

No.J-11015/20/2002-IA.II (M)
Government of India
Ministry of Environment & Forests
I A Division

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

Dated the 29th October 2004

To

Shri S. Krishnamurthy B. Ramacharya,
Executive Director (Resource Planning),
National Mineral Development Corporation Ltd.,
Khanij Bhavan,
10-3-331/A, Castle Hills, Masab Tank,
Hyderabad-500 028

Subject:

Kumaraswamy Iron Ore mining project of M/s National Mineral
Development Corporation Ltd. located in Village Deogiri, Tehsil Sandur,
District Bellary, Karnataka - environmental clearance req.

Sir,

This has reference to the Ministry of Steel, Government of India letter number 5(10)/99-RMI dated 21.08.2002 and your letter No. ENV/KUMA/6.6/PT-8/2002 dated 12.08.2002, and subsequent letters dated 07.08.2002, 06.11.2002, 04.03.2003, 14.07.2003, 15.09.2003, 18.09.2003, 22.10.2003, 31.10.2003, 20.05.2004, 21.07.2004 on the subject mentioned above. The Ministry of Environment and Forests has examined the application. It has been noted that the production of the mine has not increased beyond 0.3 MTPA and is within the approved capacity as per the mine plan. The total mine lease area is 647.5 ha out of which 492.33 ha is forestland and remaining area of 155.17 ha is others non-forestland (20 ha is private land + 135.17 ha mineral bearing rocky area). Out of total mining lease area of 647.50 ha, mining area is 150.43 ha, 50.15 ha is kept for OB, 11.83 ha for sub-grade ore storage, 85.95 ha for infrastructure, 71.98 ha green belt and safety zone, 167.63 ha is undisturbed forest area and 109.53 ha area is in between infrastructure. Targeted production capacity of the mine is 7.0 MTPA of Iron ore. No displacement of population from the mine site is involved. No ecologically sensitive area is located within 10 km radius of the mine. Kumaraswamy temple is at a distance of 1.0 km from the core zone. Working is open cast by mechanised method. Blasting is involved. Average water requirement is 15000 m³/day which will be met from Narihalla reservoir. Total waste generation is 20.27 million tonnes and area proposed for waste dumping is 115.4 ha. Total volume of tailing dam is 2.38 mm³ and life is 8 years. Disilting of the tailing for 5 years at a rate of 1 MTPA will create the volume for the slimes generated for the life of the mine. Backfilling of mined out area with solid waste/waste rock material is not involved. Karnataka State Pollution Control Board granted consent to establishment on 08.02.2002. India Bureau of Mines approved mining plan on 18.10.2002. Public hearing for the project was held on 06.08.2001. Capital cost of the project is Rs. 285.01 crores.

2. The Ministry of Environment and Forests hereby accords environmental clearance to the above mentioned Iron ore mining project of M/s National Mineral Development Corporation Limited for an annual production capacity of 7.0 MTPA by opencast method involving lease area of 647.05 ha under the provisions of the

Environmental Impact Assessment Notification, 1994 as amended on 04.05.1994 and 10.04.1997 subject to the strict compliance of the terms and conditions mentioned below:

B. Specific conditions

- (i) No mining should be carried out without the grant of forestry clearance for diversion of 492.33 ha forest area by the Ministry of Environment and Forests.
- (ii) Approval from the competent authority should be obtained for drawl of requisite quantity of water from Narhalla reservoir before starting work on the project.
- (iii) The environmental clearance is subject to outcome of the Court cases pending in the Hon'ble High Court of Karnataka.
- (iv) Top soil should be stacked properly with adequate measures at earmarked sites and used for the development of green belt.
- (v) The OB dumps should be stacked at earmarked dump sites only with proper terracing and over all slope of the dump should not exceed 28°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. 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 and its Regional Office on yearly basis.
- (vi) A greenbelt of adequate width should be raised by planting the native plant species all around the ML area, dumps, roads, tailing dam etc. In consultation with local DFO / Agriculture Department covering total area as proposed in the post mining land use plan. The density of the trees should be around 2500 trees per hectare. A comprehensive progressive green belt development plan for the entire life of the mine alongwith year wise break up should be prepared and submitted to the Ministry, within 3 months.
- (vii) Check dams and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil and mineral dumps. The water so collected should be utilized for watering mine area, roads, green belt development etc. The drains should be regularly desilted and maintained properly.
Garland drain (size, gradient and length) and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall 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.
- (viii) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers at suitable locations by the project proponent in and around project area in consultation with Regional Director, CGWB. The frequency of monitoring should be four times a year, pre-monsoon (April / May), monsoon (August), post-

monsoon (November), and winter (January). Data thus collected should be sent at regular intervals to MoEF and CGWB Southern region.

- (x) Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB.
- (xi) Drills should be operated with dust extractors or should be equipped with water injecting system.
- (xii) A detailed mine decommissioning plan should be submitted to the Ministry of Environment & Forests five years in advance for approval.
- (xiii) Vehicular emission should be kept under control and regularly monitored.
- (xiv) 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.
- (xv) 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.
- (xvi) The project proponent should take all precautionary measures during mining operation for conservation and protection of endangered fauna such as bear, antelope etc. spotted in the study area in consultation with the concerned forest officials. Action plan for conservation of endangered fauna should be prepared and submitted to the Ministry and its Regional Office within 3 months.
- (xvii) 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.

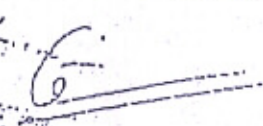
B. General conditions

- (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 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 and experts.
- (iv) At least four ambient air quality monitoring stations should be established in the core zone as well as the buffer zone for RPM , SPM , SO_2 and NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features, and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.

Data on ambient air quality should be regularly submitted to the Ministry including its Regional office at Bangalore and the State Pollution Control Board / Central Pollution Control Board once in six months.

- (v) Fugitive dust emissions from all the sources should be controlled, regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump, trucks (loading & unloading) should be provided and properly maintained.
- (vi) Adequate measures should be taken for control of noise levels within prescribed standards. Workers engaged in blasting and drilling operations, HEMM operation etc. should be provided with ear pluggs/ 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 should be installed before discharge of workshop effluents.
- (viii) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.
- (ix) Personnel working in dusty areas should wear protective respiratory device and they should also be provided with adequate training and information on safety and health aspects.
- (x) Occupational health surveillance program of the workers should be undertaken periodically to observe any contraindications due to exposure to dust and take corrective measures, if needed.
- (xi) 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.
- (xii) The funds earmarked for environmental protection measures should be kept in a separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry.
- (xiii) The Regional Office of this Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should provide a set of filled-in questionnaire and EIA / EMP report to them and extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- (xiv) The project authorities should inform to the Regional Office located at Bangalore as well to the Ministry of Environment and Forests regarding date of financial closure and final approval of the project by the concerned authority and the date of start of land development work.

- (xv) A copy of the clearance letter will be marked to the concerned Panchayat /or NGO, if any, from whom any suggestions/representation has been received while processing the proposal.
- (xvi) The 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 around the project, 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 & Forests <http://envfor.nic.in>.
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.


 (Dr. T. Chandra Jini)
 Additional Director

Copy to:

- (i) Secretary, Ministry of Steel, Government of India, Shastri Bhawan, New Delhi
- (ii) Secretary, Department of Environment and Forests, Government of Karnataka, Vidhana Soudha, Secretariat, Bangalore.
- (iii) Secretary, Mines, SSI & Textiles, Commerce and Industries Department, Government of Karnataka, Secretariat, M.S. Building, Bangalore.
- (iv) Chief Conservator of Forests, Regional Officer (SZ), Ministry of Environment and Forests, Kendriya Sadan, 4th Floor, E&F V/ing, 7th Main Road, 2nd Block, Koramangla, Bangalore-560034.
- (v) Chairman, Central Pollution Control Board, Parvathi Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.

- (v ii) Member Secretary, Central Ground Water Authority, 1103 Ansal Bhavan, K. Marg, New Delhi-110001.
- (v iii) Regional Director, Central ground Water Board, Southern Region, Hyderabad.
- (ix) Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur 440 001. D
- (x) District Collector, Bellary District, Government of Karnataka.
- (xi) EI Division, Ministry of Environment and Forests
- (xii) Monitoring File.
- (xiii) Guard File.
- (xiv) Record File.