

No.J-11015/108/2005-1A,II(M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O. Complex, Lodi Road,
New Delhi - 110003.

Dated: 28th July 2006

To
Shri K.B. Trehan,
President,
M/s Monnet Ispat Ltd.,
Mohta Building,
4, Bhikaji Cama Place,
New Delhi - 110066.

Sub: Utkal B-2 Coal Block (2.2 MTPA) of M/s Monnet Ispat Ltd., located in village Golagadia, Tehsil Chhendipada, District Angul, Orissa - Environmental clearance - reg.
Sir,

This has reference to Ministry of Coal's letter No. 43011/14/2003-CPAM dated 19.06.2003 forwarding your application and your letters dated 20.12.2003, 06.05.2004, 16.06.2004, 06.12.2005, and 03.04.2006 on the above-mentioned subject. The Ministry of Environment & Forests has considered your application. It has been noted that the project is for opening a new opencast coal mine Utkal-B2 Coal Block in Talcher Coalfields for captive consumption of the integrated Power Plant and Sponge Iron Plant. The total lease area is 127.952 ha of which 76 ha is agricultural land, 22.529 ha is forestland, 21.676 ha is wasteland, 1.43 ha is surface water bodies, and 6.317 ha is others. There area no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. A number of endangered fauna are found in the forestland within the core zone and buffer zone. Forestry clearance has not been obtained. The nearest water body Singhara Jhor flows adjacent to the ML boundary. The project does not involve modification of the natural drainage. However, an embankment is proposed. Of the total lease area, area for excavation is 94 ha, 0.5 ha is for storage of topsoil, 0.420 ha is for mineral storage, 4.04 ha is for infrastructure, 12.22 ha is for roads, 16.752 ha is for green belt, and 0.02 ha is for Effluent Treatment Plant (ETP). OB would be dumped in an adjacent Block during the first 5 years of operation and thereafter, an area of 125.17 ha, located at a distance of 4 km from the ML is proposed to be acquired, to be used as a site for 3 external OB dumps. Mining will be opencast by mechanised method. The rated capacity of the mine is 2.2 million tonnes per annum (MTPA) of coal production. Mineral transportation of 7100TPD of coal is by road. Ultimate working depth of the mine is 210m below ground level. (bgl). Water table is in the range of 1-2 m bgl during post-monsoon and 7.2 m bgl during pre-monsoon. Mining will intersect water table. Peak water requirement is 160 m³/d, which will be met from groundwater. Of the 8.4 Mm³ of OB generated during the first 5 years, about 7.04 Mm³ of OB would be dumped in an area within the adjoining Block and the remaining 1.36 Mm³ of OB would be utilised for construction of embankment of Singhara Jhor. Thereafter, OB would be dumped in an area of 125.17 ha consisting of 3 external OB dumps of 36.86 Mm³ capacity being established at a distance of 4 km from the mine site. An estimated 35.64 Mm³ of OB to be generated till 18th year would be dumped. During the 19th year, of the 2.5 Mm³ of OB to be generated, an estimated 1.22 Mm³ would be dumped in the external OB dump(s) and the remaining 1.28 Mm³ would be backfilled. Thereafter, from the 19th year, both external dumping for 1.222 Mm³ of OB and backfilling of 1.28 Mm³ of OB will be carried out every year till the balance life of the mine. At the end of mine life, a total of 5.5 Mm³ of OB would be utilised for backfilling the decoaled void, leaving a void of 76 ha which would be converted into a water body. Project involves R&R of 3 villages - Golagadia, Kaunsidhepa and Rajihran. Public Hearing was held on 03.12.2002. NOC has been obtained on 17.03.2003. Life of the mine at the rated capacity is 35 years. The Mining Plan has been approved by the Ministry of Coal on 28.10.2001. The capital cost of the project is Rs. 23,500 lakhs.

Recd. Manash
2/10/06.

Mr. S. Karan
Mr. Manas
Profile
1 Bde
23.10.06

2. The Ministry of Environment & forests hereby accords environmental clearance for the above-mentioned Utkal B-2 Coal Block of M/s Monnet Ispat Ltd., for production of coal of 2.2 MTPA rated capacity under the provisions of the Environmental Impact Assessment Notification, 1994 and subsequent amendments thereto subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) No mining/developmental activity shall be undertaken in forestland without forestry clearance as per provisions of the FC Act, 1980.
- (ii) No mining operation shall begin until the adjacent plot where OB is proposed to be dumped during the first 5 years and thereafter an area of 125.17 ha comprising of 3 external OB dumps to be located at a distance of 4 km from the ML have been acquired and necessary approvals obtained for their use as OB dumps.
- (iii) OB to be stored during the first 5 years of operation in an area adjacent to the ML shall be rehandled and dumped in the 3 external OB dumps to be located at a distance of 4 km from the ML after the OB dump is put in use from the 19th year of mining operation.
- (iv) The 4 km distance of OB dump and the mine lease shall be metal topped.
- (v) Topsoil should be stacked properly with proper slope at earmarked site(s) and should not be kept active and shall be used for reclamation and development of green belt.
- (vi) OB should be stacked at earmarked 3 external OB dumpsite(s) and shall consist of benches of 10 to 15 m each and max. height of 60m. The ultimate slope of the dump shall not exceed 28°. Backfilling shall begin from 19th year of mining operation in the decoaled area. Monitoring and management of existing reclaimed dumpsites 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 Bhubaneshwar on an yearly basis.
- (vii) For stabilisation of OB dumps, geo-textile shall be used in critical areas.
- (viii) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilised for watering the mine area, roads, green belt development, etc. The drains should be regularly desilted and maintained properly.
Garland drains (size, gradient and length) and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provided adequate retention period to allow proper settling of silt material.
- (ix) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.
- (x) An 800m long embankment along Singhara Jhor of adequate height and width and strength shall be constructed considering the peak water flow to prevent mine inundation and to prevent wastes from outfalling into the drainage of the Jhor and shall be at least 6m higher than the HFL. The embankment shall be properly stabilised and developed with plantation for further stabilisation.
- (xi) Crushers at the CHP should be operated with high efficiency bag filters, water sprinkling system should be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.

- (xii) Transportation of OB and coal by trucks which shall be duly covered with tarpaulin. It shall be ensured that there is no overloading of trucks.
- (xiii) Drills should be wet operated only.
- (xiv) Controlled blasting should be practiced with use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.
- (xv) Afforestation/plantation shall be developed within the lease which includes reclaimed external OB dump (125 ha), backfilled area (18 ha), 16.752 ha of green belt, along ML boundary, along roads and area in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha. Avenue plantation of at least 10m width shall be planted on both sides of the roads.
- (xvi) A Progressive Closure Plan shall be implemented by reclamation of quarry area which shall be backfilled from the 19th year onwards and afforested by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha. The remaining 76 ha which is planned to left as void shall be converted into a water reservoir. The upper benches of the reservoir shall be gently sloped, stabilised with plantation and the peripheral fencing developed.
- (xvii) Conservation Plan for endangered species found in and around the project area shall be formulated, in consultation with the State Forest and Wildlife Departments and recognised expert agencies. A fund earmarked separately for the Conservation Plan shall be made with specific provisions for capital and recurring costs for specific conservation measures and shall be submitted to the RO of this ministry at Bhubaneshwar.
- (xviii) The company shall obtain approval of CGWA/CGWB Regional Office for use of groundwater for mining operations.
- (xix) Mine discharge water shall be monitored before discharge into natural courses. In case of presence of heavy metals or acidic, it shall be appropriately treated before discharge to the prescribed standards.
- (xx) Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
- (xxi) The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource. The project authorities should meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- (xxii) Sewage treatment plant should be installed in the colony/township for the project. ETP should also be provided for workshop and CHP wastewater.
- (xxiii) Digital processing of the entire lease area using remote sensing technique should be done regularly once in 3 years for monitoring land use pattern and report submitted to MOEF and its Regional office at Bhubaneshwar.

- 1
- (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.
 - (xxv) R&R of the PAP shall be prepared within 3 months in consultation with the State Government. It shall be ensured that the R&R issues are settled before starting work at mine site.
 - (xxvi) Consent to Operate shall be obtained before starting mining operations.

B. General Conditions

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral coal 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 SPM, RPM, SO₂ 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.
- (iv) Data on ambient air quality (SPM, RPM, SO₂ and NO_x) should be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the State Pollution Control Board and the 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 and unloading) points should be provided and properly maintained.
- (vi) Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc should be provided with ear plugs/muffs.
- (vii) Industrial wastewater (workshop and wastewater 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 before discharge. Oil and grease trap should be installed before discharge of workshop effluents.
- (viii) Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.
- (ix) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.
- (x) 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 programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and to 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 company.

- (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 this Ministry and its Regional Office at Bhubaneswar.
- (xiii) The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.
- (xiv) A copy of the clearance letter shall be marked to concerned Panchayat/ local NGO, if any, from whom any 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 around the project, one of which shall be in the vernacular language of the locality concerned within seven days 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 the website of the ministry of Environment & Forests at <http://envfor.nic.in>.

3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the 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.Chandini)
Additional Director

Copy to:

1. Secretary, Ministry of Coal, Shahstri Bhawan, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Orissa, Secretariat, Bhubaneswar.
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, A/3 Chandrashekarapur, Bhubaneswar – 751023
4. Chairman, Orissa State Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneswar – 751012.
5. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road
7. District Collector, Angul, Government of Orissa, New Delhi.
8. Monitoring File 9. Guard File 10. Record File