

No.J-11015/450/2006-IA.II (M)  
Government of India  
Ministry of Environment & Forests

Paryavaran Bhawan,  
C.G.O. Complex, Lodi Road,  
New Delhi - 110 003

Dated the 5<sup>th</sup> October, 2007

To,  
M/s Mangalam Cement Ltd.  
P.O. Aditya Nagar,  
Morak-326 520,  
District Kota,  
Rajasthan

**Subject: Expansion of existing Gagrana Limestone Mining Project of M/s Mangalam Cement Ltd., located in Village Gagrana, Tehsil Merta City, District Nagaur, Rajasthan—environmental clearance reg.**

Sir,

This has reference to your letter No. 'Nil' dated 'Nil' received in the Ministry on 04.09.2007 and subsequent letters dated 04.01.2007 and 13.07.2007 on the subject mentioned above. The proposal is for grant of environmental clearance for enhancement of production of limestone from 24,318tonnes per annum(TPA) to 91,250TPA(250TPD). The total mine lease area of the project is 200ha, out of which 181.98ha is an agricultural land and 18.02ha is Government land. No forestland is involved. Area proposed for mining is 56ha, an area of 13.65ha is kept for over burden dumps, 3.4ha for roads and 126.95ha is others. No ecologically sensitive area such as National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve etc. is reported to be located in the core and buffer zone of the mine and that the area does not form corridor for Schedule-I fauna. The working will be opencast by mechanized method involving blasting. The targetted production capacity of the mine is 91,250TPA(0.09125million TPA)(250TPD) production of limestone. The life of mine will be 48years. Approximately 250TPD of mineral will be transported through road. The topography of the area is flat at an elevation ranging from 294m to 306m AMSL. The general ground level is at 296m AMSL. Present working depth of mine is 298m AMSL and ultimate working depth of mine will be 294m AMSL (2m bgl). The water table varies between 208m to 206m AMSL (88m bgl to 90m bgl). The mine working will not intersect groundwater table. The peak water requirement of the project is estimated as 11KLD, which will be obtained from tankers from the nearby villages and also from water stored in excavated pits. There is no population in the core zone, therefore, displacement of population and R&R is not involved. Approximately 85m<sup>3</sup> per month of soil mixed with siliceous matters and 6920m<sup>3</sup> per month of

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over burden & inter burden (solid and siliceous dolomitic limestone) will be generated, which will be dumped in the earmarked areas. It is estimated that 18,67,537m<sup>3</sup> of solid waste will be generated during the mine life, out of which 14,94,029m<sup>3</sup> (80%) will be backfilled and remaining 3,73,507m<sup>3</sup> (20%) will be dumped in the form of external dumps. Backfilling will start from the 6<sup>th</sup> year onwards. There will be three external over burden dumps. Plantation will be raised in an area of 80ha at the end of the mine life and there will be no water body left at the post mining stage. NOC from the Rajasthan State Pollution Control Board obtained on 05.07.2006 for production of 250TPD of limestone involving lease area of 200ha. Public hearing of the project was held on 25.11.2005 for production of 250TPD of limestone. The Indian Bureau of Mines had approved mining scheme of the project on 13.01.2003 for lease area of 200ha. The Department of Mines and Geology, Government of Rajasthan vide their letter No. Sa Kha Aa /Gotan / ML1/78/229 dated 17.07.2007 informed that the mine lease area does not fall in the Aravalli. The capital cost of the project is Rs.5Lakhs.

2. The Ministry of Environment and Forests has examined the application in accordance with Section 12 of the EIA Notification 2006 read with para 2.1.1(i) of the Circular No.J-11013/41/2006-IA.II(I) dated 13.10.2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned existing Gagrana Limestone Mining Project of M/s Magalam Cement Ltd. for an annual production capacity of 91,250tonnes (250TPD) production of limestone by opencast mechanized method involving total lease area of 200ha subject to implementation of the following conditions and environmental safeguards.

#### A. Specific conditions

- (i) All the conditions stipulated by the State Pollution Control Board in their NOC should be effectively implemented.
- (ii) The mining operations shall be restricted to above ground water table and it should not intersect groundwater table. Prior approval of the Ministry of Environment & Forests and Central Ground Water Authority shall be obtained for mining below water table.
- (iii) The project proponent shall ensure that no natural watercourse shall be obstructed due to any mining operations.
- (iv) Top soil shall be stacked properly with proper slope with adequate safeguard measures at earmarked site(s) and should be used for reclamation and rehabilitation of mined out areas.
- (v) The over burden and other wastes generated shall be stacked at earmarked site(s) only and should not be kept active for long periods of

time. The maximum height of the dump shall not exceed 12m. Proper terracing of over burden dumps shall be carried out so that the overall slope of dump shall not exceed 28 degree. Backfilling shall start from the 6<sup>th</sup> year onwards. The entire backfilled area of 56ha shall be reclaimed by plantation. The back filling should be carried out in such a manner that it is restored to the normal ground level. 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.

- (vi) Catch drains and siltation ponds of appropriate size should be constructed for the working pit, OB dumps and mineral dumps to arrest flow of silt and sediment. 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 monsoon, and maintained properly.

Garland drains of appropriate size, gradient and length shall be constructed for both mine pit and over burden dumps 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 should be constructed at the corners of the garland drains and desilted at regular intervals.

- (vii) Dimension of the retaining wall at the toe of dumps and over burden benches within the mine to check run-off and siltation should be based on the rain fall data.
- (viii) Plantation shall be raised in an area of 80ha including a green belt of adequate width by planting the native species around ML area, reclaimed area, OB dump sites, roads etc. in consultation with the local DFO Agriculture Department. Atleast 1000 trees per year shall be planted and the density of the trees should be around 1000 plants per ha.
- (ix) Regular water sprinkling should be carried out in critical areas prone to air pollution and having high levels of SPM and RPM such as haul road, loading, unloading and transfer points and other vulnerable areas. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (x) 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.

- (xi) Regular monitoring of ground water level and quality should be carried out in and around the mine lease. The monitoring should 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, its Regional Office located at Lucknow, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- (xii) Permission from the competent authority should be obtained for drawal of ground water, if any, required for the project.
- (xiii) Vehicular emissions should 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 vehicles should be covered with a tarpaulin and shall not be overloaded.
- (xiv) Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
- (xv) Drills shall either be operated with dust extractors or equipped with water injection system.
- (xvi) Consent to operate should be obtained from SPCB before starting enhanced production from the mine.
- (xvii) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, Central Ground Water Board.
- (xviii) The project proponent should take all precautionary measures during mining operation for conservation and protection of endangered fauna namely desert fox, desert cat 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 Departments. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. Copy of action plan may be submitted to the Ministry and its Regional Office within 3 months.
- (xix) 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.

**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.
- (ii) No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.
- ✓(iii) Periodic monitoring of ambient air quality should be carried out for RPM, SPM, SO<sub>2</sub> and NO<sub>x</sub>. Location of the monitoring 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. The data so collected should be regularly submitted to the Ministry including its Regional office located at Lucknow and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (iv) 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.
- (v) 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.
- (vi) 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.

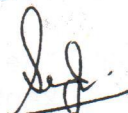
- (vii) The project authorities should inform to the Regional Office located at Lucknow regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (viii) The funds earmarked for environmental protection measures 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.

- (ix) 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.
- ✓(x) The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Lucknow, Central Pollution Control Board and State Pollution Control Board.
- (xi) A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation, if any, was received while processing the proposal.
- (xii) 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.
- (xiii) 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 and Forests at <http://envfor.nic.in> and a copy of the same should be forwarded to the Regional Office of this Ministry located Lucknow.

3. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

5. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made thereunder and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Rajasthan relating to the subject matter.

  
(SATISH C. GARKOTI)  
Additional Director (S)

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**Copy to:**

- (i) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- (ii) The Secretary, Department of Mines & Geology, Government of Rajasthan, Secretariat, Jaipur.
- (iii) The Secretary, Department of Environment, Government of Rajasthan, Secretariat, Jaipur.
- (iv) The Chief Conservator of Forests, Central Region, Ministry of Environment and Forests, B-1/72, Sector-A, Aliganj, Lucknow-226020.
- (v) The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
- (vi) The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (vii) The Chairman, Rajasthan State Pollution Control Board, 4, Institutional area, Jhalana, Doongri, Jaipur.
- (viii) The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- (ix) The District Collector, Nagaur District, Rajasthan.
- (x) EI Division, Ministry of Environment and Forests, Paryavaran Bhavan, C. G. O. Complex, Lodi Road, New Delhi-110 003.
- (xi) Monitoring File.
- (xii) Guard File.
- (xiii) Record File.