

 Phone
 : +91-1477-220098, 220087

 Fax
 : +91-1477-220027, 220049

 E-mail
 : jkc.nbh@jkcement.com

 Web
 : www.jkcement.com

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

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

Ref. No.: MGR-PC -13/ 2699

23.09.2015

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

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

Dear Sir,

Kindly find herewith enclosed **Environment Statement Report** of **Tilakhera 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, Mangrol

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

yayan

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. Cement Works, Gotan
- 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

Mangrol-Tilakhera Mine of M/s J.K. Cement works, MANGROL (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, MANGROL 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	1.6 MMTPA
(IV)	Year of Establishment	Year 1979
(V)	Date of last Environmental Statement Submitted	September, 2014

PART – B

Water & Raw Material Consumption

A. Water

(i) Over All Consumption - KLD Process - 47.0 (Spray on Road / Mining, Drilling etc.) Cooling: - Nil <u>Domestic - 3.0</u> <u>Total - 50.0</u>

(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	9.48 Ltrs / Unit	18.60 Ltrs / Unit	

B. Raw Material Consumption

ererererererererererere

Name of the Raw Material	Name of Product	Consumption of Ray Product	w Material per Unit Output
		During the Previous Financial Year	During the Current Financial Year
HSD	Limestone	0.51Ltrs. Per Ton	0.484 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	а ^{са} . ж
(ii)	Industrial		NIL	

WATER ANALYSES RESULTS

Post Monsoon dated 03.11.2014

SAMPLE	MINE	TUBEWELL	HANDPUMP NEAR
PARTICULAR	PIIWAIER	WATER	SHARDAD
COLOUR & ODOUR	Clear & Natural	Clear & Natural	Clear & Natural
Ph	7.58	7.64	7.18
TSS	18	16	18
TOTAL HARDNESS	208	284	380
Ca+ HARDNESS	192	176	368
Mg+ HARDNESS	16	108	12
CONDUTIVITY	482	573	768
TDS	289	343	460
CLORIDES	24	36	28
TURBIDITY	1.56	1.24	1.15

*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, MANGROL

<u>Tilakhera MINE</u>

Year: 2014-15

Month	NEAR MINE OFFICE	NEAR RAVANA OFFICE
Apr-14	343.35	355.57
May-14	322.99	373.95
Jun-14	352.00	387.04
Jul-14	336.99	367.02
Aug-14	327.01	369.97
Sep-14	316.00	352.00
Oct-14	320.96	361.98
Nov-14	335.97	358.03
Dec-14	342.02	374.99
Jan-15	330.01	368.03
Feb-15	354.99	324.97
Mar-15	345.00	384.98

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.	

	e suggi sen se de la companya de la		2		
		Total Quantity			
		During the Previous	During the Current		
		Fillancial Teal	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 will be 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 Haul Roads and Working Pits.

WATER

Being Mechanised Limestone mine, it requires water mainly for Wet Drilling, Road Spraying, Green Belt Development, and Machineries Washing. Water consumption is around 50 KLD. The source of water is the accumulated rainwater in the lower most benches. There is no liquid effluent / waste water.

NOISE

<u>reservererrerrerrerrerrerr</u>

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.
- 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 NONEL.

NO	ICE	I EV	n	ATA
NU	IJL	LLV		

J.K.CEMENT WORKS, MANGROL <u>Tilakhera MINE</u>

	Year: 2014-15			
	NEAR MINE OFFICE		NEAR RAV	ANA OFFICE
Month	Day Time	Night Time	Day Time	Night Time
Apr-14	69.5	59.3	70.6	59.8
May-14	68	58	69	57
Jun-14	68.5	58.5	69.4	57.6
Jul-14	67.7	57.6	68.7	59.3
Aug-14	69	59.1	70.4	58.1
Sep-14	68.2	58.4	69.6	57
Oct-14	68.8	58.5	67.3	56.5
Nov-14	67.9	57.8	70.7	58.6
Dec-14	69.8	59.4	68.2	57.7
Jan-15	69.2	58.7	70.2	59.1
Feb-15	67.5	57.3	69.3	58.4
Mar-15	68	58	69.7	60

GROUND VIBRATION

M/s IDL and CIMFR (CSIR) 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.

reserves erererererererer

5. Monitoring of ground vibration by "Mini-mate".

PART – H

ADDITONAL 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(2014-15) (Rs in Lacs)
1.	<u>Plantation</u> a) Green belt development around the mines out area, by way of aforestation & developing the patched of grass land . b) Avenue plantation c) Barren lands	3.97 - -
2.	Dust control & suppression	5.17
3.	Compaction of Haul Roads, boulder pitching of bench edges, etc.	3.33
4.	Monitoring of environmental parameters	1.0
5.	Organisational Set-up	6.19
6.	Socio-Economic Development	24.28
	Total Expenditure	43.94

PART-I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

Mine has planted 1175 plants in and around mining area during the period under review.

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