

No.J-11015/348/2005.IA.II (M)  
Government of India  
Ministry of Environment & Forests

Paryavaran Bhawan,  
C.G.O. Complex, Lodi Road,  
New Delhi - 110 003

Dated the 29<sup>th</sup> May 2006

To,

The Director  
M/s Gadchiroli Metals & Minerals,  
33, Mount Road, Sadar,  
Nagpur-440 001

Subject: Surjagarh Iron Ore Mining Project of M/s Gadchiroli Metals & Minerals located near village Bande, Tehsil Etapalli, District Gadchiroli, Maharashtra -environmental clearance reg.

Sir,

This has reference to your letter No. 'Nil' dated 02.09.2005 and subsequent letters dated 12.10.2005, 28.12.2005 and 28.03.2006 on the subject mentioned above. The Ministry of Environment and Forests has examined the application. It has been noted that the proposal is for opening of a new mine and Ministry has granted site clearance to the project on 21.12.2005. The total mine lease area of the project is 348.09 ha which is a forestland. The entire lease area of 348.09 ha is proposed for mining. No ecologically sensitive area, such as National park/sanctuary/biosphere reserve etc., is 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 30 lakh tonnes (3.0 million tonnes) of iron ore. Approximately 10,000 TPD of mineral will be transported by road. Working will be opencast by mechanised method involving blasting. The topography of the are is undulated and hilly. The ultimate working depth of the mine will be 125 m bgl. Ground water table is in the range of 150-200 m bgl in core zone and 8-25 m bgl in buffer zone (pre-monsoon) and 130-150 m bgl in core zone and 0.5-10 m bgl in buffer zone (Post monsoon). Working will not intersect ground water table. Peak water requirement is 70m<sup>3</sup> /day, which will be met from river. Approximately 2050 m<sup>3</sup>/month of solid waste will be generated. It is proposed that a total of 7.3Mm<sup>3</sup> of OB will be generated during the entire life of the mine. The entire quantity of the OB will be backfilled. Backfilling will start after 5<sup>th</sup> year of mining operations. Consent to establish issued by Maharashtra State Pollution Control Board on 09.08.2005 for production capacity of 3.0 MTPA. Indian Bureau of Mines (IBM) has approved mining plan on 03.03.2004 for lease area of 348.09 ha and subsequently the mining plan transferred in the name of M/s Gadchiroli Metals

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and Minerals on 27.03.2006. Public hearing of the project held on 12.07.2005. In principle forestry clearance for diversion of 374.90 ha forestland granted by the Ministry of Environment & Forests on 13.06.2005. Capital cost of the project is Rs.4768.0 lakhs.

2. The Ministry of Environment and Forests hereby accords environmental clearance to the above mentioned Surjagarh Iron Ore Mining project of M/s Gadchiroli Metals and Minerals for production capacity of 30 lakh TPA (3.0 million tonnes per annum) of iron ore by opencast mechanised method involving total lease area of 348.09 ha under the provisions of the EIA Notification 1994 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) A wildlife management plan clearly showing safeguards and management interventions for the area shall be prepared and got vetted by Wildlife Institute of India and duly implemented in the project. The cost of preparation and implementation of wildlife management plan shall be borne by the proponent and included as project cost.
- (iii) Float ore area shall be completely backfilled concurrently and reclaimed by top soil. Backfilling shall start from 6<sup>th</sup> year onwards.
- (iv) Use of ripper dozer as an alternate technology to avoid blasting and ground vibrations shall be explored and adopted to the extent possible.
- (v) Top soil shall be stacked properly with proper slope with adequate measures and should be used for reclamation and rehabilitation of mined out areas.
- (vi) There shall be no external overburden dumps. 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.
- (vii) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, temporary dumps and mineral dumps. The water so collected should be utilized for ...3/-

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 mine pit and for temporary dumps 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.

- (viii) 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.
- (ix) Plantation shall be raised in an area of 342.29 ha including a green belt of 5.8 ha, around ML area, mineral separation plant, 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.
- (x) 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.
- (xi) 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.
- (xii) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, CGWB.
- (xiii) Permission from the competent authority should be obtained for drawal of water from the river.
- (xiv) Suitable embankment of proper dimensionis should be constructed to protect the area from flood water during rainy season.
- (xv) Appropriate mitigative measures should be taken to prevent pollution of Bandia river in consultation with the State Pollution Control Board.

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- (xvi) 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.
- (xvii) The project authorities should undertake sample survey to generate data on pre-project community health status within a radius of 1 km from proposed mine.
- (xviii) 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.
- (xix) Drills should be wet operated or operated with dust extractors.
- (xx) Water sprinkling system shall be provided to check fugitive emissions from ancillary operations such as crushing, screening plant etc.
- (xxi) Consent to operate should be obtained from SPCB before starting production from the mine.
- (xxii) Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and mineral separation plant wastewater.
- (xxiii) Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to MOEF and its regional office.
- (xxiv) A Final Mine Closure Plan along with details of Corpus Fund should 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 should 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 should be made.
- (iii) Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest department.

- (iv) Four ambient air quality-monitoring stations should 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 Bhopal 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 19<sup>th</sup> May, 1993 and 31<sup>st</sup> 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 project authorities should 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.

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- (xii) 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 Bhopal.
- (xiii) The Regional Office of this Ministry located at Bhopal 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.
- (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 Bhopal.
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)

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Copy to:

1. Secretary, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment, Government of Maharashtra, Secretariat, Mumbai.
3. Secretary, Department of Mines and Geology, Government of, Maharashtra, Secretariat, Mumbai.
4. Secretary, Department of Forests, Government of Maharashtra, Secretariat, Mumbai.
5. Chief Wildlife Warden, Government of Maharashtra, Secretariat, Mumbai.
6. Chief Conservator of Forests, Regional Office (WZ), E-3/240, Arera Colony, Bhopal-462 016
7. Chairman, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
8. Chairman, Maharashtra State Pollution Control Board, Kalpataru Point, 3<sup>rd</sup> & 4<sup>th</sup> Floors, Sion Matunga Scheme, Road No. 6, Opp. Cine Planet, Sion circle, Sion (E), Mumbai - 400022
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, Gadchiroli District, Maharashtra.
12. EI Division, Ministry of Environment & Forests, EI Division, New Delhi.
13. Monitoring File.
14. Guard File.
15. Record File.