

Date : 06/11/2018

To,
The Chairman,
Ministry of Environment, Forests and climatic change
(Impact Assessment Division)
Indira Paryavaran Bhawan, Vayu Wing, 3rd Floor
Aliganj, Jorbagh Road,
New Delhi -110 003

10134

Sub: Submission of 6 month Ambient air quality data & Compliance status of Special & general condition of Environmental Clearance of Lakshmi Cement Limestone Mines located at Village (s)- Basanthgarh, Rampura, Rohida, Tehsil- Pindwara, District- Sirohi, Rajasthan.

Ref: 1. LETTER NO. J-11015/146/2006-IA.II (M), dated 24/01/2007, For 8 Million tones.
2. MOEF Letter no J -11015/266/2013-IA.II (M) ,- dated 9th Aug.2016 ,
For 13 Million tons.

Sir,

We are here with enclosing Compliance Status up to 30th Sept. 2018 along with quarterly Ambient Air Quality Data from 1st April. 2018 to 30th Sept. 2018 as per Specific/ General Condition of Environmental Clearance of Lakshmi Cement Limestone Mines. We are enclosing compliances as per EC conditions as mentioned. The above is submitted for your information & records,

Thanking you.
Yours Faithfully,
For JK LAKSHMI CEMENT LTD.

PRAVEEN LODHA
(Sr. G.M. MINES)

Mines Manager
Lakshmi Cement Limestone Mines
J. K. Lakshmi Cement Ltd.

- CC TO:
- 1) Member Secretary,
Rajasthan State Pollution Control Boards,
4, Institutional Area, Jhalana Doongari,
JAIPUR (Rajasthan)
 - 2) The Regional officer,
Rajasthan State Pollution Control Boards,
SA-6, Mandia Road Industrial Area,
PALI (Rajasthan) 306401
 - 3) Regional office
Ministry of Environment, Forests & Climate change
5th Floor Kendriya Bhavan, Sector - H , Aliganj
Lucknow- 260224

Compliance report from 1st April 2018 to 30 Sept 2018

MoEFCC Environmental Clearance letter no. J-11015/266/2013-IA.II (M) dated August 09, 2016		
Online Proposal no.: IA/JH/MIN/19347/2013. (For 13 MTPA)		
Subject: Enhancement of Lakshmi Cement Limestone Mine with production capacity from 8.0 million TPA to 13.0 million TPA of limestone by M/s J.K. Lakshmi Cement Ltd. located at village (s) – Basantgarh, Rampura, Rohida, Tehsil – Pindwara, District – Sirohi, Rajasthan (MLA: 390.625 ha) – Environmental Clearance regarding.		
S.No.	CONDITIONS	COMPLIANCE STATUS
A.	SPECIFIC CONDITION	
i)	Environmental clearance is granted subject of final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Rajasthan, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Noted.
ii)	This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board for Wildlife, if any, as applicable for this Mining Project.	There is no forest land is involved in the Mining area. Hence, the condition is not applicable.
iii)	The Project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Rajasthan and effectively implement all the conditions stipulated therein.	We will obtain Consent to Operate before enhancement of production capacity from 8.0 MTPA to 13.0 MTPA.
iv)	Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M) dated 29 th October 2014, titled "Impact of mining activities on Habitations Issues related to the mining projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".	In our Lakshmi Cement Limestone Mine there no habitations and villages are the part of mine lease area or habitations and villages are surrounded by the mine lease area. Hence, the condition is not applicable.
v)	Project Proponent shall carry out vibration studies well before approaching any such habitats or other buildings to evaluate the zone of influence and impact of blasting of the neighborhood. Within 500 meters of such sites vulnerable to blasting vibrations, avoidance of use of explosives and adoption of alternatives means of mineral extraction, such as ripper/dozer combination/rock breakers/surface miners etc. should be seriously considered and practices wherever practicable. A provision for monitoring of each blast should be made so that the impact of blasting on nearby habitation and dwelling units could be ascertained. The covenant of lease deed under Rule 31 of MCR 1960 provides the no mining operations shall be carried out within 50 meters of public works such as public roads and buildings or inhabited sites except with the prior permission from the Competent Authority.	The condition is followed and being maintained accordingly.
vi)	Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. The material transfer points should invariably be provided with Bag filters and or dry fogging system. Belt-conveyors should be fully covered to avoid air borne dust; Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured.	The condition is followed and installation is to be going on accordingly.
vii)	The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Project should obtain	The condition is followed accordingly.

	'PUC' certificate for all the vehicles from authorized pollution testing centers.	
viii)	There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.	Rain water harvesting structures are constructed in colony and nearby villages. Also, we have implemented artificial recharge structures for augmenting ground water. The condition is followed accordingly.
ix)	Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical check-up once in six months and necessary medical care/preventive measures undertaken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers should also be adopted.	We are complying the conditions laid down in DGMS Mines Act 1952 and Mines Rule 1955.
x)	Implementation of Action Plan on the issues rased during the Public Hearing shall be ensured. The Project Proponent shall complete all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing.	The condition is followed accordingly.
xi)	Project Proponent has not obtained the necessary permission from the CGWA for intersecting ground water table. The Project proponent required to carry out detailed hydrogeological study and to obtain the recommendations of CGWA. The Project Proponent will submit the aforesaid study report and recommendations of CGWA to the Ministry. The Ministry will take a decision on this matter based on detailed hydrogeological study, recommendation of CGWA etc.	With the present mining operations, we have not intersected the water table. Mining is being done as per approved Mining Plan. In future if any intersection is there will conduct the detailed hydrogeological study to obtain the necessary permission from CGWA.
xii)	The Report on six monthly basis on changes in Ground Water level and quality shall be submitted to the Regional Office of the Ministry.	The condition will be followed accordingly. Ground water monitoring and quality report enclosed— <u>ANNEX- I</u>
xiii)	The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling, lest the cattle abandon the grazing ground or return home by noon.	There is no grazing land in mining lease acquired. Hence, not applicable.
xiv)	The Proponent shall install online Ambient Air Quality Monitoring system and there should be system for display of digital AAQ data within 03 months at least three locations as per wind direction. Online provisions of pH and turbidity meters at discharge points of STP and STP and also at water storage ponds in the mining area may be made. Project Proponent should display the result digitally in front of the main Gate of the mine site.	We have common colony for Captive Limestone Mine and integrated cement plant. Mine lease area is adjacent to Cement Plant. Online monitoring data are being displayed at factory main gate. We are reusing treated water from STP for cooling purpose. We are maintaining Zero Liquid Discharge. Third party monitoring report is enclosed. ---- <u>ANNX-II</u>
xv)	The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling / leveling with the help of dozer/compactors. The report on slope and stability monitoring should be sent to MoEFCC and its Regional office every six-months.	The condition is/will be followed accordingly.
xvi)	The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation has been followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps	Waste dump are being reclaimed scientifically. We encourage species which are able to sustain. The condition will be followed accordingly.

	are able to sustain these species. The aspect of the dump is also a factor to that micro climate. This may be recommended to be studied by hiring Expert Ecology Group.	
xvii)	As per the Company Act, the CSR cost should be 2% of average net profit of last three years. Hence CSR expenses should be as per the Company Act/Rule for the Socio Economic Development of the neighborhood Habitats which could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institute/Workers. The report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office located at Lucknow on six monthly basis.	The condition is to be followed accordingly.
xviii)	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest and Climate Change 5 years in advance of final mine closure for approval.	Same will be compiled at the time of closing the mines.
S.No.	CONDITIONS	COMPLIANCE STATUS
B.	GENERAL CONDITION	
i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest and Climate Change.	We will not change mining technology and scope of working without prior approval.
ii)	No change in the calendar plan including excavation, quantum of limestone mineral and waste should be made.	The condition will be followed accordingly.
iii)	Mining shall be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM) as well as by abiding to the guideline of Directorate General Mines Safety (DGMS).	We are doing mining as per approved mining plan.
iv)	The lands which are not owned by Proponent, mining will be carried out only after obtaining the consents from all the concerned land owners as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957.	The condition is followed as per MCR 1960 & amended in 2016 and MMDR Act 1957. All the lands belong to proponent.
v)	The top soil, if any, 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. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained to 45 degree. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical area, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office located at Lucknow on six monthly basis.	No Top soil is available in the mining lease. The dump height and degree of repose is maintained as per conditions laid down in EC. Plantation and geo textile will be done during rehabilitation work.
vi)	Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains settling tanks and check	We have constructed the siltation pond in and around mines area to arrest the silt and 03 check dams in mines to control the water flow. After rainy season we have started the cleaning of pond and sump area.

	dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity 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 silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.	
vii)	Effective safeguard measures such as regular water sprinkling shall be carried out in critical area prone to air pollution and having high levels of PM ₁₀ and PM _{2.5} such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality to be carried out based on the Notification, as amended from time to time by the Central Pollution Control Board.	Regular water sprinkling is being done over to control fugitive dust emissions from sources. Ambient Air Quality monitoring is being done. <u>Refer- ANNEX-II</u>
viii)	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 limestone will be transported by covered conveyor belt to the cement plant which shall be set up based on this deposit The vehicles carrying the mineral shall not be overloaded.	Vehicular emission is kept under controlled through regular maintenance of transporting vehicle. Crushed Limestone is being transported from mines to cement plant through covered conveyor belt.
ix)	Regular monitoring of ground water table to be carried out at the upstream and depth of water available in the dug well is to be measured. Monitoring to be done by establishing a network of existing wells and constructing new piezometers. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations.	The condition will be followed accordingly. <u>Refer Annex- I</u>
x)	Plantation shall be raised in a 7.5 m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Dept. The density of the trees should be around 2500 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.	The condition will be followed accordingly.
xi)	Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain.	No perennial stream in lease area. Hence, not applicable in our case.
xii)	Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest and Climate Change, its Regional Office, Lucknow, Cental Ground Water Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.	No perennial water body is present in the area.
xiii)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent	The condition will be followed accordingly.

	regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Lucknow, Central Ground Water Authority and Regional Director, Central Ground Water Board.	
xiv)	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Lucknow.	Conservation plan was submitted to forest dept. for their approval.
xv)	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.	We have township adjacent to plant & mine and facilities for accommodation for construction labour are available with all basic amenities.
xvi)	The critical parameters as per Notification 2009 such as PM10, PM2.5, NOx and Sox in the ambient air within the impact zone, peak particle velocity at 300 m 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 a 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, Forest and Climate Change, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	The condition will be followed accordingly.
xvii)	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.	Measures are taken to control noise level below 85 dbA. Workers engaged in HEMM operation are provided ear plug/muffs.
xviii)	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 th May 1993 and 31 st December 1993 or as amended from time to time. Oil and Grease trap should be installed before discharge of workshop effluents.	Oil and Grease trap is installed to collect waste water.
xix)	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.	The condition is being/will be followed.
xx)	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.	Environmental Management Cell is already in position to take up the issues related to environment and reporting directly senior executives.
xxi)	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 and its Regional Office located at Lucknow.	The condition is being/will be followed.
xxii)	The project authorities should inform to the Regional Office located at Lucknow regarding date of financial closures and final approval of the project by the concerned authorities	This is an active captive limestone mine.

	and the date of start of land development work.	
xxiii)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Lucknow, Central Pollution Control Board and State Pollution Control Board.	This is an active captive limestone mine. We are periodically submitting six monthly compliance reports of previous granted Environmental Clearance letter no. J-11015/146//2006-IA.II (M) dt. 24.01.2007. The condition will be followed accordingly with Environmental Clearance dt. 09/08/2016 .
xxiv)	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 office (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	We will extend our full cooperation to the office of the Regional Office.
xxv)	A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.	The soft copy of Environmental Clearance is uploaded on company's website in Public Domain.
xxvi)	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's office / Tehsildar's Office for 30 days.	Not applicable for project proponent.
xxvii)	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 web site of the Ministry of Environment, Forest and Climate Change at http://envfor.nic.in and a copy of the same should be forward to the Regional Office of this Ministry located Lucknow.	EC news published in two local news papers namely Dainik Bhaskar and Rajasthan Patrika on 14/08/2016 (Sunday) and the original copies of news paper have submitted to RO, MoEFCC, Lucknow vide letter no. 80477 dt. 19/08/2016.

COMPLIANCE OF CONDITIONS OF ENVIRONMENTAL CLEARANCE LETTER NO. J-11015/146/2006-IA.II (M), dated 24/01/2007 OF LIMESTONE MINE OF

M/s JK LAKSHMI CEMENT Ltd., JAYKAYPURAM, TEHSIL PINDWARA, DISTT. SIROHI (RAJ.)

Compliance status from 1st April 2018 to 30th Sept. 2018

S.No	CONDITIONS	COMPLIANCE STATUS (For 8 MTPA)
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A. SPECIFIC CONDITION

1	All the conditions stipulated by SPCB in their NOC shall be effectively implemented.	All the conditions mentioned in the NOC are being complied. Consent to operate has been obtained from Rajasthan State Pollution Control Board vide letter no. F (Mines) Sirohi (Pindwara) /60(1)/ 2016-2017/4023-4028, valid from 01/02/2016 to 31/01/2019. Regular monitoring is done and monitoring reports are being submitted regularly to Rajasthan State Pollution Control Board report is enclosed Refer-- Annex-II.
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2	Mining shall not intersect groundwater table. The mine working shall be restricted to above ground water table. Prior approval of the Ministry of Environment & Forest & Central Ground Water Authority shall be obtained for mining below water table.	Limestone Mine has hilly terrain and mine's bottom most bench is much above from the water table so there is neither intersection of ground water nor dewatering in mine area. Details are mentioned in table. <table border="1" data-bbox="511 745 1274 966"> <thead> <tr> <th>Particulars</th> <th>Level in meters</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>Top Bench</td> <td>471 MRL</td> <td>-</td> </tr> <tr> <td>Bottom Bench</td> <td>408 MRL</td> <td>-</td> </tr> <tr> <td>Water table</td> <td>359 to 364 MRL (Pre monsoon)</td> <td>Water table much below From lowest working benches.</td> </tr> </tbody> </table>	Particulars	Level in meters	Remarks	Top Bench	471 MRL	-	Bottom Bench	408 MRL	-	Water table	359 to 364 MRL (Pre monsoon)	Water table much below From lowest working benches.
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Top Bench	471 MRL	-												
Bottom Bench	408 MRL	-												
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3	Topsoil, if any, shall be stacked with proper slope with adequate measures and should be used for reclamation & rehabilitation of mined out areas.	Top soil is not available in mine area. Only inter-burden and screen waste are being generated which are stacked/being stacked at identified locations. Plantation is being done over screen waste. <table border="1" data-bbox="511 1102 1421 1291"> <thead> <tr> <th>S.No.</th> <th>Lat. (UTM)</th> <th>Long. (UTM)</th> <th>Height</th> <th>Slope</th> </tr> </thead> <tbody> <tr> <td>Screen Dump</td> <td>2990030 to 299420</td> <td>2732660 to 2733155</td> <td>10ts mts high benches</td> <td>30 to 45 degree</td> </tr> <tr> <td>Waste Dump</td> <td>299500 to 300380</td> <td>2731145 to 2732190</td> <td>10ts mts high benches</td> <td>30 to 45 degree</td> </tr> </tbody> </table>	S.No.	Lat. (UTM)	Long. (UTM)	Height	Slope	Screen Dump	2990030 to 299420	2732660 to 2733155	10ts mts high benches	30 to 45 degree	Waste Dump	299500 to 300380	2731145 to 2732190	10ts mts high benches	30 to 45 degree
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4	The solid waste should be stacked at earmarked dump site(s) only and should not be kept active for long period. The Max. height of the dumps should not exceed 30 m in three stages of 10 m each & the overall slope of the dumps shall not exceed to 28. The waste dumps should be scientifically vegetated with suitable native species to prevent erosion & surface run off. Monitoring & Management of rehabilitated areas should continue until the vegetated with suitable native species to prevent erosion and surface run off. Monitoring & Management of rehabilitated areas should continue until the vegetation	Solid waste is being stacked on earmarked site and height & slope are being maintained as per approved mining plan and MoEF guideline. (Location and other details of the dumps are given in S.No.3). Plantation of native species (like Neem, Sitafal, Sheeshum, Jungal Jalebi and other local species of the area) has been carried out on both face waste and screen waste dump area. To avoid surface run off construction of check dams, garland drains etc. are made as per approved mining plan/ MoEF guidelines. The six monthly compliance report is being submitting to MoEF. Plantation area 60.5 hect. is covered on screen and other non mineral bearing zone. <table border="1" data-bbox="511 2005 941 2079"> <thead> <tr> <th>Particulars</th> <th>Area covered (Cumulative) as</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Particulars	Area covered (Cumulative) as		
Particulars	Area covered (Cumulative) as					

	becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forest on six monthly basis.	<table border="1"> <tr> <td></td> <td>on Sept. 2018.</td> </tr> <tr> <td>Plantation area (Hect.)</td> <td>60.5 Hect (Cummul)</td> </tr> <tr> <td>Survival rate</td> <td>Avg.- 55.56%</td> </tr> </table>		on Sept. 2018.	Plantation area (Hect.)	60.5 Hect (Cummul)	Survival rate	Avg.- 55.56%
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Survival rate	Avg.- 55.56%							
5	Catch drains & siltation ponds of appropriate size should be constructed to arrest silt & sediment flows from mine working, waste dumps & mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt etc. The drains should be regularly desilted particularly after monsoon and maintained properly. Garland drain (size, gradient & length) shall be constructed for both mine pit & for waste dumps & sump capacity should be designed keeping 50% safety margin over & 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 silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.	<p>Catch drains and siltation ponds of appropriate size are constructed in major water flow area to arrest silt and sediment flows from mine working, waste dumps and mineral dumps.</p> <p>Garland drains are constructed for waste dumps and sump capacity has been designed for keeping 50% safety margin, over and above peak rain fall and maximum discharge in the area adjoining in the mine site. Sump of adequate retention period has been provided for proper setting of silt material. Sedimentation pits are constructed and desilted at regular intervals.</p>						
6	Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off & and siltation should be based on the rain fall data.	The retaining wall has been constructed to check run off and siltation at the toe dumps and OB benches on the basis of rain fall data.						
7	Plantation shall be raised in an area of 227.125 ha including a green belt of adequate width around ML area, roads, waste dumps, around water reservoir etc. by planting the native species in consultation with the local DFO/Agriculture Deptt. The density of the trees should be around 1000 plants per ha.	Area covered by plantation on screen dump, waste dump and road side. Open pit area is 151.27 Hect (As on 30 ^h Sept.18) and plantation area is 60.5 Hect (39.99% of open pit area)						
8	The project proponent shall ensure that the reclaimed area be converted into	At present mining is under progress and JK Lakshmi ensures that at the time of mine closure reclaimed area to be converted into pasture land.						

	pasture land.															
9	Regular monitoring of ground water level & quality should be carried out by establishing a network of existing wells and constructing new piezometers at suitable locations by the project proponent in and around project area in consultation with Regional Director, CGWB. The frequency of monitoring should be four times a year pre-monsoon (April/May), monsoon (Aug), Post-monsoon Nov.) & winter (Jan.). Data thus collected should be sent at regular intervals to Ministry of Environment & Forests, CGWA & CGWB Western Region Jaipur.	Piezometer wells are constructed in and around (core and buffer zone) the project area. Regular monthly monitoring round the year of ground water level and quality is being done. Detail report is being submitted to MoEF, CGWA and CGWB. Details of Hydrological data of piezometers and key wells monitored in mines, plant and colony area of JK Lakshmi Cement during 2017-18 . <u>Refer Annex--I</u>														
10	Suitable conservation measures to augment ground water resources in the area shall be planned and implemented in consultation with Regional Director CGWB Western Region Jaipur.	To augment ground water resources suitable artificial recharge structures are constructed as per condition mentioned in.														
11	Suitable rainwater harvesting measures on long term basis shall be planned & implemented in consultation with Regional Director, CGWB.	To augment ground water resources 06 anicuts, 04 ponds, 06 recharging wells and 11 nos. of check dams have been constructed, Details are mentioned in S.No. 10.														
12	Prior permission from the competent authority, if any, required shall be obtained for withdrawal of water from Dhanari Water Reservoir.	Permission to drawl of water from Dhanari water reservoir has been obtained vide letter no. F-5(22) WR/MK/08 dated 22/10/2008.														
13	Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibration and to arrest fly rocks & boulders should be implemented.	Blasting is being carried out in controlled manner in day time only. Down the hole delay (excels/raydet) and cord relay are being used for controlling fly fragments as well as ground vibrations.														
14	Drills should be wet operated or operated with dust extractors.	Drilling is being carried out with water injection. All drill machines are equipped with bag filter for dust collection during drilling. Details of drill machines are mentioned below. <table border="1" data-bbox="511 1890 1372 2005"> <thead> <tr> <th></th> <th>Machine</th> <th></th> <th>Model</th> <th>Make</th> <th>Nos. In Use</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td colspan="7">I. Rock Drills</td> </tr> </tbody> </table>		Machine		Model	Make	Nos. In Use	Remarks	I. Rock Drills						
	Machine		Model	Make	Nos. In Use	Remarks										
I. Rock Drills																

1	150 Mm Dia (Bit)	IBH 10	Ingersoll Rand	4	Dust extraction system and wet drilling
2	150 Mm Dia (Bit)	ROC L6	Atlas Copco	1	

15 Vehicular emissions should be kept under control & regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations & in transportation of mineral. The vehicles should be covered with a tarpaulin & shall not be overloaded.

All vehicles are equipped with Euro standard engines. Emissions are well within limit as per Euro standard. Weekly and preventive maintenance are being taken on every Monday for all vehicles used in mining operations and transportation of minerals. Raw material transport vehicles are being covered with tarpaulin during transportation and no over loading is being allowed.

16 Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern & report submitted to MOEF & its regional office.

Digital processing of the entire lease area for monitoring of land use pattern is being done in once in three years as per EC condition/MoEF guidelines. Details are mentioned below. -----

S. No.	Category Level I	Area in ha. (Year 2014)	Area in ha. (Year 2017)	Changes in area (ha.)	Net changes in land units in %
1.	Built up land (Crusher, buildings, conveyor belt & road etc.)	7.605	7.605	Nil	Nil
2.	Agriculture	Nil	Nil	Nil	Nil
3.	Mining pit	109.65	124.25	14.6	13.32
4.	Streams/drain	2.85	2.85	0	0.00
5.	Dumps (Screen & waste) & Plantation	57.78	62.80	5.02	8.69
6.	Low lying hilly area with shrubs	164.64	153.88	-10.76	-6.54
7.	Limestone hills	48.10	39.24	-8.86	-18.42
		390.625 ha.	390.625 ha.		

17 Consent to operate should be obtained from SPCB before enhancing the production from the mine.

Consent to operate has been obtained from Rajasthan State Pollution Control Board vide letter no. F (Mines) Sirohi (Pindwara) /60(1)/ 2016-2017/4023-4028, dated 24/06/2016 valid up to 31/01/2019, for 8 million tones.

18 Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop & wastewater generated from mining operation.

Sewage Treatment Plant (STP) of capacity 400 m³/day has been installed for treatment of domestic sewage for the colony. There is no generation of effluent from mining operation. Oil / water separator has been installed for workshop.

19	The voids created at the end of mining shall be converted into water body with shallow depth. The slope of higher benches of the excavated void/mine pit shall be made gentler & duly terraced for easy accessibility for local people to use reservoir water. Plantation shall be carried out to stabilize the slopes. Peripheral fencing shall be done along the excavated area.	At present mining is under progress. Plantation is being carried out to stabilize the dumps. At the time of closure of mine, void of mine will convert into the water reservoir and peripheral fencing will be done. Plantation and cumulative area 60.5 Hect covered, 3500 saplings planted in 2 hect. in 2018-19.
20	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure, for approval.	At present mining is under progress. At the time of closure of mine a final closure plan along with fund distribution will submit well in advance to MoEF, for approval.
S.No	CONDITIONS	COMPLIANCE STATUS
B. GENERAL CONDITION		
1	No change in mining technology & scope of working should be made without prior approval of the Ministry of Environment and Forests.	At present mining is under progress as per present Environmental Clearance no. i.e. J-11015/146/2006-IA.II (M), dated 24/01/2007. No change in mining technology and scope of working is made. If any change in mining technology and scope of working, we will take prior approval from MoEF.
2	No change in the calendar plan including excavation, quantum of limestone & waste should be made	Mining is under progress as per Environmental Clearance. Neither changing in the calendar plan nor quantum of limestone and waste.
3	Four ambient air quality-monitoring stations should be established in the core zone as well as the buffer zone for RPM, SPM, SO ₂ & NO _x monitoring. Location of the stations should be decided based on the meteorological data, topographical features & Environmentally & ecologically sensitive targets in consultation with the State Pollution Control Board. Data on ambient air quality (RPM, SPM, SO ₂ & No _x) should be regularly submitted to the Ministry including Regional Office located at Lucknow & the State Pollution Control Board/Central Pollution control Board once in six months.	Four ambient air quality monitoring stations are established in core and buffer zone for RPM, SPM, SO ₂ and NO _x monitoring. Locations of the stations have decided in consultation with Rajasthan State Pollution Control Board. Data of ambient air quality (RPM, SPM, SO ₂ and NO _x) are being submitted to the MoEF office, MoEF Lucknow and the State Pollution Control Board once in six months. <u>Refer Annex No- II</u>
4	Fugitive dust emissions from all the sources should be controlled regularly. Water	Fugitive dust emissions from the all sources are controlled. Water spray arrangement on haul roads, unloading and transfer points are provided and properly maintained.

	spraying arrangements on haul roads, loading & unloading & at a transfer points should be provided & properly maintained.	<ol style="list-style-type: none"> 1. All Conveyor belts are covered to control fugitive dust emissions. (Rejection belt, limestone transfer belt etc). 2. Drilling machines are water injection type and equipped with dust extraction system (bag filters) and are being maintained regularly. 3. Water sprinklers are provided at loading & unloading points (at crusher hopper, material transfer points etc.). 4. Continuous water spraying is done on material transport roads for round the working hours to control fugitive dust emissions. 								
5	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.	Adequate measures (like regular maintenance of mining equipments, Green belt development and use of personnel protective equipments) are being taken for control of noise levels below 85 dB in the work environment. Workers engaged in operations of HEMM etc. are provided with ear plugs/muffs. <u>Refer Annex No.- II</u>								
6	Industrial waste water (workshop & waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422(E) dated 19th May, 1993 & 31st Dec., 1993 or as amended from time to time. Oil & grease trap should be installed before discharge of workshop effluents.	<p>Cemented tank has already been provided near workshop, where oil & grease are separated. Waste water generated from the office toilets is discharged into soak pit via septic tank.</p> <p>Work shop outlet waste water quality (All values in mg/liter, except pH) <u>Ref Annex. II</u></p>								
7	Personnel working in dusty areas should wear protective respiratory devices & 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.	<p>Occupational health surveillance programme of all employees including the workers is being taken periodically. Personnel protective respiratory devices and training on safety and health aspects are being given on regular basis.</p> <table border="1"> <tr> <td>Occupational Health surveillance programme</td> <td>2018-19 Up to Sept. 218</td> </tr> <tr> <td>No. of person treated in dispensary (Mines + Cement Plant+ Contract workers)</td> <td>13935 nos</td> </tr> <tr> <td>In Villages (Naya Savera)</td> <td>4352 Patients seen under Naya Savera Project in nearby Villages through 211 Mobile Clinics.</td> </tr> <tr> <td>Initial allocation of (Rs. in lakhs)</td> <td>Rs. 10.17 (Lakhs) Naya Savera</td> </tr> </table>	Occupational Health surveillance programme	2018-19 Up to Sept. 218	No. of person treated in dispensary (Mines + Cement Plant+ Contract workers)	13935 nos	In Villages (Naya Savera)	4352 Patients seen under Naya Savera Project in nearby Villages through 211 Mobile Clinics.	Initial allocation of (Rs. in lakhs)	Rs. 10.17 (Lakhs) Naya Savera
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Initial allocation of (Rs. in lakhs)	Rs. 10.17 (Lakhs) Naya Savera									
8	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 personnel is looking after all the environment activities of plant and mines under the control of Sr. VP (Works).								
9	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise	<p>Separate funds are being earmarked for environmental protection measures. Expenditure incurred during the year 2018-19 was Rs. 44 lacs.</p> <table border="1"> <tr> <td>Particulars</td> <td>2018-19 (April 2018 to Sept. 2018)</td> </tr> <tr> <td>Water sprinkling</td> <td>09</td> </tr> </table>	Particulars	2018-19 (April 2018 to Sept. 2018)	Water sprinkling	09				
Particulars	2018-19 (April 2018 to Sept. 2018)									
Water sprinkling	09									

	expenditure should be reported to the Ministry & its Regional Office located at Lucknow.	Equipments(Bag filters and maintenance)	07	
		Monitoring of environmental parameters	06	
		TOTAL	22	
10	The Regional Office of this Ministry located at Lucknow shall monitor compliance of the stipulated conditions. The project authorities should provide a set of filled-in questionnaire and EIA/EMP report to them & extend full cooperation to the Officer(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	We extend our fullest cooperation to the officers of the Regional Office and furnished all the requisite data/information time to time.		
11	The project authorities should inform to the Regional Office located at Lucknow as well as to the Ministry of Environment & Forest regarding date of financial closures & final approval of the project by the concerned authorities & the date of start of land development work	Present mine was already in operation since 1982.		
12	A copy of the clearance letter will be marked to the concerned Panchayat/local NGO, if any, from whom suggestions/representation has been received while processing the proposal.	A copy of the clearance letter has earmarked to the concern panchayat.		
13	The State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre & Collector's/Tehsildar's Office for 30 days.	A copy of EC has been submitted to State Pollution Control Board vide letter no. 12656 dated 19/02/2007.		
14	The project authorities should advertise at least in two local newspapers widely circulated around the project, 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 & a copy of the clearance letter is available	Advertised in RAJASTHAN PATRIKA and DAINIK BHASKAR on 30/01/2007 and a copy of the same have been submitted to the Ministry of Environment & Forest, Lucknow.		

<p>with the State Pollution clearance letter is available with the State Pollution Control Board & also at web site of the Ministry of Environment & Forest at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Lucknow.</p>	
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Annexure A

JK LAKSHMI CEMENT LTD, JAYKAYPURAM

**AMBIENT AIR QUALITY MONITORING RESULTS FOR THE MINE
FOR THE MONTH OF APRIL - 2018**

DATE	CORE LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
14/04/18	MINE OFFICE	24	289.29	83.23	32.95	6.5	16.71	280
14/04/18	VIEW POINT	24	267.05	84.26	42.46	7.07	18.62	270
16/04/18	DUMP AT WASTE	24	352.76	77.37	39.06	7.24	18.07	280
14/04/18	SCREEN REJECT	24	300.9	83.56	36.21	5.22	16.79	250

DATE	BUFFER LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
17/04/ 8	ADARSH	24	176.04	70.72	27.9	5.05	11.2	210
17/04/18	BASANT GARH	24	166.87	65.79	26.4	4.75	12.63	230
17/04/18	ROHIDA	24	255.77	70.76	29.48	5.03	12.83	220
18/04/18	RAMPURA	24	256.15	70.48	28.55	5.14	14.02	240

**STACK MONITORING RESULT FOR THE MONTH OF APRIL - 2018
FOR CRUSHER MINE**

S/N	STACK ATTACHED TO	DATE	SPM EMISSION Mg/Nm^3	
1	CRUSHER (MINE) 1 & 2	Crusher	1	2
2		16/04/18	26	22

Annexure B

MINE WORKSHOP OUTLET WASTE WATER ANALYSIS REPORT

FOR THE MONTH OF APRIL – 2018

S.No.	Parameters	Measured Values	Standard
1	Total Suspended Solids (mg/l)	48	< 100
2	pH value	7.15	5.5-9.0
3	Oil & Crease (mg/l)	8	< 10
4	B.O.D. (mg/l)	24	< 30
5	C.O.D. (mg/l)	87.2	< 250

AMBIENT NOISE LEVEL MONITORING

FOR THE MONTH OF APRIL – 2018 (Core & Buffer Zone)

S.No.	Monitoring Date	Location	Standard	
			Day Time 75 dB (A) leq	Night Time 65 dB (A) leq
1	15/04/18	MRL 435	67.2	58.9
2	14/04/18	Mine office	62.5	55.6
3	16/04/18	Near crusher	73.0	62.6
4	14/04/18	View point near crusher	72.8	62.3
5	17/04/18	Belt No. 12 (Reject area)	67.7	56.8
6	14/04/18	Screen Machine	65.9	57.6
7	18/04/18	Dump at Waste	58.5	52.7
8	17/04/18	Basantgarh village	52.1	42.5
9	18/04/18	Rampura village	52.4	40.2
10	17/04/18	Adarsh village	52.5	41.7
11	17/04/18	Rohida village	42.8	40.3

Annexure A

JK LAKSHMI CEMENT LTD, JAYKAYPURAM

AMBIENT AIR QUALITY MONITORING RESULTS FOR THE MINE FOR THE MONTH OF MAY - 2018

DATE	CORE LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
18/05/18	MINE OFFICE	24	462.37	81.18	35.98	7.86	20.76	240
18/05/18	VIEW POINT	24	262.58	81.39	34.75	7.27	20.56	380
19/05/18	DUMP AT WASTE	24	361.32	83.64	27.05	7.18	17.61	210
18/05/18	SCREEN REJECT	24	347.2	88.36	45.67	7.09	18.3	280

DATE	BUFFER LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
20/05/18	ADARSH	24	303.36	77.72	33.07	7.07	17.12	250
20/05/18	BASANT GARH	24	246.17	77.71	37.6	5.43	17.54	240
21/05/18	ROHIDA	24	239.53	71.26	31.56	5.9	17.3	270
21/05/18	RAMPURA	24	243.28	69.02	32.96	7.93	15.75	250

STACK MONITORING RESULT FOR THE MONTH OF MAY - 2018 FOR CRUSHER MINE

S/N	STACK ATTACHED TO	DATE	SPM EMISSION Mg/Nm ³	
1	CRUSHER (MINE) 1 & 2	Crusher	1	2
2		20/05/18	22	19

Annexure B

MINE WORKSHOP OUTLET WASTE WATER ANALYSIS REPORT

FOR THE MONTH OF MAY – 2018

S.No.	Parameters	Measured Values	Standard
1	Total Suspended Solids (mg/l)	67	< 100
2	pH value	7.58	5.5-9.0
3	Oil & Grease (mg/l)	8	< 10
4	B.O.D. (mg/l)	28	< 30
5	C.O.D. (mg/l)	176.26	< 250

AMBIENT NOISE LEVEL MONITORING

FOR THE MONTH OF MAY – 2018 (Core & Buffer Zone)

S.No.	Monitoring Date	Location	Standard	
			Day Time 75 dB (A) leq	Night Time 65 dB (A) leq
1	19/05/18	MRL 435	63.7	56.9
2	18/05/18	Mine office	68.5	61.7
3	19/05/18	Near crusher	73.5	62.3
4	18/05/18	View point near crusher	71.2	62.3
5	19/05/18	Belt No. 12 (Reject area)	66.5	56.4
6	18/05/18	Screen Machine	70.3	58.6
7	19/05/18	Dump at Waste	62.8	56.3
8	20/05/18	Basantgarh village	41.7	38.6
9	20/05/18	Rampura village	50.6	38.4
10	20/05/18	Adarsh village	52.3	40.6
11	20/05/18	Rohida village	53.2	41.3

Annexure A

JK LAKSHMI CEMENT LTD, JAYKAYPURAM

AMBIENT AIR QUALITY MONITORING RESULTS FOR THE MINE FOR THE MONTH OF JUNE - 2018

DATE	CORE LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
21/06/18	MINE OFFICE	24	316.13	77.13	27.58	8.05	15.6	320
24/06/18	VIEW POINT	24	323.95	75.13	36.35	8.3	18.61	280
23/06/18	DUMP AT WASTE	24	296.13	70.9	43.27	6.36	17.28	210
21/06/18	SCREEN REJECT	24	300.55	85.21	34.84	6.73	13.67	270

DATE	BUFFER LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
24/06/18	ADARSH	24	224.85	71.78	24.47	6.22	11.59	180
24/06/18	BASANT GARH	24	200.49	72.76	33.32	7.21	13.45	210
25/06/18	ROHIDA	24	200.48	70.25	30.68	5.99	11.8	220
25/06/18	RAMPURA	24	211.52	72.83	31.28	4.61	13.52	220

STACK MONITORING RESULT FOR THE MONTH OF JUNE - 2018 FOR CRUSHER MINE

S/N	STACK ATTACHED TO	DATE	SPM EMISSION Mg/Nm^3	
1	CRUSHER (MINE) 1 & 2	Crusher	1	2
2		20/06/18	21	23

Annexure B

MINE WORKSHOP OUTLET WASTE WATER ANALYSIS REPORT

FOR THE MONTH OF JUNE – 2018

S.No.	Parameters	Measured Values	Standard
1	Total Suspended Solids (mg/l)	68	< 100
2	pH value	7.92	5.5-9.0
3	Oil & Grease (mg/l)	7	< 10
4	B.O.D. (mg/l)	27	< 30
5	C.O.D. (mg/l)	206.4	< 250

AMBIENT NOISE LEVEL MONITORING

FOR THE MONTH OF JUNE – 2018 (Core & Buffer Zone)

S.No.	Monitoring Date	Location	Standard	
			Day Time 75 dB (A) leq	Night Time 65 dB (A) leq
1	21/06/18	MRL 435	62.5	57.3
2	20/06/18	Minc office	60.7	54.2
3	22/06/18	Near crusher	73.2	62.5
4	23/06/18	View point near crusher	71.5	62.6
5	21/06/18	Belt No. 12 (Reject area)	68.7	61.3
6	20/06/18	Screen Machine	66.8	59.6
7	22/06/18	Dump at Waste	62.6	53.4
8	23/06/18	Basantgarh village	52.6	41.2
9	24/06/18	Rampura village	48.7	39.3
10	23/06/18	Adarsh village	51.4	40.3
11	24/06/18	Rohida village	52.3	42.5

Annexure A

JK LAKSHMI CEMENT LTD, JAYKAYPURAM

AMBIENT AIR QUALITY MONITORING RESULTS FOR THE MINE
FOR THE MONTH OF JULY - 2018

DATE	CORE LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
20/07/18	MINE OFFICE	24	167.13	66.28	26.99	4.94	14.5	220
20/07/18	VIEW POINT	24	200.02	65.78	26.55	5.7	13.28	230
22/07/18	DUMP AT WASTE	24	198.24	61.05	26.34	6.93	13.8	270
21/07/18	SCREEN REJECT	24	211.46	73.16	35.32	7.21	13.41	240

DATE	BUFFER LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
23/07/18	ADARSH	24	149.99	56.1	25.35	4.29	11.06	160
23/07/18	BASANT GARH	24	108.23	54.34	18.97	4.24	11.02	150
23/07/18	ROHIDA	24	142.58	52.62	23.55	6.41	10.95	180
24/07/18	RAMPURA	24	152.35	48.38	24.41	5.13	11.26	170

STACK MONITORING RESULT FOR THE MONTH OF JULY - 2018
FOR CRUSHER MINE

S/N	STACK ATTACHED TO	DATE	SPM EMISSION Mg/Nm^3	
1	CRUSHER (MINE) 1 & 2	Crusher	1	2
2		22/07/18	23	25

Annexure B

MINE WORKSHOP OUTLET WASTE WATER ANALYSIS REPORT

FOR THE MONTH OF JULY – 2018

S.No.	Parameters	Measured Values	Standard
1	Total Suspended Solids (mg/l)	31	< 100
2	pH value	7.32	5.5-9.0
3	Oil & Grease (mg/l)	7	< 10
4	B.O.D. (mg/l)	22	< 30
5	C.O.D. (mg/l)	174.72	< 250

AMBIENT NOISE LEVEL MONITORING

FOR THE MONTH OF JULY – 2018 (Core & Buffer Zone)

S.No.	Monitoring Date	Location	Standard	
			Day Time 75 dB (A) leq	Night Time 65 dB (A) leq
1	21/07/18	MRL 435	67.6	58.8
2	20/07/18	Mine office	65.3	56.2
3	23/07/18	Near crusher	73.4	62.8
4	20/07/18	View point near crusher	64.0	58.1
5	21/07/18	Belt No. 12 (Reject area)	73.3	60.3
6	20/07/18	Screen Machine	73.7	62.1
7	22/07/18	Dump at Waste	58.5	51.6
8	23/07/18	Basantgarh village	52.5	41.5
9	24/07/18	Rampura village	51.0	38.6
10	23/07/18	Adarsh village	51.4	40.8
11	23/07/18	Rohida village	51.6	41.0

Annexure A

JK LAKSHMI CEMENT LTD, JAYKAYPURAM

AMBIENT AIR QUALITY MONITORING RESULTS FOR THE MINE
FOR THE MONTH OF AUGUST – 2018

DATE	CORE LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
14/08/18	MINE OFFICE	24	187.79	78.29	29.49	6.68	12.21	260
14/08/18	VIEW POINT	24	209.73	72.64	30.28	6.35	14.31	310
17/08/18	DUMP AT WASTE	24	263.64	66.82	32.3	6.64	12.75	260
13/08/18	SCREEN REJECT	24	225.7	78.83	37.13	7.25	13.65	370

DATE	BUFFER LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
17/08/18	ADARSH	24	172.9	61.68	28.6	5.99	12.05	210
17/08/18	BASANT GARH	24	252.36	79.25	33.9	4.75	14.0	180
21/08/18	ROHIDA	24	157.03	60.65	28.53	7.22	12.0	180
19/08/18	RAMPURA	24	168.16	67.64	24.19	7.09	10.97	160

STACK MONITORING RESULT FOR THE MONTH OF AUGUST – 2018
FOR CRUSHER MINE

S/N	STACK ATTACHED TO	DATE	SPM EMISSION Mg/Nm^3	
1	CRUSHER (MINE) 1 & 2	Crusher	1	2
2		17/08/18	27	22

Annexure B

MINE WORKSHOP OUTLET WASTE WATER ANALYSIS REPORT

FOR THE MONTH OF AUGUST - 2018

S.No.	Parameters	Measured Values	Standard
1	Total Suspended Solids (mg/l)	55	< 100
2	pH value	7.65	5.5-9.0
3	Oil & Grease (mg/l)	6	< 10
4	B.O.D. (mg/l)	23	< 30
5	C.O.D. (mg/l)	118.59	< 250

AMBIENT NOISE LEVEL MONITORING

FOR THE MONTH OF AUGUST - 2018 (Core & Buffer Zone)

S.No.	Monitoring Date	Location	Standard	
			Day Time 75 dB (A) leq	Night Time 65 dB (A) leq
1	16/08/18	MRL 435	65.8	57.2
2	14/08/18	Mine office	58.3	52.4
3	14/08/18	Near crusher	72.1	60.3
4	14/08/18	View point near crusher	63.8	56.3
5	13/08/18	Belt No. 12 (Reject area)	65.4	58.2
6	14/08/18	Screen Machine	71.8	58.5
7	14/08/18	Dump at Waste	61.5	52.8
8	14/08/18	Basantgarh village	51.7	43.9
9	19/08/18	Rampura village	49.6	38.9
10	17/08/18	Adarsh village	51.2	39.6
11	18/08/18	Rohida village	49.3	39.6

Annexure A

JK LAKSHMI CEMENT LTD, JAYKAYPURAM

AMBIENT AIR QUALITY MONITORING RESULTS FOR THE MINE
FOR THE MONTH OF SEPTEMBER - 2018

DATE	CORE LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
26/09/18	MINE OFFICE	24	237.67	71.39	24.84	6.6	13.64	340
26/09/18	VIEW POINT	24	250.47	72.11	30.72	6.09	12.58	320
28/09/18	DUMP AT WASTE	24	370.76	80.06	29.52	5.91	16.47	310
27/09/18	SCREEN REJECT	24	306.58	88.05	31.35	4.91	13.91	290

DATE	BUFFER LOCATION	DURATION (Hrs.)	SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO $\mu\text{g}/\text{m}^3$
29/09/18	ADARSH	24	167.29	57.57	22.12	6.74	15.71	210
29/09/18	BASANT GARH	24	178.59	63.86	20.21	5.89	12.3	240
25/09/18	ROHIDA	24	169.21	62.82	21.08	6.12	12.02	180
25/09/18	RAMPURA	24	169.24	67.8	26.41	6.08	11.91	240

STACK MONITORING RESULT FOR THE MONTH OF SEPTEMBER - 2018
FOR CRUSHER MINE

S/N	STACK ATTACHED TO	DATE	SPM EMISSION Mg/Nm^3	
1	CRUSHER (MINE) 1 & 2	Crusher	1	2
2		24/09/18	24	21

Annexure B

MINE WORKSHOP OUTLET WASTE WATER ANALYSIS REPORT

FOR THE MONTH OF SEPTEMBER – 2018

S.No.	Parameters	Measured Values	Standard
1	Total Suspended Solids (mg/l)	31	< 100
2	pH value	7.54	5.5-9.0
3	Oil & Grease (mg/l)	8	< 10
4	B.O.D. (mg/l)	20	< 30
5	C.O.D. (mg/l)	119.81	< 250

AMBIENT NOISE LEVEL MONITORING

FOR THE MONTH OF SEPTEMBER – 2018 (Core & Buffer Zone)

S.No.	Monitoring Date	Location	Standard	
			Day Time 75 dB (A) leq	Night Time 65 dB (A) leq
1	26/09/18	MRL 435	63.5	56.7
2	25/09/18	Mine office	63.7	53.3
3	26/09/18	Near crusher	73.2	62.5
4	25/09/18	View point near crusher	71.6	62.3
5	26/09/18	Belt No. 12 (Reject area)	68.4	60.3
6	25/09/18	Screen Machine	67.5	58.3
7	26/09/18	Dump at Waste	63.0	56.9
8	25/09/18	Basantgarh village	51.3	39.8
9	25/09/18	Rampura village	51.7	41.3
10	25/09/18	Adarsh village	53.7	42.2
11	25/09/18	Rohida village	53.4	41.5