

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

(An ISO 9001, 14001, 50001 & OHSAS 18001 CERTIFIED COMPANY)

Our Ref. No.: NBH/PC-14/ **1026**

Date: 01.06.2017

To,

**The Additional Director,**  
Indira Paryavaran Bhavan,  
JOR Bagh Road,  
Near JOR bagh Metro station  
**New Delhi**

**Sub: Environmental Clearance Compliance report of Maliakhera Limestone Mine.**

Dear Sir,

Kindly refer Environmental Clearance letter No. J-11015/429/2008-IA.II (M) dated. 06<sup>th</sup> August 2010 of our **Maliakhera Mine.**

We are enclosing herewith compliance report of Environmental Clearance conditions along with Ambient Air Quality Data (**Core zone & Buffer Zone**) from the month of **October' 2016 to March' 2017 in hard copy as well as in CD as soft copy** for your kind 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. Vice President (E & I)

Encl : a/a

Copy to:

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

**The Chairman,** Central Pollution Control Board, Parivesh Bhawan, CBD-CUM office complex, East Arjun Nagar, Maharaja Surajmal Marg, Vishwas Nagar Extension, Viswas nagar Shahdara- Behind Karkarduma high court New Delhi 11032

**Member Secretary,** Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Doongri, **JAIPUR - 302004 (RAJASTHAN)**

**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, Gangan



J.K. Cement Works, NIMBAHERA (RAJ.)  
(Compliance report for Expansion of Maliakhera Lime Stone Mine)  
(For the period from October 2016 to March 2017)

Dated 01.06.2017

Sub:- Conditions of Environment Clearance from MOEF, New Delhi Letter No. J-11015/429/2008-1A.II(M) dated 06.08.2010

S.No.	Condition	Status
	<b>(A) Specific Conditions</b>	
(i)	The project proponent shall obtain Consent to Establish and Consent to Operate from the Rajasthan State Pollution Control Board and effectively implement all the conditions stipulated therein.	Consent to Establish has been obtained under Air & Water Act for upgraded production capacity (2.2 MTPA to 3.2 MMTPA) on date 27.01.2011. Consent to operate has been obtained under Air & Water act for upgraded production capacity (2.2 MMTPA to 3.2 MMTPA) vide letter no. F (Mines)/Chittorgarh (Nimbahera)/516(1)/2010-2011/1935-1939 dtd. 10.06.2014 ( For 3 years)
(ii)	Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India in Contempt Petition ( C ) No.412/2004 in IA No. 833 in Writ Petition ( C ) No. 202 of 1995, as may be applicable to this project.	Agreed
(iii)	The environmental clearance is subject to approval of the State Land use Department, Government of Rajasthan for diversion of agricultural land for non-agricultural use.	Mining lease was initially executed on 13.12.1984 and it was renewed (First renewal) from 13.12.2004. Private land is used only after diversion for non-agriculture use from state revenue department.
(iv)	Necessary prior permission from the Competent Authority as may be applicable for use of grazing land for mining purpose shall be obtained.	Mining lease was initially executed on 13.12.1984 and it was renewed (First renewal) from 13.12.2004. Approval for Grazing land used for Mining has been taken.
(v)	The project proponent shall develop fodder plots in the non-mineralized area in lieu of use of grazing land.	Mining lease was initially executed on 13.12.1984 and it was renewed (First renewal) from 13.12.2004.
(vi)	The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table. In case of working below the ground water table, prior approval of the Ministry of Environment and Forests and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.	Agreed. We have obtained permission for mining below water table vide letter no. 21-4(286)WR/CGWA/2008-813 dtd. 17.05.2016 from CGWA, New Delhi.
(vii)	The Project Proponent shall ensure that no natural watercourse and/or water resources are obstructed due to any mining operation. Adequate measures shall be taken for protection of the seasonal nallah during the course of mining operation.	Agreed. No natural water course and / or water resources will be obstructed due to any mining operation.
(viii)	The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.	Agreed and being used for plantation or temporary stored at earmarked site.
(ix)	The waste generated during the mining operation shall be stacked at the earmarked site and reclaimed by the plantation. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office, Lucknow on six monthly basis.	No waste is generated during the course of Mining activity. Only top black cotton soil is generated which is stacked at designated places, levelled and plantation is done over it.
(x)	The void left unfilled in the entire excavated area of 208.76ha shall be converted into	Agreed. Presently it is an operative mine.

	water body. The higher benches of excavated void/mining pit shall be terraced and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out all along the excavated area.	
(xi)	<p>Catch drains and siltation ponds of appropriate size shall be constructed for the working pit, temporary soil, mineral dumps and waste dump(s) to arrest flow of silt and sediment directly into the agricultural fields, the Murlia dam, seasonal nallah and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after the monsoon and maintained properly.</p> <p>Garland drains, setting tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and waste dump(s) to prevent run off of water and flow of sediments directly into the agricultural fields, the Murlia dam, seasonal nallah and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper setting of slit material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.</p>	Garland drain system maintained all around the Mining pit, outside the Mining limit for proper water harvesting. Check dams and siltation ponds are provided to control the flow of sediments, silt in and around the Mine working. There is no generation of waste and all the blasted material is used for manufacturing of Cement.
(xii)	Dimension of the retaining wall at the toe of the waste dumps and the waste benches within the mine to check run-off and siltation should be based on the rain fall data.	Since there is no generation of waste dump. Only Top black cotton soil is generated which is stacked, levelled and used for plantation. The plantation is protected by barbed wire fencing.
(xiii)	Plantation shall be raised in an area of 19.64ha including a 7.5m wide green belt in the safety zone around the mining lease, reclaimed area, around water body, around waste dumps along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 1000 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	Agreed, Plantation done during the year 2016-17 within lease 1655 nos. plants covering 1.20 ha. area. Total Plantation done till date is 24305 nos. in inside and 11084 in outside lease area. Survival rate of plantation is 57.88% inside lease area and 54.59% outside lease area. Total plantation covered area till date is 12.14 hectare in inside lease area and 4.65 hectare Outside lease area and Green belt of 19.40 Ha area.
(xiv)	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Regular water sprinkling by deploying water sprinkler is done on the haul roads to prevent the dust becoming air borne during transportation of vehicles. Wet drilling system is practiced on the existing setup for drilling machine.
(xv)	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	Surface rain water is collected in the lower most benches to augment Ground water resources. Water is also discharged in the Anicut constructed in the North side of the pit to augment water resources after rainy season. The check dam & injection well with filter pit are developed to augment the water resource.
(xvi)	Regular monitoring of ground water level and quality shall be carried out in and around	Report is being sent regularly on Schedule time. Last report of

	the mine lease by establishing a network of existing wells and installing new piezometers during the mining operation. The periodic monitoring [(at least four times in a year – pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office, Lucknow, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.	ground water level and quality for Pre-Monsoon season (April-May 2017) was sent vide letter no. NBH/PC/14/886 on 22.05.2017. To augment the water resources, rain water harvesting is done and stored in lower most benches.
(xvii)	Appropriate mitigative measures shall be taken to prevent pollution of the Murlia dam in consultation with the State Pollution Control Board.	No working is carried out in submergence area of the dam and up to 15 mts. from the boundary of the catchment area and nallah connecting to Murlia dam. There is no disturbance and obstruction due to Mining activity.
(xviii)	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of ground water required for the project.	We have obtain NOC for drawl of groundwater from CGWA vide letter no. 21 – 4(286) WR / CGWA /2008/1676 dated 28.10.2015.
(xix)	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	Agreed. Rain water is harvested during rainy season in the bottom most bench.
(xx)	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	Tippers engaged in the Mines are regularly checked once in six months for vehicular emissions and are kept under permissible limits. The tippers are not loaded above the rated capacity.
(xxi)	Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	Use of Sequential blasting machine (SBM), Delay detonator, Non-Electric detonator. Regular monitoring of Ground vibration is being practiced. Rock breaker is used to minimize secondary blasting.
(xxii)	The project proponent shall take all mitigative measures during the mining operation to ensure that the buildings/structures in the nearby areas shall not be affected due to blasting.	Agreed. Controlled blasting is done by use of Sequential blasting machine (SBM), Delay detonator, Non-Electric detonator and use of air deck to reduce charge per hole and vibration.
(xxiii)	Drills shall either be operated with dust extractors or equipped with waster injection system.	Water injection system on Wagon drill has been provided which suppresses dust at its source of generation.
(xxiv)	Mineral handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	Regular water spraying by deploying water tanker is done in the Mineral handling area.
(xxv)	Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and waste water generated during the mining operation.	Sewage treatment Plant is already installed in the colony for Nimbahera plant & mines. No waste water generating during mining operation and workshop waste water is collected in pit and use for dust suppression in coal yard.
(xxvi)	Pre-placement medical examination and periodical medical examination of the workers	Regular initial medical examination and periodical medical

	engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	examination is being carried out. During the year 2016-17, 03 Nos. of initial and 14 Nos. of periodical medical examination were done.
(xxvii)	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to MOEF and its Regional Office located at Lucknow.	Agreed, We have submitted report of digital processing of the entire lease area on 29.03.2017 vide letter no. NBH/PC-14/056.
(xxviii)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	No construction labours are engaged in Mine.
(xxix)	The critical parameters such as RSPM (Particulate matter with size less than 10 micron i.e. PM <sub>10</sub> ) and NO <sub>x</sub> in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on the display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry <a href="http://www.envfor.nic.in">www.envfor.nic.in</a> shall also be referred in this regard for its compliance.	Agreed, These critical parameters are measured periodically during ambient air monitoring and monitoring report is enclosed as annexure-I. No waste water is generating during mining operation.
	<b>(B) GENERAL CONDITIONS</b>	
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.	Agreed. Mining will be done in accordance with Approved Mining Plan / Scheme of Mining.
(ii)	No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.	Agreed, Mining will be done in accordance with approved mining plan / Scheme of mining.
(iii)	Conservation measures for protection of flora and fauna in the core and buffer zone should be drawn up in consultation with the local forest and wildlife department and effectively implemented.	Agreed.
(iv)	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10 micron i.e., PM <sub>10</sub> ) and NO <sub>x</sub> monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Monitoring at four stations is already being done because it is our existing mine. Latest report on air monitoring is enclosed as annexure –(I)
(v)	Data on ambient air quality RSPM (Particulate matter with size less than 10 micron i.e., PM <sub>10</sub> ) & NO <sub>x</sub> should be regularly submitted to the Ministry of Environment and Forests including its Regional Office located at Lucknow and the State Pollution Control Board/Central Pollution Control Board once in six months.	Monitoring data is regularly submitting prescribed offices.

(vi)	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Agreed and being implemented to control fugitive dust emission by regular water spraying arrangement.
(vii)	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.	Regular maintenance (including cabin) of HEMM being done to keep noise level within the specified limits. Workers engaged in operation of HEMM etc. are provided with ear plugs.
(viii)	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	Agreed. No industrial waste water is generated in the Mine. Periodical analysis of Mine pit water reveals that there is no presence of any kind of toxic substance.
(ix)	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Persons engaged in drilling, dozing and loading have been provided with dust mask. VT is being provided as required under MVT rules 1966. Regular periodic check-up of workers is being carried out.
(x)	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	A separate environmental management cell with qualified personnels is already established & has sufficient monitoring equipment in environmental laboratory. Organization chart in enclosed as annexure -II
(xi)	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Lucknow.	A separate fund is kept for environment protection measures and report is being sent regularly to the concerned authority. Environment budget 2017-18 and expenditure 2016-17 detail is attached as annexure-(III).
(xii)	The project authorities should be inform to the Regional Office located at Lucknow regarding data of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Agreed
(xiii)	The Regional Office of this Ministry located at Lucknow shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	We shall extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.
(xiv)	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office located at Lucknow, the respective Zonal Office of Central Pollution Control Board the State Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional office of the Ministry of Environment and Forests, Lucknow, the respective	Agreed. Six monthly reports is already submitting to concern offices as given in previous clearance letter. Last Six Monthly Monitoring report was sent on 01/12/2016 vide letter no. NBH/PC/14/4672.

	Zonal Office of Central Pollution Control Board and the State Pollution Control Board.	
(xv)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad, Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Implemented.
(xvi)	The State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and the Collector's Office/Tehsildar's Office for 30 days.	--
(xvii)	The environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow by e-mail.	Agreed
(xviii)	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> and a copy of the same should be forwarded to the Regional Office of this Ministry located at Lucknow.	Implemented & the necessary information already sent to the concerned authority.



**J.K. Cement WORKS, NIMBAHERA (RAJ)**

**AMBIENT AIR QUALITY DATA**

**MALIAKHERA MINE (Core Zone)**

**( MA1 ) Location :- Near Mine Office**

S.No.	MONTH	SPM	RSPM	SO <sub>2</sub>	NOx	CO	Remarks
1	October'16	330.0	42.0	12.2	24.6	515.3	
2	November '16	328.0	40.0	11.7	22.2	629.8	
3	December'16	342.0	45.0	14.6	27.8	400.8	
4	January'17	317.0	43.0	10.7	20.2	400.8	
5	Feburary'17	332.0	44.0	12.2	23.0	744.0	
6	March'17	322.0	41.0	13.7	26.3	687.0	

**(MA2 ) Location :- Near Ravana Office**

S.No.	MONTH	SPM	RSPM	SO <sub>2</sub>	NOx	CO	Remarks
1	October'16	364.0	47.0	15.4	28.6	744.3	
2	November '16	356.0	45.0	13.6	26.4	858.8	
3	December'16	374.0	49.0	17.0	32.0	973.3	
4	January'17	359.0	46.0	14.4	29.2	973.3	
5	Feburary'17	368.0	48.0	15.0	28.0	801.5	
6	March'17	377.0	50.0	18.4	35.7	629.8	

**( MA3 ) Location :- 3 to 10 Meter Distance From Drilling Operation**

S.No.	MONTH	SPM	RSPM	SO <sub>2</sub>	NOx	CO	Remarks
1	October'16	391.0	50.0	17.6	32.2	687.0	
2	November '16	400.0	52.0	16.3	30.2	744.3	
3	December'16	417.0	54.0	19.8	38.0	744.3	
4	January'17	396.0	51.0	17.2	35.0	744.3	
5	Feburary'17	409.0	53.0	16.7	33.0	458.0	
6	March'17	423.0	55.0	21.4	40.2	858.8	

**( MA8 ) Location :- Near Loading Point**

S.No.	MONTH	SPM	RSPM	SO <sub>2</sub>	NOx	CO	Remarks
1	October'16	345.0	44.0	13.8	26.6	400.8	
2	November '16	340.0	42.0	12.6	24.4	458.0	
3	December'16	362.0	47.0	16.0	30.0	629.8	



4	January'17	374.0	49.0	19.2	32.0	629.8	
5	February'17	389.0	55.0	18.5	29.0	687.0	
6	March'17	359.0	45.0	15.8	33.7	400.8	

Note : ALL VALUES IN MICROGRAMS / CUBIC METER ( $\mu\text{g}/\text{M}^3$ )

### **J.K. Cement WORKS, NIMBAHERA (RAJ)**

#### **AMBIENT AIR QUALITY DATA**

#### **Maliakhera MINE ( Buffer Zone )**

**(MA4 ) Location :- Near Mine Office of Karunda Mine**

S.No.	MONTH	SPM	RSPM	SO <sub>2</sub>	NOx	CO	Remarks
1	October'16	284.0	37.0	9.7	19.8	458.0	
2	November '16	322.0	42.0	12.6	24.2	573	
3	December'16	312.0	44.0	13.5	26.3	629.8	
4	January'17	335.0	47.2	14.6	29.4	515.3	
5	February'17	326.0	43.4	12.0	25.0	572.5	
6	March'17	340.0	45.0	15.7	28.4	629.8	

**(MA5 ) Location :- Near Packing plant gate of J.K Mangrol Plant**

S.No.	MONTH	SPM	RSPM	SO <sub>2</sub>	NOx	CO	Remarks
1	October'16	294.0	39.0	9.7	19.9	558.2	
2	November '16	310.5	39.9	8.3	17.3	601.1	
3	December'16	307.5	39.1	9.1	18.4	553.4	
4	January'17	369.5	46.5	14.4	26.7	629.8	
5	February'17	350.0	43.8	12.5	26.8	687.0	
6	March'17	330.0	42.4	10.3	19.6	639.3	

**( MA6 ) Location :- Main Security Gate of JKCW Nimbahera**

S.No.	MONTH	SPM	RSPM	SO <sub>2</sub>	NOx	CO	Remarks
1	October'16	314.2	38.8	9.5	19.7	563.0	
2	November '16	315.2	40.5	10.1	20.4	644.1	
3	December'16	324.0	41.2	11.1	21.2	615.4	
4	January'17	311.5	38.5	9.5	19.2	605.9	
5	February'17	324.3	41.2	11.4	23.9	729.9	
6	March'17	333.7	44.1	12.9	22.9	739.5	

**( MA7 ) Location :- Near Mine Water Pump of Nimbahera -Ahirpura Mine**

S.No.	MONTH	SPM	RSPM	SO <sub>2</sub>	NO <sub>x</sub>	CO	Remarks
1	October'16	374.0	50.0	17.4	33.2	629.8	
2	November '16	382.0	53.0	19.0	38.0	515.3	
3	December'16	394.0	56.0	20.2	40.1	629.8	
4	January'17	368.0	47.0	15.7	30.0	515.3	
5	Feburary'17	379.0	51.0	17.0	33.0	744.3	
6	March'17	400.0	54.0	21.2	37.4	687.0	

Note : ALL VALUES IN MICROGRAMS / CUBIC METER (µg/M<sup>3</sup>)

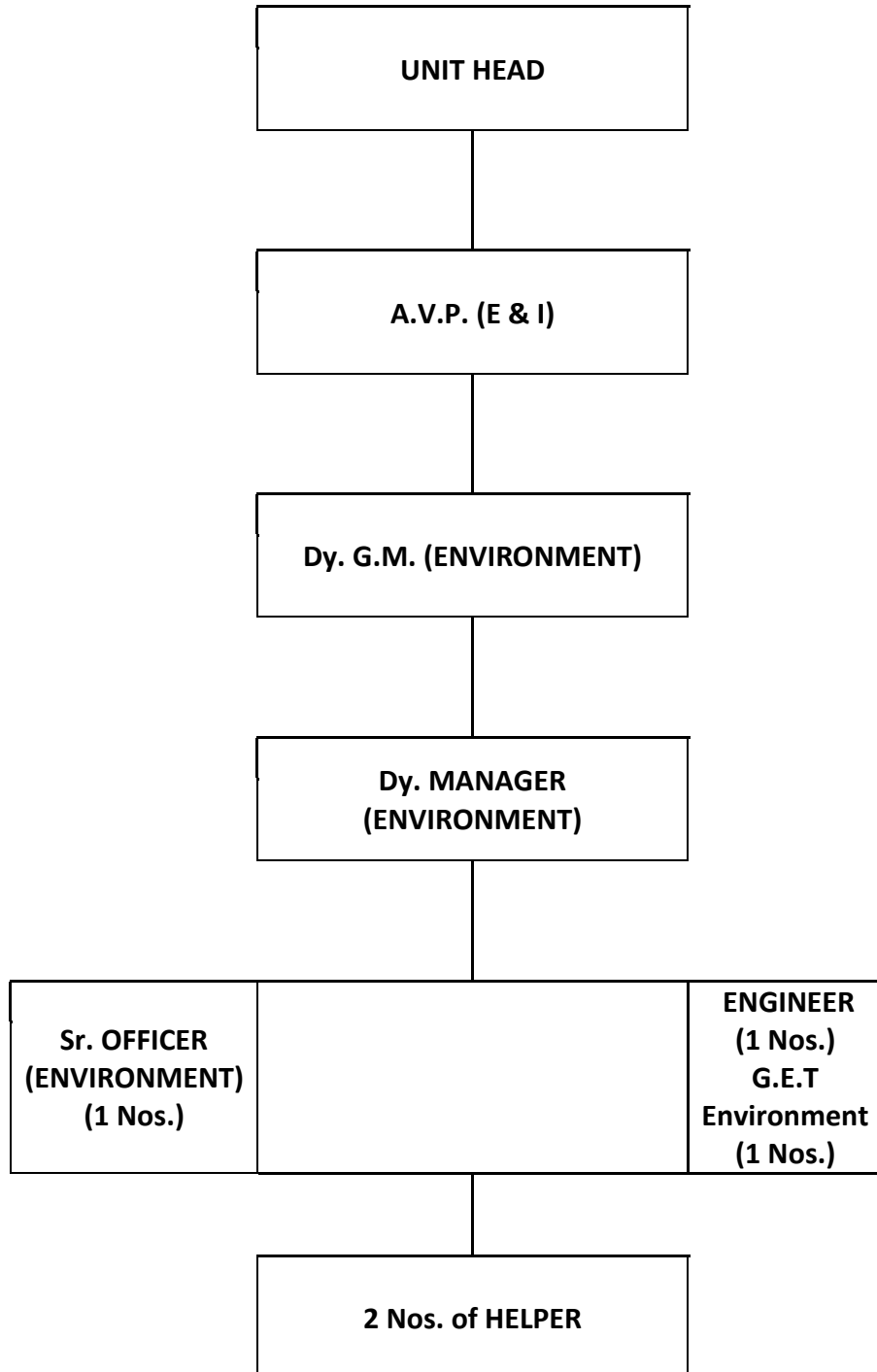
**MALIAKHERA MINE**  
**Blast Ground Vibration Detail**  
**Period: October, 2016 – March, 2017**

Sl No.	Date	PPV	Frequency
1.	10.10.2016	2.98	30
2.	15.10.2016	1.71	34
3.	08.11.2016	2.86	64
4.	20.11.2016	1.91	24
5.	24.11.2016	0.572	27
6.	25.11.2016	0.635	34
7.	27.11.2016	2.86	39
8.	03.12.2016	2.29	27
9.	09.12.2016	2.54	22
10.	22.12.2016	0.826	23
11.	03.01.2017	2.41	4
12.	19.01.2017	2.22	57
13.	23.02.2017	1.02	26
14.	10.03.2017	1.71	34
15.	14.03.2017	1.14	19
16.	17.03.2017	2.03	30
17.	18.03.2017	1.52	21



**J.K. Cement WORKS, NIMBAHERA ( RAJ )**

**ORGANISATION CHART OF POLLUTION CONTROL DEPARTMENT**



**J.K. Cement WORKS, NIMBAHERA (RAJ)**  
**MALIAKHERA MINE**

**Financial Budget for Environmental Management**  
**FY 2017-18**

S. No.	Activity	Recurring Cost per Annum (Rs. in Lacs)
		Proposed
1.	Pollution control expenses (Others)	3.320
2.	Pollution control expenses (Statutory)	1.050
3.	Gardening Expenses	1.650
4.	CSR Expenses	13.0
Total (Rs. in Lacs)		19.02

**J.K. Cement WORKS, NIMBAHERA (RAJ)**  
**MALIAKHERA MINE**

**EXPENDITURE INCURRED ON ENVIRONMENTAL PROTECTION**  
**MEASURES DURING YEAR 2016-2017**

<b>S. No.</b>	<b>Activity</b>	<b>Recurring Cost per Annum (Rs.)</b>
1.	Pollution control expenses (Others)	<b>94485</b>
2.	Pollution control expenses (Statutory)	<b>8348</b>
3.	Gardening Expenses	<b>78588</b>
4.	CSR Expenses	<b>3045381</b>
<b>Total (Rs.)</b>		<b>3226802/-</b>