

Regd.AD.

JK Cement LTD.

Phone : +91-1477-220098, 220087
Fax : +91-1477-220027, 220049
E-mail : jkc.nbh@jkcement.com
Web : www.jkcement.com

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-13/2748

Date: 26.09.2018

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


SUBJECT: **Environmental Statement for the year 2017 – 2018 (02 Copies)**

Dear Sir,

Kindly find herewith enclosed **Environment Statement Report of Nimbahera Limestone Mine (Ahipura & Murlia Block) for the year 2017-2018** 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
Asth. V.P. (E & I)

Encl. : a / a

Copy to -

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

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. 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 2018

Nimbahera - Ahirpura 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	2.0 MMTPA (Limestone)
(IV)	Year of Establishment	Year 1971
(V)	Date of last Environmental Statement Submitted	16 th September, 2017

PART – B

Water & Raw Material Cnsumption

A. Water

(i)	Over All Consumption	-	KLD
	Process	-	18.5 (Spray on Road / Mining , Drilling etc.)
	Cooling:	-	Nil
	Domestic	-	1.5
	Total	-	20.0

(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	04.55 Ltrs / Unit	06.49 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	0.5179 Ltrs. Per Ton	0.6830 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

SAMPLE PARTICULAR	MINE PIT WATER (Dated 04.11.2017)	MINE CRUSHER TUBEWELL (Dated 03.11.2017)	SHARDA CRUSHER TUBEWELL (Dated 09.11.2017)
COLOUR & ODOUR	Clear & Natural	Clear & Natural	Clear & Natural
Ph	7.5	7.14	7.98
TSS	16	10	-
TOTAL HARDNESS	148	284	164
Ca+ HARDNESS	120	220	41.6
Mg+ HARDNESS	28	64	14.4
CONDUTIVITY	422	692	348.9
TDS	253.2	415.2	230
CHLORIDES	56	59	28
TURBIDITY	2.13	1.23	0.12

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

WATER ANALYSES RESULTS

Post Monsoon dated 03.11.2017 (Murlia Block)

SAMPLE PARTICULAR	W-1 HANDPUMP(Near Hut)	W-2 TUBEWELL(Near Mangrol Chouraha)	W3-Pit Water Sample
COLOUR & ODOUR	Clear & Natural	Clear & Natural	Clear & Natural
Ph	7.22	7.28	7.32
TSS	18	12	14
TOTAL HARDNESS	278	480	272
Ca+ HARDNESS	170	380	210
Mg+ HARDNESS	108	100	62
CONDUTIVITY	617	1124	598
TDS	370.2	674.4	358.8
CHLORIDES	45	84	52
TURBIDITY	6.67	0.52	0.8

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

AMBIENT AIR QUALITY MONITORING DATA

(SPM Monthly Average in $\mu\text{g}/\text{M}^3$)

J.K.CEMENT WORKS, NIMBAHERA

J.K. Cement Nimbahera mine (Ahipura Block)

AMBIENT AIR QUALITY MONITORING DATA FOR SPM
(Monthly Average In MICROGRAMS / CUBIC METER)

Year : 2017-18

Month	NEAR MINE GATE	NEAR MINE WATER PUMP HOUSE
Apr-17	364.6	389.0
May-17	332.8	364.0
Jun-17	312.9	347.0
Jul-17	292.7	334.0
Aug-17	333.8	368.0
Sep-17	330.1	373.0
Oct-17	349.5	384.0
Nov-17	338.5	396.0
Dec-17	343.3	402.0
Jan-18	380.1	415.0
Feb-18	340.2	390.0
Mar-18	414.6	436.0

J.K.CEMENT WORKS, NIMBAHERA
J.K. Cement Nimbahera mine (Murlia Block)
AMBIENT AIR QUALITY MONITORING DATA FOR SPM
(Monthly Average In MICROGRAMS / CUBIC METER)
Year : 2017-18

Month	Near Mine Gate	Near Ravana
Apr-17	335.0	389.0
May-17	345.0	397.0
Jun-17	321.0	377.0
Jul-17	298.0	332.0
Aug-17	310.0	344.0
Sep-17	329.0	368.0
Oct-17	332.0	381.0
Nov-17	346.0	401.0
Dec-17	326.0	379.0
Jan-18	309.0	369.0
Feb-18	317.0	385.0
Mar-18	323.0	372.0

PART – D

(As specified under Hazardous Waste & Other waste Management rules-2016)

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 20 KLD. The source of water is the accumulated rainwater in the lower most benches. No effluent / Waste water is there.

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 Using NONEL (Non Electric initiation system).
4. By minimizing use of detonating fuse.
5. By providing earmuffs and earplugs to eligible miners.

6. Blasting between 12.00 noon to 3.00 PM when air density is low.
7. Use of Air Decking & sufficient column stemming in the blast holes.

J.K.CEMENT WORKS, NIMBAHERA
J.K. Cement Nimbahera mine (Ahirpura Block)

NOISE LEVEL MONITORING DATA

Monthly Average In dB(A)

Year : 2017-18

Month	NEAR MINE WATER PUMP HOUSE		NEAR MINE GATE	
	Day Time	Night Time	Day Time	Night Time
Apr-17	67.2	59.2	68.3	60.4
May-17	66.6	58.6	69.7	59.6
Jun-17	68.5	60.2	70.3	61.4
Jul-17	67.8	59.6	69.3	60.5
Aug-17	69.3	61.5	70.2	62.2
Sep-17	66.9	59.0	68.7	60.7
Oct-17	65.8	59.6	67.9	58.5
Nov-17	67.4	60.0	69.4	61.3
Dec-17	68.2	58.7	70.7	62.3
Jan-18	67.6	60.1	68.9	59.4
Feb-18	66.8	59.7	69.8	61.2
Mar-18	67.1	60.4	68.5	59.8

J.K.CEMENT WORKS, NIMBAHERA

J.K. Cement Nimbahera mine (Murlia Block)

NOISE LEVEL MONITORING DATA

Monthly Average In dB(A)

Year : 2017-18

Month	NEAR MINE GATE		Near Ravana	
	Day Time	Night Time	Day Time	Night Time
Apr-17	66.5	56.6	69.3	59.8
May-17	68.2	57.9	70.6	61.3
Jun-17	67.6	55.7	68.9	57.5
Jul-17	69.6	58.9	70.2	60.3
Aug-17	68.5	59.8	69.5	60.2
Sep-17	69.2	60.2	71.2	62.3
Oct-17	69.5	58.4	70.7	60.5
Nov-17	68.7	61.3	69.8	62.4
Dec-17	67.2	59.7	71.4	61.7
Jan-18	69.9	58.7	70.1	59.9
Feb-18	68	60.5	71.6	61.7
Mar-18	69.1	59.4	69.9	60.4

GROUND VIBRATION

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".

PART – H

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

EXPENDITURE INCURRED ON ENVIRONMENTAL PROTECTION MEASURES DURING YEAR 2017-2018

S. No.	Activity	Recurring Cost per Annum (Rs.)
1.	Pollution control expenses (Others)	54045
2.	Pollution control expenses (Statutory)	343873
3.	Gardening Expenses	139382
4.	CSR Expenses	401902
Total (Rs.)		939202/-

PART – I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

Mine has planted 1840 plants in and around mining area during the period under review.


S. G. CHARYA
J.R. (E&I)
J.K. CEMENT WORKS
NIMBAHERA
Distt. CHITTORGARH (Raj.)

For JK CEMENT WORKS, NIMBAHERA