

**ADITYA BIRLA**



**HINDALCO**

**Ref: - HIL/TBM/EC-Comp/575/2021**

To,

25.05.2021

**The Addl. Principal Chief Conservator of Forest (Central),  
Ministry of Env., Forest and Climate Change,  
Regional Office (WCZ)**

Ground Floor, East Wing, New Secretariat Building, Civil Line,  
Nagpur-440001 (MS)

**Sub:-** Status of compliance of EC condition (Half yearly status of compliance report) in respect of Tatijharia Bauxite Mine (Lease area- 1218.762 Ha.) of M/s Hindalco Industries Limited of Chhattisgarh state for the period from October- 2020 to March -2021

Ref No:- Environment Clearance Letter No-J-11015/337/2007-IA. II(M) dated August 9, 2007

**Dear Sir,**

We do hereby submit half yearly status of EC compliance report in respect of Tatijharia Bauxite Mine, Lease area - 1218.762 Ha, of M/s Hindalco Industries Limited, P.O- Kusmi, Dist- Balrampur- Ramanujganj, Chhattisgarh state, PIN-497224 for the period from October- 2020 to March -2021. The lease details is as below:-

Lease area	Production Capacity	Lease Period
1218.762 Ha.	400000 Tonnes	25.06.1998 to 24.06.2048 (50years)

We are also sending you the soft copy of the report to your good on Email – [moef.ddn@gmail.com](mailto:moef.ddn@gmail.com) for your ready reference.

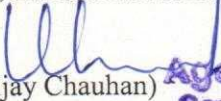
We trust that the measures taken towards environment safeguard comply with the stipulated environmental conditions.

We assure that we comply all the conditions laid down in the consent letter and also abide to follow all the Rules and Regulations.

Thanking you,

Yours' faithfully

For, Hindalco Industries Limited

  
(Vijay Chauhan) **Agent of Mines**

Agent of Mines  
E-Mail – [chauhan.vijaykumar@adityabirla.com](mailto:chauhan.vijaykumar@adityabirla.com)

Encl:-

1. Half Yearly Status of compliance of Environment condition as annexure-I.
2. Environment Status Report from October- 2020 to March -2021, enclosed as annexure-II
3. Renewal copy of Consent to Operate from CECB enclosed as annexure -III.
4. Production report from October- 2020 to March -2021 enclosed as annexure-IV.
5. Status report of mined out, reclaimed and afforested land as annexure-V.
6. Actual expenditure incurred in protection of environment from October- 2020 to March -2021 as annexure-VI.
7. Ground Water NOC enclosed as annexure – VII.
8. Soft copy of documents by CD.

C.C.- The Regional Officer, CECB, Ambikapur

**HINDALCO INDUSTRIES LIMITED**

Samri Mines Division, Baba Chowk  
At & Post - Kusmi, PIN : 497 224,  
Distt. - Balrampur-Ramanujganj (CG), INDIA  
Telephone + 91 7778 274326-27,  
FAX + 91 7778 274325

**REGISTERED OFFICE**

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Mahakali Caves Road, Andheri (East)  
Mumbai 400 093, INDIA  
Telephone +91 22 6662 6666  
Tel : +91 226691 7000/ Fax : +91 226691 7001

Website : [www.hindalco.com](http://www.hindalco.com)  
E mail : [hindalco@adityabirla.com](mailto:hindalco@adityabirla.com)  
Corporate Identity No- L27020MH1958PLC011238.

**EC COMPLIANCE REPORT  
(October-2020-March-2021)**

of

**Tatijharia Bauxite Mine**  
(Mine Lease Area of 1218.762 Ha)  
Capacity -4.00 LTPA

*Located at*

**Village -Tatijharia, Gopatu, Betpani, Charhatkhurd,  
Tehsil - Kusmi, District - Balrampur-Ramanujganj,  
State - Chhattisgarh**

**M/s Hindalco Industries Limited**  
(Samri Mines Division)  
*Balrampur-Ramanujganj District (C.G.)*

  
**Agent of Mines**  
Samri Mines Division  
Hindalco Industries Ltd

25.05.2021

**Status of Compliance from October -2020 to March -2021 of Environmental  
Condition laid down by MOEF**

**Tatijharia Bauxite Mine**

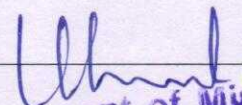
The status of compliance of the conditions with reference to environment clearance letter no. J-11015/337/2007- IA.(IIM) dated 09.08.2007 of Ministry of Environment & Forest, New Delhi, for Tatijharia Bauxite Mine is as under:-

**COMPLIANCE STATUS**

S.N.	Conditions	Action
<b>A.</b>	<b>Specific Conditions</b>	
i.	Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority.	The Wild life Management plan has been approved by competent Authority. (Annexure -A)
ii.	Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ petition (Civil) No. 460 of 2004 as may be applicable to this project.	Noted.
iii.	Conservation plan for schedule I fauna (if found in the study area) shall be prepared in consultation with Wildlife Department for implementation.	The Conservation plan for schedule I fauna have been prepared. The authenticated list of flora and fauna for core and buffer zone is enclosed for perusal please. ( Annexure -B)
iv.	The mining operations shall be restricted to above ground water table and it shall not intersect ground water table. Prior approval of the Ministry and CGWA should be obtained for mining if any below water table.	The mining operation is restricted to well above ground water level. As per our current mining operation, ultimate depth of working is about 15 meters below. The ground water level is below the depth of our mining operation. Piezometer has been installed at strategic location in the Lease area for monitoring the ground water level and the record is maintained. There is no intersection of groundwater level during course of mining operation. We undertake that no mining operation is being and will be carried out below the water level.

  
**Agent of Mines**  
CGWA, Durgam

S.N.	Conditions	Action
v.	Top soil, if any shall be stacked properly with proper slope with adequate safeguards and shall must be used for reclamation and rehabilitation of mined out area.	Top soil generated during mining operation is being concurrently spread on backfilled area to restore its original forms .However if required it will be stacked properly with proper slope and adequate safeguards.
vi.	Over burden 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 30m, each stage shall preferably be of 10m and over all slope of the dump shall not exceed 28°. The mine pit area shall be reclaimed by back filling the OB in a phased manner. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests on six monthly basis.	As such there is no any active OB dump at present. As per approved Mining Plan, OB generated during mine operation is being utilized for concurrently back filling of the mined out area for reclamation purpose. Old inactive OB dump has been stabilized by vegetation with suitable native species to prevent erosion and surface run off. Photo attached as Annexure-C.
vii.	Garland drains shall be constructed to arrest silt and sediment flows from soil and mineral dump. The water so collected shall be utilized for watering the mine area, roads, greens 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 garlands drains and desilted at regular intervals.	<p>Old inactive OB dump has been stabilized by vegetation.</p> <p>Garland drain is provided to arrest silt and sediments flows from above mentioned OB dump. At present there is no any active OB dump. Entire waste generated during mining operation is being simultaneously backfilled in the mined out pit.</p> <p>Garland drains of appropriate size, gradient and length (200m length, 1m depth and normal gradient) has been constructed around the active mining pits coupled with arrester to arrest silt from soil and drains are being maintained. The drains are regularly desilted before the monsoon. The Water so collected are being used for green belt development and watering the mine area. Sump of adequate capacity is developed.</p>

  
Agent of Mines

**EC Compliance for Tatijharia Bauxite Mine (Area: 1218.762 Ha. Balrampur, State - Chhattisgarh)**  
**M/s. Hindalco Industries Limited, Compliance Period: October - 2020 -March - 2021**


S.N.	Conditions	Action
viii.	The project proponent shall ensure that no natural water course shall be obstructed due to mining operation.	We undertake that no natural water course is obstructed during mining operation.
ix.	Blasting operations shall be carried out only during the day time. Controlled blasting shall be practiced. The drills should be operated with drill extractors. The mitigative measures for control of ground vibrations and arrest fly rocks shall be implemented. Blasting scientific based on peak particle velocity, charge per delay and blast geometry shall be evolved for maximum production. The same shall be submitted to the Ministry within six months.	Controlled blasting is being practiced in the mine. Wet drilling Machines are being used during drilling operations. Nonel & effective blast design are used to control blast vibration and fly rocks. Blasting is carried out only in day hours.
x.	Plantation shall be raised in an area of 40.84 ha including green belt of adequate width by planting native species around the ML area, roads; OB dump sites etc. in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. Selection of plant species shall be as per CPCB guidelines. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation.	Total 75.379 Ha. have been afforested with native species till date. The plantation in reclaimed area has been carried out as per plan. The density is being maintained about 2500 plant per hectare with the species like Amla, Accasia, Kashia Samia, mango, babul, pears & guava etc. Moreover, Pears plantation has been carried out over 2.810 ha. With 3715 saplings during this year & cumulative pears plantation over 10.080 Ha. area with 6115 saplings. Social forestry is also being encouraged among the local villagers. Apart from that local food grain rice & Tau has been planted over the reclaimed area of 1.500 Ha. Year wise plantation is enclosed as annexure-D.
xi.	The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	The ground water table does not intersect our mining operation because of shallow depth of mining. However, Rain water harvesting structure (Ponds and Wells) of area 0.79 Ha. , 0.69 Ha. and 5ft. x 10 ft.) have been constructed as conservation measures in mined out area for the conservation/augmentation of ground water resources. Such measures also help in increasing the water credit of the Lease area. Photograph of recharge well and rainwater harvesting structure/Pond is enclosed as annexure -E.

EC Compliance for Tatijharia Bauxite Mine (Area: 1218.762 Ha. Balrampur, State - Chhattisgarh

M/s. Hindalco Industries Limited, Compliance Period: October - 2020 -March - 2021

S.N.	Conditions	Action
xii.	Regular water sprinkling shall be carried in critical areas prone to air pollution and having high levels of SPM and RSPM such as haul road, loading, unloading and transfer points and other vulnerable areas. It should be ensured that the ambient air quality parameters conform to the norms prescribed by the CPCB in this regard.	Regular water spraying with 12 KL water tanker in the mine lease hold area is being carried out regularly to control air pollution. The ambient air quality is within the stipulated norms.
xiii.	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.	The depth of our mining operation varies from 15-20mts. Piezometer has been installed at strategic location within the lease area to monitor the Ground Water level and the record is being maintained. The ground water level is below the depth of our mining operation. There is no intersection of groundwater level during course of mining operation. Regular monitoring of ground water quality is being carried out. The analysis reports are being submitted to Regional Office, CECB, Ambikapur and Raipur. Regular monitoring of ground water level is being carried out and is found below level of mining operation. The ground water Quality report is attached in Annexure - II (along with Environment status Report).
xiv.	Rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, CGWB.	Rain water harvesting ponds/Recharge well has been made at lease hold area. Photograph of recharge well and rainwater harvesting structure/Pond is enclosed as annexure -E.
xv.	Prior permission from the competent authority shall be obtained for drawl of ground water, if any.	Ground water NOC has been obtained from the competent authority for domestic purpose. We are not drawing ground water for industrial use, if required: the permission will be taken from competent authority.

  
Agent of Mines  
Samri Mines Division

S.N.	Conditions	Action
xvi.	Existing ecological status of the project area shall be conserved and protected. The project proponent should take all possible precautionary measures during mining operation for conservation and protection of endangered fauna.	<p>All efforts are being taken to conserve and protect existing ecological status of the project area. We are taking important measures for conservation of flora and fauna are as follows.</p> <p>a) Company have been provided solar LED torch and florescent jacket to Staff of forest department ,Ambikapur for patrolling and monitoring the movement of wildlife, encroachment, cutting , poaching, fire etc.</p> <p>b) Veterinary camp is being conducted for immunization of cattle with the help of block veterinary staff.</p> <p>c) Awareness program related to wildlife conservation is being conducted.</p> <p>d) Eco-development activities like poultry, piggery, bee keeping etc. are being organized.</p> <p>e) Controlled blasting is being carried out so as reduce vibration and noise. Such operation is being carried out in day time only and its use is minimized.</p> <p>f) Plantation is regular activity.</p> <p>g) Fish farming with seeds of 5500 nos. has been done in water recharge pond.</p> <p style="text-align: right;"></p>

S.N.	Conditions	Action
xvii.	<p>Vehicular emissions shall 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 shall be covered with a tarpaulin and shall not be overloaded.</p>	<p>Regular and periodic maintenance of HEMM is being carried out for control of vehicular emission in mines area. The bauxite ore are transported in trucks with tarpaulin cover upto EUP/Railway siding. Vehicle used for transportation are having valid permit. No overloading of ores for transportation is allowed to prevent spillage of material.</p>
xviii.	<p>Occupational health and safety measures for the workers including training on modern eradication, HIV and health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full time qualified doctor who is trained in occupational health surveillance and health record of the workers shall be maintained.</p>	<p>Company has provided with personal protective equipment to all workers and training are also being imparted to them for safety &amp; health, sanitation, health awareness camps including HIV are being organized for all workmen. One doctor having MBBS qualification has been appointed for facilitation of OHS. We have undergone through initial &amp; periodical test of all workers employed in the mines by the certified team. The records related to initial and periodical medical examination of all workmen is being maintained.</p>
xix.	<p>A Final Mine Closure Plan, along with details of Corpus Fund, shall be submitted to the Ministry of Environment &amp; Forests 5 years in advance of final mine closure for approval.</p>	<p>We accept the condition. A progressive mine closure plan approved by IBM is in place. IBM is competent authority to approve the final mine closure plan. Based on the present resource estimate, and peak rated production capacity, the tentative balance life of mine is around 10.74 years. However, after completion of further detailed exploration program and geological investigation, the balance life of mine is subject to change with respect to EC Capacity and cut-off grade of mineral at that particular time. Final Mine closure mine plan along with details of Corpus fund will be submitted within prescribed timelines in</p>



S.N.	Conditions	Action
		accordance with law to competent authority.
<b>B.</b>	<b>General Conditions</b>	
i.	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.	Noted.
ii.	No change in the calendar plan including excavation, quantum of mineral bauxite ore shall be made.	Calendar plan (IBM Approved Mining Plan) prepared for the mine is being followed.
iii.	Conservation measures for protection of flora and fauna in the core and buffer zone shall be drawn up in consultation with the local forest and wildlife department.	<p>The suggestions of local forest department are being implemented for conservation of flora and fauna in and around lease hold area. Important measure being implemented for conservation of flora and fauna are as follows.</p> <p>a) Company have been provided solar LED torch and florescent Jackets to Staff of forest department, Ambikapur for patrolling and monitoring the movement of wildlife ,encroachment, cutting ,poaching ,fire etc.</p> <p>b) Veterinary camp is being conducted for immunization of cattle with the help of block veterinary staff.</p> <p>c) Awareness program related to wildlife conservation is being conducted.</p> <p>d) Eco-development activities like poultry, piggery, bee keeping etc. are being organized.</p>
iv.	Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO <sub>2</sub> , NO <sub>x</sub> , 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 monitoring is being carried out as per guideline and is being followed. For this, We have already appointed Anacon Laboratories Pvt. Ltd. NABL accredited by MoEF/NABET for conducting regular environmental monitoring. Analysis Report (from October -20 to March -21) is enclosed as Annexure-II

EC Compliance for Tatijharia Bauxite Mine (Area: 1218.762 Ha. Balrampur, State - Chhattisgarh

M/s. Hindalco Industries Limited, Compliance Period: October - 2020 -March - 2021

S.N.	Conditions	Action
v.	Data on ambient air quality (RPM, SPM, SO <sub>2</sub> , and NO <sub>x</sub> ) 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.	Data of ambient air quality (RPM, SPM, SO <sub>2</sub> , and NO <sub>x</sub> ) are being submitted to CECB and are being submitted to other regulatory authorities as per guidelines. Data of ambient air quality (RPM, SPM, SO <sub>2</sub> and NO <sub>x</sub> ) from October -20 to March -21 is enclosed as annexure-II.
vi.	Fugitive dust emission from all the sources shall be controlled regularly. Water spraying arrangements on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.	Fugitive dust emission from generating sources is being controlled. The dust extractor, wet drilling, regular water spraying with 12 KL portable water tanker in the mine lease hold area is being carried out regularly. Rainwater collected into the mine pit is being utilized for dust suppression purpose. <b>Black top road has been constructed up to pit head to reduce dust problem. Photo attached as Annexure-F.</b>
vii.	Measures shall be taken for control of noise levels below 85dBA in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs / muffs.	The noise level in working area is being maintained below the prescribed limit. As protective measures, Workers engaged in operations of HEMM, etc. is being provided with ear plugs / muffs. The proper maintenance of HEMM is being carried out to control noise emission.
viii.	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 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	For the waste water generated from workshop, oil and grease separation pits are provided further no waste water is generated from our mining operation.

  
**Agent of Mines**  
 Samn Mines Division  
 Hindalco Industries Ltd

S.N.	Conditions	Action
ix.	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.	<p>Company has provided adequate personal protective equipment to all workers and it is also ensured that they use the same. Regular awareness training are also being imparted to them for safety &amp; health in our Group vocational training center- Samri is being continued as per guidelines.</p> <p>All employees undergo Lung Function Tests during the Medical Examination. Periodical Medical Examination of employees and contractor workers are organized regularly to observe any contractions due to exposure to dust and other occupational hazards.</p>
x.	Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Periodical and Initial medical examination of all workers are being carried out as per provision of Mines Act.
xi.	A separate environmental management cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Environment cell is already in place at Samri Mines Division headed by Head (Mines) and comprises of suitable qualified persons. Constitution of Environment Management cell is enclosed in Annexure-G.
xii.	The project authorities shall inform to the Regional Office located at Bhopal regarding of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Financial closure plan not applicable as it is an operational mines.
xiii.	The funds earmarked for environmental protection measures shall be kept in separate account and should not be diverted for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bhopal.	Adequate fund provision is already earmarked for environmental protection measures and will not be diverted to other purpose. The year wise expenditure is being submitted to concern authorities as per guidelines
xiv.	The project authorities shall inform to 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.	Financial closure plan not applicable as it is an operational mines.

  
Agent of Mines  
Mines Division

EC Compliance for Tatijharia Bauxite Mine (Area: 1218.762 Ha. Balrampur, State - Chhattisgarh

M/s. Hindalco Industries Limited, Compliance Period: October - 2020 -March - 2021

S.N.	Conditions	Action
xv.	The Regional Office of this Ministry located at Bhopal 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.	All cooperation is being extended to regulatory authorities.
xvi.	A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.	We have forwarded the copy of clearance letter to Panchayat in our area. The copy of same has already been submitted to your good office.
xvii.	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.	The copy has been displayed by CECEB in Surguja Collectorate.
xviii.	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 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 <a href="http://envfor.nic">http://envfor.nic</a> and a copy of the same shall be forwarded to the Regional Office of this Ministry located Bhopal.	The information regarding environment clearance has been published in two local newspaper Hari Bhumi & Ambika Vani. The copy of same has been already submitted to your good office. News paper clip is attached in Annexure H.
5.	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.	Noted.
6.	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted.
7.	The above conditions shall be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted.

  
Agent of Mines  
Samri Mines Division  
Hindalco Industries Ltd

Hope the above compliance will be found in order.

**Yours truly,**

(For Hindalco Industries Limited)



**(Vijay Chauhan)**

**Agent of Mines**

**Agent of Mines**

Samri Mines Division

Hindalco Industries Ltd

Encl.: As above