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No. J-11015/387/ 2006- IA. II(M)  
Government of India  
Ministry of Environment & Forests

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Dated the October 24, 2007

To

M/s Manikgarh Cement  
P.O. Gadchandur-442908  
Tehsil Korpana, district Chandrapur  
Maharashtra

Sub: Expansion of captive limestone mine ( increase in ML area from 302.58 ha to 493.0 ha and enhancement of production capacity from 2.0 to 5.55 MTPA) of M/s Manikgarh Cement at village Gadchandur in district Chandrapur in Maharashtra - reg. environmental clearance.

Sir,

This has reference to your letter no. MC/PSB/NP/14/3468 dated 30.08.2007 on the above mentioned subject. The Ministry of Environment & Forests has examined the application for environmental clearance.

2. It is noted that the proposal is for environmental clearance for enhancement of limestone production from 2.0 to 5.55 MTPA and increase in mining lease area from 302.58 ha to 493 ha. The mine is located in district Nagpur in Maharashtra. Out of 493 ha of ML area, 429.38 ha is forestland and 63.62 ha is revenue land. Forest clearance for diversion of 238.96 ha was obtained on 28.11.2001 and forest clearance for diversion of 190.42 ha of forest land is yet to be obtained. The mine is captive to cement plant located at a distance of 7.5km. Crushed limestone from the mine to the cement plant will be transported through existing bi-cable aerial ropeway and proposed conveyor system. No National park/ Wildlife sanctuary/biosphere reserve etc is located within 10km radius of the core zone. Method of mining is opencast involving drilling and blasting. The topography of the area is undulating and drained by a perennial stream (Amal Nallah) which flows in the northern direction and impounded by an irrigation dam about 5km down stream of the mine area. The Amal Nala is fed by ground water and rainfall precipitation. It is further noted that the mining upto 253 m. MSL will intersect ground water. A detailed hydro-geological study for assessment of impact on ground water table due to mining intersecting the ground water table has been carried. As per the study, ground water present in the study area is under unconfined aquifer. Further the ground water table is part of different ground water basin and is distinctly separated. Water requirement of 450m<sup>3</sup>/d will be met from the ground water source and treated waste water of proposed sewage treatment plant. Solid waste will be rehabilitated by vegetation. It is noted that the Public hearing of the project was held on 2.7.2007. Approval of modification in approved scheme of mining along progressive mine closure plan over an area of 302.58 ha was obtained on 2.2.2007 and for an area of 190.42 was obtained on 7.2.2007. Cost of the project is Rs. 110 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 captive limestone mine by M/s Manikgarh Cement for enhancement of production capacity from 2.0 to 5.55 MTPA of limestone ore involving total lease area of 493.0 ha 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 utilized for reclamation and rehabilitation of mined out area. It should be duly covered with grass and vegetal cover to preserve its fertility.
- (ii) Over burden shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m, each stage shall preferably be of 10 m and over all slope of the dump shall not exceed 28°. The OB dump shall be backfilled. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests on six monthly basis.
- (iii) Forest clearance under the Forest (Cons.) Act, 1980 shall be obtained for diversion of forest land.
- (iv) 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 of 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.

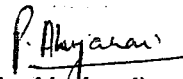
- (v) Conceptual Mining Plan for every 5 years for the life of the mine shall be submitted to the Ministry.
- (vi) Measures for control of soil erosion and management of silt shall be prepared and submitted to the Ministry within 6 months.
- (vii) Drilling and blasting shall be by using dust extractors/wet drilling.
- (viii) Plantation shall be raised 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.
- (ix) 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.

- (x) 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.
- (xi) Prior permission from the competent authority shall be obtained for drawl of ground water, if any.
- (xii) 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.
- (xiii) A no mining zone of atleast 50 m on both sides of Amla Nalla shall be demarcated and shall be planted with thick native species of trees and shrubs.
- (xiv) Pumps of adequate power and capacity shall be used for dewatering mine water seepage and other safety measures for prevention of mine inundation shall be undertaken. The excess water shall be used in recharge of ground water and suitable measures for recharge of ground water including rainwater harvesting shall be taken up. Mine water discharge and /or any waste water from the operations shall be properly treated to meet the prescribed standards before reuse/discharge.
- (xv) 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.
- (xvi) 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.
- (xvii) 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.
- (xviii) 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.

**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.

  
(Dr. P.L. Ahujarai)  
Director

(Dr. P.L. Ahujara)  
Director

1. Secretary, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment, Government of Maharashtra, Mumbai.
3. Secretary, Department of Mines and Geology, Government of Maharashtra, Mumbai.
4. Secretary, Department of Forests, Government of Maharashtra, Mumbai.
5. Chief Wildlife Warden, Government of Maharashtra, Mumbai.
7. The Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office, Link Road No.3, E - 5, Aera Colony, Bhopal - 462 016.
8. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar New Delhi - 110 032.
9. The Chairman Maharashtra Pollution Control Board, Kalpataru Point, 3<sup>rd</sup> & 4<sup>th</sup> Floor, Sion Matunga Scheme, Road No.8, Opp. Cine Planet Cinema, Near Sion Circle, Sion(East), Mumbai-400 022.
10. Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
11. Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
12. District Collector, Chandrapur district, Maharashtra.
13. Monitoring File.
14. Guard File.
15. Record File.

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