

J-11015/380/2007- IA. II (M)
Government of India
Ministry of Environment & Forests

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Paryavaran Bhavan, C.G.O. Complex,
Lodhi Road, New Delhi-110003.
Dated: December 12, 2008

To
M/s Murl Industries Ltd.
Radha House, 239 East Wardhaman Nagar
Nagpur – 440 008
Maharashtra.

Sub: Naranda Limestone Mine (ML area 71.01 ha and production of 2.4 MTPA) at village Naranda, in Korpana Mandal, in Chandrapur Distt., in Maharashtra – reg. Environmental Clearance.

Sir,

The undersigned is directed to refer to your letter dated 10.04.2008, on the above mentioned subject. The Ministry of Environment and Forests has examined the application.

2. The proposal is for Limestone production at capacity of 2.4 MTPA. The reserves of limestone is 17.8 MT. Life of the mine at proposed rate of production will be 30 years. The limestone is for captive consumption for its cement plant located near the lease. Transportation of ore to cement plant will be by closed conveyor belt. Method of mining will be open cast mechanised. Drilling and blasting will be involved. The lease area is 71.01 ha, which is a govt. waste land. Out of 71.01 ha, only 34.84 ha will be under mining. An area of 3.11 ha will be kept for waste dump; 0.56 ha for infrastructure, 0.53 ha for roads; 10.50 ha for green belt; and 21.47 ha for future use. The lease area has undulating terrain having average altitudes of 185 m RL. Penganga river flows at a distance of 2.0 km from the lease. Reserve forest is at 7.0 km from lease boundary. Tadoba wildlife sanctuary is at a distance of 90.0 km from the lease. Ultimate depth of mining will be at 35 m below ground level (bgl). Ground water table is at 150 m bgl. Mining will not intersect water table. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Heritage sites etc. within 10 km from the lease area. Peak water requirement at the mine will be 131 KLD, which will be met from Penganga river. Solid waste of around 4.80 MT will be generated. These will be used for back-filling of the worked out pits. No relocation and rehabilitation of population will be involved. Approved mining plan (including progressive mine closure plan) was obtained from Indian Bureau of Mines on 04.11.2008. Public hearing was held on 27.04.2007. No diversion of forest land is involved. Cost of the project will be Rs 5.27 Crores.

3. The project has been considered in accordance with the provisions of the EIA notification issued by the Ministry of Environment & Forests vide S.O. 1533 (E), dated September 14, 2006.

4. Based on the information submitted by you, as at Para 2 above and others, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA notification dated September 14, 2006, subject to the compliance of the following Specific and General conditions.

A. Specific conditions

- (i) **No two pits shall be simultaneously worked** i.e before the first is exhausted and reclamation work completed, no more mineral bearing area shall be worked.
- (ii) After exhausting the first mine pit and before starting mining operations in the next pit, reclamation and plantation works in the exhausted pit shall be completed so as to ensure that reclamation, forest cover and vegetation are visible during the first year of mining operations in the next pit. This process will follow till the last pit is exhausted. **Adequate rehabilitation of mined pit shall be completed before any new ore bearing area is worked for expansion.**
- (iii) Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
- (iv) Primary survey data of flora and fauna shall be submitted to the Ministry within six months.
- (v) Conservation plan for wildlife shall be prepared in consultation with the office of the concerned Chief Wild Life Warden **within six months**. The plan shall consist of in-built monitoring and evaluation mechanism. Necessary fund for implementation of the same shall be separately allocated and shall not be diverted for any other activity
- (vi) Blast vibrations study shall be conducted and submitted to the Ministry **within six months**. The study shall also provide measures for prevention of blasting associated impact on nearby houses and agricultural fields.
- (vii) Continuous air ambient quality monitoring system shall be installed before three months of start of mining activity at appropriate sites (including cement plant) in consultation with the State Pollution Control Board/Regional office of Central Pollution Control Board. Ambient air quality data shall be regularly submitted to the Regional Office of the Ministry and other concerned departments.

The ambient air quality monitoring shall include PM₁₀. Regular analysis of silica content for PM₁₀ shall be carried out. Assessment of silica in silt shall be regularly carried out and records maintained.
- (viii) Need based assessment for the near by villages shall be conducted to study economic measures which can help in upliftment of poor section of society. Income generating projects/tools such as development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self employment and jobs.
- (ix) Action plan for economic upliftment of poor sections of societies specially tribals, scheduled caste shall be formulated and implemented **within six months**. Status of implementation shall be reported to the Regional Office of the Ministry and the State Govt.
- (x) Land-use pattern of the nearby villages shall be studied and action plan for abatement and compensation for damage to agricultural produce and land/ common property land (if any) in the nearby villages, due to mining activity shall be submitted to the Regional office of the Ministry **within six months**. Annual status of

implementation of the plan and expenditure thereon shall be reported to the Regional Office of the Ministry from time to time.

- (xi) Rain water harvesting shall be undertaken to recharge the ground water source. Status of implementation shall be submitted to the Regional Office of the Ministry **within six months** and thereafter every year from the next consequent year.
- (xii) Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geo textile matting or other suitable material, and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.
- (xiii) Cultivable waste land within 5 km radius of the lease shall be identified and developed into productive land and made available to villages. Status of implementation shall be submitted to the Regional office of the Ministry **within six months**.
- (xiv) Trenches / garland drains shall be constructed at foot of dumps and coco filters (or other suitable filters) shall be installed at regular intervals to arrest silt from being carried to water bodies. Adequate number of Check Dams and Gully Plugs shall be constructed across seasonal/perennial nallahs (if any) flowing through the ML area and silts arrested. De-silting at regular intervals shall be carried out.

Garland drain of appropriate size, gradient and length shall also be constructed for both mine pit and for waste dump. 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 de-silted at regular intervals.
- (xv) Ground water in the core zone shall be regularly monitored for contamination and depletion due to mining activity and records maintained. The monitoring data shall be submitted to the regional office of the Ministry regularly. Further, monitoring points shall be located between the mine and drainage in the direction of flow of ground water shall be set up and records maintained.
- (xvi) Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records submitted to the Regional Office of the Ministry.
- (xvii) Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore / dust takes place. Transportation shall be done only during day time.
- (xviii) Occupational health and safety measures for the workers including identification of work related health hazards, 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. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and precautionary measures like use of personal equipments etc. shall be carried out periodically. Review of impact of

various health measures undertaken (at interval of five years or less) shall be conducted followed by follow up action wherever required.

- (xix) Maintenance of village roads through which transportation of ores are undertaken shall be carried out by the company regularly at its own expenses. The roads shall be black topped.
- (xx) Top soil/ solid waste shall be stacked properly and separately with proper slope and adequate safeguards and shall be utilized for backfilling (wherever applicable) for reclamation and rehabilitation of mined out area.
- (xxi) Monitoring of soil samples for assessment of contamination due to mining activity shall be regularly conducted and records maintained.
- (xxii) Over burden (OB) 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 overall 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.

- (xxiii) Slope of the mining bench and ultimate pit limit shall be as per the mining scheme approved by Indian Bureau of Mines.
- (xxiv) Drilling (if any) shall be conducted by using dust extractors/wet drilling. Controlled blasting shall be undertaken.
- (xxv) Plantation shall be raised adequately in the ML area, haul roads, OB dump sites etc. Green belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO / Agriculture Department. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. The density of the trees shall be around 2500 plants per ha. The company shall involve local people with the help of self help group for plantation programme. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Regional Office of the Ministry every year.
- (xxvi) 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 shall be regularly sent to MoEF, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- (xxvii) The waste water from the mine shall be treated to conform to the prescribe standards before discharging in to the natural stream. The discharged water from the Tailing Dam (if any) shall be regularly monitored and report submitted to the Ministry of Environment & Forests, Central Pollution Control Board and the State Pollution Control Board.

- (xxviii) Prior permission from the competent authority shall be obtained for extraction of ground water, if any.
- (xxix) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of ores and others shall have valid permissions as prescribed under Central Motor Vehicle Rules, 1989 and its amendments. Transportation of ore shall be done only during day time. The vehicles transporting ores shall be covered with a tarpaulin or other suitable enclosures so that no dust particles / fine matters escape during the course of transportation. No overloading of ores for transportation shall be committed. The trucks transporting ore shall not pass through wild life sanctuary.
- (xxx) Action plan with respect to suggestions/improvements and recommendations made during public consultation/hearing shall be submitted to the Ministry and the State Govt within six months.
- (xxxi) 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 (iron ore) and waste shall be made.
- (iii) Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO₂, NO_x 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.
- (iv) Data on ambient air quality (RPM, SPM, SO₂, NO_x) should be regularly submitted to the Ministry including its Regional office located at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (v) 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.
- (vi) 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.
- (vii) 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 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.
- (viii) Personnel working in dusty areas shall be provided with protective respiratory devices and they shall also be imparted adequate training and information on safety and health aspects.

- (ix) Provision shall be made for the housing the labourers 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.
- (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 of the Ministry located at Bhopal 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 shall not be diverted for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bhopal.
- (xiii) The project authorities shall inform to the Regional Office located at Bhopal 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 the Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities shall 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 shall 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 shall 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 the Ministry located in Bhopal.

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

6. Concealing factual data or submission of false/fabricated data and 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.

7. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.

8. 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,


12/12/08
(W. Bharat Singh)
Deputy Director

Copy to:

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 Conservator of Forests, Regional Office, Ministry of Environment and Forest, Arera Colony, Bhopal -462016.
6. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
7. Chairman, Maharashtra State Pollution Control Board, 3rd&4th Floors, Sion Matunga Scheme Road No.6, Opp. Cine Planet, Sion Circle (E), Mumbai - 400 022.
8. Member Secretary, Central Ground Water Authority, A2, W- 3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
9. Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur- 440 001.
10. District Collector, Chandrapur Distt., Government of Maharashtra.
11. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
12. Monitoring File.
13. Guard File.
14. Record File.

(W. Bharat Singh)
Deputy Director