



Ref No: SRL/2016/CO-ECC-1

Date: 20.05.2016

To,

The Additional Director (South)
Ministry of Environment and Forest
Regional Office (Southern Zone)
Kendriya Sadan, IVth Floor, E & F Wings
17th Main Road, II Block, Kormangala
Bangalore – 560 034

Sub: Six monthly compliance report of Colomba Iron Ore Mine (T.C. No. 35 Of 1952), Goa for the period October 2015 to March 2016.

Respected Sir,

We are herewith submitting the condition wise compliance report as per the conditions laid down in the Environmental Clearance Letter No. J-11015/156 /2005-IA-II (M) dated 17/11/2005 for the period **October 2015 to March 2016**.

Thanking you,

Yours faithfully,

A handwritten signature in black ink, appearing to read "Joaquim D'Costa".

Joaquim D'Costa
Mines Manager
Colomba iron ore Mine

Enclosed: Six monthly compliance report of Colomba Iron Ore Mine for the period October 2015 to March 2016.

C.C: 1. Member Secretary, Goa State Pollution Control Board
2. CGWB

Compliance report to conditions of environmental clearance issued by

Ministry of Environment & Forests, Govt. of India, for Colomba Iron Ore Mine (T.C. No. 35 of 1952)

Letter No. J-11015/156/2005-IA.II(M)

Production: 0.1 MTPA as per Environment clearance, however the current production limit is 0.045 MTPA as per capping imposed by state govt.

Period : October 2016–March 2017

S. No	Condition of clearance	Status of compliance	Remarks
A.	Specific Conditions		
(i)	The environmental clearance is accorded only for two years during which period detailed hydro geological study (quality and quantity) on impact of mining on hydrogeology (pre-monsoon, monsoon and post-monsoon) shall be carried out and the report submitted to Ministry.	Environment clearance was granted dated 17.11.2005 and extension of validity vide letter No. J-11015/156/2005-IA-II(M) dated 02.01.2008. Hydro geological report submitted to MoEF on December 2006.	
(ii)	Prior approval of the Chief Wildlife Warden, Government of Goa shall be obtained for mining at distance of 3 km from Netravali Wildlife Sanctuary.	The provisions of wild life protection Act is not applicable as the mines falls out of eco-sensitive zones notified by MoEF for the state of Goa.	
(iii)	No dumping of OB where natural slopes already exceeding 28° angle.	The Place identified for Dumping does not exceed slope of 30°.	Mining operations have not resumed.

(iv)	Top soil should be stacked properly with adequate measures at earmarked sites. It should be used for reclamation and rehabilitation' of the mined out areas.	Whatever top soil encountered was used for Green belt Development purpose and no top Soil is Present now.	
(v)	OB and other wastes should be stacked at earmarked sites only and should not be kept active for long periods of time. Plantation should be taken up for soil stabilization along the slopes of the dump and terraced after every 5-6 m of height and overall slope angle shall be maintained not exceeding 28°. Sedimentation pits shall be constructed at the corners of the garland drains. Retention/Toe walls shall be provided at the base of the dumps.	OB and other waste are stacked at the earmarked site and these sites remain active for maximum five years and plantation is carried out after finalizing the site along the slopes. The total height of dump is around 20m and comprising of three stages. Overall slope angle is maintained within 30°. Sedimentation pits are constructed at possible corners of the Garland Drains. Retention/Toe walls are constructed at the toe of the dumps.	Mining operations have not resumed. Attached list of plant saplings planted as Annexure 03.
(vi)	Use of geotextiles for dump stabilization shall be taken up in the critical areas.	Geotextiles are used for erosion control and stabilizing the dump slopes at critical areas observed.	
(vii)	Catch drains, and siltation ponds of appropriate size, gully plugs and check dams should be constructed to arrest silt and sediment flows from the mining operations, Desilting operations shall be undertaken regularly and particularly after very monsoon. Garland drain (size, gradient & length) shall be constructed for both mine pit and for the waste dump. Sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining 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. Desilting operations shall be undertaken after very monsoon.	Trenches / Garland drains are constructed at the foot of the dumps. Settling ponds of sufficient depth are constructed at the toe of dump, keeping in mind the rainfall data. De-silting of settling ponds is carried out before onset of monsoon. Lateritic boulder walls are constructed at the toe of the dump. All the monsoon run-off water is channelized through garland drains into the mine pit .The water is treated with lime and Magnasol if required and clean water is pumped out.	

(viii)	Drills should be wet operated or with dust extractors.	No Drilling and Blasting is Carried Out whereas Wet Drilling is adopted only for Exploration purpose as and when required.	
(ix)	Measures shall be taken for proper maintenance of vehicles used in mining operations and in transportation of mineral ore and in ensuring that emissions are within prescribed norms. The vehicles should be covered with tarpaulin and should not be overloaded.	All HEMM and Vehicles used in Colomba Mine are hired. The Maintenance and P.U.C. check (Pollution under control) is done by the Individual vehicle owners. All the ore carrying trucks are covered with tarpaulin before leaving the mining Premises. Free Board is provided and load is kept within the Limits.	Mining operations have not resumed.
(x)	Plantation shall be done which includes a green belt of adequate width around the ML area, along roads, OB dumps and non-mineralized areas identified for plantation by planting suitable native species in consultation with the local DFO/Agriculture Department. The density of trees should be around 2500 plants per hectare. Substantial allocation of funds shall be made for afforestation and reclamation and details furnished to the Ministry and to the MOEF RO, Bangalore.	Natural green belt of adequate width is present around the Mining Lease Boundary and plantation is carried out and maintained along roads, OB dumps and Non Mineralized areas.	Attached list of plant saplings planted as Annexure 03
(xi)	A Progressive Mine closure plan clearly indicating the year of backfilling, area to be backfilled, quantum of OB to be backfilled and are to be reclaimed with plantation shall be prepared and implemented.	A Progressive Mine Closure Plan is approved by IBM as part of mining Plan. The status of the same is submitted to IBM annually.	
(xii)	Mine water discharged from the lease shall be treated to prescribed standards and to ensure that there is no adverse impacts on River Kushavati.	No Mine Water is Discharged to Kushavati River hence there is no adverse impact on Kushavati River.	

