

Compliance of conditions laid down in Environmental Clearance

**BAGRUBAUXITE MINES (75.41 Ha)
Period : Oct'11 - Mar'12**

MoEF Environment Clearance ref. no. : J – 11015/585/2007 – IA.II(M) dated 04 Feb'2011

Sl No	Conditions	Compliance Status
Specific Conditions		
1	All the conditions stipulated by the State Pollution Control Board in their NOC should be effectively implemented.	Complied
2	The environmental clearance is subject to grant of forestry clearance for diversion of 19.56 ha forestland.	This provision has been taken care of during land acquisition with permission of competent authority i.e. concerned Deputy Commissioner (D.C.) and consent of Raiyat (Land Owner) for 20 years period and the land so acquired will be returned as per the norms set by D.C. in land purchased agreement.
3	The mining operation shall be restricted to above ground water table and it should not intersect groundwater table. In case of working below ground water table, prior approval of the Ministry of Environment & Forest and Central Ground Water Authority shall be obtained for which a detailed hydro-geological study shall be carried out.	Being complied. Mining is restricted to above ground water table.
4	The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations.	Agreed.
5	Top soil should be temporarily stacked with proper slope at earmarked site(s) only with adequate measures and it should not be kept unutilized for a period of more than 3 years. The top soil shall be used for land reclamation and rehabilitation of mined out areas.	Sequential backfilling and reclamation of the mined out area are being exercised. Topsoil is being spread on backfilled area for reclamation of the area.

6	<p>The entire waste generated shall be backfilled and there shall be no external over burden dump left at the end of the mine life. The entire backfilled area shall be reclaimed by plantation. The backfilling should be carried out in such a manner that it is restored to the normal ground level. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forest and its Regional Office, Bhubneshwar on six monthly basis.</p>	<p>Overburden and waste rock are being used for back filling. Data pertaining to backfilling is enclosed as Annexure</p>
7	<p>The void left unfilled in an area of 1.76 ha shall be converted into water body. The higher benches of excavated void/mining pit shall be traced and plantation done to stabilize the slopes. The slopes of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.</p>	<p>Complied</p>
8	<p>Catch drains and siltation ponds of appropriate size shall be constructed around the working pit, sub-grade dump, and mineral dumps to arrest flow of silt and sediment directly into Chanpi Nallah, Sukri Nadi and others water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regulary desilted, particularly after monsoon, and maintained properly. Garland drains settling tanks and check dams of appropriate size, gradient and length shall be constructed for both around the mine pit and sub-grade dump to prevent run off of water and flow sediments directly into Chanpi Nallah,Sukri Nadi and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall(based on 50 years date) and maximum discharge in the area adjoin the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.</p>	<p>No run off is being generated from mining activities. However, to collect and manage rainwater during monsoon drains and Pit sumps are made, part of mined out area is used as settling tank. Settled water is being used for sprinkling of quarry, roads, green belt development, etc.</p>

9	Dimension of the retaining wall at the toe of subgrade dump and OB benches within the mine to check run-off and siltation should be based on the rain fall data.	Complied
10	Plantation shall be raise in an area of 50.11 ha including a 7.5m wide green belt in the safety zone around the mining lease by planting the native species around ML area, backfilled and reclaimed area, around water body, roads etc. in consultation with the local DFO/Agriculture Department. At least 1500 trees per year shall be planted with a tree density of 1000 trees per hectare.	Being carried out progressively.
11	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the AAQ parameters conform to the norms prescribed by the central Pollution Control Board in this regard.	Being carried out and complied. Vide annexure.
12	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	System is already in place.
13	Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out four times in a year - pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF,its Regional Office,Bhubneshwar; Central Ground Water Authority and Central Ground Water Board.	Being complied with.
14	The project authority shall obtain necessary prior approval of the competent authority for drawal of requisite quantity of water (surface water and ground water) for the project.	We have water drawal right as per mining lease deed.

15	Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.	Regular maintenance of vehicles are undertaken to minimize vehicular emission. Care is taken on regular basis to arrest spillage/fugitive dust emission. At most care is taken to cover bauxite loaded trucks with Tarpaulin and overloading is avoided.
16	Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented	Being complied with.
17	Drills should either be operated with dust extractors or should be equipped with water injection system	Being complied with.
18	Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and wastewater generated from mining operations.	The sewage water from domestic uses is collected and treated in Sewage Treatment Plant. No effluent is generated and hence, ETP is not required.
19	Consent to operate should be obtained from SPCB prior to start of production of mine	Complied.
20	Provision shall be made for the housing of construction labour 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	System is already in place.
21	The critical parameters such as RSPM(Particulate matter with size less than 10micron (i.e., PM ₁₀ , PM _{2.5}) and NO _x in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closed shall be monitored periodically. Further, quantity of discharged water shall also be monitored [TDS,DO, PH and 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 Forest, which is available on the website of the	Being carried out. Monitoring report attached as annexure.

	Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	
22	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Final mine Closure Plan will be submitted at appropriate time. Presently we are having approved progressive mine Closure Plan.

GENERAL CONDITIONS

Sl No	Conditions	Compliance Status
1	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.	Complied with.
2	No change in the calendar plan including excavation, quantum of mineral bauxite and waste should be made	Quantum of bauxite and wastes is well below the approved calendar plan.
3	Conservation measures for protection of flora and fauna in the core and buffer zone should be drawn up in consultation with the local forest and wild life department.	Wild life conservation plan is submitted to DFO for approval.
4	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RPM, SPM, SO ₂ , NO _x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	AAQ monitoring report attached.
5	Data on ambient air quality (RPM, SPM, SO ₂ , NO _x) should be regularly submitted to the Ministry including its Regional office located at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.	Complied.
6	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Dedicated water tanker(s) has/have been provided for sprinkling of water on haul roads and are generally being engaged at the places where active mining is in progress to control fugitive dust.

7	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.	Complied.
8	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	Complied.
9	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	System is in place and regularly being carried out.
10	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization	Already formed and informed. Vide annexure
11	The project authorities should inform to the Regional Office located at Bhubneshwar regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Final mine closure plan will be submitted at appropriate time. Presently we are having approved progressive mine closure plan.
12	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Bhubneshwar.	Fund for environment protection is earmarked. (Vide annexure for fund taken together for the mines divn.)
13	The Regional Office of this Ministry located at Bhubneshwar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	Being complied with.

14	<p>The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e mail) to the Ministry of Environment and Forests, its Regional office Bhunaneshwar, the respective Zonal office of Central Pollution Control Board the State Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forest, Bhubaneshwar, the respective zonal office of Central Pollution Control Board and the State Pollution Control Board.</p>	Being complied with.
15	<p>A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal corporation, urban local body and the local NGO, if any, from whom and suggestions / representations if any were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.</p>	Complied.
16	<p>State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.</p>	Not Applicable.
17	<p>The environment statement for each financial year ending 31st March in Form V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection)Rules,1986 , as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Bhubaneswar by e-mail.</p>	Complied.
18	<p>The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance</p>	Already carried out (Documents already submitted).

	<p>letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located Bhubneshwar.</p>	
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