



Letter No.: HIL/EC/GP- IV/4/2020 -21/250

25th November, 2020

The Regional 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 EC Compliance Report for 1 MTPA Gare Palma IV/4 Coal Mines of Hindalco Industries Limited, Village – Banjikhoh, Tehsil – Tamnar, District – Raigarh, Chhattisgarh.

Respected Sir,

This has reference to the Environment Clearance Letter no. – J-11015/183/2010- IA –II. (M) dated 16.04.2015 (Transferred in favour of HIL) & Amendment in EC for production capacity i.e. Opencast: 0.56 MTPA & Under Ground: 0.44 MTPA dated 24.05.2019.

We are submitting herewith the Half Yearly EC Compliance Report along with Environmental Monitoring Report (Hard & Soft) for the period from **April 2020 to September 2020** for your kind perusal please.

The receipt of the report may kindly be acknowledged.

Yours faithfully,
For **Hindalco Industries Limited,**


Dipesh Bhatia
(Vice President – GP Coal Mines)

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. The Regional Director, Regional Directorate (Central), Bhopal, Central Pollution Control Board (MoEF & CC, GOI), "Parivesh Bhawan" Paryavaran Parishar, E – 5, Arera Colony, Bhopal (MP), 462016
4. The Director MoEF & CC, New Delhi.
5. Member Secretary, CPCB, New Delhi.

Hindalco Industries Limited

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COMPLIANCE REPORT

ON STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE (EC) ACCORDED TO GARE PALMA IV/4 COAL MINE VIDE LETTER No.– J-11015/183/2010-IA–II.(M) DATED 16.04.2015 (TRANSFERRED IN FAVOUR OF HIL) & AMENDMENT IN EC FOR PRODUCTION CAPACITY I.E. OPENCAST: 0.56 MTPA & UNDER GROUND: 0.44 MTPA DATED 24.05.2019.

Sr. No.	Stipulated Conditions	Compliance Statement
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-11015/183/2010-IA.II (M) dated 12 th March, 2013 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

ON STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE (EC) ACCORDED TO GARE PALMA IV/4 COAL MINE VIDE LETTER No. – J-11015/183/2010-IA–II.(M) DATED 12.03.2013

Sr. No.	Stipulated Conditions	Compliance Statement
A. SPECIFIC CONDITIONS		
i	The Maximum production from the mines shall not exceed beyond that for which environmental clearance has been granted for i.e. 0.48 MTPA to 1.0 MTPA of which 0.4 MTPA OC and 0.6 MTPA UG in ML area of 701.512 ha)	<p>Being Compiled.</p> <p>Amendment has been done in this stipulated condition by MoEF & CC dated 24.05.2019 (Letter No. J-11015/183/2010-IA–II.(M) for the production capacity i.e. Open cast - 0.56 MTPA and Under Ground – 0.44 MTPA, Total capacity – 1 MTPA instead of 0.4 MTPA OC and 0.6 MTPA UG.</p> <p>Amendment Copy of EC is attached as <u>Annexure No. 1</u></p> <p>The coal production from the mine from April 2020 to September 2020 is within the limit of 1 MTPA as prescribed in the EC.</p>

		<p>Production from (April 2020 to September 2020)</p> <p>Open Cast: 0.0946 MT (Million Tons)</p> <p>Under Ground: 0.00 MT (Million Tons)</p> <p>A copy of Statistical return for the month of September 2020 submitted to The Coal Controller Ministry of Coal, GOI Kolkata dated 07/10/2020 is attached as <u>Annexure No. 2</u></p>
ii	The calendar plan should be uploaded on MOEF website.	<p>As per Approved mining plan (2018) the coal production from HIL IV/4 is 0.56 MTPA from OC & 0.44 MTPA from the UG.</p> <p>Mining calendar plan for FY 20-21:</p> <p>Open Cast: 0.56 MT (Million Tons)</p> <p>Under Ground: 0.00 MT (Million Tons)</p> <p>In future if there will be any change in calendar plan the same will be intimated to MoEF & CC.</p>
iii	The coal transportation by road is up to 270 km at Raipur by road presently with tarpaulin covered trucks and partially by rail up to Bhupdevpur. After new siding comes up which is approximately 3 km away for changing over to rail transport. The coal transportation by road should be by mechanically covered trucks. The mode of transportation shall be shifted to by rail by 2017.	<p>This particular condition is not applicable to us, as per Vesting order by Ministry of Coal, GOI, Coal is being used in the captive power plant of HIL located at Hirakud and Lapanga District Sambalpur, Odisha and mode of transportation will be by road. We are transporting the coal by road through tarpaulin covered trucks.</p>
iv	Karanj should be deleted from the list of native species for plantation program.	<p>Complied.</p> <p>Karanj will not be planted in mining area.</p>
v	Rs. 5/T of coal/annum till the end of life of project with the escalation factor of coal production.	<p>Being Complied.</p> <p>As per condition Rs. 5 /T is being utilized under CSR activities & Sustainability. Expenditure details from April 2020 to September 2020 is enclosed as <u>Annexure No. – 3</u></p>

vi	No external OB dump will be left after mine operation and shall be backfilled in the mine void.	Being Complied. The OB dumping is maintained as per the provisions of approved Mining Plan only.
vii	The proponent shall take necessary action on the issues raised during public hearing.	Being Complied. A separate budget for the CSR is being maintained.
viii	The coal will be used in existing steel plant of proponent.	This particular condition is not applicable to us, as per Vesting order by Ministry of Coal, GOI, Coal is being used in the captive power plant of HIL located at Hirakud and Lapanga, District Sambalpur, Odisha.
ix	The Mine Planning is done in such manner that underground mining is proposed below forest land and opencast mining under Government waste land /agriculture land. Hence tree cutting from forest land is not proposed during expansion proposal. However if required plantation will be done 10 times of tree felling in the project affected area.	Being Complied. Mining is being done in such manner that underground mining is being done below forest land and opencast mining is being done under Government waste land /agriculture land. Planation in the mine lease area is being carried out @2500 plant/ha. Total 91300 nos. local plants species have been planted till date in mine lease area including OB dump area. Plantation details are enclosed as <u>Annexure- 4</u>
x	Kelo river and Bendra Nallah shall not be disturbed.	Being Complied.
xi	External OB dump of 0.67 million cubic meters will be created as reported in closure plan of first year. This external dump will be re handled and backfilled in subsequent years. There will be no external dump left after the mine operation.	Being Complied. The OB dumping is maintained as per the provisions of approved Mining Plan only.
xii	Biological reclamation of all external dumps will be done progressively after leveling these dumps. This will provide stability and prevent soil erosion from dumps. The total top soil generated (1.14 m.cum B) during the development of mine will be stacked separately in a soil stack pile in between the pit and the	Being Complied. The Top soil conservation and use are successive and periodic activities during mining operation. About 2,55,890 cubic meter of the top soil has been spread/used on OB Dumps (Banjikhoh & Bankheta) for reclamation, slope stabilization, green belt development in the FY – 2020 - 21. Aprox. 50,000 Nos of Vetiver grass plantation has been done on OB Dump area near Patch “C” to

	surface dump over an area of 7.12 Ha.	provide the stability and prevent top soil erosion / Reduce the surface Run- off from OB dumps.
xiii	The report Titled “ Flora and Fauna and conservation plan for endangered species of Gare-IV/8 coal block approved by The PCCF (Wildlife) of Chhatisgarh, dated 22.11.2011 states that there is no national park, tiger reserve, eco-sensitive zones within 15 km radius. It was informed that this area is neither affected by elephant corridor exists. However, there are occasional presence of elephants and other wild lives.	Noted. HIL will comply with mitigative measure as suggested by competent authority if any in this regard in future also.
xiv	A Wildlife Conservation Plan for the conservation and protection of wildlife in the study area has been approved at a cost of Rs. 1.0 crore and shall be implemented by the proponent in consultation with Department of Forest and Wildlife, Govt. of Chhattisgarh. The WLCP shall be comprise of components of habitat improvement and conservation of biodiversity, provision of water holes, and augmenting water bodies, nursery and plantation of species of natural food and fodder found in the natural habitat salt licks, measures for the protection against forest fires and poaching, awareness campaign of villagers in the study area and compensation in case of man animal conflicts. The status of implementation of WL Conservation Plan including budgetary provision of various activities and status of expenditure shall be regularly, uploaded on the	Noted. Rs. 1.0 crore has been deposited to state forest department by the prior allottee against Wildlife conservation plan. Company will comply with mitigative measure as suggested by competent authority if any in this regard in future also.

	<p>website of the forest and wildlife Department of Government of Chhattisgarh and of the project proponent and the status shall be regularly reported to this Ministry and the MoEF Regional Office, as part of the compliance report.</p>	
xv	<p>As per the approved plan of the Flora and Fauna and Conservation plan for endangered species of Gare IV/4 coal block'' and recommended the PCCF (Wildlife), Rs. One crore be deposited, at one time. With the department of forest and wildlife, Govt. of Chhattisgarh for the implementation of the plan.</p>	<p>Rs. 1.0 crore has been deposited to state forest department by the prior allottee against Wildlife conservation plan. Company will comply with mitigative measure as suggested by competent authority if any in this regard in future also.</p>
xvi	<p>The project authority shall also participate in a Regional action plan of the State Government for the conservation of flora and fauna found within the study area, in addition to the above funds shall also contribute financially for implementation of RWLCP. Habitat development such as grassland/conservation measures along the migratory route/habitats of elephants found/ visiting the area shall form a part of the regional action plan.</p>	<p>The company will participate in regional action plan of the State Government for the conservation of flora and fauna of the area, as per directives of the authority. Company will comply with mitigative measure as suggested by competent authority if any in this regard in future also.</p>
xvii	<p>It will be used for growing plants along the fringes of the side roads and reclamation of external dump and backfilled area. The topsoil stockpile will be low height not exceeding 6 m and will be made use for concurrent filling without keeping the top soil for a long period.</p>	<p>Being Complied. Topsoil is being used for green belt development along the road and the reclamation of OB Dump area. The topsoil stockpile is low in height not exceeding 6 m and this is being used and will be used for concurrent filling without keeping the top soil for a long period.</p>
xviii	<p>The OB dump for the South Quarry dump will be spread over 13.75 Ha. area on the south and eastern part of south quarry while the mining operation will start from north and</p>	<p>Being Complied. The over burden is maintained as per approved mining plan. As per the reclamation plan, the external dump will be biologically reclaimed with local species and</p>

	<p>advance towards south and west. Part of OB excavated from the mine from 1st year and part of 2nd year (3.91 Mm3) will be accommodation in it including top soil for afforestation. The height of dump achieved during 1st and 2nd year will be 6 m to 20 m respectively.</p>	<p>grass to minimize fugitive emission as well as to control surface runoff. Backfilling has already started.</p>
xix	<p>The O.B. left in external dump will be re handled and backfilled in the void after the extraction of coal is completed, this will make the operation of UG mining safe as no water will be logged in the quarry. The OB will be temporarily stored which primarily consist of sand stone and shale which does not contain any heavy metal. As per the reclamation plan, the entire OB will be re handled and biologically reclaimed with local grass to minimize fugitive emission as well to control surface runoff.</p>	<p>Being Complied. The over burden management is being done as per approved mining plan. As per the reclamation plan, the dumps will be biologically reclaimed with local species and grass to minimize fugitive emission as well as to control surface runoff. Backfilling has already started. Since the takeover by HIL no external dumping is being done OB generated annually is being backfilled in de-coaled area. Approx. 50,000 Nos of Vetiver grass plantation has been done on OB Dump area near Patch "C" to provide the stability and prevent top soil erosion / Reduce the surface Run- off from OB dumps.</p>
xx	<p>Topsoil generated in the balance life of mine should be stacked properly with proper slope at earmarked site (s) and should not be kept active and shall be used for reclamation and development of green belt.</p>	<p>Being Complied. Presently topsoil is being stacked properly and topsoil to be generated in the balance life of mine will be stacked properly with proper slope at earmarked site (s) and will not be kept active. The stocked topsoil is being /will be used for reclamation and development of green belt.</p>
xxi	<p>OB generated in the balance life of mine should be stacked at earmarked one external OB dumpsite within ML area. The ultimate slope of dump shall not exceed 28° Monitoring and management of reclaimed dumpsite should continue until the vegetation becomes self- sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional offices located at Bhubaneswar on yearly basis. The</p>	<p>Being Complied. Since the takeover by HIL no external dumping is being done OB generated annually is being backfilled in de-coaled area. Slope stability study has been carried out by ISM Dhanbad. The ultimate slope of the dump is maintained and dumps are stabilized. Monitoring and management of reclaimed dump site is continuing and will continue until the vegetation becomes self – sustaining. Now Nagpur Regional Office is looking after EC monitoring & compliances. Full co – operation has</p>

	area of OB dump should be reduced. The grass turfing should be done on OB dumps.	been extended to Regional Officer by furnishing requisite data information / monitoring reports
xxii	Adequate numbers of sprinklers should be provided on both the side of road to minimize pollution.	Being Complied. Regular Water sprinkling on haul road is practiced through truck mounted water sprinklers (04 Nos) to check the fugitive dust emission. Also installed the fixed type of water sprinklers (29 nos) to control the fugitive dust emission in the mine area.
xxiii	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted and maintained properly. Garland drains (size, gradient, length,) and sump capacity should be designed 50 % safety margin over and above the peak sudden rainfall 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.	Being Complied. Catch drains are constructed to collect and drain water to sumps and ponds. Catch drains are provided with check dams to arrest slit and maintained properly. The store water is used for spraying / sprinkling on haul roads and also for greenbelt development. Garland drains are constructed to arrest discharge and runoff with slit and sedimentation surging into areas adjoining the periphery of OB dump. Ponds / Sumps with capacity 50m X 30m X 3m (03Nos) are provided for proper settling of slit material.
xxiv	Dimension of retaining wall at the toe of the dumps and OB benches within the mine to check run –off and siltation should be based on rain fall data.	Being Complied. To check run – off and siltation from OB / benches, retaining wall is being constructed at the toe of permanent dump slope.
xxv	Water sprinkling system (mist spray type) shall be provided to check fugitive emission from conveyor system, haulage roads and transfer points.	Being Complied. Water sprinkling arrangement has been maintained at all haul roads, conveyor system, loading and unloading points to minimize the fugitive dust emission.
xxvi	Fixed sprinkler shall be installed at pit top truck loading hoppers in all the three mines, siding for dust control during coal loading. Adequate numbers of sprinklers	Being Complied. As per requirement, fixed type water sprinklers as well as truck mounted water sprinklers has been provided in the mines and other places.

	should be provided on both the sides of road to minimize dust pollution.	
xxvii	Drills should be wet operated only.	Being Complied. In coal mining wet drilling is under practice.
xxviii	An action plan for mine closure with details of area, depth, voids and details of abandoned mine should be submitted to the Ministry.	Complied.
xxix	Controlled blasting should be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly of rocks and boulders should be implemented.	Being Complied. Controlled blasting is practiced with use of delay detonators. Ground vibration generated due to the blasting is measured BY seismographs regularly. The permissible limit for the ground vibration with respect to the structures is strictly followed. Measures are taken to minimized ground vibrations. Blasting is done during day time only.
xxx	Transportation shall be by covered trucks of higher capacity (25 –tonne) and loading shall be by siding. Mechanically covered trucks should be provided for transportation of coal.	Being Complied. Transportation is being done with tarpaulin covered trucks.
xxxi	Area brought under afforestation from the three mines shall be by planting native species in consultation with local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.	Being Complied. Planation in the mine area is being carried out @2500 plant/ha. Total 91300 nos. local plants species have been planted till date including OB dump area. Plant Species i.e. Gulmohar, Ashoka Aam,-Amla,Gauva,Shisam,Gamhar,Sal, Eucalyptus, Neem, Jamun, Accassia etc. in consultation with DFO.
xxxii	Extensive plantation should be done near agriculture area to avoid coal dust pollution which may affect the productivity of crop.	Being Complied. Extensive plantation near agriculture land along road side is being done and will be done in future to avoid coal dust pollution which may affect the productivity of crop.
xxxiii	Mine discharge water shall be treated to meet the prescribed standards before discharge into the natural water course/agriculture. The quality of water discharge shall	Being Complied. 03 nos of Settling ponds with chemical dosing arrangement and sump with adequate capacity (for sedimentation) has been provided for the mine seepage water treatment before discharge for the

	be monitored at the outer point and proper records maintained thereof and uploaded regularly on the company website.	agriculture purpose. The treated water quality analysis report from April 2020 to September 2020 is enclosed as <u>Annexure No.- 5</u>
xxxiv	No ground water shall be used for mining activities; additional water required if any shall be met from mine water or by recycling /reuse of water from existing activities and from rainwater harvesting measures. The project authority shall meet water requirement of nearby village (s) in case the village wells go dry to dewatering of mine.	Being Complied. For the mining activity only mine seepage water is being used after chemical dosing in settling ponds. To meet the water requirement of nearby villages company is providing treated water through pipeline/ drains and other mode for domestic (Non Drinking) and irrigation purpose.
xxxv	Regular monitoring of groundwater level and quality of the study area shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), Monsoon (August) Post- monsoon (November), and winter (January) seasons and for quality including Arsenic and Fluoride during the month of May. Data thus collected should be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board /SPCB quarterly within one month of monitoring. Rain water harvesting shall be undertaken in case monitoring of water table indicates a declining trend.	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 Pre- Monsoon (May 20) and Monsoon (August 20) is attached as <u>Annexure No.-6.</u> Non-working mine pit has been developed as rain water harvesting structure in the mines. Quarterly monitoring report of Ground Water Level (from April 2020 to June 2020) and (from July 2020 to September 2020) & GW Quality Monitoring for the month of May 2020 (Pre – Monsoon & August – 2020 (Monsoon season) were submitted to MoEF & CC, CPCB and CECB on quarterly within one month of monitoring basis. Attached as Annexure No. – 7.
xxxvi	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 should be continued till movement ceases completely. In case of observation of any high rate of subsidence movement,	Being Complied. In Gare Palma IV/4 coal mine : the method of underground coal mining is Board & 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 team. During the observation no any subsidence movement has

	appropriate effective corrective measures should be taken to avoid loss of life and material. Cracks should be effectively plugged with ballast and clayey soil/suitable material.	been observed. In future, if any subsidence movement, occurred then 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.
xxxvii	Sufficient coal pillars shall be left unextracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence, if any.	Being Complied. Sufficient coal pillars have been will be left unextracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence.
xxxviii	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.	Being Complied. High root density tree species will be selected and planted over areas likely to be affected by subsidence as required.
xxxix	Depression due to subsidence resulting in water accumulating within the low lying areas shall be filled up or drained out by cutting drains.	Being Complied. As of now depression due to subsidence is not observed. In future if such depression gets observed resulting in water accumulating , the same will be filled up or drained out by cutting drains, if any
xl	Solid barriers shall be left below the village, roads falling within the blocks to avoid any damage to the roads.	Being Complied. Solid barriers is left below the village, roads falling within the blocks to avoid any damage to the roads as per statute.
xli	No depillaring operation shall be carried out below the roads and habitation area found within the lease.	Being Complied. No depillaring operation will be carried out below the roads and habitation area found within the lease.
xlii	The proponent shall ensure to undertake and provide the costs incurred for taking up remedial measures in case of soil.	Being Complied. Cost incurred for taking remedial measures in case of soil will be borne by the company.
xliii	Extensive plantation should be done near agriculture area to avoid coal dust pollution which may affect the productivity of crop.	Being Complied. Extensive planation along road side has been done near the agriculture area to avoid coal dust pollution which may affect the productivity of crop. The same will be continue in other areas also.
xliv	ETP shall be provided for workshop, CHP, if any. Effluent shall be treated to confirm to prescribe standards in case discharge in to any water	Being Complied. Water treatment facility has been provided in mines for the seepage water treatment. The

	<p>course outside the lease. The quality of water discharged shall be monitored at the outer point and proper records maintained thereof and uploaded regularly on the company website.</p>	<p>quality of treated water is being monitored. The water quality analysis report is already enclosed.</p>
<p>xliv</p>	<p>A detailed plan for CSR with specific budgetary allocation (capital and revenue) for various skill development and alternate livelihood programmes and schemes shall be implemented and the impacts activities under CSR monitored based on in a scientific methodology. An amount of Rs. 5 per tonne of coal produced with escalation factor shall be utilized for the CSR activities for the adjoining villages for the balance life of project apart from one time capital expenditure. The details of CSR undertaken along with budgetary provisions for the village wise various activities and expenditure thereon shall be uploaded on the company website every year. CSR Audit should be carried conducted annually.</p>	<p>Being Complied. Rs. 5/- per ton of coal produce is being utilized for CSR activities under the guidance of District Collector, Raigarh. CSR Expenditure detail is already enclosed.</p>
<p>xlvi</p>	<p>A special corpus fund either at company level or in CIL/MOC be provided for the reclamation of abandoned and degraded areas.</p>	<p>Being Complied. Escrow account has been opened for the reclamation of abandoned and degraded areas in the mine lease till date (March 2020)₹ Rs 4.97 Crore has been deposited.</p>
<p>xlvii</p>	<p>For monitoring land use pattern and for post mining land use, a time series of land use, maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in the three years (for any one particular season which is consistent in the time series). And</p>	<p>Complied. Report on Assessment of Land Use / Land Cover using High Resolution Satellite Imagery for the GP Mine IV/4 Coal Mine was carried out by IndiGEO Consultants, Bangalore in the month of December 2019 and the report was submitted to your office dated 27 May 2020.</p>

	<p>the report submitted to MOEF and its regional office at Bhopal. The post mining land use shall be that out of the total 701.512 ha area, 57.73 ha area will be under plantation. 319.65 Ha area for public use, 324.132 ha area shall be undisturbed.</p>	
xlvi	<p>A Final Mine closure plan along with a plan for habitat restoration and with details of corpus Fund shall be submitted to the Ministry of Environment & forest five years before mine closure for approval. The species selected for habitat restoration for post mining and shall include a specific plan for development of agro forestry using a mix native species found in the study area.</p>	<p>Being Complied. A Final Mine closure plan along with a plan for habitat restoration and with details of corpus Fund will be submitted to the Ministry of Environment & forest five years before mine closure for approval. The mix species will be selected for habitat restoration as per the conditions set out herewith.</p>
xlix	<p>A special corpus fund either at company level or in CIL/MOC be provided for reclamation of abandoned and degraded area.</p>	<p>Being Complied. Escrow account has been opened for the reclamation of abandoned and degraded areas in the mine lease.</p>
i.	<p>The possibility of sand stone, wherever is present in the OB as per lithology report, be explored and be provided to locals free of cost.</p>	<p>Being Complied. As per availability the sand stone is being provided to the locals free of cost.</p>
ii	<p>After extraction of coal is completed, the OB left will be completely rehandled and backfilled the voids. This will be achieved by rehandling of OB Dumps in the area. Contamination of ground water and surface water and occupational and other diseases due to the mining operation.</p>	<p>Being Complied. After extraction of coal is completed, the OB dump created by Hindalco if any will be rehandled and backfilled into the voids as per mine closer plan to the extent possible.-</p>
iii	<p>Corporate Environment Responsibility:</p>	<p>Being Complied. The company has an Environmental policy duly signed by the Managing Director on Board.</p>

	<p>a) The company shall have a well laid down Environment Policy approved by the Board of Directors.</p> <p>b) The Environment Policy shall prescribe for standard operating process/ procedures to bring into focus any infringements/deviation/violation of the environmental of forest norms/conditions.</p> <p>c) The hierarchical system or administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.</p> <p>To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/ violations of environmental norms to the Board of Directors of the company and /or shareholders at large.</p>	<p>The environmental policy governs the SOPs for compliance of the stipulations within the frame work of regulatory requirements of environment / Forest Norms.</p> <p>There is compliance monitoring system is in place to take care of alert / reporting of compliance / non compliances of the regulatory requirements to the Mines Head & Head office (Compliance Committee).</p>
General Conditions		
i	No change in mining technology and scope of working should be made without prior approval of the ministry of Environment & Forest.	Noted
ii	No change in the calendar plan for quantum of mineral coal and waste should be made.	Noted
iii	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM10, PM2.5, SO2, and NOx monitoring. Location of the stations shall be decided based on meteorological data topographical features and environmentally and ecologically sensitive targets in consultation with the state pollution Control Board. Monitoring heavy	<p>Being Complied.</p> <p>Four ambient air quality monitoring stations have been established and regular monitoring is being carried out.</p> <p>Reports are being periodically furnished to CECB.</p> <p>Copy of Monitoring Report from the period April 2020 to September 2020 is enclosed as Annexure -8</p>

	metals such as Hg, As Ni, Cd, Cr, etc. carried out at least once in six months.	
iv	Data on Ambient air quality (PM10, PM 2.5, SO2, NOX) monitoring location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the state Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr etc. carried out at least once in six months.	Being Complied. All AAQM stations are decided based on the on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the state Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr etc. carried out at least once in six months. Heavy metals Monitoring report for the month of September 2020 is attached as <u>Annexure No. 9</u>
v	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operation of HEMM, etc should be provided with ear plugs/muffs.	Being Complied. Ear muffs/plugs has been provided to the all workers engaged in blasting and drilling operations. The Noise monitoring report period April 2020 to September 2020 is enclosed as <u>Annexure-10</u>
vi	Industrial wastewater (workshop and wastewater from the mine) should be properly collected treated so as to conform to the standards under prescribed GSR 422 (E) dated 19 th May 1993 and 31 st December 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.	Being Complied. Settling ponds with chemical dosing arrangement has been provided for the mine seepage water treatment.
vii	Vehicular emission should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.	Being Complied. Regular monitoring of vehicular emission is being done and it is under control. The PUC certificate has been ensured for all the vehicles engaged in mining activities. The vehicle used for transporting the minerals are covered and optimally loaded.

viii	Monitoring of Environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the state pollution control board and data got analyzed through a laboratory recognized under EPA Rules,1986.	Being Complied. Environmental monitoring is being carried out through CECB & MoEF & CC approved & NABL accredited Laboratory i.e. Ultimate Envirollytical Solutions Raipur. Approval letter of Monitoring Agency from CECB Raipur & NABL accredited Laboratory certificate is attached as <u>Annexure No. - 11</u>
ix	Personnel working in dusty area shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspect.	Being Complied. Personnel working in dusty areas are provided with protective respiratory devices and they have also been provided with adequate training and information on safety and health aspect.
x	Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof.	Being Complied. Occupational health surveillance is undertaken as per DGMS guidelines.
xi	A separate environment 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 company.	Being Complied. A separate Environmental Management Department is functioning at Coal Mine under the direct control of a senior executive.
xii	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this ministry and it's Regional Office at Bhubaneswar.	Being Complied. The funds earmarked for environmental protection measures has been budgeted separately and not been diverted for other purposes. Environmental Expenditure details from April 2020 to September 2020 is Enclosed as <u>Annexure – 12</u> Now Nagpur Regional Office is looking after EC monitoring & compliances full co – operation has been extended to Regional Officer by furnishing requisite data information / monitoring reports
xiii	The project authority shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality	Complied.

	concerned within seven days 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 may also be seen at the website of the ministry of environment & forest at https://envfro.nic.in .	
xiv	A copy of environmental clearance letter shall be marked to concern panchayat / Zila Parishad, Municipal Corporation or Urban local body and local NGO, if any., from whom any suggestion /representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website.	<p style="text-align: center;">Complied.</p> <p>The EC documents are uploaded on the company's website</p> <p>The status of the environmental parameters is displayed at the main gate.</p>
xv	A copy of environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the regional office, District Industry Sector and Collector's office/Tehsildar's office for 30 days.	Complied by Prior Allottee.
xvi	The Clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance conditions shall be uploaded by the project authorities on their website and uploaded at least once every six months so as to bring the same in public domain. The monitoring data of environmental quality parameter (Air, Water, noise and soil) and critical pollutant such as PM10,	<p style="text-align: center;">Complied.</p> <p>Upload the EC Clearance letter & Half yearly compliance report on the company's website i.e. http://www.hindalco.com/sustainability/regulatory-compliances and also displayed the monitoring data of environmental quality parameter (Air, Water, noise and soil) and critical pollutant such as PM10, PM2.5, SO2, and NO2 at the entrance of the mine gate.</p>

	PM2.5, SO2, and NO2 (Ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website	
xvii	The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (Both in hard copy and in e- mail) to the respective Regional Office of the Ministry, Respective Zonal officer's of CPCB and the SPCB. Compliance of the EC conditions be monitored by the MoEF and other concerned agencies.	Complied. The last Half Yearly Compliance report for the period from October 2019 to March 2020 was submitted to MoEF & CC dated 27.05.2020
xviii	The Regional Office of this ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office (s) of the Regional Office by furnishing the requisite data / information/ monitoring reports.	Complied. Now Nagpur Regional Office is looking after EC monitoring & compliances full co – operation has been extended to Regional Officer by furnishing requisite data information / monitoring reports
xix	The Environmental Statement for each financial year ending 31 March in Form –V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently shall be uploaded on the company's web site along with the status of compliance of EC conditions and shall be sent to the respective Regional Officers of the MoEF & CC by E- mail	Complied. Submitted the Environmental Statement Report (In Form - V) for the FY 2019 -20 to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, dated 18.09.2020 and also uploaded in the company's website also E-mailed the EC Compliance report to Regional Office, Nagpur.
5	The Ministry or other competent authority may stipulated any further	Noted.

	condition for environmental Protection.	
6	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environmental (Protection) Act, 1986	Noted.
7	The above condition will 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 Environmental Protection Act 1986, and the Public Liability Insurance Act, 1991 along with their amendments and Rules, The proponent shall insure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of ground water and surface water, and occupational and other diseases due to the mining operations.	Noted.
8	The Environmental Clearance is subjected to the outcome of the case filed by Chhattisgarh Environmental Conservation Board, in the court of Chief Judicial Magistrate, Raigarh, which is pending.	Noted.