



## STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, (SEIAA), ORISSA.

(Constituted vide order No. S.O. 2674 (E) Date 17<sup>th</sup> Nov. 2008 of Ministry of Environment & Forest, Govt. of India, Under Environment Protection Act, 1986.) Qr. No. 5RF-2/1, Unit-IX, Bhubaneswar-751022  
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Ref. No. \_\_\_\_\_

Dt. \_\_\_\_\_

From

Bhagirathi Behera, IFS  
Director, Environment-cum-  
Spl. Secy. to Government  
Forest & Env. Deptt.  
& Member Secretary, SEIAA

To

Sri D.R Pattnaik Mine Owner  
A-6, Commercial Estates  
Civil Township  
Rourkela-769004 (Orissa)

Sub: Environmental Clearance for expansion of production at Murgabeda iron ore mine in the district of Keonjhar of Sri D.R Pattnaik.

Sir,

This has reference to letter dated nil and subsequent letter MIOM/MOEF/2008/01 dated 05.05.2008, 24.07.09, dated 03.08.2009, no MIM/MOEF/EC/2009/03 dated 08.10.09, 10.09.2009, 17.03.10, 05.05.2010 along with application of Terms of Reference (ToR) for grant of E.C and the ToR issued by MOEF, Govt. of India, no J-11015/233/2007-IA.II(M) dated 15.10.2007 and no dated 25.11.2008 on the above mentioned subject, I am directed to say that the State EIA Authority, Orissa has considered the application on the proposal for Murgabeda iron ore mining project at Murgabeda Dist- Keonjhar. The proposal is for production of iron ore from 0.12 MTPA to 2.0 MTPA. The TOR for this project were prescribed on dated 25.11.08 by the Expert Appraisal Committee of MOEF, Govt. of India. The lease area is 15.378 ha. which includes 10.481 ha. reserve forest, 0.02 ha. village forest and 4.877 ha. non forest revenue land. The Murgabeda Iron ore Mine over 15.378 ha. was granted in favour of Sri N. Patnaik and latter it was transferred to the present lessee Sri D.R Pattnaik. The lease deed for this mine was first executed for a period of 30 years with effect from 03.07.1976. The tenure of the lease expired on 02.07.06. Again the renewal application has been submitted on 24.05.05 for a period of 20 years. The mine has applied for forest clearance. The mine obtained temporary work permission which is valid till 17.04.10 mining plan is approved for the production quantity applied for Environmental Clearance. The public hearing was conducted on 29.06.09. No National Park / Sanctuary is located within 10 KM of the mine lease area. Mine working will be opencast and mechanized involving drilling and blasting. Water requirement for the project is estimated to be 75 m<sup>3</sup> /day. The source is ground water. The mine working will not intersect ground water table. Waste generation will be 1.1 lakh m<sup>3</sup> during plan period. The mine has year marked 1.3 ha. as OB dump area (plan period). The

mine has proposed garland drain, check dams and retaining wall to prevent wash out of loose material from dump area.

Based on the information, documents and clarifications provided, the State EIA Authority here by accords for grant of Environmental Clearance in favour of the project for a period of 5 (five) years under the provisions of the Environment impact Assessment Notification, 2006, Notification, 2009 and subsequent amendment there to under various MOEF circulars there under and subject to the following stipulated conditions.

**2. This Environment Clearance is subject to the grant / approval / sanction of mining lease by the competent Authority as required under law. The Environment Clearance will stand automatically cancelled if mining lease is not sanctioned or is cancelled.**

**Stipulated Conditions:-**

- i) The applicant (Project proponent) will take necessary measures for prevention, control and mitigation of Air pollution, Water pollution, Noise pollution and land pollution including solid waste management as mentioned by him in Form-1, Final EIA reports and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.
- ii) The applicant will take necessary steps for socio-economic development of the people of the area on need based assessment for providing employment, education, health care, drinking water and sanitation, road and communication facilities. After a detail primary socio-economic survey in core zone and buffer zone.
- iii) The applicant will comply to the points, concerns and issue raised by the people during public hearing on 29.06.09 in accordance with the commitments made by him thereon.
- iv) The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.
- v) For post environmental clearance monitoring, the applicant will submit half-yearly compliance report in respect of the stipulated terms and conditions of Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Orissa on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year.
- vi) The core zone should be monitored intensively with no of stations as prescribed by CPCB, Delhi and unit of pollutant level should be expressed as NAAQ of CPCB, Delhi. The detail methodology adopted for analysis of samples shall be clearly indicated.
- vii) The proponent shall submit ground tooting baseline data on flora & fauna and CSR activities already carried out within three months to the SEIAA.
- viii) Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
- ix) Zero waste mining concept shall be implemented either by putting up pelletisation plant or dispose of low grade ores/fines to prospective buyers.
- x) The following shall be implemented viz. (a) dump run off should be diverted into setting ponds (b) adequate rain water harvesting and ground water recharging facilities should be developed in the core zone. (c) attempt should be made to achieve zero water balance.

- xi) Maintenance of roads through which transportation of ores are undertaken shall be carried out by the project proponent regularly at its own cost.
- xii) Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records shall be submitted to the SEIAA, Orissa.
- xiii) Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore/ dust takes place.
- xiv) Rain water harvesting shall be undertaken to recharge the ground water source.
- xv) Monitoring of ground and surface water quality shall be regularly conducted and records should be maintained and data shall be submitted regularly to the SEIAA, Orissa.
- xvi) The proponent shall ensure that no silt originating due to mining activity is transported in the surface water course. Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geo textile matting or other suitable material, and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.
- xvii) Trenches / garland drains shall be constructed at foot of dumps to arrest silt from being carried to water bodies adequate number of check dams shall be constructed across seasonal /perennial Nallahs (if any) flowing through the ML area and silts be arrested. De-silting at regular intervals shall be carried out.
- xviii) Provision shall be made for the housing of the labourers 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.
- xix) Occupational health and safety measures for the workers including identification of work related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The proponent shall engage a full time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Hourness programme for workers on impact of mining on their health and precautionary measures like use of personal equipments etc. shall be carried out periodically, Review of impact of various health measures undertaken (at interval of five years or less) shall be conducted followed by follow of action where ever required. Occupational health centre shall be established near the mine site itself.
- xx) Shelter belt that is wind break of 15 AM width and consisting of at least five tiers around lease facing the human habitation, school / agricultural fields etc. (if any in the vicinity), in the safety zone /back-field and reclaimed areas, around voids and roads shall be raised. Green belt development and selection of plant species shall be as per CPCB guidelines. Density of the trees has to be around 25000 plants per hectore. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. Help and guidance of local DFO may be sought in the matter. Details of year wise afforestation programme including rehabilitation of mine out area shall be submitted to the SEIAA, Orissa within six months.

- xxi) This Environmental Clearance is subject to Forest Clearance under the Forest (conservation) Act, 1980.
- xxii) The mining operations shall be restricted to above ground water table and it should not intersect the ground water table.
- xxiii) The topsoil shall temporarily be stored at earmarked site (s) only and it should not be kept unutilized for long (not more than 3 years). The topsoil shall be used for land reclamation and plantation.
- xxiv) The over burden (OB) generated during the mining operation shall be stacked at year marked dump site (S) only and it should not be kept active for a long period of time and its phase-wise stabilization shall be carried out. Proper terracing of OB dump shall be carried out so that the over all slope shall not exceed 28<sup>o</sup> backfilling shall be done as per approved mining plan. Back-filling to start from 3<sup>rd</sup> year onwards of the mining operation and the entire quantity of waste generated shall be back-filled and liquidated within five years. There shall be no external over burden dumps after the 6<sup>th</sup> year of the mining operation the back field area shall be afforested. Back-filling has to be done in a manner that it is restored to the normal ground level. Monitoring and management of rehabilitated areas should continue till the vegetation is established & becomes self-generating. Compliance status to be reported to the appropriate authorities.
- xxv) The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes. Year-wise expenditure for this fund should be reported to the SEIAA, Orissa.
- xxvi) The critical parameters such as SPM, RSPM, NOX in the ambient air within the Impact zone, peak particle velocity at 300 m distance or within the nearest habitation, which ever is closure shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS,DO,PH and total suspended solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the company in public domain. The circular No. J-20012/1/2006-1A.II (M) dated 27.05.2009 issued by Ministry of Environment and Forest, which is available on the website of the Ministry [www.envfor.nic.in](http://www.envfor.nic.in) shall also be refereed in this regard for its compliance.
- xxvii) A final mine closure plan along with details of Corpus Fund shall be submitted to the SEIAA 5 years in advance of final mine closure for approval.
- xxviii) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) required for the project.
- xxix) The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this environmental clearance and attract action under the provisions of Environment Protection (EP) Act, 1986.

**Member Secretary**

**Memo No.** \_\_\_\_\_**Dt.** \_\_\_\_\_

Copy to:

1. Ministry of Environment & Forests Govt. of India, Paryavaran Bhawan, C.G.O. Complex, Lodhi Road, New Delhi-110003 for kind information.
2. Principal Secretary to Govt., Forests & Environment Dept. for kind information.
3. Chairman, State Pollution Control Board, Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-8, BBSR for kind information.
4. Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment & Forests, A-31, Chandra Sekharpur, Bhubaneswar for kind information.
5. Chairman, Central Pollution Control Board, CBD-cum-office Complex, East Arjun Nagar, New Delhi, 110032 for kind information.
6. The Collector, Dist- Keonjhar, for kind information and necessary action.
7. Copy forwarded to the Chairman/ Member Secy./Member, SEIAA for kind information.
8. Chairman SEAC/Secretary SEAC, Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar for kind information.
9. Guard file for records.

**Member Secretary**