

No.J-11015/41/2006-IA.II (M)
Government of India
Ministry of Environment & Forests

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

Dated the 9th January, 2007

To

M/s M.G. Mohanty
2 A, Forest Park,
Bhubheswar-751 009,
Orissa

Subject: Expansion of Patabeda Iron Ore Mining Project of M/s M.G. Mohanty located in Village Patabeda, Tehsil Bonai, District Sundergarh, Orissa -environmental clearance reg.

Sir,

This has reference to your letter No. MGM/HO/05-06/01-330 dated 08.02.2006 and subsequent letter dated 24.10.2006 on the subject mentioned above. It has been noted that the proposal is for grant of environmental clearance under the provisions of EIA Notification, 1994, for enhancement of production of iron ore from 1,44,000 tonnes per annum(TPA) to 1,80,000 TPA as well as renewal of mining lease. The total mine lease area of the project is 19.425 ha, out of which 16.507 ha is forestland and 2.918 ha is wasteland. Area proposed for mining is 14.182 ha, an area 3.049 ha is kept for OB dumps, 0.169 ha for mineral storage, 0.205 ha for infrastructure, 0.48 ha for roads, 1.29 ha for green belt and 0.05 ha is others (magazine). No ecologically sensitive area such as national park/sanctuary/BP etc. is reported to be located within core and buffer zone. Sidhamath Reserve Forest is in the North side. It has been envisaged that the applied area does not form part of national park, wildlife sanctuary, elephant corridor etc. There is one village having no population in the core zone, displacement of population and R&R is not involved. The targeted production capacity of the mine is 1,80,000 tonnes per annum and life of mine is 22 years. Working is opencast by semi-mechanized method involving blasting. Topography of the area is undulated and hilly. Elevation above mean sea level ranges from 650 -725 m .Mining will be carried out from surface of the hill top. Average depth of mining from top of hill will be 25 m. Water table in the area is at 580 mRL. Working will not intersect groundwater. Peak water requirement of the project is 20 m³/day, which will be met from Jurudi Nala and rain water harvested in a pond. Approximately 1802 m³/month of solid waste comprising 2 m³/month of topsoil and 1800 m³/month of OB will be generated. A total of 0.3 Million m³ of OB has already been accumulated and stabilized in the form of external dump. It is estimated that about 0.466 million m³ of OB will be generated during the mine life which will temporarily be stored as external OB dump and will be finally backfilled. The existing OB dump in an area of 0.5 ha in the south east

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corner will remain as it is and is stabilized and balance area of 2.549 ha earmarked for OB dumps will be reclaimed after rehandling the waste. There will be no new external OB dump remained at the end of the mine life. The entire lease area of 18.945 ha will be afforested and there will be no void left at the post mining stage. The State Pollution Control Board, Orissa granted consent to establish to the project on 28.01.2006 for production enhancement of iron ore to 15000 MT/Month involving lease area of 19.425 ha. Public hearing is not applicable as per the old notification as the lease area is less than 25.0 ha. The Indian Bureau of Mines has approved mining plan including progressive mine closure plan on 05.07.2005 for lease area of 19.425 ha. The Capital cost of the project is Rs.200.0 lakhs.

2. The Ministry of Environment and Forests has examined the application in accordance with Section 12 of the EIA Notification, 2006 read with para 1.1 of the circular No.J-11013/41/2006-IA.II(I) dated 13.10.2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned Patabeda Iron Ore Mining Project of M/s M.G Mohanty for annual production capacity of 1,80,000 tonnes (0.18million tonnes) of iron ore by opencast semi-mechanised method involving mining lease area of 19.425 ha subject to implementation of the following conditions and environmental safeguards.

✓ **A. Specific conditions**

- (i) All the conditions stipulated by the State Pollution Control Board in their Consent to establish should be effectively implemented.
- (ii) The environmental clearance is subject to grant of forestry clearance. The project proponent shall obtain necessary forestry clearance under the Forest (Conservation) Act, 1980 for an area of 16.507 ha forestland before starting mining operation in that area.
- (iii) 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.
- (iv) The project proponent shall ensure that no natural watercourse shall be obstructed due to any mining operations.
- (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) The overburden likely to be generated during the mine life shall be temporarily stored as external OB dump and will be finally backfilled. The existing OB dump in an area of 0.5 ha in the south east corner should be scientifically vegetated with suitable native species to prevent erosion and surface run off. The over all slope of the dump shall not

exceed 28°. The balance area of 2.549 ha earmarked for OB dumps shall be reclaimed after rehandling the waste. There will be no new external OB dump created and remained at the end of the mine life. 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 mine working, 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 mine pit, soil, OB and mineral 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 18.945 ha including a green belt of adequate width by planting the native species around ML area, OB dumps, roads etc. in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2000 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 Ministry of Environment and Forests and its regional office, Central Ground Water Authority and Regional Director Central Ground Water Board.

- (xii) Permission from the competent authority should be obtained for drawal of water from Jurudi Nala and also ground water, if any.

- (xiii) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, CGWB.
- (xiv) 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.
- (xv) 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.
- (xvi) Drills shall either be operated with dust extractors or equipped with water injection system.
- (xvii) Consent to operate should be obtained from SPCB prior to start of enhanced production from the mine.
- (xviii) Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and wastewater generated during mining operation.
- (xix) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna if any spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. Copy of action plan may be submitted to the Ministry and its Regional Office within 3 months.
- (xx) 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) 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.

- (iv) Data on ambient air quality (RPM, SPM, SO₂, NO_x) should be regularly submitted to the Ministry including its Regional office located at Bhubneshwar 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. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
- (vi) 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.
- (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) 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 dust and take corrective measures, if needed.

- (ix) 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.
- (x) 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 Bhubneshwar.
- (xi) The project authorities should inform to the Regional Office located at Bhubneshwar 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 Regional Office of this Ministry located at Bhubneshwar 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.
- (xiii) 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.
- (xiv) 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.
- (xv) 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 also 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 Bhubneshwar.

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 made thereunder.


(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 Orissa, Secretariat, Bhubneshwar.

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3. Secretary, Department of Mines and Geology, Government of Orissa, Secretariat, Bhubneshwar.
4. Secretary, Department of Forests, Government of Orissa, Secretariat, Bhubneshwar.
5. Chief Wildlife Warden, Government of Orissa, Bhubneshwar.
6. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
7. Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment and Forests, A-3 Chandrashekharpur, Bhubaneshwar-751023.
8. Chairman, Orissa State Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneshwar-751012.
9. Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
10. District Collector, Sudnergarh District, Government of Orissa.
11. EI Division, Ministry of Environment & Forests, EI Division, New Delhi.
12. Monitoring File.
13. Guard File.
14. Record File.