



Letter No.: HIL/EC/GP- IV/5/2019

22 October, 2019

**The Director (s)**

Ministry of Environment, Forest & Climate Change  
Regional Office, (West Central Zone)  
Ground Floor, East Wing  
New Secretariat Building  
Ground Floor, Civil Lines, Opposite VCA Ground  
Nagpur-440001.

**Subject:** Half Yearly Compliance Report for 1 MTPA Under Ground captive Coal Mine, Gare Palma IV/5 Coal Mines of Hindalco Industries Limited, Village – Milupara and Kondkel, Tehsil – Gharghoda, District – Raigarh, Chhattisgarh.

Respected Sir,

This has reference to the Environment Clearance Letter no. – J-11015/8/1998- IA –II. (M) dated 16.04.2015 (Transferred in favour of HIL). We are submitting herewith the Half Yearly Compliance Report along with Environmental Monitoring Report (Hard & Soft) for the period from April 2019 to September 2019 for your kind perusal please.

The receipt of the report may kindly be acknowledged.

Yours Faithfully,

Regards

**Dipesh Bhatia**

(Vice President – Coal Mines)

For **Hindalco Industries Limited**

Encl.: As Above.

- CC.: 1. Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, Raipur Chhattisgarh.
2. Regional Officer, Chhattisgarh Environment Conservation Board, TV tower Road, Raigarh (CG).
3. Zonal Officer, Central Pollution Control Board, Central. Sahkar Bhawan, 3rd Floor, North T. T. Nagar. Bhopal-462 003. Madhya Pradesh
4. The Director MoEF & CC, New Delhi.
5. Member Secretary, CPCB, New Delhi.

**Hindalco Industries Limited**

Gare Palma Mines ( IV/4 & IV/5), Vill & Po: Milupara , Tehsil: Tamnar Dist: Raigarh- 496107 , Chhattisgarh  
T: +91 7762 228212, Website : www.hindalco.com E mail : hindalco@adityabirla.com  
Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India  
T: + 912266917000 | Fax: + 912266917001  
Corporate ID No: L27020MH1958PLC011238

Compliance Report on conditions of Environment Clearance for Gare-Palma IV/5 coal mining project Transfer by Ministry of Environment, Forests & Climate Change vide letter no. J-11015/8/1998-IA. II (M) Dated: - 16<sup>th</sup> April 2015 for Under Ground Mining 1.0 Million Ton/Annum Production Capacity.

Sr. No.	Conditions	Status
1	Any change in scope of work will attract the provisions of Environment Protection Act (EPA), 1986 and Environment Impact Assessment Notification, 2006 in conjunction with the subsequent amendments/circulars.	Noted.
2	All conditions stipulated in the EC letter No.J-11015/8/1998-IA.II (M) dated 31 <sup>st</sup> August, 2000 shall remain unchanged.	Noted.
3	The successful bidder shall be liable, if any, for any act of violation of the EPA 1986/EIA Notification 2006/subsequent amendments and circulars which it has inherited during the transfer.	Noted.
4	Successful bidder shall be liable for compliance of all court directions, if any.	Noted.

Compliance Report on conditions of Environment Clearance for Gare-Palma IV/5 coal mining project given by Ministry of Environment, Forests & Climate Change vide letter no. J-11015/ 8/1998-IA. II (M) Dated: - 31<sup>st</sup> August 2000 for Under Ground Mining 1.0 Million Ton/Annum Production Capacity

Sr. No.	Conditions	Status
<b>A. Specific Conditions</b>		
i	Regular Monitoring of subsidence movement on the surface over working areas and impact on water bodies/ vegetation/ structures/ surroundings should be continued till movement ceases completely. In case of observation of any high rates of subsidence movement, appropriate measures should be taken to avoid loss of life and materials. Cracks should be effectively plugged with ballast and clayey soil/ suitable material.	The method of mining at Gare Palma IV/5 coal mine is Bord & Pillar. Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural pattern, water bodies, vegetation, structure, roads and surroundings is being done by internal expert. During the observation no subsidence movement has been observed. In future, if any subsidence movement is found,

		appropriate effective corrective measures will be taken to avoid loss of life and material. Cracks will be effectively plugged with ballast and clayey soil/suitable material if observed.
ii	Adequate underground barrier should be left in consultation with the Director General of Mines & Safety (DGMS). Depillaring should also be carried out after taking approval from DGMS.	Adequate underground barrier as required are being maintained between the working face and the river in consultation with DGMS and also at other places whenever required. Depillaring is being carried out after taking prior approval of the DGMS.
iii	Garland drains should be constructed around the waste rock and ore stockpiles to prevent surface run-off.	Garland drain have been constructed around the coal stock yard to prevent the surface run-off.
iv	A Green Belt of adequate width should be raised by planting the local species along the mine boundary, Waste rock dumps, ore stockpile, ventilation fan road and selected open areas in consultation with local DFO/ Agriculture Department. Density of tree should be at least 2500 plants per ha.	Plantation in mines area is being done. At present 47000 nos. of trees have been planted within the Mine boundary and other places. Trees species planted are Gulmohar, Ashoka Aam, Imli, Shisam, Eucalyptus, Neem, Jamun, Accassia spp. etc. in consultation with DFO. Plantation has been carried out @2500 per hectare and will also be ensure in future. Plantation details enclosed as <b>Annexure -1</b> .
v	Compensation to the 14 land losers from whom private land will be acquired should be paid as per the state government norms.	Compensation to the 14 land losers has been paid by the company.
vi	The project authority should conduct a subsidence estimation study and submit the report to the Ministry within six months.	Subsidence estimation study report has been submitted to the Ministry by Prior allottee.

vii	The project proponent will construct "Check dams "at the sites proposed by the State Ground water Department in their report. While undertaking the proposed mining, the construction of the check dams should be carried out in with Ground water survey department, Government of MP (presently Chhattisgarh) and should have necessary financial provision and technical expertise. This should be communicated to the MoEF and CGWB.	As per requirement the check dam site will be constructed in consultation with state forest department and Ground water survey department, Government of Chhattisgarh and will be communicated to MOEF& CC and CGWB.
viii	Regular monitoring of the Ground water level and quality should be carried out by establishing a network of existing wells and constructing new Piezometer during the mining operations. The interval of monitoring should be four times a year- Pre monsoon (April to May), Monsoon (August), Post Monsoon (November) and winter (January). The data thus collected may be sent regularly to MoEF and CGWB for information.	Being Complied. Regular monitoring of groundwater level and quality of the area is being carried out by establishing a network of existing wells. The Ground water level and quality Monitoring report of <b>Pre-Monsoon (May 19) and Monsoon (August)</b> is attached as <b>Annexure No.-2.</b>
ix	Digital processing of the entire lease using remote sensing technique should be regularly once in three years for monitoring land use pattern and report submitted to MoEF and its regional officer.	Study report on digital processing of entire mine lease area has been submitted.
x	A detailed mine decommissioning plan should be submitted to the MoEF, five years in advance for approval.	Detailed mine decommissioning plan will be submitted to the Ministry of Environment and forests, five years in advance for approval.
<b>B. General Conditions</b>		
i	No change in mining technology and scope of working should be made without prior approval of the MoEF.	Noted and is being complied.
ii	No change in the calendar plan including excavation quantum of mineral coal and waste should be made.	Noted. Coal production restricted within EC limit.
iii	Four ambient air quality stations should be established in the core zone as well as the buffer zone for RPM, SPM, SO <sub>2</sub> , NO <sub>x</sub> & CO Monitoring. Location of stations should be decided based on the meteorology data, topographical features and	Four ambient air quality monitoring stations have been established in consultation with the State Pollution Control Board and regular

	environmental and ecologically sensitive targets in consultation with the State Pollution Control Board.	monitoring is being carried out. Copy of Monitoring Report from the period April <b>2019 to September 2019</b> is enclosed as <b>Annexure -3</b> .
iv	Data of ambient air quality (RPM, SPM, SO <sub>2</sub> , NO <sub>x</sub> & CO) should be regularly submitted to the Ministry including its Regional Officer at Bhopal (Currently Raipur) and the State Pollution Control Board & Central Pollution Control Board (Currently Raipur).	Four ambient air quality monitoring stations have been established and regular monitoring is being carried out. Reports are being periodically furnished to SPCB. Copy of Monitoring Report from the period April 2019 to September 2019 is already enclosed
v	Drill should be wet operated.	Wet drilling is under practice.
vi	Fugitive dust emission from all the sources should be controlled, regularly monitored and the data recorded properly. Water spraying arrangement on haul roads, Wagons, loading dump trucks (loading and unloading) should be provided and properly maintained.	Fixed type water sprinkler has been provided at all along the roads, and loading points etc. to control the fugitive dust emission.
vii	Adequate measures should be taken for control of noise level below 80db in the work environment. Workers engaged in blasting and drilling operation, operations of HEMM etc. should be provided with ear plugs/ muffs	Ear muffs/plugs has been provided to the all workers engaged in blasting and drilling operations, operations of HEMM etc. The Noise monitoring report from the period <b>April 2019 to September 2019</b> is enclosed as <b>Annexure-4</b> .
viii	Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform on the standards prescribed under GSR 422 dated 19.05.1993 and 31.12.1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents in to the pond.	We have constructed 05 Nos. of settling pond & 02 nos of ETP (Capacity 200 m <sup>3</sup> / Hr Each) along with Lamella clarifier with chemical dosing arrangement for the treatment of mine seepage water. Also installed 02 Nos. of Drinking water treatment

		<p>plant and supplying the water at mines &amp; Kondkel Village for domestic purpose. remaining water is being used by the neighbors for irrigation purpose.</p> <p>Copy of Monitoring Report from the period <b>April 2019 to September 2019</b> is attached as <b>Annexure - 5</b></p>
ix	<p>Acid mine water if any has to be treated and disposed off after conforming to the standards prescribed by the competent authority.</p>	<p>There is no acid mine water. ETP (Capacity 200 m<sup>3</sup> / Hr Each) along with Lamella clarifier with chemical dosing arrangement for the treatment of mine seepage water and the report on treated water quality are being periodically furnished to SPCB.</p>
x	<p>Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board</p>	<p>Environmental laboratory has been established with adequate number and type of pollution monitoring and analysis equipment in consultation with the state pollution control Board. However, we have engaged CECB approved &amp; NABL accredited Laboratory i.e. M/s Ultimate Envirollytical Solutions Raipur to carried out the mine environmental parameters monitoring.</p> <p>Approval letter of Monitoring Agency from CECB Raipur &amp; NABL accredited Laboratory</p>

		certificate is attached as <b>Annexure No. - 6</b>
xi	Personnel working in dust area should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance of the workers should be undertaken periodically to observe any contractions due to exposure to coal dust and take corrective measures if needed.	Personnel working in dusty areas are wearing protective respiratory devices and they have also been provided with adequate training and information on safety and health aspect. Occupational health surveillance program of the workers is being undertaken periodically to observe any contraction due to exposure to coal dust and corrective measures will be taken accordingly.
xii	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.	A separate Environmental Management Department is functioning at Coal Mine under the direct control of a senior executive.
xiii	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to Ministry.	The funds earmarked for environmental protection measures has been budgeted separately and not been diverted for other purposes. Environmental Expenditure details from <b>April 2019 to September 2019</b> is enclosed as <b>Annexure - 7</b>
xiv	The Regional Officer of the ministry located at Bhopal (currently Raipur) shall monitor compliance of the stipulated conditions. The project authorities should extent full co-operation to the officer (s) of the Regional Officer by furnishing requisite data information / monitoring reports	Agreed and cooperation will be extended on time to time.
xv	A copy of the clearance letter will be marked to concerned Panchayat/ local NGO if any from whom suggestion / representation has been received while processing the proposal	Complied by Prior Allottee.
xvi	State Pollution Control Board should display a copy of the clearance letter at the Regional Office,	Complied by Prior Allottee.

	District Industry Centre and Collector's Office/ Tehsildar's office for 30 days	
xvii	The project authorities should advertise at least two local newspapers widely circulated around the project one of which shall be in vernacular language of the locality concerned informing that the project has been accorded environmental clearance and the copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the MoEF at <a href="http://envfor.nic.in">http://envfor.nic.in</a>	Complied by Prior Allottee.