

**J-11015/73/2009-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: March 18, 2010

To

M/s Mineral Enterprises Limited  
300, 1B, 16<sup>th</sup> Cross,  
Sadashivnagar,  
Bangalore 560080, India

**Sub: Sarangpani Iron Ore and Manganese Ore Deposit of M/s Mineral Enterprises Limited. Located at Village Gollarahalli, Taluk Chikkanayakanahalli, District Tumkur, Karnataka. (ML area- 72.15 ha, 1.4 Million Tonnes/annum of Iron Ore and 9621 TPA of Manganese Ore) Reg-Environmental Clearance.**

Sir,

The undersigned is directed to refer to your communication no. nil dated nil received in the Ministry along with copies of EIA/EMP and public hearing reports on 22.01.2010, regarding the subject mentioned above seeking environmental clearance under the provision of EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined your application. It has been noted that Iron and manganese ore mine with production capacity of 1.44 MTPA of Iron Ore and 9621 TPA of Manganese Ore respectively is located at Village Gollarahalli, Taluk Chikkanayakanahalli, District Tumkur, Karnataka. The coordinates of the mine project are Latitude 13 deg 24' 54.51" N to 13 deg 25' 29. 10" N and Longitude 76 deg 39' 36.90" E to 76 deg 40' 34.80"E. The mine will be also captive to proposed integrated Steel Plant to be set up about 150 kms away. The lease area is 72.15 ha, which is a Govt. revenue land. Out of total lease area of 72.15 ha, area for excavation will be 30.0 ha. An area of 7.5 ha will be kept for waste dump; 2.20 ha for crushing, screening and washing plants, 2.0 ha for sub-grade mineral storage; 2.0 ha for storage of top soil; 0.20 ha for infrastructure; 3.0 ha for road; 3.4 ha for green belt; and 21.85 ha for future use. Method of mining will be open cast mechanised. The height and width of benches 6m and 18m respectively. The mineable reserve is 13.78 MT. Life of mine at proposed rate of production will be 20 years. The elevation of the lease ranges from 850 msl to 1027 m above MSL. There are no rivers nearby the lease area. However seasonal nallah flows nearby the lease. There are no wildlife sanctuaries, national parks, biosphere reserves, heritage sites etc within 10 km from the lease. Ultimate depth of mining will be at 904 m above MSL. Ground water table is at 770 m above MSL. Mining will not intersect ground water table. Water requirement will be 55 KLD, which will be met from ground

and mine pit water. No relocation and rehabilitation of population will be involved. About 300000m<sup>3</sup>/m of solid waste will be generated which will be stacked on non-mineralised area and stabilised by afforestation. IBM has approved the mining plan on 16.2.2009. Cost of the project will be Rs 10.0 Crores.

3. The proposal has been considered by the Expert Appraisal Committee-2 (Mining) in its meeting held on 25<sup>th</sup> – 26<sup>th</sup> February, 2010. The Committee recommended the proposal for environmental clearance.

4. Based on the information submitted by the project proponent and recommendation of the Expert Appraisal Committee, the Ministry of Environment & Forests hereby accords environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to the implementation of the following terms and conditions:-

**A. Specific Conditions:**

- i. Top soil shall be stacked properly with adequate protection measures at earmarked sites and used for reclamation and rehabilitation of the mined out areas.
- ii. 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 Ministry.
- iii. The company shall install defogging system at crusher to suppress the fugitive dust generation at the source.
- iv. The company shall maintain a sufficient distance between the road and edge of the waste dump as the area earmarked for waste dump is near the road.
- v. To fix the charge for blasting, it is suggested to carry out a scientific study for optimum charge per delay and charge shall be fixed based on the results of the study.
- vi. Since there will be manganese mining, the proponent shall avoid plantation of plant species which selectively uptake manganese to prevent impact of manganese on the health of animals.
- vii. The company shall study detailed mineralogical composition of dust and particle size analysis to assess how much manganese fraction is in the dust. Personnel exposure monitoring for dust shall be carried out for the workers.
- viii. Chemical composition of the dust samples, besides particle size analysis, shall be carried out. Free silica concentration in the dust shall be monitored.
- ix. The company shall ensure that no silt originating due to mining activity is transported in the surface water course (if any) flowing in the area. Proper drainage of the waste dumps shall be provided to prevent siltation of downstream water bodies. The dumps *per se* shall be drained and surface of the dump should be properly vegetated.

- x. 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.
- xi. Rain water harvesting shall be undertaken to recharge the ground water source. Status of implementation shall be submitted to the Ministry within six months.
- xii. Land-use pattern of the nearby villages shall be studied, including common property resources available for conversion into productive land. Action plan for abatement and compensation for damage to agricultural land / common property land (if any) in the nearby villages, due to mining activity shall be submitted to the Ministry **within six months**.
- xiii. Need based assessment for the nearby villages shall be conducted to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides 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.
- xiv. The company shall identify the fallow land which could be converted into grass land for provision of fodder to the animals.
- xv. Monitoring of ground and surface water quality shall be regularly conducted and records maintained and data submitted to the Ministry regularly. Further, monitoring points shall be located between the mine and drainage in the direction of flow of ground water and records maintained.
- xvi. Trenches / garland drains shall be constructed at foot of dumps and coco filters 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.
- xvii. 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.
- xviii. Occupational Health Cell shall be created at the company level under the charge of an officer of adequate seniority who is a qualified person in occupational health.

- xix. 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.
- xx. Green belt development and selection of plant species shall be as per CPCB guidelines. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Ministry within six months.
- xxi. Data on ambient air quality (PM<sub>10</sub>, 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. The critical parameters such as PM<sub>10</sub>/PM<sub>2.5</sub>, NO<sub>x</sub> in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, pH) and total Suspended solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the company in public domain. The circular no.J-20012/1/2006-IA.II (M) dated 2.5.2009 issued by the Ministry of Environment and Forests, which is available on the website of the Ministry [www.envfor.nic.in](http://www.envfor.nic.in) shall also be referred in this regard for its compliance.
- xxii. Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of ores and others shall have valid permissions under Central Motor Vehicle Rules, 1989 and its amendment. The number of shifts for mine operations could be as prescribed in the approved Mine Plan. However, the number of shifts or hours permissible for external vehicular traffic shall not exceed the limits in vogue for the area under consideration or in the event of passage through forest roads or public places, as may be applicable in this case. The limits prescribed by the local authorities shall not be exceeded. If no such guidelines for time restrictions are applicable, then external transport shall be preferably confined to two shifts.



- xxiii. Dumpers used inside the mine need not be covered with any tarpaulin, but shall strictly follow dust and sound mitigation measures prescribed inside the mine and no processing plants and loading points. However, transport vehicles used for external transport over public places, habitations, forest areas etc. as may be applicable in this case shall be covered with tarpaulin and proper maintenance and up keep of these tippers or other types of trucks shall be done. No overloading of ores for transportation shall be carried.

**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 and waste shall be made.
- (iii) 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.
- (iv) Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for PM10, 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) 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.
- (vi) 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.
- (vii) 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.
- (viii) 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.
- (ix) The project authorities shall inform to the Regional Office of the Ministry 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.

- (x) 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 Bangalore.
- (xi) The project authorities shall inform 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 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.
- (xiii) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bangalore, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests, Bangalore.
- (xiv) The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality, / office of Municipal Corporation/Gram Panchayat concerned and on the company's web site within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>.
- (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. The clearance letter shall also be put on the website of the company.
- (xvi) State Pollution Control Board shall display a copy of the clearance letter at the Regional office, District Industries Centre and Collector's office / Tehsildar's Office for 30 days.

- (xvii) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and shall also be put on the website of the company along with the status of compliance of environmental clearance conditions. The same shall also be sent to the Regional Office of Ministry by e-mail.

5. The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. MOEF may impose additional environmental conditions or modify the existing ones, if necessary.

6. In case of any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.

7. 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.

8. 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.

9. 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 Karnataka and any other Court of Law relating to the subject matter.

Yours faithfully,

  
(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 Karnataka, Bangalore.
3. Secretary, Department of Mines and Geology, Government of Karnataka, Bangalore.
4. Secretary, Department of Forests, Government of Karnataka, Bangalore.
5. ADG(FC), Ministry of Environment & Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
5. Chief Conservator of Forests, Regional Office (SZ), Kendriya Sadan, 4<sup>th</sup> Floor E&F, Wings 17<sup>th</sup> Main Road, 1 Block, Koramangala, Bangalore-560 034.
6. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
7. Chairman, Karnataka State Pollution Control Board, Parisara Bhawan, 4<sup>th</sup> & 5<sup>th</sup> Floor, 49, Church Street, Bangalore - 560 001.
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, Tumkur, Government of Karnataka.
11. El Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
12. Monitoring File/Guard File/Record File.

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(Dr. P.L.Ahujarai)  
Director