

No. J-11015/426/2006-IA.II(M)

Government of India

Ministry of Environment & Forests

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

Tel. 2436 0171

E-mail: satish1962@yahoo.com

Dated the 29th January, 2008

To,

M/s Ghanshaym Misra & Sons Pvt. Ltd.

P.O. Gorumahisani,

District Mayurbhanj,

Orisaa -757 042

E-mail: gmspl@mail.com

Subject: Expansion of Gorumahisani Iron Ore Mining Project of M/s Ghanshyam Misra & Sons Pvt. Ltd. located in Village(s) Gorumahisani, Balitangiri, Sanmunda and Kuleisila, Tehsil Rairangpur, District Mayurbhanj, Orissa – Environmental Clearance Regarding.

Sir,

This has reference to your letter No. 'Nil' dated 04.12.2006 and subsequent letters dated 29.08.2007, 17.10.2007 and 22.11.2007 on the subject mentioned above. The proposal is for enhancement of production of iron ore from 1,40,000tonnes per annum(TPA) (0.14million TPA) to 0.75million TPA. The total mine lease area of the project is 349.5 ha, out of which 140.06ha is an agricultural land, 90.5ha is forestland, 93.1ha is Government wasteland and 25.84ha is others (private land). Area proposed for mining is 91.94ha, an area is 10ha is kept for over burden dumps, 20.027ha for mineral storage, 1.01ha for infrastructure, 12.59ha for roads, 22.109ha for green belt, 0.404ha for magazine, 6.029ha for township and 185.391ha is others(area not to be used). The Khaddkai River flows at a distance of 10km. from the mine lease boundary. No ecologically sensitive area such as National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. is reported to be located in the core and buffer zone of the mine and that the area does not form corridor for Schedule-I fauna. There are seven Reserve Forests namely Gorumahisani in South, Kanpat in East, Karida in West North East, Jari in North East, Kuchalburi in South West, Naskania in West and Besaripahari in North East are in the study area. Part of the four villages namely Gorumahisani, Balitangiri, Sanmunda & Kuesila comprising no population are in the core zone, displacement of population and R&R is not involved, therefore, Working will be opencast by semi-mechanized method involving blasting. The targetted production capacity of the mine is

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7,50,000TPA of iron ore and life of the mine will be 12years. Approximately 2500TPD of mineral will be transported through road to a distance of 1.5km. The topography of the area is hilly at an elevation ranging from 480m- 906m AMSL. The present working depth of mine is 580m RL and ultimate working depth of mine will be 315m RL. The groundwater table is at 295m RL. The mine working will not intersect groundwater table. The peak water requirement of the project is estimated as 80m³ per day, which will be met from the public supply. Approximately 41255m³ per month of solid waste comprising 5m³ per month of lateritic soil and 41250m³ per month of over burden (BHQ etc.) will be generated, which will be dumped in the earmarked areas. It is estimated that 59,42,348m³ of waste will be generated during the mine life, out of which 5440884m³ will be backfilled and remaining 501464m³ of waste will be accommodated in the existing dumps. Backfilling will start from the 2nd year onwards. An area of 91.94ha will be reclaimed with plantation and there will be no water body left during the post mining stage. Plantation will be raised in an area of 151.519ha at the end of the mine life. The Consent to Establish obtained from the State Pollution Control Board, Orissa on 27.01.2007 for production enhancement of iron ore from 1.41LTPA to 7.5LTPA involving lease area of 349.5ha. The public hearing of the project was held on 18.10.2006 for production upto 7.5LTPA over an area of 349.5ha. The Indian Bureau of Mines had approved scheme of mining alongwith progressive mine closure plan of the project on 24.09.2007 for lease area of 349.50ha. The Ministry of Environment and Forests granted Forestry clearance for diversion of 81ha forestland on 10.10.2005. The capital cost of the project is Rs.1490Lakhs.

2. The Ministry of Environment and Forests has examined the application in accordance with Section 12 of the EIA Notification, 2006 read with para 1.2 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 Gorumahisani Iron Ore Mining Project of M/s Ghanshaym Misra & Sons Pvt. Ltd. for an annual production capacity of 7,50,000tonnes (0.75million tonnes) of iron ore by opencast semi-mechanized method involving mining lease area of 349.5ha, subject to implementation of the following conditions and environmental safeguards.

A. Specific Conditions

- (i) Necessary forestry clearance under the Forest (Conservation) Act, 1980 shall be obtained from the competent authority for the forestland involved in the project. The environment clearance is subject to grant of forestry clearance to the project.
- (ii) All the conditions stipulated by the State Pollution Control Board, Orissa while granting Consent to Establish to the project shall be effectively implemented.

- (iii) The mining operations shall be restricted to above ground water table and it should not intersect groundwater table. In case of working below ground water table, prior approval of the Ministry of Environment & Forests and Central Ground Water Authority shall be obtained for which a detailed hydro-geological study shall be carried out.
- (iv) The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations.
- (v) The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for a period more than 3years. The topsoil shall be used for land reclamation and plantation.
- (vi) The over burden (OB) shall be stacked at earmarked dump site only and it should not be kept active for long period. Proper terracing of OB dump should be carried out so that the overall slope shall not exceed 28 degree. Backfilling shall start from the second year onwards. The entire backfilled area shall be reclaimed by plantation. The back filling should be carried out in such a manner that it is restored to the normal ground level. The over burden dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the 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 and its Regional Office located at Bhubaneswar 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, over burden 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 of appropriate size, gradient and length shall be constructed for both mine pit and over burden 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 over burden benches within the mine to check run-off and siltation should be based on the rainfall data.

- (ix) Plantation shall be raised in an area of 151.519ha including a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, 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 hectare.
- (x) Regular water sprinkling should be carried out in critical areas prone to air pollution and having high levels of SPM and RPM such as haul road, around crushing and screening plant, loading and unloading point and transfer points. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (xi) 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.
- (xii) Regular monitoring of ground water level and quality should be carried out in and around the mine lease 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, Bhubaneswar, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- (xiii) The project proponent shall obtain prior approval of the competent authorities for drawl of requisite quantity of water (surface and/ or ground) for the project before commencing work on the project.
- (xiv) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, Central Ground Water Board.
- (xv) Minerals handling plant should be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
- (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) 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.
- (xviii) Drills shall either be operated with dust extractors or equipped with water injection system.
- (xix) Consent to operate should be obtained from the State Pollution Control Board prior to start of enhanced production from the mine.
- (xx) Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and wastewater generated during mining operation.
- (xxi) 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 and contribute towards the cost of implementation of the plan and/or Regional Wildlife Management Plan for conservation of flora and fauna so prepared by the State Government. The amount so contributed shall be included in the project cost. A copy of action plan may be submitted to the Ministry and its Regional Office, Bhubaneswar within 3 months.
- (xxii) 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 Bhubaneswar 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 Bhubaneswar.
 - (xi) The project authorities should inform to the Regional Office located at Bhubaneswar 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 this Ministry located at Bhubaneswar 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) The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bhubaneswar, Central Pollution Control Board and State Pollution Control Board.

- (xiv) 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.
- (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 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 Bhubaneswar.
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 and also any other orders passed by any Court of Law relating to the subject matter.



(SATISH C. GARKOTI)
Additional Director (S)

Copy to:

- (i) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- (ii) The Secretary, Department of Environment, Government of Orissa, Secretariat, Bhubaneswar.

- (iii) The Secretary, Department of Mines and Geology, Government of Orissa, Secretariat, Bhubaneswar.
- (iv) The Secretary, Department of Forests, Government of Orissa, Secretariat, Bhubaneswar.
- (v) The Chief Wildlife Warden, Government of Orissa, Bhubaneswar.
- (vi) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
- (vii) The Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment and Forests, A-3 Chandrashekharpur, Bhubaneswar-751023.
- (viii) The Chairman, Orissa State Pollution Control Board, Parivesh Bhawan, A/118 Nilkantha Nagar, Unit-VIII, Bhubaneswar-751012.
- (ix) The Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (x) The District Collector, Mayurbhanj District, Orissa.
- (xi) EI Division, Ministry of Environment & Forests, EI Division, New Delhi.
- (xii) Monitoring File.
- (xiii) Guard File.
- (xiv) Record File.