

J-11015/ 556/2007- IA.II(M)  
Government of India  
Ministry of Environment & Forests

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Paryavaran Bhavan, C.G.O. Complex,  
Lodi Road, New Delhi-110003.  
Dated the October 10, 2007

To

M/s Madras Cements Ltd  
Auras Corporate Centre , V Floor,  
98-A, Dr. Radhakrishnan Road  
Mylapore Chennai 600004

**Sub: Expansion of Periyagalur Limestone Mining Project (Project area 40.515 ha (ML area 36.29.5 ha, 4.22 ha of crusher area and increase in limestone production from 0.105 MTPA to 0.9 MTPA) of M/s Madras Cements Ltd. at village Periyagalur, Taluk Ariyalur in District Perambalur, Tamil Nadu - regarding Environmental Clearance.**

**Sir,**

The undersigned is directed to refer to your letter no. MCL-CO/PNR/MOEF-2007/1 dated 11.06.2007 on the subject mentioned above. The Ministry of Environment and Forests has examined the application.

2. It has been noted that proposal is for environmental clearance for expansion of production capacity of mine from 0.105 million TPA to 0.90 Million TPA to supply limestone to the cement plant. The mine is located in district Perambalur in Tamilnadu. Total project area is 40.515 ha of which ML area is 36.29.5 ha and 4.22 ha of crusher area. The lease area of the mine comprises of 32.95 ha of agricultural land and 3.345 ha of Govt. revenue land. Out of 40.515 ha of area at the post mining stage, 10.23 ha will be left as void, 7.81 ha will be backfilled, 0.95 ha is for waste dump, 4.42 ha of built up area, 13.40 ha for green belt and 3.7015 ha of undisturbed area. Water body will be used as fish pond. Topography of the area is flat. Marudaiyar river which is seasonal is located at a distance of 4.0 Kms from the mine boundary. No ecologically sensitive area, such as National park/ Wildlife Sanctuary /Biosphere reserve etc is located within 10 Km radius of the core zone. Project does not involve forest land and displacement of the people. Life of the mine is 8.3 years. Method of mining will be opencast and mechanized. Drilling and blasting is involved. Water requirement of 46 m<sup>3</sup>/d will be met from the ground water source and mine pit water. The ultimate working depth will be 40m bgl and ground water table is 16 m bgl. Mine workings will intersect the ground water table. Hydrogeological study of the area has been carried. As per the study, total recharge is 43.19 million m<sup>3</sup> and net ground water draft is 16.15 million m<sup>3</sup>, whereas ground water availability is 27.04 million m<sup>3</sup>. Net annual ground water availability is 59.73 %. Total quantity of OB generated will be 0.86 Million m<sup>3</sup>, which will be backfilled and stabilized with vegetation. It is noted that public hearing of the project was held on 22.08.06. Approval of Modifications in the approved mining plan including progressive mine closure plan from the IBM has obtained on 01.09.2006. Cost of the project is Rs.6.30 crores.

3. The Ministry of Environment and Forests has examined the application in accordance with Section 12 of the Environmental Impact Assessment Notification, 2006, read with para {2.2.1(i) (a)} of interim operational guidelines vide Circular no. J-11013/41/2006-IA.II(I) dated 13<sup>th</sup> October, 2006 and hereby accords environmental clearance under the provisions thereof to the Perianagalur Limestone Mine of M/s Madras Cements Ltd for expansion of annual production capacity from 0.105 million TPA to 0.9 Million TPA of Limestone involving total project area of 40.515 ha of which 36.2950 ha of ML area and 4.22 ha of crusher area subject to implementation of following conditions and safeguards:

**A. Specific conditions**

- (i) Top soil shall be stacked properly with proper slope with adequate safeguards and shall be backfilled for reclamation and rehabilitation of mined out area.
- (ii) Garland drains shall be constructed to arrest silt and sediment flows from soil, and mineral dumps. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.

Garland drain with appropriate (size, gradient and length) shall be constructed for both mine pit and for waste dump and sump capacity shall 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 shall 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.

- (iii) Conceptual Mining Plan for every 5 years for the life of the mine shall be submitted to the Ministry.
- (iv) The company shall monitor cumulative impacts of the nearby mines and cement plants located in the area with regard to ambient air quality and maintain proper authentic records.
- (v) Drilling and blasting shall be by using dust extractors/wet drilling.
- (vi) Plantation shall be raised in an area of 21.21 ha including a green belt of adequate width by planting the native species around the ML area, roads, OB dump sites etc. in consultation with the local DFO / Agriculture Department. The density of the trees shall be around 2500 plants per ha. Selection of plant species shall be as per CPCB guidelines. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation.
- (vii) The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.

- (viii) Regular monitoring of ground water level and quality shall be carried out 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 MOEF, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- (ix) Prior permission from the competent authority shall be obtained for drawl of ground water, if any.
- (x) The existing water bodies and that to be created during the course of mining may be utilized to develop pisciculture by organizing fishermen cooperative society with the land losers, if any and specially the poorer section of the people as members of such society with initial financial assistance in the form of share money and managerial assistance so that the members themselves can run the affairs of the society in due course. The project proponent shall arrange marketing tie up so that the society gets fair price of their product and the profits are equitably shared by the members of the society as regular source of income.
- (xi) Land-use pattern of the nearby villages shall be studied and action plan for abatement and compensation for damage to agricultural land or common property land (if any) due to mining activity shall be submitted to the Ministry within six months.
- (xii) Soil samples for contamination of mercury, chromium and other trace metals shall be studied when mine is in operation and records maintained.
- (xiii) Erosion and silt control measures shall be prepared and ground vibration study shall be conducted.
- (xiv) 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 vehicles shall be covered with a tarpaulin and shall not be overloaded.
- (xv) A Final Mine Closure Plan, along with details of Corpus Fund, shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.
- (xvi) Company shall periodically (every 6 months) monitor river water quality and also shall undertake mitigation measures in case contamination due to mining activity is observed. Periodic test results of the river water quality shall be submitted to the State Government and the Ministry for records every 6 months.
- (xvii) Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore / dust take place. Transportation shall be done only during day time.

- (xviii) Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Occupational health and safety measures for the workers including training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full time qualified doctor who is trained in occupational health surveillance. Health records of the workers shall be maintained.

## **B. General conditions**

- i. No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.
- ii. No change in the calendar plan including excavation, quantum of mineral , limestone ore and waste shall be made.
- iii. Conservation measures for protection of flora and fauna in the core & buffer zone shall be drawn up in consultation with the local forest and wildlife department.
- iv. Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO<sub>2</sub>, NO<sub>x</sub> monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.
- v. Data on ambient air quality (RPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>) should be regularly submitted to the Ministry including its Regional office located at Bangalore and the State Pollution Control Board / Central Pollution Control Board once in six months.
- vi. Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.
- vii. Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs / muffs.
- viii. Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19<sup>th</sup> May, 1993 and 31<sup>st</sup> December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.
- ix. Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.

- x. A separate environmental management cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
  - xi. The project authorities shall inform to the Regional Office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
  - xii. The funds earmarked for environmental protection measures shall be kept in separate account and should not be diverted for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bangalore.
  - xiii. The project authorities shall inform to the Regional Office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
  - xiv. The Regional Office of this Ministry located at Bangalore 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.
  - xv. 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.
  - xvi. 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.
  - xvii. 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 shall be forwarded to the Regional Office of this Ministry located Bangalore.
4. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
5. 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.

6. 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.

Yours faithfully,  
*P. Ahujarai*  
(Dr. P.L. Ahujarai)  
Director

**Copy to:**

1. Secretary, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment, Government of Tamilnadu, Chennai.
3. Secretary, Department of Mines and Geology, Government of Tamilnadu, Chennai.
4. Secretary, Department of Forests, Government of Tamilnadu, Chennai
5. The Secretary (Environment), Govt. of Tamil Nadu, Fort. St. George, Chennai-600009.
6. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
7. The Chairman, Tamil Nadu Pollution Control Board, 76, Mount Road, Guindy, Chennai - 600032.
8. The Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, IV<sup>th</sup> Floor, E&F Wings, 7<sup>th</sup> Main Road, II<sup>nd</sup> Block, Koramangala, Bangalore-560034.
9. Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
10. Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
11. District Collector, District Perambalur , Tamilnadu.
12. Monitoring File.
13. Guard File.
14. Record File.

(Dr. P.L. Ahujarai)  
Director