

ADITYA BIRLA



HINDALCO

Registered Post

**The Director,
Ministry of Environment & Forests**
Paryavaran Bhavan, CGO Complex,
Lodhi Road,
New Delhi – 110003

28/11/2016

Subject: Compliance Status of Environment Clearance conditions

Dear Sir,

We have been granted Environment Clearance to our **Dhangarwadi Bauxite Mines** on 13th of April 2007 vide clearance No. J-11015/406/2006-IA.II(M).

The compliance for the 6 months duration (April'16 to September'16) against the conditions laid down in the Environment Clearance is attached herewith.

Also attached please find the environment monitoring report of Air, Water and Noise quality for the summer and monsoon season.

Hope you will please find the above in order.

Thanking you,

Yours very truly,

Mainak Chakraborty
Vice President-Mines

Encl. A/a

Copy to:

1. The Addl. Principal Chief Conservator of Forests
Ministry of Environment, Forests & Climate Change
Regional office (West Central Zone)
Ground Floor, East Wing, 'New Secretary Bldg.,'
Civil Lines, NAGPUR - 440001
2. The Member Secretary,
Central Pollution Control Board,
Parivesh Bhavan, East Arjun Nagar,
DELHI - 110032
3. The Regional Officer
Maharashtra Pollution Control Board
Udyog Bhawan, KOLHAPUR

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Corporate

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ENVIRONMENT CLEARANCE COMPLIANCE STATUS

ENVIRONMENT CLEARANCE No. J-11015/406/2006-IA.II(M) dt. 13/04/2007

DHANGARWADI MINES

_Sr. No.	CONDITIONS	COMPLIANCE
A) Specific Conditions :-		
i)	Top soil to be stacked properly with proper slope with adequate safeguards and to be backfilled for reclamation and rehabilitation of mined out area.	The top soil generated during overburden removal is around 20,000 tonnes out of which around 15,000 tonnes has been used for restoration and balance is stacked separately and being conserved for future requirement.
ii)	Overburden shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m, each stage shall preferably be of 10 m and over all slope of the dump shall not exceed 28°. The mine pit area to be reclaimed by backfilling the OB in a phased manner. The OB dumps to be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas to be continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests on six monthly basis.	Overburden dumps are stacked separately as per the guidelines and the same will be used for backfilling in mined out area. Plantation has been carried out in OB dumps slopes with native shrub species namely Karvi to prevent erosion and surface run-off. The backfilled areas will be scientifically vegetated with indigenous species as the backfilling will be simultaneously carried out.
iii)	Garland drains to be constructed to arrest silt and sediment flows from watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. Garland drain (size, gradient and length) shall be constructed for both mine pit and for waste dump and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the	Garland drains have been provided to arrest the silt and sediment flows from the mine area. The flow from the settling tanks is then channelised through check dams. Drains and check dams are de-silted and maintained properly. The storm-water flowing through check dams is monitored and found within limit.

	garland drains and desilted at regular intervals.	
iv)	Drilling and blasting shall be by using dust extractors/wet drilling.	Drilling and blasting is being carried out by using mist water jet (wet drilling).
v)	Plantation to be raised in an area of 22.32 ha. including green belt of adequate width by planting the native species around the ML area, roads, OB dump sites etc. in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2500 plants per ha.	<p>The lease area has natural green belt with indigenous species which is undisturbed and maintained.</p> <p>On slope of the OB dump plantation of local species "Karvy" to control slope stability and soil erosion has been carried out with the help of expertise / Government agencies.</p> <p>A nursery has been developed for indigenous and local species (around 2500) for plantation in mined out area at the mines.</p> <p>We have carried out plantation in total 4.5 ha. with indigenous and local species till 2015-16 in the mined out area and plan to carry out plantation in 1.5 ha. area during 2016-17.</p> <p>Around 4.5 ha. backfilled area has been reclaimed and around 3.5 ha. area plantation has been carried out for 2016-17.</p>
vi)	Implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	<p>Water harvesting ponds has been developed in the mined out areas as per the mine closure planning.</p> <p>As the mine plateau is at elevated level, the water accumulated percolates down to the nearby water sources.</p>
vii)	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall 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, Central Ground Water Authority and Regional Director Central Ground Water Board.	<p>The ground water quality is monitored on quarterly basis.</p> <p>The mining is carried out to a depth of 7 to 10 Mts from the surface. There is no interaction with the ground water and hence there is no disturbance to the ground water.</p>
viii)	Prior permission from the competent	Noted

	authority to be obtained for drawl of ground water, if any.	
ix)	Vehicular emissions to be kept under control and regularly monitored. Measures to 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 over loaded.	There is a system to check the PUC certificates of all hired trucks regularly. Timely maintenance of all heavy equipments is carried out. All transport vehicles are covered with tarpaulin and are not overloaded.
x)	At the end of the mining, the void shall be used as water body for water conservation and recharging of the ground water.	At the end of the mining, the void will be used as water body for water conservation and recharging of the ground water.
xi)	A Final Mine Closure Plan, alongwith details of Corpus Fund, should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Will be complied in due course.

B) General Conditions :-

i.	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests	There is no change in the mining technology and in the scope of working.
ii.	No change in the calendar plan including excavation, quantum of mineral bauxite & waste shall be made	The production is restricted to the approved quantity.
iii.	Conservation measures for protection of flora & fauna in the core & buffer zone shall be drawn up in consultation with the local forest and wildlife department.	The core area is fenced with parapet wall and the natural vegetation is protected.
iv.	Four ambient air quality monitoring stations shall be established in the core zone & 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.	Ambient air quality stations have been established in the core and buffer area.
v.	Regular submission of data on ambient air quality (RPM, SPM, SO ₂ ,NO _x) to	The monitoring is carried out as per the

	the Ministry including its Regional Office and the State Pollution Control Board once in six months.	schedule and Data is submitted regularly.
vi.	Regular control of fugitive dust emissions from all the sources. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.	Truck mounted mobile water tanker is being used for dust suppression during mining and transportation.
vii.	Take measures for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, shall be provided with ear-plugs / muffs.	The noise level at the mine periphery is within the standard. All the workers engaged in operations of HEMM are provided with ear-plugs / muffs.
viii.	Proper collection, treatment of industrial waste water to conform to the standards prescribed under GSR 422 (E) dt.19 th May, 1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	There is no industrial waste water as there is no mineral processing is carried out.
ix.	Provide adequate training and information on safety & health aspects & provide protective respiratory devices to personnel working in dusty areas	Regular training to employees on Safety and Health aspects is provided.
x.	Undertake periodic Occupational health surveillance program of the workers to observe any contractions due to exposure to dust and take corrective measures, if needed.	The health surveillance is done once in a year for all employees and there are no cases of occupational health hazards.
xi.	Set-up separate environmental management cell with suitable qualified personnel	A qualified person has been employed at the unit level. A full fledged Environment cell operates at the corporate level.
xii.	Inform the Regional Office located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Will be complied in due course.
xiii.	The funds earmarked for environmental protection measures to be kept in separate account and should not be diverted for other purpose. Yearwise expenditure shall be reported to the Ministry and its	Yearwise expenditure will be reported to the Ministry and its Regional Office.

	Regional Office.	
xiv.	Inform the Regional Office located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Will be complied in due course.
xv.	The Regional Office of this Ministry located at Bhopal should monitor compliance of the stipulated conditions. The project authority should extend full co-operation to the officer(s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	The project authority will extend full co-operation to the officer(s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
xvi.	Copy of the clearance letter be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.	Complied.
xvii.	State Pollution Control Board to display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's office / Tehsildar's Office for 30 days.	Complied.
xviii.	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 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 shall be forwarded to the Regional Office of this Ministry located at Bhopal	Complied.