Feb-15	314.97	349.98
Mar-15	325.01	360.00

PART – D

(As specified under Hazardous Waste Management, Handling and Trans Boundary Movement rules-2008

Hazardous Waste			Total Qua	ntity (K	(gs.)	
		9 72 (2 25	During the Previous Financial Year	×	During the Current Financial Year	, T
(a)	From Process		Nil.		Nil.	
(b)	From Pollution Control Facilities.		N.A.		N.A.	

PART - E

SOLID WASTES

		Total Quantity		
	A CALL AND A	During the Previous Financial Year	During the Current Financial Year	
	n a generation and an			
(a)	From Process	N.A.	N.A.	
(b)	From Pollution Control facilities	N.A.	N.A.	
(c)	(i) Qty. recycled or reused with in the unit.	NIL	NIL	
	(ii) Sold	NIL	NIL	
	(iii) Disposed	NIL	NIL	
			in a star and a star	

PART – F

PLEASE SPECIFY THE CHARACTERISATIONS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATES DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.

There is no hazardous as well as Solid Waste produced.

PART – G

IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION.

AIR

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Mining operation and related activities are designated as potential sources as under:

 Emissions from Diesel operated earth moving machinery e.g. Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x), Suspended Particulate Matter (SPM), Respirable Particulate Matter (RPM) etc.

• Local air borne dust due to excavation, drilling and blasting operations.

• Air borne dust pollution due to loading, unloading, transportation etc.

From the base line study the Air Quality near on going mining activities, the pollutants level was observed very low or below the detection limit except SPM and RPM.

There is no impact observed on vegetation & water bodies in the surrounding areas, as it is suppressed at its generating sources.

The following measures are taken to suppress the dust at the source as well as to prevent the same, spreading in the atmosphere:

- Wet drilling system is provided on all drill machines.
- Regular water sprinkling on haul road during operation.
- Optimize blasting parameters for proper fragmentation to reduce dust generation.
- Plantation and development of Green Belt along the Working Pits / mineable limits.

WATER

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Being Mechanised Limestone mine, it requires water mainly for Wet Drilling, Road Spraying, Green Belt Development, and Machineries Washing. Water consumption is around 142 KLD. The source of water is the accumulated rainwater in the lower most benches. There is no liquid effluent / waste water.

NOISE

Noise is generated in the mine due to following mining activities:

- Excavation, drilling, blasting and operations of HEMM.
- Transportation and handling of material.

The results of base line noise level survey are well below the permissible limit except near machinery while operating. The noise generating sources are scattered within the whole mining area. All the sources will not generate the noise simultaneously hence; the noise level would not alter the noise environment significantly. The noise level reduces with increase in distance from the source.

The following measures are taken to reduce the noise level at the source as well as to prevent the same, spreading in the atmosphere:

- 1. Providing enclosures for noise sources to reduce dispersion of noise like cabin in HEMM.
- 2. Proper maintenance and lubrication of machinery rotating parts.
- 3. Use electric delay detonator on surface in place of detonating fuse.
- 4. Use of low quantity detonating fuse (8gm/m in place of 10gm/m).
- 5. By covering the detonating fuse as well as detonators under drill cutting or the fine material.
- 6. By providing earmuffs and earplugs to eligible miners.
- 7. Blasting between 12.00 noon to 3.00 PM when air density is low.
- 8. Use of Air Decking & sufficient column stemming in the blast holes.
- 9. Use of Nonels (Non electric initiation devices), TLD(Trunk Line Delay Detonator), DTH(Down the Hole) Initiation Systems.

NOISE LEVEL DATA

(Monthly Average in dB(A)

J.K.CEMENT WORKS, NIMBAHERA

Maliakhera **MI**NE

Year : 2014-15

18	NEAR MINE OFFICE		NEAR RAVANA OFFICE	
Month	Day Time	Night Time	Day Time	Night Time
Apr-14	69.00	58.90 70.60		60.70
May-14	68.50	57.30	69.40	58.40
Jun-14	68.00	58.00	68.50	57.50
Jul-14	67.20	57.10	69.00	58.00
Aug-14	68.50	58.20	70.20	61.20
Sep-14	67.80	57.60	68.00	59.00
Oct-14	69.20	59.40	70.10	60.40
Nov-14	68.40	57.80	69.50	59.40
Dec-14	67.50	58.40	68.00	61.00
Jan-15	69.50	59.70	68.90	58.80
Feb-15	68.90	56.90	70.30	60.10
Mar-15	67.90	57.00	69.10	59.40

GROUND VIBRATION

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M/s IDL had carried out vibration study & recommended safe charge per delay at various distances for keeping the parameters of blasting well within the limit.

The following steps are taken to control ground vibration:

- 1. Optimize drilling parameters like spacing, burden and sub-grade drilling.
- 2. Optimize maximum charge per delay.
- 3. Use of Non Electric Detonator with delay-blasting technique.
- 4. Use of Sequential Blasting Machine.
- 5. Monitoring of ground vibration by "Mini-mate".

ADDITONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT POLLUTION, PREVENTION OF POLLUTION.

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EXPENDITURE INCURRED ON POLLUTION CONTROL SYSTEM

S. No.	Activity	Recurring Cost per
		Annum(2014-15)
-		(Rs in Lacs)
1.	Plantation	
	a) Green belt development around the mines	3.29
5 A	out area, by way of aforestation & developing	
2	the patched of grass land .	a a a a a a a a a a a a a a a a a a a
-	b) Avenue plantation	-
	c) Barren lands	- 4
2.	Dust control & suppression	2.07
3.	Compaction of Haul Roads, boulder pitching	4.48
	of bench edges, etc.	
4.	Monitoring of environmental parameters	1.00
5.	Organisational Set-up	6.19
6.	Socio Economic Development	32.07
	Total Expenditure	49.10

PART-I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

Mine has planted 2471 plants in and around mining area during the period under review.

S.K. ACHARYA A.V.P. (E&I) For JK CEMENT WORKS, NIMBAHERA