

No. J-11015/244/2009-IA.II(M)
Government of India
Ministry of Environment & Forests

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

Dated the 25th July, 2013

To

Shri Padam Kumar Jain
Gandhitola, Chaibasa,
West Singhbhum,
Jharkhand-833 201

Subject: Expansion of Thakurani Iron Ore Mining Project of Shri Padam Kumar Jain, located in Village(s) Noamundi and Barajamda, Tehsil Noamundi, District Singhbhum(W), Jharkhand - environmental clearance regarding.

Sir,

This has reference to your letter No. PK/134/2011 dated 14.10.2011 and subsequent letters dated 03.12.2011 on the subject mentioned above. The proposal was prescribed ToR on 20.10.2009. The proponent submitted the EIA/EMP and public hearing documents which was considered by EAC in its meeting held during 23-25 May 2012 wherein the Committee sought additional information. On submission of the information, the proposal was re-considered in EAC meeting held on 25-27th July 2012. The Committee recommended the proposal for Environmental Clearance. As this is an expansion proposal the certified report of the status of compliance from RO Bhubaneswar was sought which was received on 02.04.2013. As per the Guideline of FC division dated 01.02.2013, environmental clearance can be accorded in non-forest area and forest area where FC has been granted. As the project proponent did not have a valid FC, therefore modified mine plan for non-forest area was sought. A modified mine plan approved by IBM vide letter No. 314(3)/2013-MCCM/MP-31 dated 12.07.2013 has been submitted.

2. The initial proposal is for enhancement of production of iron ore from 1.3 million tonnes per annum (TPA) to 3.0 million TPA ROM. The total mine lease area of the project is 84.68ha, out of which 65.68ha is forestland and 19ha is others (Raiti & Parti land). Area proposed for mining is 62.18 ha, as area of 6.74 ha is kept for over burden dump, 2.16ha for mineral storage, 1.17 for infrastructure, 1.25 ha for road, 0.84 ha for screening plant, 0.13ha for township area and 10.21 ha for Green belt.

3. The mine lease area is 84.68 ha out of which 65.68 ha is forest land and 19.00ha is non-forest land. The co-ordinates of the lease area are

22°08'16"-22°09'02" N and 85°27'39"-85°28'21"E. Forest clearance for 32.94ha has been granted to the project. The Kande nallah is flowing at a distance of 250 m from the mine lease. In addition, Betlata nallah and Karo River are flowing in the buffer zone of the mine at a distance of 1.25 km N and 9.2km WNW respectively from the mine lease boundary. No national park/wildlife sanctuary/biosphere reserve etc. is reported to be located in the core and buffer zone of the mine. The Elephant Reserve is reported in the lease area.

4. The mine working will be opencast by mechanized method involving drilling and blasting. As per modified mine plan the targeted production capacity of the mine will be 1.2 million TPA (ROM) and anticipated life of mine is 8.44 years for 19 ha of non-forest land. The mined out material will be transported through road. The topography of the area is undulated and hilly at an elevation above mean sea level ranging from 504m to 605 m. The ground water table in the core zone varies from 415m AMSL to 430m AMSL during pre-monsoon and post monsoon. The mine working will not intersect ground water table. The peak water requirement of the project is estimated as 150 m³ per day, which will be sourced from the Kande Nallah. There is no population in the core zone, therefore, displacement of population and R&R is not involved. Approximately 2098980 m³ of OB has already been accumulated and another 400118 m³ of OB is proposed to be generated during the entire life of the mine from 19 ha non-forest area. Out of 2098980 m³ of already accumulated OB, 1124000 m³ has already been disposed off in the form of dump-IA, 974980 m³ as dump IB has been backfilled in the old mined out areas. The Jharkhand State Pollution Control Board granted NOC to the project on 25.03.2011 for production of 3.0 million TPA of iron ore involving mining lease area of 84.68ha. The public hearing of the project was held on 15.09.2010. The Indian Bureau of Mines had approved mining plan along with progressive mine closure plan of the project on 03.02.2012 for lease area of 84.68 ha. A modified mine plan has been approved by IBM vide letter No. 314(3)/2013-MCCM/MP-31 dated 12.07.2013. The capital cost of the project is Rs. 7500 Lakhs and the capital cost for environmental protection measures is proposed as Rs.113.35 Lakhs. The annual recurring cost towards environmental protection measures is proposed as Rs.70.35Lakhs.

5. It has been noted that the mine has enhanced its production without obtaining requisite prior environmental clearance. The prosecution report has been filed in the Court of Chief Judicial Magistrate, Chaibasa on 25.04.2012 vide Case No. C/7 116 of 2012 to take cognizance of offence by the said court under section 15 of Environment (Protection) Act, which has been committed by the offending project and the affidavit stating that such violations of Environment (protection) Act, 1986 will not be repeated in the future on 06.03.2013, the same have been taken on record.

6. The Ministry of Environment and Forests has examined the application in accordance with the EIA Notification, 2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned of Iron ore mining of Thakurani Iron Ore Mining Project of Shri

Padam Kumar Jain for an annual production capacity of 1.2 million tonnes (ROM) of iron ore for 19.00 ha non-forest area (i.e. 84.68 ha total Mine Lease - 65.68 ha forest land) of lease area subject to implementation of the following conditions and environmental safeguards.

A. Specific Conditions

- (i) No mining activities will be allowed in forest area for which the Forest Clearance is not available.
- (ii) The project proponent will seek and obtain approval under the FC Act, 1980 for diversion of the entire forest land located within the mining lease within a period of two years from the two years from 01.02.2013 i.e. the date of issue of guidelines by FC vide their letter F. No. 11-362/ 2012-FC, failing which the mining lease area will be reduced to the non forest area plus the forest area for which the project proponent has been able to obtain the FC at the end of this time period. In the case of reduction in mine lease area, the project proponent will need to get a revised mining plan approved from the competent authority for reduced area and enter into a new mining lease as per reduced lease area. The EC will be construed to be available for the mining lease area as per the revised mining lease deed.
- (iii) Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project.
- (iv) All the conditions stipulated by the Jharkhand State Pollution Control Board in their NOC shall be effectively implemented.
- (v) 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 and Forests and Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.
- (vi) The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. The Kande nallah shall be left undisturbed and protected.
- (vii) The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.
- (viii) The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time there shall be two external OB dumps at the end of the mine life in an area of 6.74ha. The maximum height

of the dumps shall not exceed 20-25m in four terraces of 10m each and the overall slope of the dumps shall be maintained to 28°. The OB dumps should 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 dump. The entire excavated area of 62.18ha out of which 18.43ha shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Bhubaneswar on six monthly basis.

- (ix) Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the Kande nallah, Betlata nallah and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.

Garland drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the Kande nallah, Betlata nallah and other water bodies 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 shall be constructed at the corners of the garland drains and desilted at regular intervals.

- (x) Dimension of the retaining wall at the toe of over burden dumps and OB benches within the mine to check run-off and siltation shall be based on the rain fall data.
- (xi) Plantation shall be raised in an area of 62.93ha including a 7.5m wide green belt in the safety zone around the mining lease, over burden dumps, backfilled and reclaimed area, mine benches, around screening 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.
- (xii) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RSPM such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

- (xiii) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintained.
- (xiv) Regular monitoring of water quality upstream and downstream of Kande nallah and Betlata nallah shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment and Forests, its Regional Office, Bhubneswar, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.
- (xv) 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.
- (xvi) Regular monitoring of ground water level and quality shall 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 shall 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.
- (xvii) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water for the project. Ground water shall not be used for the mining operations.
- (xviii) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, Central Ground Water Board.
- (xix) Vehicular emissions shall 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 mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded.
- (xx) Blasting operation shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
- (xxi) Drills shall either be operated with dust extractors or equipped with water injection system.

- (xxii) Mineral handling plant shall 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.
- (xxiii) Consent to operate shall be obtained from State Pollution Control Board prior to start of enhanced production from the mine.
- (xxiv) Sewage treatment plant shall be installed for the colony. ETP shall also be provided for workshop and wastewater generated during mining operation.
- (xxv) Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- (xxvi) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely leopard, elephant etc. 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. All the safeguard measures brought out in the Wildlife Conservation Plan so prepared specific to the project site shall be effectively implemented. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional Office, Bhubaneswar.
- (xxvii) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xxviii) A Final Mine Closure Plan along with details of Corpus Fund shall 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 RSPM, 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 (RSPM, 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.
- (ix) 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.
- (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 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.
- (xii) 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.
- (xiii) 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.

- (xiv) 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.
- (xv) 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.
- (xvi) 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.
- (xvii) 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.
- (xviii) 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.

7. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

8. 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.

9. 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 there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Jharkhand and any other Court of Law relating to the subject matter.

10. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

(Dr. Saroj)
Director

Copy to:

- (i) The Secretary, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
- (ii) The Secretary, Department of Environment, Government of Jharkhand, Secretariat, Ranchi.
- (iii) The Secretary, Department of Mines, Government of Jharkhand, Secretariat, Ranchi.
- (iv) The Chief Wildlife Warden, Government of Jharkhand, Secretariat, Ranchi.
- (v) The Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office (EZ), A/3, Chandra Shekar, Bhubneshwar-751 023.
- (vi) The Chairman, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
- (vii) The Chairman, Jharkhand State Pollution Control Board, T.A. Division Building (Ground Floor), HEC Campus , P.O. Dhurwa, Ranchi – 834004, Jharkhand.
- (viii) The Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (ix) The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- (x) The District Collector, West Singhbhum District, Jharkhand.
- (xi) Guard File.

(Dr. Saroj)
Director