

ADITYA BIRLA



Registered Post

The Additional PCCF,
Ministry of Environment, Forests & Climate Change
Regional office (West Central Zone),
Ground Floor, East Wing,
"New Secretary Building"
Civil lines, Nagpur - 440001

08/05/2017

Subject: Compliance Status of Environment Clearance conditions

Dear Sir,

We have been granted Environment Clearance to our Dhangarwadi Bauxite Mines on 5th of February 2007 vide clearance No J-11015/406/2006-IA.II(M).

We are herewith submitting the compliance against the conditions laid down in the Environment Clearance; for the 6 months duration (October'16 to March'17) along with the environment monitoring reports of Air, Water and Noise quality for the post monsoon and winter seasons.

Hope you will please find the above in order.

Thanking you,

Yours very truly,

Mainak Chakraborty

Mainak Chakraborty
Vice President – Mines

Encl. A/a

Copy to:

1. The Chief Conservator of Forests (Central)
Ministry of Environment & Forests
Regional office, BHOPAL.
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.

HINDALCO INDUSTRIES LIMITED

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Durgmanwadi Mines : PO Radhanagari - 416 212 Dist. Kolhapur, Maharashtra. T. : + 91 02321 202072 / 202178 / 133
Kolhapur Office : T. : 91:0231 2661458, 2666621, 2021461, 2021462

Website : www.hindalco.com E-mail : hindalco@adityabirla.com

Corporate Identity No. : L27020MH1958PLC011238

Received
Ratil
09/05/2017
Dr. Clerk
PCCB Boar
Kolhapur

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

DHANGARWADI BAUXITE 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, which 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 on OB dumps with native shrub species namely Karvi to prevent erosion and surface run-off. Backfilling of mined out area is being done simultaneously and backfilled area has been scientifically vegetated with indigenous species. Compliance status is being submitted on six monthly.
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 and desilted at regular	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.

	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 2000) for plantation in mined out area at the mines.</p> <p>We have carried out plantation in total 8 ha. with indigenous and local species till 2016-17 in the mined out area and plan to carry out plantation in 4 ha. area during 2017-18.</p> <p>The plantation is carried out every year as per plan. Till date 16,150 saplings have been planted & restored about 8 Ha area.</p> <p>During the year 2016-17, 6,500 saplings have been planted to cover 3.5 Ha. and planned to carry out plantation on 4 ha. area during 2017-18.</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 pond has been developed in the mined out areas as per the mine closure planning.</p> <p>As the mine plateau is on high elevation, the water accumulated in mined out area mostly percolates down to the nearby water sources. Some water is also evaporated during dry months.</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	<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>

	may be sent regularly to MOEF, Central Ground Water Authority and Regional Director Central Ground Water Board.	
viii)	Prior permission from the competent authority to be obtained for drawl of ground water, if any.	Noted
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. The vehicles are weighed within the mines. All the vehicles are carrying bauxite as per RLW.
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.	Mine is still operational. Final Mine closure plan will be submitted to concerned agency 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.	Mined out area is scientifically afforested. For this we procure manure, vermi compost to improve the condition of plantation base. We had engaged experts to implement afforestation activity. Care has been taken to plant mostly local flora along with some exotic species. 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	Ambient air quality stations have been

	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.	established in the core and buffer area.
v.	Regular submission of data on ambient air quality (RPM, SPM, SO ₂ , NO _x) to the Ministry including its Regional Office and the State Pollution Control Board once in six months.	The monitoring is carried out as per the schedule and Data is submitted regularly. The Post monsoon and winter season reports are attached.
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 and all the workers engaged in operations are provided with PPEs.
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	A qualified person has been employed at the unit level. A full fledged Environment

	personnel	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.	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 Regional Office.	<p>The separate funds have been allocated for implementation of environmental protection measures along with item-wise breakup such as furnished below. The expenditures are upto March-2017.</p> <table border="1"> <thead> <tr> <th>SO. NO.</th> <th>Shop Order Description</th> <th>Expenditure for the year 2016 -17 (Rs.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Nursery & Plantation</td> <td>275990.00</td> </tr> <tr> <td>2</td> <td>Environment Monitoring</td> <td>659210.00</td> </tr> <tr> <td>3</td> <td>Dust suppression</td> <td>510113.00</td> </tr> <tr> <td>4</td> <td>Statutory Compliance</td> <td>440.00</td> </tr> <tr> <td>5</td> <td>Environment Others</td> <td>75735.00</td> </tr> <tr> <td>6</td> <td>Mine restoration & rehabilitation</td> <td>144000.00</td> </tr> <tr> <td></td> <td>Total</td> <td>1665488.00</td> </tr> </tbody> </table>	SO. NO.	Shop Order Description	Expenditure for the year 2016 -17 (Rs.)	1	Nursery & Plantation	275990.00	2	Environment Monitoring	659210.00	3	Dust suppression	510113.00	4	Statutory Compliance	440.00	5	Environment Others	75735.00	6	Mine restoration & rehabilitation	144000.00		Total	1665488.00
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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	Complied.																								

	Centre and Collector's office / Tehsildar's Office for 30 days.	
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.