



## 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

M/s Orissa Manganese and Minerals Pvt. Ltd.  
Lansdowne Towers, 6<sup>th</sup> floor, 2/1 A,  
Sarat Bose Road, Kolkata-700020

Sub: Environmental Clearance in favour of M/s Orissa Manganese & Minerals Pvt. Ltd. of Kusumdihi Manganese ore mine at Kusumdihi district Sundargarh.

Sir,

This has reference to your letter no OMM/ENV/Clearance-2/2007 dated 12.06.2007 and subsequent letter no OMM/BBS/2122/2009 dated 29.08.09 and no. OMM/BBS/2306/2010 dated 05.04.10 along with application for Terms of Reference (TOR) for Environmental Clearance on the above mentioned subject; I am directed to say that the State EIA Authority considered the application on the proposal Kusumdihi Manganese ore mine at Kusumdihi district Sundargarh. The proponent made a presentation on the proposal for consideration of the SEAC. The proposal is for obtaining environmental clearance with respect to the renewal of mining lease and enhancement of production of manganese ore from 2000 TPA to 17,376 TPA. The TOR for this project were prescribed on dt. 25.01.08 by the EAC of MoEF, Govt. of India. The mine lease area is 31.549 ha. Life of the mine is 11 years. Working will be opencast semi-mechanised involving drilling and blasting. The Kusumdihi Manganese Mining Lease of M/s. OMMPL was originally managed by M/s. Young & Company during 1939. Subsequently M/s. Young & company transferred the lease to the Central Province Manganese Ore Limited to operate the said leases up to 1955. Subsequently the mining lease area have been transferred in favour of M/s. Orissa Manganese & Minerals Pvt. Ltd. On 25.08.1955. the first renewal for the said mines

was granted in favour of M/s. Orissa Manganese & Minerals Private Limited for a period of 20 years from 1.1.1960 to 31.12.1979 over an area of 31.549 hectares. The deed in respect to first renewal had been executed on 13.5.1969. The second renewal for the above Mining Lease was granted for a further period of 20 years from 1.1.1980 to 31.12.1999. The Lease Deed for 2<sup>nd</sup> renewal was executed on 1.1.1981. The third renewal application has been filed to the State Govt. on 21.12.1998 subsequently the Mining Plan prepared under Rule 24(A) of MCR 1960, Amendment 1987 and approved by IBM. The mine is now enjoying deemed renewal as per Rule 24(A) of MCR 1960. The water requirement is 11.5 KLD, which will be met from dug well and nearby nallah. The maximum working depth will be 15 m from 642 m AMSL and groundwater table is 30m from 585m AMSL. Working will not interest groundwater table. The public hearing was conducted on 18.06.08. No National Park/Sanctuary is located within 10km of the mine lease. The issues raised during public hearing were also presented and discussed during the meeting. The public hearing was conducted on 18.06.08. No National Park/Sanctuary is located within 10 km of the mine lease. The proposal was placed in the Committee during 19<sup>th</sup> & 20<sup>th</sup> October, 2009. Compliance to the clarifications sought were received and discussed.

Based on the information, documents and clarifications provided by you, the SEIAA here by accords for Final grant of Environmental Clearance in favour of the project for a period of 5 (five) years for enhancement of production of manganese ore from 2000 TPA to 17376 TPA at Kusumdihi district Sundargrh under the provisions of the Environmental Impact Assessment Notification, 2006, Notification, 2009 and subsequent amendments there to under various MOEF, circulars their 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:-**

1. 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.
2. The mine shall obtain forest clearance from the concerned authority.
3. 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. after a detailed primary socio-economic survey.
4. The applicant will comply to the points, concerns and issues raised by the people during public hearing on 18.06.08 in accordance with the commitments made by him thereon.
5. The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.

6. 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.
7. 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.
8. The proponent shall submit ground tooting baseline data on flora & fauna and CSR activities already carried out within three months to the SEIAA.
9. Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
10. 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.
11. Maintenance of roads through which transportation of ores are undertaken shall be carried out by the project proponent regularly at its own cost.
12. 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.
13. 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.
14. Rain water harvesting shall be undertaken to recharge the ground water source.
15. 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.
16. 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.
17. 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.
18. Provision shall be made for the housing of 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.
19. 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 Center shall established near the mine site itself.

20. 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 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.
21. The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table.
22. 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.
23. 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° 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 areas should continue till the vegetation is established & becomes self-generating. Compliance status to be reported to the appropriate authorities.
24. 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.
25. The critical parameters such as SPM, RSPM, NOX in the ambient air within the impact zone, peak particle velocity at 300m 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.

26. 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.
27. The parent company has apparently signed an MOU with M/s. IPICOL for water drawal permission. IPICOL is processing their water drawing clearance, which is not finalized yet. However, the environmental clearance will be subject to clearance from the competent authorities.
28. 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- 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, Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar for kind information.
9. Guard file for records.

**Member Secretary**