



## 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  
[E-mail-seiaaorissa@gmail.com](mailto:E-mail-seiaaorissa@gmail.com), Website - [www.orissaseiaa.gov.in](http://www.orissaseiaa.gov.in)

Ref. No. \_\_\_\_\_

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

To

Sri R.L. Mohanty  
Director, M.G.M. Minerals  
5,A Forest Park, BBSR-751009

Sub: Environmental Clearance for enhancement of production of iron ore from 0.16 MTPA to 0.8 MTPA at Patabeda, Dist. Sundergarh.

Sir,

This has reference to your letter no. MGMM/Co/2008-09/02-417 dated 9.02.2009, no. nil dated 27.10.09 and no.MGMM/Co/2009-10/11-254 dated 30, Nov, 09 along with the application for Terms of Reference (TOR) for Environmental Clearance on the above mentioned subject, I am directed to say that the SEIAA considered the application on the proposal for enhancement of production of iron ore from 0.16 MTPA to 0.8 MTPA. The TOR for this project were prescribed on Dt.21.05.2008 by the Expert Appraisal Committee of MoEF, Govt. of India. The mine lease area is 28.397 hectare. Out of which 27.086 ha is DLC forest land and 1.311 ha is non forest land. The mine has obtained forest clearance for 23.581 ha and 3.505 ha is included in safety zone. The mining lease was first executed for 20 years with effect from 8<sup>th</sup> June 2006. Mining plan is approved for the production quantity of 0.8 MTPA. The public hearing was conducted on 22<sup>nd</sup> October 2008. No national Park/Sanctuary is located within 10 km of the mine lease. Mine working will be opencast mechanized involving drilling and blasting. Water requirement for the project is estimated as 100 m<sup>3</sup>/day. Out of which 30 m<sup>3</sup>/day is from ground water source and 70 m<sup>3</sup>/day is from surface water source. The mine has obtained permission for drawl of 30 m<sup>3</sup>/day ground water from CGWA. The groundwater table is at 580m AMSL. The ultimate working depth will be 643m AMSL. The mine working will not intersect groundwater table. Waste generation will be 332475m<sup>3</sup> during plan period. The mine has earmarked 2.76 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. Dump slope will be stabilized by putting vegetation. The issue raised during public hearing were also presented and discussed during the meeting.

Based on the information, documents and clarifications provided by you, the SEIAA hereby accords Environmental Clearance in favour of the project for a period of 5 years for enhancement of production of iron ore from 0.16 MTPA to 0.8 MTPA at Patabeda, dist: Sundergarh under the provisions of the Environmental Impact Assessment Notification, 2006 & subsequent amendments thereto under various MOEF circulars there under and subject to the following stipulated conditions.

Stipulated Conditions:

- i) 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 after a detailed primary Socio-Economic Survey of the people of the core area on need based assessment for providing employment, education, health care, drinking water and sanitation road and communication facilities etc. A report is to be submitted by the proponent to SEIAA on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year.
- iii) The applicant will comply to the points. Concerns and issues raised by the people during public hearing on 22<sup>nd</sup> October, 2008, 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, Orissa after a detail Socio-Economic Survey.
- viii) No two pits shall be simultaneously worked. After exhausting the first mine pit and before starting mining operations in the next pit, reclamation and plantation works in the exhausted pit shall be completed so as to ensure that reclamation, forest cover and vegetation should be visible during the first year of mining operations in the next pit. This process will follow till the last pit is exhausted. Adequate rehabilitation of mined pit shall be completed before any new ore body is worked.
- ix) Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
- x) Zero waste mining concept shall be implemented either by putting up pelletisation plant or disposal of low grade ores/ fines to prospective buyers.
- xi) The following shall be implemented viz. (a) dump run-off should be directed into setting ponds until it is clear (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.
- xii) Maintenance of roads through which transportation of ores are undertaken shall be carried out by the project proponent regularly at its own cost.
- xiii) 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.
- xiv) 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.
- xv) Rain water harvesting shall be undertaken to recharge the ground water source.
- xvi) 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.

- xvii) 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 geotextile 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.
- xviii) 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. Desilting at regular intervals shall be carried out.
- xix) Provision shall be made for the housing the laborers 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.
- xx) A detail Socio Economic study is to be carried out in core zone & then 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. Awareness 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 up action wherever required. Occupational Health Centre shall be established near the mine site itself. A half yearly report to be given to SEIAA (1<sup>st</sup> December & 1<sup>st</sup> June every year)
- xxi) Shelter belt i.e. Wind Break of 15 m width and consisting of at least 5 tires around the lease facing the human habitation, school/ agricultural fields etc. (If any in the vicinity), in the safety zone/ back-filled & reclaimed areas, around voids & 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 2500 plants per hectare. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. Help & guidance of local DFO may be sought in the matter. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the SEIAA, Orissa within six months.
- xxii) This Environmental clearance is subject to Forest clearance under the Forest (Conservation) Act, 1980.
- xxiii) The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table.
- xxiv) The top soil 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.
- xxv) The over burden (OB) generated during the mining operation shall be stacked at earmarked 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 overall 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 & the entire quantity of waste generated shall be backfilled & liquidated within five years. There shall be no external over-burden dumps after the 6<sup>th</sup> year of the mining operation. The backfilled area shall be afforested. Back-filling has to be done in a manner that it is restored to the normal ground level. Monitoring & management of rehabilitated area should continue till the

verification is established and becomes self generating. Compliance status to be reported to the appropriate authorities.

- xxvi) 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.
- xxvii) 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.

Bhagirathi Behera, IFS  
Member Secretary, SEIAA

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, Chandrasekharpur, Bhubaneswar for kind information.
5. Chairman, Central Pollution Control Board, CBD-cum-office Complex, East Arjun Nagar, New Delhi, 110032 for kind information.
6. Collector, Keonjhar for information and necessary action.
7. 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, SEIAA