

J.K. Cement WORKS, MANGROL (RAJ)
Compliance report of Environment Clearance for Mangrol Tilakhera Lime Stone Mine

Reference Letter from MOEF, New Delhi - J-11015/25/2011-1A. II (M) dated 23.01.2014

(For the Period from October 2013 to March 2014)

<u>Sr. No.</u>	<u>Condition</u>	<u>Status</u>
	A. SPECIFIC CONDITIONS:	
(i)	The mining activity will not commence unless the NOC from the Gram Panchayat for grazing land has been obtained.	Mining lease was granted on 09.05.1978. It is not planned to do mining activity in grazing land in future also.
(ii)	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 provision of the Mineral Concession Rules, 1960 and MMDR Act, 1957.	Mining is carried out after obtaining consents from land owners as per provision of the Mineral Concession Rules, 1960 and MMDR Act, 1957.
(iii)	Implementation of the Conservation Plan for Schedule I species report in the study area namely <i>Pavo cristatus</i> (Indian peafowl).	Conservation Plan for Schedule Species in the study area namely <i>Pavo cristatus</i> (Indian peafowl) is implemented by planting tall trees at closer spacing and conducting awareness programme.
(iv)	The Proponent shall ensure implementation of Action Plan on the issues raised during the Public Hearing held on 20.12.2012. The proponent shall complete all the tasks as per the action plan submitted with the budgetary provision during the public hearing.	Under process for implementation.
(v)	The Proponent shall ensure implementation of commitment made for Socioeconomic welfare measures and report shall be submitted to the Ministry of Environment & Forest and its Regional Office located at Lucknow on six monthly basis.	Will be complied.
(vi)	Sufficient number of Gullies should be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment & Forest and its Regional Office located at Lucknow on six monthly basis.	Garland drain system maintained all the Mining Pit. Report of water samples collected from different locations is send regularly.
(vii)	Environment clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project.	Noted.
(viii)	No Mining activities will be allowed in forest area, if applicable, for which the forest Clearance is not available.	All the mining activity is carried out in non-forest land.
(ix)	The project proponent shall obtain Consent to Operate from the State Pollution Control Board, Rajasthan and effectively implement all the conditions stipulated therein.	For enhance capacity of production, consent to operate from the State Pollution control Board, Rajasthan will be taken and implement all the conditions stipulated therein.
(x)	The Mining operations shall be restricted to above ground water table and it shall not be intersect groundwater table. For working below ground water table, prior approval of the Ministry of Environment and Forests and Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.	Agreed. The Mining operation will be restricted above Ground water table and will not intersect it.

(xi)	Dimension of the retaining wall at the toe of over burden dumps and OB benches within the mine to check run off and siltation shall be based on the rainfall data.	Agreed. Since there is no generation of waste dump, only top soil is generated which is stacked, levelled and used for plantation.
(xii)	Blasting operation shall be carried out only during the day time. Controlled blasting shall be practiced. The mitigative measures for control of ground vibration and to arrest fly rocks and boulders should be implemented. Drills shall either be operated with dust extractors or equipped with water injection system. Advanced technologies for environmental protection to be used for controlled blasting.	Blasting operation is carried out only during day time. Use of Sequential blasting machine (SBM), Delay detonator, Non-Electric detonator and use of air deck to reduce charge per hole and vibration. Regular monitoring of Ground vibration is practiced. Rock breaker is used to minimize secondary blasting. Wet drilling system is practiced on the existing setup for drilling machine to arrest dust.
(xiii)	Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.	Regular Water sprinkling by deploying water sprinkler is done at loading, unloading, transfer points and haul roads to reduce fugitive emissions.
(xiv)	The project proponent shall obtain necessary prior permission of the competent authority for drawl of requisite quantity of surface water and ground water for project.	We have obtained NOC for drawl of ground water from CGWA vide letter No 21-4 (34)/ WR/ CGWA/ 2006/ 895 dated 25.05.2010.
(xv)	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 dumpers and further leading to the plant through covered conveyor belt. 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.
(xvi)	Fugitive dust emission from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer point should be provided and properly maintained.	Agreed and being implemented to control fugitive dust emission by regular water spraying arrangement.
(xvii)	Pre-placement medical examination and periodical medical examination of the workers 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. Occupational health and safety measures for workers who are having some ailments like BP, diabetes, or are habitual smokers should have health check up once in six months.	Regular initial and periodical medical examination is being carried out. During the year 2013 – 14, 4 Nos. of periodical and 5 Nos. of initial medical examination were done.
(xviii)	Environment clearance is granted subject to final outcome of Hon'ble supreme Court of India, Hon,ble High Court of Rajasthan and any other Court of Law, as may be applicable to this project.	Agreed.
	B. General conditions	
(i)	No Change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & 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 limestone mineral and waste should be made.	Agreed. Mining will be done in accordance with Approved Mining Plan / Scheme of Mining.

(iii)	A Final Mine closure Plan along with detail of Corpus Fund shall be submitted to the Ministry of Environment & Forest 5 years in advance of final closure for approval.	Progressive Mine Closure Plan is being prepared along with Scheme of Mining. There is no plan of Final Mine Closure in current Scheme of Mining.
(iv)	There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis in consultation with Regional Director, Central Ground water Board and implementation of conservation measures to augment ground water resources in the area in consultation with Central ground Water Board.	Surface rain water is collected in the lower most benches to augment Ground water resources. Pits in western side of mine have been made to store water to augment ground water resources in the area.
(v)	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.	Report is being sent regularly on Schedule time. Last report of Ground water level and Quality for winter season (Jan. 2014) was sent vide reference letter No. MGR/PC/14/2913 on dated 03/02/2014.
(vi)	The project proponent shall ensure that no natural water course and /or water resources shall be obstructed due to any mining operations.	Agreed. No natural course and / or water resources will be obstructed due to any mining operation.
(vii)	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 overburden (OB) generated during the mining operations shall be stacked at earmarked dumped site (s) only and it should not be kept active for a long period of time. The maximum height of dump shall not exceed 8m and width 20m and overall slope of the dump 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 areas, 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 its Regional office located at Lucknow on six monthly basis.	The top soil generated will not be kept long and will be stored at designated places, levelled and stabilized by carrying plantation over it. After complete excavation, the entire excavated area will be used for storing rain water and act as reservoir. (Necessary correction to be made in Environment Clearance is sent to MoEF vide letter No. NBH/ UH/ 2941 dated 05.02.2014). Management and Monitoring of Plantation area is done till it becomes self – sustain. Six monthly reports are already submitting to concern offices.
(viii)	Catch drain 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 in to 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 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 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 settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.	Garland drain system is maintained all around the mining pit, outside the mining limit for proper water harvesting. Check dams and Siltation ponds are provided to control the inflow 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.

(ix)	Plantation shall be raised in a 7.5m 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 Department. The destiny 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 year.	Agreed. Plantation done during the year 2013 – 14 within lease 1250 Nos. covering 1.0 Hects. new area. Total Planation done till date is 32327 in inside and 53552 in outside lease area. Survival rate of plantation is 45% inside lease area and 55% outside lease area. Total plantation covered area till date is 10.885 hectare in inside lease area and 5.0 hectare Outside lease area and green belt area is 47.54 hectare. In present total covered green belt area is 63.43 hectare (21.20%).
(x)	Regular monitoring of the flow rate of the spring and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain.	Agreed.
(xi)	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 and forest, its Regional Office, Lucknow, Central Ground water Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.	Agreed.
(xii)	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 regularly to Ministry of Environment and Forests and its Regional Office, Lucknow, Central Ground Water Authority and Regional Director, Central Ground Water Board.	Report is being sent regularly on Schedule time. Last report of Ground water level and Quality for winter season (Jan. 2014) was sent vide reference letter No. MGR/PC/14/2913 on dated 03/02/2014.
(xiii)	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely leopard, elephant etc. 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. Necessary allocation of funds for implemented of the conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measure brought out in the Wildlife Conservation plan so prepared specify to the project site shall be effectively implemented. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional Office, Lucknow.	Agreed. We shall take all precautionary measures during mining operation for conservation & protection of endangered fauna namely leopard, elephant etc.
(xiv)	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.
(xv)	Monitoring of Ambient Air Quality shall be carried out based on the Notification, as amended from time to time by the Central Pollution control Board.	Agreed. We are regular carried out of Ambient Air Quality Monitoring based on CPCB notification.

(xvi)	The critical parameters such as SPM,RSPM (Particulate matter with size less than 10 micron i.e. PM10) and NOx 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 www.envfor.nic.in shall also be referred in this regard for its compliance.	These parameters are already being monitored and will continue in future also. We are not discharging water outside. Latest report on Ambient Air Monitoring is enclosed as annexure-(I)
(xvii)	Measures should be taken for control of noise levels below 85dBA 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.
(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, 1933 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.
(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.	Persons engaged in drilling, dozing and loading have been provided with dusk mask. Vocational training is being provided as required under MVT Rules.
(xx)	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. Pre –placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and record maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	Regular periodic check up of workers is being carried out. During the year 2013 – 14, 4 Nos. of periodical and 5 Nos. of initial medical examination were done.
(xxi)	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 already established & have sufficient monitoring equipment in environmental laboratory.
(xxii)	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.	A separate fund is kept for environment protection measures and report is being sent regularly to the concerned authority. Environment expenditure for 2013-2014 and Proposed FY Budget 2014-2015 detail report is attached as annexure –(II)
(xxiii)	The project authorities should 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.

(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 officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	Agreed. We will extend full cooperation to the office(s) of the RO by furnishing the requisite data/information/monitoring reports.
(xxv)	The project proponent shall submit six monthly reports on the status of the implemented of the stipulated environment safeguard to the Ministry of Environment and Forest, its Regional Office, Central Pollution Control Board and State Pollution Control Board.	Agreed. Six monthly reports are already submitting to concern offices. Last Six Monthly Monitoring report was sent on 30/11/2013 vide letter no. NBH/PC/14/2159.
(xxvi)	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.	Implemented.
(xxvii)	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 30bdays.	--
(xxviii)	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 http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Lucknow.	Implemented and the necessary information already sent to the concerned authority.