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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/ 3791

Date: 20.09.2016

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

SUBJECT: **Environmental Statement for the year 2015-2016 (02 Copies)**

Dear Sir,

Kindly find herewith enclosed **Environment Statement Report of Karunda Limestone Mine for the year 2015-2016** for your reference and record. We trust you will find the same in order.

Thanking You.

Legend

Yours Faithfully
For J.K. Cement Works, Nimbahera

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

Encl. : a / a

Copy to -

The Regional Officer, Rajasthan State Pollution Control Board, Near FCI Godown,
Chandaria, 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
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J. K. Cement Works, Nimbahera
J. K. Cement Works Mangrol
J. K. Cement Works, Gotan
J. K. Cement Works, Jharli

J. K. Power, Bamania
J. K. Cement Works, Muddapur
J. K. White Cement Works, Gotan
J. K. White, Katni



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

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE
31ST MARCH 2016

Karunda Mine of M/s J.K. Cement works, Nimbahera (Raj.)

PART – A

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	S.K. Rathore Unit Head J.K. Cement Works, Nimbahera Kailash Nagar : 312 617 NIMBAHERA, Chittorgarh (Raj.)
(II)	Industry Category Primary (STC CODE) Secondary (SIC CODE)	Polluting (Non – Hazardous) PRIMARY STC Category
(III)	Production Capacity	2.00 MMTPA (Limestone)
(IV)	Year of Establishment	Year 2001
(V)	Date of last Environmental Statement Submitted	September, 2015

PART – B

Water & Raw Material Consumption

A. Water

(i)	Over All Consumption	-	KLD
	Process	-	91.0 (Spray on Road / Mining , Drilling etc.)
	Cooling:	-	Nil
	Domestic	-	1.0
	Total	-	92.0

(ii) Consumption per unit of production

Name of the Product	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Limestone	21.530 Ltrs / Unit	18.83 Ltrs / Unit

B. Raw Material Consumption

Name of the Raw Material	Name of Product	Consumption of Raw Material per Unit Product Output	
		During the Previous Financial Year	During the Current Financial Year
HSD	Limestone	0.830 Ltrs. Per Ton	0.5209 Ltrs. Per Ton

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 02.11.2015)

SAMPLE PARTICULAR	MINE PIT WATER	MINE TUBE WELL WATER	CHARLIA HANDPUMP WATER
COLOUR & ODOUR	Clear & Natural	Clear & Natural	Clear & Natural
PH	7.67	7.15	7.24
TSS	38	24	32
TOTAL HARDNESS	120	304	300
Ca+ HARDNESS	84	264	260
Mg+ HARDNESS	36	40	40
CONDUCTIVITY	316	723	683
TDS	190	434	410
CHLORIDES	52	43	24
TURBIDITY	10.81	2.1	8.3

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

J.K.CEMENT WORKS, NIMBAHERA

KARUNDA MINE

AMBIENT AIR QUALITY MONITORING DATA FOR SPM

(Monthly Average In MICROGRAMS / CUBIC METER)

Year : 2015-16

Month	NEAR MINE OFFICE	NEAR RAVANA OFFICE
Apr-15	315.0	370.0
May-15	323.0	360.0
Jun-15	310.0	345.0
Jul-15	303.0	334.0
Aug-15	311.0	347.0
Sep-15	321.0	357.0
Oct-15	331.0	362.0
Nov-15	325.0	350.0
Dec-15	317.0	342.0
Jan-16	328.0	357.0
Feb-16	333.0	364.0
Mar-16	323.0	352.0

PART – D

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

Hazardous Waste	Total Quantity (Kgs.)	
	During the Previous Financial Year	During the Current Financial Year
(a) From Process	Nil.	Nil.
(b) From Pollution Control Facilities.	N.A.	N.A.

PART - E

SOLID WASTES

		Total Quantity	
		During the Previous Financial Year	During the Current Financial Year
(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

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

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

Being Mechanised Limestone mine, it requires water mainly for Wet Drilling, Road Spraying, Green Belt Development, and Machineries Washing. Water consumption is around 92 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. By providing earmuffs and earplugs to eligible miners.
4. Blasting between 12.00 noon to 3.00 PM when air density is low.
5. Use of Air Decking & sufficient column stemming in the blast holes.
6. Use of Non Electric Detonator / Bottom Initiation System.

J.K.CEMENT WORKS, NIMBAHERA

KARUNDA MINE

NOISE LEVEL MONITORING DATA

Monthly Average In dB(A)

Year : 2015-16

Month	NEAR MINE OFFICE		NEAR RAVANA OFFICE	
	Day Time	Night Time	Day Time	Night Time
Apr-15	67.5	58.5	69.5	60.5
May-15	68.3	59.2	70.3	61.0
Jun-15	69.2	60.2	68.1	59.6
Jul-15	67.7	58.9	69.3	60.0
Aug-15	68.0	59.7	70.6	61.6
Sep-15	66.9	56.9	68.9	58.3
Oct-15	69.0	60.0	70.6	59.3
Nov-15	67.2	58.2	69.7	60.2
Dec-15	66.0	55.0	68.0	57.0
Jan-16	68.5	59.0	70.0	60.5
Feb-16	67.6	58.0	69.0	59.0
Mar-16	69.4	57.4	67.2	58.6

GROUND VIBRATION

M/s CIMFR(Central Institute of Mining and fuel research) 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".

PART – H

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

EXPENDITURE INCURRED ON POLLUTION CONTROL SYSTEM


S. No.	Activity	Recurring Cost per Annum(2015-16) (Rs in Lacs)
1.	<u>Plantation</u> a) Green belt development around the mines out area, by way of afforestation & developing the patched of grass land . b) Avenue plantation c) Barren lands	5.30 - -
2.	Dust control & suppression	2.74
3.	Compaction of Haul Roads, boulder pitching of bench edges, etc.	2.91
4.	Monitoring of environmental parameters	0.839
5.	Organisational Set-up	7.12
6.	Socio-Economic Development	37.37
	Total Expenditure	56.279

PART – I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

Mine has planted 1332 plants in and around mining area during the period under review.

For JK CEMENT WORKS, NIMBAHERA


S.K. ACHARYA
A.V.P. (E&I)
J.K. CEMENT WORKS
NIMBAHERA
Distt. CHITTORGARH (Raj.)