

Receipt No : 116853/2017/DMG-MLS

No. 10015/210/2005.IA.II (M)

Government of India

Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O. Complex, Lodi Road,
New Delhi - 110 003Dated the 31st March 2006

To,

M/s Mineral Enterprises Ltd.,
No. 300/1B, 16th Cross,
Sadashivnagar,
Bangalore-560 080

Subject: Expansion of Bedra Bommanhalli(B.B.H.) Iron Ore Mining Project of M/s Mineral Enterprises Ltd. located in Village(s) Bedarabommanahalli, Dindadahalli, Manjagihalli and Hirekandavadi, Tehsil(s) Holalkere and Chitradurga, District Chitradurga, Karnataka - environmental clearance req.

Sir,

This has reference to your letter No. 'nil' dated 27.05.2005 and subsequent letters dated 29.06.2005, 22.06.2005, 20.10.2005, 27.11.2005, 06.12.2005 and 07.01.2006 on the subject mentioned above. The Ministry of Environment and Forests has examined the application. It has been noted that the proposal is for enhancement of iron ore production from 0.12 million tonnes per annum to 1.0 million tonnes per annum. Total mine lease area of the project is 103.81ha, which is a forestland. Area proposed for mining is 21.904 ha, an area of 25.916ha is kept for OB dumps, 0.104 ha for infrastructure, 4.13ha for roads, 7.83ha for green belt and 42.18 ha others. No ecologically sensitive area such as National park/sanctuary/biosphere reserve etc. located in the core and buffer zone. There is no population in the core zone, therefore, no displacement of population and R&R is involved. The annual targeted production capacity of the mine is one million tonnes(10.0 Lakh tonnes) of iron ore. 3350TPD of mineral will be transported by road. Working is opencast by mechanised method by deploying hydraulic excavators. Ripper dozer will carry out the removal of over burden. No deep hole drilling and blasting is envisaged, however blasting will be undertaken for breaking harder strata wherever encountered. The topography of the mine lease is hilly. Present working depth reported as 800m and ultimate working depth as 760m. The groundwater table is met at 40m bgl in the core and buffer zone(pre-monsoon) and at 30 m bgl in the core zone and 40mbgl in the buffer zone(post-monsoon). The working will not intersect ground water table. Peak water requirement is 200m³ /day which will be met from groundwater. It has been envisaged that about 2million m³ of OB has already been accumulated and another 32000m³/month is proposed to be generated during the life of the mine, which will be dumped externally. Backfilling proposed after complete exploitation of the mineral. Consent to Establishment granted by the Karnataka State Pollution Control Board on 20.05.2005 for expansion of iron ore production from 1,20,000TPA to 10,00,000 TPA involving lease area of 103.81 ha. Indian Bureau of Mines (IBM) has approved scheme of mining on 08.03.2004 for lease area of 103.81ha. Public hearing conducted on 02.12.2004. Ministry of Environment and Forests granted renewal of mining lease on 07.04.1997 under Forest (Conservation) Act over 105 ha forestland. Capital cost of the project is Rs.150.0Lakhs

...2/-

Réceipt No : 116853/2017/DMG-MLS

2

2. The Ministry of Environment and Forests hereby accords environmental clearance to the above mentioned Bedra Bommanhalli(B.B.H.) Iron Ore Mining Project of M/s Mineral Enterprises Ltd. for production capacity of 10.0LTPA(One million tones per annum) of iron ore by opencast mechanised method involving total lease area of 103.81ha under the provisions of the EIA Notification1994 and its subsequent amendments issued under Environment (Protection) Act, 1986 subject to implementation of the following conditions/safeguards.

A. Specific conditions

- (i) The mining operations shall 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.
- (ii) Top soil, if any shall be stacked properly with proper slope with adequate measures and should be used for reclamation and rehabilitation of mined out areas.
- (iii) OB dump should be stacked at earmarked dump site(s) only and should not be kept active for long period. The maximum height of the dump should not exceed 20 m, each stage should preferably be of 10 m and over all slope of the dump shall not exceed 28°. 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 on six monthly basis.
- (iv) In critical areas use of geo textiles shall be taken for stabilization of the dump.
- (v) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. 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 drain (size, gradient and length) shall be constructed for both mine pit and for waste dump 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.
- (vi) Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation should be based on the rain fall data.
- (vii) Plantation shall be raised in an area of 60.13 ha including a green belt of adequate width around ML area, mineral separation plant, OB dump sites, roads etc. by planting the native species in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2500 plants per ha.

....3/-

- (viii) 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.
- (ix) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. 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 MOEF, Central Ground Water Authority and Regional Director Central Ground-water Board.
- (x) Permission from the competent authority should be obtained for drawal of ground water.
- (xi) 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.
- (xii) 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.
- (xiii) Drills should be wet operated or operated with dust extractors.
- (xiv) Water sprinkling system shall be provided to check fugitive emissions from ancillary operations such as crushing, screening plant etc.
- (xv) The higher benches of the excavated void to be converted in to water bod shall be terraced and afforested to stabilize the slopes.
- (xvi) Consent to operate should be obtained from SPCB for the enhanced production
- (xvii) Sewage treatment plant should be installed for the colony. ETP should also provided for workshop and mineral separation plant wastewater.
- (xviii) A Final Mine Closure Plan along with details of Corpus Fund should submitted to the Ministry of Environment & Forests 5 years in advance of fi mine closure for approval.

B. General conditions

- (i) No change in mining technology and scope of working should be made with prior approval of the Ministry of Environment & Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral ore and waste should be made.
- (iii) Conservation measures for protection of flora and fauna in the core & b zone should be drawn up in consultation with the local forest department experts.

Receipt No : 116853/2017/DMG-MLS

4

98

(iv)

Four ambient air quality-monitoring stations should 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.

(v)

Data on ambient air quality (RPM, SPM, SO₂, NO_x) 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 should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.

(vii)

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.

(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 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.

(ix)

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 coal dust and take corrective measures, if needed.

(x)

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.

(xi)

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 Bangalore.

(xii)

The project authorities should 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.

(xiii)

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.

...5/-

(xiv) A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom and suggestion / representation has been received while processing the proposal.

(xv) 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.

(xvi) 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 may also be seen 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 Bangalore.

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.

(SATISH C. GARKOTI)
Additional Director (S)

Copy to:

1. Secretary , Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment, Government of Karnataka, Bangalore.
3. Secretary, Department of Mines and Geology, Government of, Karnataka, Bangalore.
4. Secretary, Department of Forests, Government of, Karnataka, Bangalore.
5. Chief Conservator of Forests, Regional Office (SZ), Kendriya Sadan, 4th Floor E&F Wings, 17th Main Road, 1 Block, Koranmangala, Bangalore-560 034.
6. Chairman, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
7. Chairman, Karnataka State Pollution Control Board, 6,7,8 & 9th Floors, Public Utility Building, M.G. Marg, Bangalore - 560001

..6/-

Receipt No : 116853/2017/DMG-MLS

6

796

8. Member Secretary, Central Ground Water Authority, A2, W3 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 Chitradurga District, Karnataka.
11. EI Division, Ministry of Environment & Forests, EI Division, New Delhi.
12. Monitoring File.
13. Guard File.
14. Record File.

C

C