



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

(Constituted vide order No. S.O. 2674 (E) Date 17th 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. _____

From

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

To

M/s Utkal Manufacturing & Services Ltd.
Kalinga Bazar, Choudwar, Cuttack

Sub: Environmental Clearance in favour of M/s Utkal Manufacturing & Services Ltd. for Karlokona quartz mine of ML area 15.378 ha. of Rayagada district.

Sir,

This has reference to your letter No Karlokona/EC/009 dated 22.09.2007, dated 06.10.09, dated 06.03.10 dated 05.02.10 and dated 06.04.2010 along with the application in the prescribed format (Form-1) and Terms of Reference (TOR) on the above mentioned subject, I am directed to say that the State EIA Authority considered the application on the proposal for production of quartz at Karlokona, District Rayagada. The proposal is for production of 20,680 TPA of Quartz over ML area: 15.378 ha. The ToR for this project was prescribed on 18.7.2008 by the Expert Appraisal Committee of MOEF, Govt. of India. The lease area is 15.378 ha. and the entire lease is non forest land. The lessee of the ML area is M/s Utkal Manufacturing & Services Ltd. Initial allotment of ML area was over an area of 14.569 ha. by the Department of Steel & Mines, Government of Orissa vide their letter no. III(K) SM-7/99-2485/SM dated 08.03.2000 and was approved by IBM vide letter no. BBS/RGD/Qtz/MP-57, dated 09.08.2000. During survey and demarcation of the area, Directorate of Mines finalized the area as 15.378 ha. and accordingly revised allotment letter issued by their office letter no. 1136/Mines, dated 31.03.2001. The revised mining plan was approved by IBM, vide their letter no. BBS/RGD/Qtz/MP-57 dated 13.02.2002. The public hearing was conducted on 08.01.2010. No National Park/ Sanctuary is located within 10 km of the mine lease area. Mine working will be opencast and semi-mechanized involving drilling and blasting. Water requirement for the project is estimated to be 5m³/day. The source is river Nagavali. The mine working will not intersect groundwater table. Waste generation will be 1.0 lakh m³ during plan period. The mine has earmarked 4.78 ha as OB dump area. 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 by you, the State EIA Authority here by accords for grant of Environmental Clearance in favour of the project for a period of 5 (five) years for production of 20680 TPA of quartz over ML area 15.378 ha. at Karlokona, district Rayagada under the provisions of the Environment Impact Assessment Notification, 2006, Notification, 2009 and subsequent amendment there to under various MOEF, Govt. of India 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:-

1. The applicant (Project proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution inducing 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 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.
3. The applicant will comply to the points, concerns and issues raised by the people during public hearing on 8.1.10 in accordance with the commitments made by him thereon.
4. The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.
5. The mine has proposed to spread OB over 4.75 ha which is to limited to few dumps to minimize damage to the existing land environment.
6. The runoff, washings and other effluents should be properly treated and to be recharged rather than allowing to flow from a height of ~80m to the nearby perennial Nagabali river.
7. All the air pollution monitoring stations are seen to be located in villages/settlements when at least 30% area is surrounded by forests. The mine may select some air quality monitoring stations near accessible forest area to assess the pollution load.
8. The RPM levels are hardly below 10-15% of SPM, which seem inappropriate and not determined properly. It means the area already has predominantly fine dust particles prior to their operation, which is quite unlikely in a green and serene environment. The background environmental data presented are wrong and need to be redone or clarification weather. The model might have predicted erroneous results due to feeding of erroneous basic data to it. Thus, there is an overpowering feeling that the data presented are incorrect.
9. 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 1st June and 1st December of each calendar year.

10. 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.
11. The proponent shall submit ground tooting baseline data on flora and fauna and CSR activities already carried out within three months to the SEIAA.
12. Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.
13. The following shall be implemented viz. (a) dump run-off should be diverted into settling 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.
14. Maintenance of roads through which transportation of ores are undertaken shall be carried out by the project proponent regularly at its own cost.
15. 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.
16. 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.
17. Rain water harvesting shall be undertaken to recharge the ground water source.
18. 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.
19. The proponent shall ensure that no silt originating due to mining activities 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 and native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.
20. 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.
21. 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.
22. 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.

23. 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 besides tree plantation. 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. Detail of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the SEIAA, Orissa within six months.
24. The mining operations shall be restricted to above ground water table and it should not interest the ground water table.
25. 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.
26. The over burden (OB) generated during the mining operation shall be stacked at earmarked dump site(s) only and it should to 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 3rd 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 6th 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 or Rehabilitated Areas should continue till the vegetation is established & becomes self-generating. Compliance status to be reported to the appropriate authorities.
27. 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.
28. 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, 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 shall also be referred in this regard for its compliance.

29. 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.
30. The 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.
31. 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- Rayagada, 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