

ADITYA BIRLA

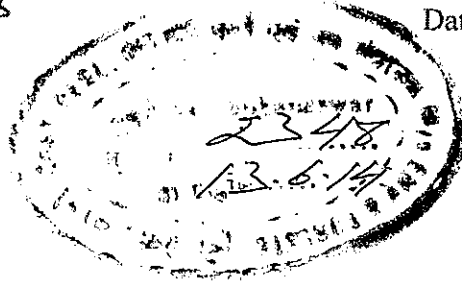


103-379

Ref No: HIL/LHD/VP (M)/MoEF/ 685

Date: 26.05.14

To,
Joint Director(S)
MoEF, GOI, Eastern Regional Office
A/3, Chandrashekharpur,
Bhubaneswar- 751023 (Orissa)



Sub: Compliance Report of EC conditions for Bhusar (65.31 ha) Bauxite Mining project of M/s Hindalco Industries Limited located in Lohardaga, Jharkhand for the period Oct'13 to March'14.

Ref: Environmental Clearance No-J-11015/184/2011-IA.II (M) dated 17th June 2013.

Sir,

With reference to the above, we are submitting herewith the Compliance status report of EC conditions for **Bhusar (65.31 ha) Bauxite Mining** project of M/s Hindalco located in Lohardaga, Jharkhand for the period **Oct'13 to March'14**.

Hope you will find the same in order.

Thanking You

Yours Sincerely
FOR HINDALCO INDUSTRIES LIMITED

Bijesh
(Bijesh Kumar Jha)
VP (Mines)

Enclosure: - As Above

HINDALCO INDUSTRIES LIMITED
Hindalco Complex
Court Road, Lohardaga-835302
Distt. Lohardaga (Jharkhand)

Telephone +91 6526 224112/224015/223113
Fax +91 6526 224118

Website www.hindalco.com

Am

9.6.14

m
10/6

09/6/14

09/6/14

10/6

Bhusar Bauxite Mines of M/s Hindalco Industries Limited
Area 65.31 Ha-Period Oct'13 to March'14
Environmental Clearance No-J-11015/184/2011-IA.II (M) dated 17th June 2013.

SI No	Specific Condition	Compliance
(i)	All the conditions stipulated by the State Pollution Control Board in their NOC shall be effectively implemented.	Implementations of the stipulated conditions are fulfilled.
(ii)	Environmental clearance is subject to obtaining clearance under the wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project.	Not applicable to this project.
(iii)	The mining operations shall be restricted to above ground water table and it should not intersect groundwater table. Prior approval of the Ministry of Environment & Forests and Central Ground Water Authority shall be obtained for mining below water table.	Shallow depth mining is being done in the Bagru Plateau. The ground water table is much below the working depth. Hence, ground water not intersected due to mining activities.
(iv)	The project proponent shall ensure that no natural watercourse shall be obstructed due to any mining operations.	Agreed. No natural water course will be obstructed due to mining activities.
(v)	Top soil should be stacked with proper slope at earmarked site(s) only with adequate measures and should be used for reclamation and rehabilitation of mined out areas.	Top soil will be stored temporarily and will spread over the back filled area in the process of reclamation.
(vi)	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 back filling should be carried out in such a manner that it is restored to the normal ground level. Monitoring	The over burden generated during the mining operation temporarily stacked at earmarked dump site (s) only for the purpose of backfilling, Backfilling area will be reclaimed by suitable plantation. Monitoring and management of rehabilitated area will continue until the vegetation becomes self-sustaining. Compliance status will be

	and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment as Forests and its Regional Office, Bhubaneswar on six monthly basis.	submitted to MoEF on six monthly basis.
(vii)	<p>Catch drains and siltation ponds of appropriate size should be constructed for the working pit, temporary OB dumps, if any and mineral dumps to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted, particularly after monsoon, and maintained properly.</p> <p>Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and temporary dumps and sump capacity should 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 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 generated from mining activities. However to collect & manage rain water during monsoon, part of mined out area is used as settling tank for the runoff. Rain water is being used for watering the mine area, roads, green belt development, sprinkling on haul roads etc.</p> <p>Garland drain of suitable size will be provided as & when required.</p>
(viii)	Dimension of the retaining wall at the toe of temporary dumps and OB benches within the mine to check run-off and siltation should be based on the rain fall data.	The dimensions of the retaining wall of OB dumps are based on the average rain fall.
(ix)	Plantation shall be raised in an area of 52.50 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 the end	It is already in practice. Phase wise plantation of native species in consultation with forest department will be carried out within the safety zone and mined out/reclaimed pits. Around 1000 sapling planted during FY 2013-14.

	of life of mine. The density of the trees should be around 2500 plants per ha.	
(x)	Regular water sprinkling should be carried out in critical areas prone to air pollution and having high levels of SPM and RSPM such as haul road, loading and unloading point and transfer points. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Mobile water tankers will be provided for sprinkling of water on road to contain dust. AAQ parameters are monitored on regular basis.
(xi)	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.	A plan will be drawn on the basis of discussion with Scientists of State unit office of Central Ground Water Board, Ranchi to implement suitable conservation measures to augment ground water resources in the area (Bagru Plateau).
(xii)	Regular monitoring of ground water level and quality should be carried out in and around the mine lease 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 i.e. January, April-May, August, November and the data thus collected may be sent regularly to Ministry of Environment and Forests, its Regional Office, Bhubaneswar; Central Ground Water Authority and Central Ground Water Board.	Being complied. Water quality monitoring report is enclosed.
(xiii)	The project authorities should obtain prior approval of the competent authority for drawl of groundwater if any, required for the project.	Water is collected from Rain water harvesting pond and necessary water cess is being paid regularly to Jharkhand State Pollution Control Board for Bagru group of Mines.
(xiv)	Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for	For our all operating mines regular maintenance of vehicles are undertaken to

	<p>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..</p>	<p>minimize vehicular emission. All the transporters have been instructed to obtain PUC for their vehicles from the concerned authority and submit to the concerned Officer for verification. Bauxite are transported through tarpaulin cover trucks or ropeway from Bagru Hill to Lohardaga siding.</p>
(xv)	<p>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</p>	<p>Blasting at Mines is done at fixed blasting period i.e 12.00 Noon to 1.00 PM on working days. Mobile mining activities are not being practiced during blasting. All the precautionary and mitigative measures to control ground vibration and to arrest fly rocks are implemented.</p>
(xvi)	<p>Drills shall either be operated with dust extractors or equipped with water injection system.</p>	<p>Wet drilling will be done in the drill holes by pumping water intermittently for dust suppression.</p>
(xvii)	<p>Consent to operate should be obtained from SPCB before starting/ enhanced production from the mine.</p>	<p>Consent to operate obtained from JSPCB prior to start of mining. There is no proposal for production enhancement.</p>
(xviii)	<p>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.</p>	<p>Progressive mine Closure Plan along with mining scheme has been approved by IBM.</p>

Sl No	General Condition	Compliance
(i)	<p>No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.</p>	<p>Being adhered to.</p>
(ii)	<p>No change in the calendar plan including excavation, quantum of mineral bauxite and waste should be</p>	<p>Excavation of OB and Bauxite is being done as per the approved mining plan/scheme and obtained</p>

	made.	EC capacity. Quantum of mineral and OB excavated during the FY2013-14 is annexed.
(iii)	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for PM10, SO2 as NOx 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.	The system is already in place. Air quality monitoring report is being submitted regularly at JSPCB and MoEF.
(iv)	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.	Suitable water spraying system is already available for Bagru group of mines. To arrest fugitive dust proper water sprinkling will be carried out on haul roads, loading and unloading and at transfer points.
(v)	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.	Measures are being taken for control of noise levels below 85 dBA in the work environment PPEs are provided to workers.
(vi)	Industrial wastewater (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 03 or as amended from time to time. Oil and grease trap should be installed before discharge of effluents from workshop.	Is being complied as per statute.
(vii)	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.	PPE's provided. Periodic training on safety & occupational health is being imparted to workers and health checks up conducted.
(viii)	Occupational health surveillance programme of the workers should be undertaken periodically to observe any	Being carried out.

	contractions due to exposure to dust and take corrective measures, if needed.	
(ix)	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.	Separate Environmental Management Cell (EMC) has been constituted and is functioning effectively. Copy enclosed.
(x)	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purposes. Year-wise expenditure should be reported to the Ministry and its Regional Office located at Bhubaneswar	The fund earmarked for environmental protection measures is being kept in separate account. Year wise expenditure is being reported to the Ministry and its Regional Office located at Bhubaneswar.
(xi)	The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The Project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing requisite data/information/monitoring reports.	Agreed.
(xii)	The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bhubaneswar, Central Pollution Control Board and State Pollution Control Board.	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) are being submitted to the Ministry of Environment and Forests, its Regional office Bhunaneswar, the respective Zonal office of Central Pollution Control Board the State Pollution Control Board and uploaded in company's website.
(xiii)	A copy of the clearance letter will be marked to the concerned Panchayat/local NGO, if any, from whom suggestions/representation has been received while processing the proposal.	A copy of clearance letter has been sent to concerned Panchayat, Zila Parisad / Municipal corporation, urban local body and the local NGO.
(xiv)	The project authorities should inform to the Regional Office located at Bhubaneswar 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. Yearly date of financial closure is 31 st March.

(xv)	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's/Tehsildar's Office for 30 days.	Displayed.
(xvi)	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 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 at Bhubaneswar.	Complied. Copies of relevant paper cutting are enclosed for information and records.