



## ईस्टर्न कोलफील्ड्स लिमिटेड

राजमहल खनि समूह

महाप्रबंधक (प्रभारी) का कार्यालय

धनकुंडा, पोस्ट- बड़ा सिमरा, जिला- गोड्डा, झारखण्ड - 814165

पत्रांक- ईसीएल/राजमहल/मप्र(प्र.)/यो.नि.वि. व पर्या./ईएमपी(सी)/451(C) दिनांक - 09.11.2018

सेवा में,

संयुक्त निदेशक / The Joint Director(s) ,

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

Ministry of Environment, Forest & Climate Change,

क्षेत्रीय कार्यालय (पू.मध्य क्षेत्र) / Regional Office (E.C.Z)

Bungalow no – A2, Shyamali Colony, Doranda

रांची, (झारखण्ड) / Ranchi, (Jharkhand) - 834002

**विषय - हुरा सी परियोजना (03 MTY) से संबंधित छमाही अनुपालन प्रतिवेदन  
(अवधि - अप्रैल 2018 से सितंबर 2018)**

महोदय,

Please find enclosed herewith EMP Compliance Report on implementation of Environmental Safeguards in prescribed format one in hard copy and one in soft copy (preceding periods: April 2018 to September 2018) in respect of Hura –C Open Cast Project (3 MTPA).

कृपया पावती दें।

संलग्नक - यथोपरि।

भवदीय,

क्षेत्रीय प्रबंधक (यो.नि.वि. व पर्या.)

राजमहल क्षेत्र, ईसीएल

प्रतिलिपि -

Additional Principal Chief Conservator of Forests (C), पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, पूर्वी क्षेत्र, A/3, चंद्रशेखरपुर, भुवनेश्वर, ओडिसा- 751023

सदस्य सचिव, झारखण्ड राज्य प्रदूषण नियंत्रण बोर्ड, राँची - आवश्यक दस्तावेजों के साथ सादर सूचनार्थ ।

महाप्रबंधक (पर्यावरण), ईसीएल, बराचक हाउस, आसनसोल - आवश्यक दस्तावेजों के साथ सादर सूचनार्थ ।

महाप्रबंधक (प्रभारी), राजमहल क्षेत्र - सादर सूचनार्थ ।

अभिकर्ता, हुरा- सी परियोजना ।

**Six Monthly EMP Compliance Report (Half yearly - End September 2018) of  
Environmental Clearance from Ministry of Environment and Forests, New Delhi  
In respect of Hura – C Open Cast Project**

**A. Specific Conditions**

<b>S.No.</b>	<b>Conditions</b>	<b>Compliance</b>
i	No mining operations shall be undertaken in the forestland until clearance has been obtained under the provisions of FC Act, 1980. The application made for obtaining forestry clearance shall specifically indicate that an area of 186 ha. Forest land is required for OB dumping.	Mining operations shall be undertaken in the forest land after requisite clearance thereof.
ii	Mining shall be carried out as per statuette from the Streams/Nallahs flowing within the lease and along the diverted Nallah along the lease boundary.	After opening of Hurra - C OCP, mining shall be carried out as per statuette from the Streams / Nallahs flowing within the lease and along the diverted Nallah along the lease boundary.
iii	An embankment of a height difference of 3m from HFL shall be constructed and diverted Nallah and the quarry/working pits. The slope of the embankment shall at least 2:1 towards the ML and shall be stabilized by plantation. A 200 m wide corridor shall be left undisturbed between the working Pits and Nallah.	The provisions shall be made during mine operation.
iv	Top Soil should be stacked with proper slope at earmarked site(s) and should not be kept active and shall be used for reclamation and development of green belt.	This practice will be followed at Hurra 'C' OCP for reclamation and development of green belt.
v	OB dumps should be stacked at earmarked two external OB dump site(s) within ML area and shall be a maximum height of 60 m only and consist of two benches of 30 m each. The ultimate slope of the dump shall not exceed 28 degree. Monitoring and management of reclaimed dumpsites should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional office located at Bhubaneswar on yearly basis.	This practice of technical and biological reclamation will be followed at Hurra 'C' OCP. The yearly report will be submitted to Regional office of MOEF, Bhubaneswar and Ranchi.
vi	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sedimentation flows from soil, OB and mineral dumps. The water so collected should be utilised for Watering the mine area, roads, green belt development etc. The drain should be regularly desilted and maintained properly. Catch drains of appropriate size will be constructed, maintained and desilted time to time to ensure its efficacy.	Catch drains and siltation ponds will be constructed and maintained properly and hence collected water will be utilized appropriately. Garland drains of appropriate size will be constructed and maintained to arrest the surface run off, which is collected into the settling pond before final discharge.



S.No.	Conditions	Compliance
	Provision of siltation pond will be maintained as suggested.	
vii	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.	Retaining wall of proper dimension will be constructed at the toe of OB Dumps and OB benches.
viii	High efficiency bag filters/water sprinkling system should be provided to check fugitive emissions from conveyor system, haulage roads, transfer points, etc. Dry fogging shall be provided at the CHP for crushing/loading operations for dust control.	The provisions will be made during mine operation.
ix	The road from mine to CHP shall be metal topped. Green belt shall be developed on both sides of the roads.	Metal topped roads from mine to CHP and Green-belt will be developed.
x	Drills should be wet operated only.	Wet operated drills will be maintained during mine operation for dust control.
xi	Controlled blasting should be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.	Controlled blasting technique as suggested will be followed.
xii	The total area that shall be brought under afforestation at the time of mine closure shall not be less than 729.538 ha which includes external OB dump (348.088 ha) and backfilled area (280 ha), along ML boundary, safety zone (5.043 ha) and in disturbed area (92.667 ha), along roads (1.17 ha) and infrastructure (0.87 ha) and in township outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.	The Afforestation programme will be implemented as suggested.
xiii	A progressive Mine Closure Plan shall be implemented by reclamation of quarry area of 280 ha which shall be backfilled concurrently with mining operation and afforested by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plant per ha. The balance 84.09 ha of de-coaled area/void is being converted into a water reservoir which shall be gently sloped. The upper benches of the reservoir shall be terraced and stabilized with plantation.	Progressive Mine Closure Plan will be implemented as suggested.
xiv	A plan for conservation of endangered flora and fauna shall be prepared and implemented in	Conservation plan of endangered flora and fauna (WLMP) has already



S.No.	Conditions	Compliance
	consultation with the concerned Forest and wildlife Departments of the State Government and recognized institutions such as the BSI and ZSI. The Plan shall include in-situ conservation of the endangered flora. A separate fund shall be earmarked in the project cost and records maintained of the expenditure thereof and reported yearly to the MOEF RO, Bhubaneswar.	been prepared and is at present submitted to PCCF Ranchi for kind consideration. It would be implemented in consultation with the concerned Forest and wildlife Departments of the State Government and recognized institutions such as the BSI and ZSI.  A separate fund will be earmarked in the project cost and records maintained of the expenditure thereof and reported yearly to the Regional Office of MOEF, Bhubaneswar and Ranchi.
xv	Prior approval of the CGWB/SGWA shall be obtained for use of groundwater.	Application for approval from CGWB will be processed at the earliest.
xvi	Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new Piezo-meters. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), Post-monsoon (November) and winter (January) seasons and for quality in May Data thus collected should be submitted to the Ministry of Environment and Forests and the Central Pollution control Board quarterly within one month of monitoring.	Regular monitoring of groundwater level and quality shall be carried out as suggested and the reports will be submitted to the Ministry of Environment and Forests and the Central Pollution control Board quarterly within one month of monitoring.
xvii	The Company shall put up artificial groundwater recharge measure for augmentation of groundwater resource. The project authorities should meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	The Company and project authorities shall abide by the instructions as stipulated.
xviii	Sewage treatment plant shall be installed in the colony. ETP should also be provided for workshop and CHP wastewater.	The provisions will be made.
xvii	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 3 years (for any one particular season which is consistent in the time series), and the report submitted to MoEF and its Regional office at Bhubaneswar.	Work for preparation 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 once in 3 years (for any one particular season which is consistent in the time series) is in process. The report will be submitted to MOEF and its Regional office at Bhubaneswar.
xx	Besides carrying out regular periodic health check	The provisions of health surveillance



S.No.	Conditions	Compliance
	up of their workers, 10% of the works identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmadabad within a period of one year and the results reported to this Ministry and to DGMS.	of workers will be made during mine operation and reports will be submitted to MOEF and DGMS.
xxi	A Socio-economic survey shall be carried out and based on the same an effective R&R package shall be given to ensure restoration of income of project affected persons (PAP). Provision shall also be made in the R&R Plan to take care of the land less labourers.	Socio-Economic Survey has already been carried out of the region. (W.O.No.- ECL/RJML/AgentHurraC/WO/16- 17/243 dt. 26/30.09.2016)
xxii	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment and Forests 5 years in advance of final mine closure for approval.	The provisions will be made.

### **B. General Conditions**

S.No	Conditions	Compliance
i	No change in mining technology and scope of working should be made without prior approval of the Ministry of environment and Forests.	There will be no change in mining technology and scope of working without prior approval of the Ministry of environment and Forests.
ii	No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.	There will be no change in the calendar plan including excavation, quantum of mineral coal and waste during mine operation.
iii	For ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for SPM, RPM, SO <sub>2</sub> and 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 in consultation with the State Pollution Control Board.	The provisions will be made and followed in consultation with the Jharkhand State Pollution Control Board, Ranchi.
iv	Data on ambient air quality (SPM, RPM, SO <sub>2</sub> and NO <sub>x</sub> ) should be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the State Pollution Control Board and Central Pollution Control Board once in six months.	The reports of Environmental monitoring as desired will be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and Ranchi and to the State Pollution Control Board and Central Pollution Control Board once in six months.
v	Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading and	The provisions will be followed and maintained during mine operation.



S.No	Conditions	Compliance
	dump trucks (loading and unloading) points should be provided and properly maintained.	
vi	Adequate measure should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc. should be provided with ear plugs / muffs.	The practice of noise level control will be taken care and workers engaged in blasting and drilling operations, operations of HEMM, etc. will be provided with ear plugs/muffs.
vii	Industrial wastewater (workshop and wastewater 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 19993 and 31 <sup>st</sup> December 1993 or amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.	Industrial wastewater (workshop and waste water from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422(e) dated 19th May 1993 and 31st December 1993 or as amended from time to time.  Oil and grease trap will be installed before discharge of effluents from workshop. They will be properly maintained and if necessary such type of additional arrangements will be provided in future.
viii	Vehicular emissions should be kept under control and regularly monitored. Vehicles used to transporting the mineral should be covered with tarpaulins and optimally loaded.	Vehicular emissions will be kept under control and regularly monitored. Vehicles used for transporting the mineral will be covered with tarpaulins and optimally loaded.
ix	Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control board.	The provisions will be made.
x	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.  Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.	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 aspects.  Periodical Medical Examination will be done for each worker at an interval of five years under occupational health surveillance programme.
xi	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 company.	<b>Company Level :-</b> There is a Separate Environmental Management Cell with suitable qualified personnel under the control of General Manager (Environment) of ECL, who reports directly to the Head of the organization.




S.No	Conditions	Compliance
		<p><b>Project level :-</b> A separate environmental management cell with suitable qualified personnel has been formed at Rajmahal Area.</p>
xi	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 this Ministry and its Regional Office at Bhubaneswar.	The provisions will be made.
xii	A copy of the environmental clearance letter shall be marked to concerned Panchayat / local NGO, if any, from whom any suggestion / representation has been received while processing the proposal.	The provisions have been made.
xiii	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 provisions, as suggested, will be followed by State Pollution Control Board, Ranchi.
xiv	The Project authorities should advertise a least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality 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 and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> .	Advertisement for circulation of information in respect of Environmental clearance in local newspapers as proposed has been done.

Thanking you.

Date : 09-11-2018

Yours faithfully

  
**Agent GM**  
**Hura C Open Cast Project**  
**Rajmahal Group of Mines**

