



**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, Website - www.orissaseiaa.gov.in

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

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

**SEIAA – 96/10**

From

Bhagirathi Behera, IFS  
Director, Environment-cum-  
Spl. Secretary to Government  
& Member Secretary, SEIAA, Orissa

To

M/s AXL Exploration Pvt. Ltd.  
HIG-17, BDA Colony Jaydev Vihar,  
Bhubaneswar-751013

Sub: Proposal for Environmental Clearance for production of 1,00,000 TPA of manganese ore over an area 40.469 ha. At Bhutuda manganese ore mines in Sundargarh district of M/s AXL Exploration Pvt. Ltd.

Sir,

This has reference to your letter no. nil dated 01.10.2008 and subsequent letters dated 15.01.2009, 29.06.2010, 05.10.2010 and 05.01.2011 on the above mentioned subject I am directed to say that the State Environment Impact Assessment Authority, Orissa has considered the application on the proposal is for production of 1 lakh TPA of manganese ore over an area 40.226 ha. at Bhutuda manganese ore mines in Sundargarh district of M/s. AXL Exploration Pvt. Ltd. The Bhutuda Manganese ore mine is an existing mine over 40.226 ha. of M/s AXL Exploration Ltd. is in the village Bhutuda, Koira Tehsil, Sundargarh district of Orissa. The mining started in 1984. The mine lease of 40.469 was granted in favour of T.P Minerals Ltd, renewal application filed on 11.07.2003 & subsequently transferred to AXL Exploration (P) Ltd. As per the recent ROR the lease area revised to 99.40 acres, since then all the purpose of now the ML area will be 99.40 acres or 40.226 ha during 1996, the total lease area was considered as DLC forest land, out of which only 16.37 ha. has been utilized for earlier mining activities. Forest clearance proposal is under process. Modification of mining plan with mine closure plan was approved on 25.03.09. Mine working will be opencast semi-mechanized involving drilling and blasting. Water requirement is 50 KLD and source will be ground water. Mine has obtained clearance from CGWA for drawal of water vide letter No. 30.10.09. The drainage is towards Kuradhi River is the nearest water body and all natural drainage is connected to it. The Life of the mine will be 21 years. The ToR has been issued by SEIAA vide Letter No. 01 dated 07.07.2009. The public hearing was conducted on 08.07.2010. Representative of M/s Geomin Consultants, Bhubaneswar made a presentation for the Environmental Clearance for production 1 Lakh TPA of Manganese Ore.

Based on the information /documents and clarifications provided by you and on recommendation of the SEAC, Orissa the State EIA Authority, Orissa hereby accords environmental clearance in favour of the project for a period of 5(five) years under the provisions of the Environment Impact Assessment Notification, 2006 and 2009 and subsequent amendment thereto and under various MoEF, Government of India circulars thereunder and subject to the following stipulated conditions.

**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 etc.
- iii) The applicant will comply to the points, concerns and issues raised by the people during public hearing on 08.07.2010 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 Environment 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 detailed methodology adopted for analysis of samples shall be clearly indicated.
- vii) The proponent shall submit 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 by dispose of low grade ores/ fines to prospective buyers.
- x) The following shall 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) Maintenances 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) Mineral handling area 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.
  - xiv) Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage or 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 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.
  - xviii) Trenches / garlands 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.
  - xix) Provisions 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.
  - xx) 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.
  - xxi) Shelter belt i.e. wind break of 15 m width and consisting of at least 5 tiers around 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 plan 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. Helps & 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 sites (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. Backfilling has to be done in a manner that it is restored to the normal ground level. Monitoring & management of rehabilitated areas should continue till the vegetation is established & 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 critically parameters in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closer 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-IA.II (M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry [www.envfor.nic.in](http://www.envfor.nic.in) shall also be referred in this regard for its compliance.
  - xxviii) 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.
  - xxix) 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.
  - xxx) The project proponent shall prepare wild life conservation plan in consultation with DFO and adequate safety and mitigation measures should be incorporated to protect the wild life, flora, fauna to mitigate adverse impact.
  - xxxi) 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.

- 2. This Environmental 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.**

**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. Orissa for kind information.
3. Chairman, State Pollution Control Board, Paribesh 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, Government of India, 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 District Collector & Magistrate, Sundargarh for kind information and necessary action.
7. Copy forwarded to the Chairman/ Member Secy. / Member, SEIAA for kind information.
8. Chairman, SEAC/Secretary, SEAC, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar for kind information.
9. Guard file for records.

**Member Secretary**