



सेल SAIL

स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
बोकारो इस्पात संयंत्र  
BOKARO STEEL PLANT  
एम.ओ.एम., चिड़िया  
MOM, CHIRIA

Ref. No. MOM/PC/6/145

Date: 26.11.2021

To,

Additional PCCF (IFS)  
Ministry of Environment, Forest and Climate Change  
Regional Office (ECZ)  
Bungalow No. A – 2, Shyamali Colony  
Ranchi – 834 002

राजिस्ट्री  
REGISTERED

**Sub: Six Monthly Compliance of the Conditions Stipulated in Environmental Clearance of Ajitaburu Iron ore mining project for the period April-2021 to Sep-2021 of M/s SAIL.**

Sir,

We are hereby submitting status of compliance for the above period up to 30<sup>th</sup> September 2021 to the conditions stipulated in the Environmental Clearance granted by MoEF vide No:J-11015/505/2007-IA. II(M), Dated: 31<sup>st</sup> March, 2011 in respect of Ajitaburu Iron ore mining project of Manoharpur Ore Mines of M/s SAIL for production of 2.80MTPA of Iron ore.

It may please be noted that mine is not in operation since 1995 for want of Stage – II Forestry Clearance.

Thanking you.

Yours faithfully,  
For, Steel Authority of India Ltd.

*Ravi Rajan*  
26/11/21  
(Ravi Rajan)  
General Manager (Mining)  
Manoharpur Ore Mines  
Bokaro Steel Plant (BSL), SAIL

Copy to:

1. Director, IA, MoEF&CC, GOI, Indira Paryavaran Bhavan, Aliganj, JorBagh Road, New Delhi - 110 003.
2. Member Secretary, JSPCB, HEC, Dhurwa, Ranchi – 834 004.
3. In-charge, Eastern Zone, CPCB, Southern Conclave, Block 502,5th & 6th Floors, 1582 Rajdanga Main Road, Kolkata - 700 107 (W. B.)

Chiria Office : MOM Chiria, Po.-Ps : Chiria, W. Singhbhum, Jharkhand-833106, E-MAIL : momchiria@gmail.com, momperschiria@gamil.com  
Head Office : Addm. Building, Bokaro Steel Plant, Bokaro City, Jharkhand - 827001  
Regd. Office : Ispat Bhawan, Lodhi Road, New Delhi-110003, Phone : +91-11-2436-7481 (14 Lines), Fax : 24367015

**Status of Compliance to Conditions Stipulated in  
Environmental Clearance granted**

**by**

**MoEFCC**

**Vide Order No:J-11015/505/2007-IA.II(M),**

**Dated: 31st March, 2011 for 2.80 MTPA**

**Of**

**Ajitaburu Iron Ore mining project**

**( Period: April-2021 to September-2021 )**



**STEEL AUTHORITY OF INDIA LIMITED**

**BOKARO STEEL PLANT (BSL)**

**MANOHARPUR ORE MINES**

**P.O. – CHIRIA, PIN : 833106**

**DIST. : SINGHBHUM (WEST)**

**JHARKHAND STATE**



**Environment Clearance letter No:J-11015/505/2007-IA.II(M), Dated: 31<sup>st</sup> March, 2011 of Ajitaburu Iron Ore Mining project for production of 2.80 MTPA (ROM) of iron ore.**

**Half yearly compliance report for the period: April-2021 to September-2021**

**A. Specific Condition**

Sl. No.	Conditions	Compliance Status as on September - 2021
i	The project proponent shall obtain Consent to Establish and Consent to Operate from the Jharkhand State Pollution Control Board and effectively implement all the conditions stipulated therein.	To obtain Consent to Establish (NOC), application was submitted to JSPCB, Ranchi and copy to Regional Office, Jamshedpur on 30.01.2010, vide Ref. No. MOM/C/PC/4/139.
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	Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to the project.	Not Applicable.
iv	Environmental clearance is subject to obtaining clearance under Forest (Conservation) Act, 1980 for diversion of forestland. Mine working shall be restricted to the area for which forestry clearance has been obtained.	Stage-1 Forest Clearance was obtained vide letter Ref: F.No.8-70/2009-FC, dated: 07.03.2011 for mine working over 153.036 ha. Stage-01 conditions compliances submitted & grant of Final Clearance is awaited.
v	Prior environmental Clearance from the Standing Committee of the National Board for wildlife shall be obtained due to location of the mine within the core zone of Singhbhum Elephant Reserve, before starting any activity relating to the project at site. All the conditions stipulated by the standing committee shall be effectively implemented in the project. It shall be noted that wildlife clearance shall be granted to the project and that your proposal for wildlife clearance shall be considered by the competent authority ties on its merits and decision taken. The investment made in the project, if any	Not Applicable.



Sl. No.	Conditions	Compliance Status as on September - 2021
	based on environmental clearance granted to the project, in anticipation of the clearance from wildlife clearance shall be entirely at the cost and risk of the project proponent and Ministry of Environment and Forests shall not be responsible in this regard in any manner.	
vi	The Mining operations shall be restricted to above the groundwater table and it should not intersect the groundwater table. In case of working below the groundwater table, prior approval of the Ministry of Environment and Forests and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.	<p>Water table level at our mining lease area is about 400 m AMSL and ultimate depth of our proposed workings will be above 462m AMSL. Hence there is no possibility for intersecting of Mine workings with the ground water table.</p> <p>Due to any reason it is required to work below the groundwater table, we will obtain prior approval of the Ministry of Environment and Forests and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study will be carried out.</p>
vii	The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. The first order streams and the seasonal nallahs originating from the mining lease area shall be protected.	<p>No working during April-2021 to September-2021.</p> <p>Proper Precautions will be taken to avoid obstructions to Natural water resources by providing drains and bounds etc. at required places during operations period.</p>
viii	The top soil, if any shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.	<p>No working during April-2021 to September-2021.</p> <p>After starting operations, the top soil will be separately stored at earmarked site. The stored top soil will be used in plantation works.</p>
ix	The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time and their phase-wise stabilization shall be carried out. There shall be two external over burden dumps. The stabilized dump in area of 2 ha shall not be used for dumping in future. The new dump created in an area of 12 ha shall have maximum projected height of 34 m having two terraces and the overall slope of the dump shall be maintained to 28. The OB dump should be scientifically	<p>No working during April-2021 to September-2021.</p> <p>After starting operations the over burden (OB) generated during the mining operations will be stored at earmarked site. Phase-wise stabilization will be carried out.</p> <p>Six monthly Compliance Status is being submitted to the Ministry of Environment &amp; Forests and Climate Change and its Regional Office located at Ranchi.</p>



Sl. No.	Conditions	Compliance Status as on September - 2021
	<p>vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment &amp; Forests and its Regional Office located at Bhubaneswar on six monthly basis.</p>	
x	<p>Catch drains and siltation ponds of appropriate size shall be constructed around the mine working soil, mineral and OB dump(s) to prevent run off of water and flow of sediments directly into the Hamsadagaar Nallah, the koina River, the seasonal nallahs and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after the monsoon and maintained properly. Garland drains, setting tanks and check dams of appropriate size, gradient and length shall be constructed around the mine pit, soil, mineral and over burden dumps to prevent run off of water and flow of sediments directly into the Hamsadagaar Nalla, the Koina River, the seasonal nallahs and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de-silted at regular intervals.</p>	<p>No working during April-2021 to September-2021.</p> <p>After starting operations, Repair of old Retaining wall, Garland drain, siltation pond and construction of new Retaining wall, Garland drain, siltation pond at required places will be carried out .</p>



Sl. No.	Conditions	Compliance Status as on September - 2021
xi	Dimension of the retaining wall at the toe of the over burden dumps and the OB benches within the mine to check run-off and siltation shall be based on the rain fall data.	No working during April-2021 to September-2021. Dimension of the retaining wall and check dams will be designed based on the rainfall data.
xii	Plantation shall be raised in an area of 92.986 ha including a 7.5 m wide green belt in the safety zone around the mining lease, over burden dumps, mine benches, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	No working during April-2021 to September-2021. Greenbelt will be developed all along the mine lease area in a phased manner and shall be completed within first five years after the start of mining operations.
xiii	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	No working during April-2021 to September-2021. Water sprinkling will be done on haul roads, loading and unloading point and all transfer points during operation period.
xiv	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	As the mine pits are located at the hill top, all the surface runoff from the mining areas have been diverted to mine pits, from where it seeps in to the ground.
xv	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and installing new piezometers during the mining operation. The periodic monitoring [(at least four times on a year-pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be	Network of 6 nos. of existing Dug Wells located around the mines have been selected for ground water level monitoring. Ground water table levels at the selected wells are being monitored at regular intervals i.e. 4 times in a year.



Sl. No.	Conditions	Compliance Status as on September - 2021																					
	<p>carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forest and its Regional Office Bhubaneswar, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.</p>	<p>The Range of water levels during Summer (May-2021) and during Monsoon (August-2021) is as follows,</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Location</th> <th>Water level below the Ground Surface (in meters)</th> </tr> </thead> <tbody> <tr> <td>G1</td> <td>Adjacent to community centre at Anqua</td> <td>6.1- 6.4</td> </tr> <tr> <td>G2</td> <td>Opposite to community centre at Anqua</td> <td>6.2-6.65</td> </tr> <tr> <td>G3</td> <td>Near Anqua Model Steel Village Gate</td> <td>1.90-2.30</td> </tr> <tr> <td>G4</td> <td>Siva Mandir</td> <td>3.30-3.60</td> </tr> <tr> <td>G5</td> <td>Near CNI Church</td> <td>7.25-7.50</td> </tr> <tr> <td>G6</td> <td>Near Bishra Chowk</td> <td>1.55-1.70</td> </tr> </tbody> </table> <p>In addition to above Two piezometers one at Chiria (150 feet) and another at Dhobil Village 200 feet provided and are being monitored at regular intervals i.e. 4 times in a year. Ground water levels during Summer (May-2021) and during Monsoon (August-2021) are and piezometer photograph is placed in <b>Annexure – 1</b>.</p>	ID	Location	Water level below the Ground Surface (in meters)	G1	Adjacent to community centre at Anqua	6.1- 6.4	G2	Opposite to community centre at Anqua	6.2-6.65	G3	Near Anqua Model Steel Village Gate	1.90-2.30	G4	Siva Mandir	3.30-3.60	G5	Near CNI Church	7.25-7.50	G6	Near Bishra Chowk	1.55-1.70
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xvi	<p>Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintained.</p>	<p>No working during April-2021 to September-2021.</p> <p>Regular monitoring of flow rate of water at the perennial nalla i.e. Hamsadagaar Nalla, is being done and records are being maintained.</p>																					
xvii	<p>Regular monitoring of water quality upstream and downstream of the Hamsadagaar Nalla shall be carried out and record of monitored date should be maintained and submitted to the Ministry of Environment and Forests, its Regional Office, Bhubaneswar, the Central Groundwater Authority, the Regional Director, Central Ground Water Board, the SPCB and the CPCB.</p>	<p>Water quality monitoring at both upstream and downstream of Hamsadagaar Nalla is being done on quarterly basis and results are being submitting to Ministry of Environment, Forest &amp; Climate Change, it's Regional Office, Ranchi, the Central Groundwater Authority, the State Pollution Control Board and the Central Pollution Control Board.</p>																					



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		<p>The Range of upstream and downstream Parameters during April-21 to Sep-21 is as follows-</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th>Up-stream</th> <th>Down-stream</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>-</td> <td>6.55-6.50</td> <td>7.65-6.65</td> </tr> <tr> <td>Temperature</td> <td>°C</td> <td>22.1-26.2</td> <td>22.5-27.1</td> </tr> <tr> <td>Turbidity</td> <td>NTU</td> <td>2.30-1.75</td> <td>2.35-1.50</td> </tr> <tr> <td>Conductivity</td> <td>µS/cm</td> <td>130.5-160.5</td> <td>104.00-139.7</td> </tr> <tr> <td>DO</td> <td>Mg/l</td> <td>7.60-7.82</td> <td>7.45-7.64</td> </tr> <tr> <td>TDS</td> <td>Mg/l</td> <td>73.2-94.3</td> <td>55.4-80.1</td> </tr> </tbody> </table> <p>Water quality data is attached in <b>Annexure – 2</b></p>	Parameter	Unit	Up-stream	Down-stream	pH	-	6.55-6.50	7.65-6.65	Temperature	°C	22.1-26.2	22.5-27.1	Turbidity	NTU	2.30-1.75	2.35-1.50	Conductivity	µS/cm	130.5-160.5	104.00-139.7	DO	Mg/l	7.60-7.82	7.45-7.64	TDS	Mg/l	73.2-94.3	55.4-80.1
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xviii	The Project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) required for the project.	Permission obtained from Water Resource Department, GOJ and agreement has been made with Water Ways Division, Chaibasa on 03.08.2017, for drawl of water from Hamsadagara Nalla to the tune of 0.62 MCM per annum for Manoharpur Ore Mines, Chiria.																												
xix	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	<p>As the mine pits are located at the hill top, all the surface runoff from the mining areas have been diverted to mine pits, from where it seeps in to the ground.</p> <p>Check bunds, Garland drains and siltation pond has been constructed to control surface runoff.</p>																												
xx	Appropriate mitigative measures shall be taken to prevent pollution of the Koina River in consultation with the State Pollution Control Board.	<p>No working during April-2021 to September-2021.</p> <p>For preparation of a Comprehensive Catchment Area Treatment (CAT) Plan of the area, discussion was held with DFO (Saranda) and IIT Kharagpur, a world renowned premier mining institute of the country, was engaged for preparation of the CAT Plan.</p> <p>IIT Kharagpur, by using GIS Frame work and Remote Sensing Technology, as well as field survey, has prepared the CAT Plan. The CAT Plan covers an approx. area of 11,500 Km<sup>2</sup> bounded by the west bank of river Koina in the west up to the east bank of river Karo in the east.</p> <p>The Plan has focused on the Catchment scenario of the region, river system, source of water pollution and their prevention, terrain description, soil conservation and its integration with CSR activities, mining activities in the area etc.</p>																												





Sl. No.	Conditions	Compliance Status as on September - 2021														
		In consultation with State Pollution Control Board Pollution Control measures will be implemented during operation.														
xxi	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 from mine face to the beneficiation plant. The vehicles shall be covered with a tarpaulin and shall not be overloaded.	No working during April-2021 to September-2021. Will be followed during operation.														
xxii	No blasting shall be carried out after the Sunset; Blasting operation shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	No working during April-2021 to September-2021. Will be followed during operation														
xxiii	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to the Ministry of Environment and Forests and its Regional Office located at Bhubaneswar.	The entire mine lease is in Ankua RF of Saranda Reserve Forest.  Land use and land cover map of Ajitaburu lease area have been developed by Department of Mining Engineering Indian Institute of Technology (Indian School of Mines) Dhanbad as on 31.03.2021 and Land use pattern of the lease area is as follows, <table border="1" data-bbox="862 1268 1541 1591"> <thead> <tr> <th>LU/LC classes</th> <th>Area (ha)</th> </tr> </thead> <tbody> <tr> <td>Mine lease Boundary</td> <td>323.887</td> </tr> <tr> <td>Dense forest</td> <td>253.568</td> </tr> <tr> <td>Open forest</td> <td>33.329</td> </tr> <tr> <td>Built-up area Mining</td> <td>5.618</td> </tr> <tr> <td>Built-up area non mining</td> <td>8.972</td> </tr> <tr> <td>Waste Land</td> <td>22.402</td> </tr> </tbody> </table>	LU/LC classes	Area (ha)	Mine lease Boundary	323.887	Dense forest	253.568	Open forest	33.329	Built-up area Mining	5.618	Built-up area non mining	8.972	Waste Land	22.402
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xxiv	Drills shall either be operated with dust extractors or equipped with water injection system.	No working during April-2021 to September-2021. Will be followed during operation.														
xxv	Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	No working during April-2021 to September-2021. Will be followed during operation.														



Sl. No.	Conditions	Compliance Status as on September - 2021
xxvi	Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.	<p>Septic Tanks with soaking pits have been provided for the various accommodations. Septic Tank &amp; Soaking Pits are being cleaned regularly and maintained.</p> <p>However, Vehicle washing facility with Oil grease traps was provided at Chiria general office for vehicles.</p>
xxvii	Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	Pre-placement medical examination and periodical medical examination is being carried out and records maintained.
xxviii	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear, Indian wolf, python etc. spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measures brought out in the wildlife Conservation Plan so prepared specific to the project site shall be effectively implemented. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional Office, Bhubaneswar.	<p>All precautions are under taken not to disturb the flora and fauna in the mining lease area. Necessary facilities are being extended to local forest department for their inspection and monitoring of forest area.</p> <p>IWLMP for West Singhbhum District of Jharkhand was prepared by an Expert Committee constituted by the State Govt. vide notification dated 27.08.2011. SAIL was assigned responsibility for institutionalising and funding the study. After submission of report on IWLMP by the Committee, GoJ vide letter dated 19.09.2014 forwarded to MoEFCC, GoI. MoEFCC vide order dated 26.08.2014 constituted a Multi-Disciplinary Expert Committee (MDEC) to examine IWLMP. IWLMP was again refined and revised IWLMP was finally submitted by the Expert Committee to GoJ and MoEFCC, GoI on 10.03.2016. Final IWLMP was appraised in 45th meeting of Standing Committee of National Board for Wildlife on 04.09.2017 wherein the committee appreciated the IWLMP.</p> <p>MPSM was approved by MoEFCC on 08.06.2018 wherein it has been stated that the prescription of IWLMP prepared and approved by the State Wildlife Authority, National Board of Wildlife (NBWL) and Project Elephant (PE) of MoEFCC must be followed. IWLMP was presented before GoJ on 29.10.2018. Further the compliance of the</p>



Sl. No.	Conditions	Compliance Status as on September - 2021
		<p>observations pointed was submitted by SAIL to GoJ on 01.02.2019. Further, GoJ vide letter dated 30.04.2019 raised certain queries, which was replied on 31.05.2019.</p> <p>IWLMP is pending with GoJ for approval. Realization of money towards implementation of IWLMP shall be collected from lease holders.</p> <p>SAIL has submitted an undertaking to abide by the guidelines and contribute fund for implementation of IWLMP on prorated basis.</p>
xxix	<p>The entire mining lease area shall be fenced by erecting solar powered electric fencing all round it. The fencing so erected shall be maintained properly and the cost towards erection and maintenance of the solar powered electric fencing shall be borne by the project proponent out of the project cost.</p>	<p>In this compliance, the matter has been discussed but within the RF, Solar fencing is not possible due to some un-reachable condition &amp; presuming the obstacle of movement of wild life animals.</p> <p>Accordingly, the matter is being discussed with the As the project area falls within the RF, the matter has been discussed with forest officials. State Forest Department officials are of the opinion that Solar fencing may obstruct/ effect the movement of wild life animals.</p> <p>Accordingly, the matter is being discussed with DFO, Saranda Division and a request letter has been submitted to DFO, Saranda vide letter Ref. No. MOM/PC/6/58 dated 03.05.2018. Clarification /direction were requested from DFO, Saranda Division, Chaibasa. Based on the opinion of the State Forest Department, action will be taken for compliance of the condition.</p>
xxx	<p>No transportation of ore outside the mine lease area shall be carried out after the sunset.</p>	<p>No working during April-2021 to September-2021.</p> <p>Will be followed during operation.</p>
xxxi	<p>The critical parameters such as RSPM (Particulate matter with size less than 10 <math>\mu</math>m i.e. PM10) and NO<sub>x</sub> in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is lesser shall be monitored periodically. Further, quality of discharged water shall also be monitored (TDS, DO, PH and Total Suspended Solids (TSS)). The monitored</p>	<p>No working during April-2021 to September-2021.</p>



Sl. No.	Conditions	Compliance Status as on September - 2021
	<p>data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-IA (M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry <a href="http://www.envfor.nic.in">www.envfor.nic.in</a>, shall also be referred in this regard for its compliance.</p>	
xxxii	<p>A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment &amp; Forests 5 years in advance of final mine closure for approval.</p>	<p>Not Applicable at present.</p> <p>Final Mine closure plan along with the fund details will be submitted to the ministry 5 years advance.</p>

**B. General Conditions**

Sl. No.	Condition	Compliance Status as on September- 2021
i	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.	No working during April-2021 to September-2021. Will be followed.
ii	No change in the calendar plan including excavation, quantum of mineral iron ore and waste should be made.	No working during April-2021 to September-2021.
iii	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10um i.e. PM10) and NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	No working during April-2021 to September-2021.
iv	Data on ambient air quality RSPM (Particulate matter with size less than 10um i.e., PM10 ) & NOx should be regularly submitted to the Ministry of Environment and Forests including its Regional office located at Bhubaneswar and the State Pollution Control Board/Central Pollution Control Board once in six months.	No working during April-2021 to September-2021.
v	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	No working during April-2021 to September-2021.
vi	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged	No working during April-2021 to September-2021.



Sl. No.	Condition	Compliance Status as on September- 2021
	in operations of HEMM, etc. should be provided with ear plugs/muffs.	
vii	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 should be installed before discharge of workshop effluents.	No working during April-2021 to September-2021.  Will be followed.
viii	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 program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	No working during April-2021 to September-2021.  Will be followed.
ix	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive who will report directly to the Head of the Organization.	A full-fledged Environment Management Cell (EMC) has been established to look after environment aspects headed by an experienced engineer with more than 10 years' experience in the field of environment in the rank of AGM who directly reports Head of Mines.  In addition to the EMC at Mines level an Environment & lease department at our head quarter i.e. Raw Materials Division, Kolkata headed by a qualified person (M. Tech in Environmental Engineering) and experience environmental engineers who facilitate all the RMD mines including MOM, Chiria mines in implementation of pollution control measures.
x	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 the Ministry of Environment and Forests and its	There will be separate budget for Environment & Lease department. The allocated budget will be exclusively used for Environment & Lease expenses only.  Year wise expenditure from 2013 on Environmental protection measures is as furnished below:-



Sl. No.	Condition	Compliance Status as on September- 2021	
		Year	Approximate Expenditure
	Regional Office located at Bhubaneswar.	2013-14	42.00 Lakhs
		2014-15	25.70 Lakhs
		2015-16	44.60 Lakhs
		2016-17	53.02 Lakhs
		2017-18	50.84 Lakhs
		2018-19	48.54 Lakhs
		2019-20	53.45Lakhs
		2020-21	53.67 Lakhs
xi	The project authorities should inform to The Regional Office located at Bhubaneswar regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Will be followed.	
xii	The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite date/information/monitoring Report.	Full co-operation is extended to the officers of the Regional Office, MoEF & CC, Bhubaneswar / Ranchi, by furnishing the requisite data / information / monitoring reports.	
xiii	The project proponent shall submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored date (both in hard copies as well as by e-main) to the Ministry of Environment and Forests, its Regional Office Bhubaneswar, The respective Zonal Office of Central Pollution Control Board the State Pollution Control Board. The proponent shall upload the status of compliance of the EC conditions, including results of monitored date on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment & Forests,	Six monthly compliance reports on the status of implementation of environmental safeguards are being submitted to Ministry of Environment & Forests and Climate Change and its Regional Office located at Ranchi, Central Pollution Control Board and State Pollution Control Board.  Copy of the compliance report including environmental quality data is being uploaded to the SAIL web site i.e. <a href="http://www.sail.co.in">www.sail.co.in</a> .	



Sl. No.	Condition	Compliance Status as on September- 2021
	Bhubaneswar, the respective Zonal Office of Central Pollution Control Board and State Pollution Control Board.	
xiv	A copy of the clearance letter shall be sent by the proponent to concerned panchayat, Zila Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any from whom suggestions/representations, if any were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	The copy of Clearance letter was notified in the public places. The clearance letter has been put on the Company website.
xv	The State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and the Collector's office/Tehsildar's office for 30 days.	--
xvi	The environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional office of the Ministry of Environment and Forests, Bhubaneswar by e-mail.	Environmental Statement for the financial year 2020-21 ending 31 <sup>st</sup> March, 2021 has been submitted to the Jharkhand State Pollution Control Board vide reference No: MOM/PC/6/132, dated: 24-04-2021.
xvii	The project authorities should advertise at least in two local newspapers of the District or State in the project is located and widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter	Advertisement was given in two local newspapers Hindustan times (English) and Dainik Jagaran (Local Language Hindi) within 7 days of the issue of the clearance letter.





Sl. No.	Condition	Compliance Status as on September- 2021
	informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhubaneswar.	

*Ravi Ranjan*  
 24/11/21  
 (Ravi Ranjan)  
 General Manager (Mining)  
 Manoharpur Ore Mines



## Annexure-1

**GROUND WATER LEVEL MEASUREMENTS****A. Ground Water levels in and around the Mines**

Location ID	Location of Open Wells	Water level below the Ground Surface (in meters)	
		During Summer (May -2021)	During Moon Soon (August-2021)
G1	Adjacent to community centre at Anqua	6.40	6.10
G2	Opposite to community centre at Anqua	6.65	6.20
G3	Near Anqua Model Steel Village Gate	2.30	1.90
G4	Siva Mandir	3.60	3.30
G5	Near CNI Church	7.50	7.25
G6	Near Bishra Chowk	1.70	1.55

Sl. No.	Location of Piezometer	Water level below the Ground Surface (in meters)	
		During Summer (May -2021)	During Moon Soon (August-2021)
1	Chiria Village	4.40	3.90
2	Dhobil Village	3.35	3.15



**Annexure-1**



**1. Piezometer at Chiria Village**



**2. Piezometer at Dhobil Village**



## Annexure-2

**WATER QUALITY OF HAMSADAGARA NALLA  
(Period: April -2021 to Sep-2021)**

Location - Upstream of Hamsadagara Nalla									
S. No.	Parameter	Unit	Standards as per IS: 2296-1982	April	May	June	Jul	Aug	Sep
1	pH	-	6.5 - 8.5	6.5	7.40	7.12	7.50	6.50	8.42
2	Temperature	°C	-	22.1	22.5	23.5	25.7	26.2	26.8
3	Turbidity	NTU	-	2.30	1.90	1.30	1.50	1.75	2.80
4	Conductivity	μS/cm	-	130.5	124.6	136.8	145.2	160.5	151.6
5	DO	Mg/l	-	7.60	7.75	7.80	7.90	7.82	6.75
6	TDS	Mg/l	500	73.2	67.4	79.3	87.2	94.3	73.4

Location -Downstream of Hamsadagara Nalla									
S. No.	Parameter	Unit	Standards as per IS: 2296-1982	April	May	June	Jul	Aug	Sep
1	pH	-	6.5 - 8.5	7.65	7.70	6.80	6.74	6.65	8.30
2	Temperature	°C	-	22.5	23.8	24.7	26.5	27.1	26.7
3	Turbidity	NTU	-	2.35	1.98	1.37	1.30	1.50	2.45
4	Conductivity	μS/cm	-	104.0	110.0	115.1	130.8	139.7	132.8
5	DO	Mg/l	-	7.45	7.52	7.65	7.78	7.64	6.70
6	TDS	Mg/l	500	55.4	52.1	58.7	68.2	80.1	60.9