



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(A)

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 - राजमहल खुली खदान परियोजना विस्तारित (17 MTY) से संबंधित छमाही अनुपालन प्रतिवेदन (अवधि - अप्रैल 2018 से सितंबर 2018)

महोदय,

Please find enclosed herewith the following statutory reports in prescribed format one in hard copy and one in soft copy (preceding periods: April'18 to September'18) in respect of Rajmahal Open Cast Project Expansion (17 MTY). This is as per directive vide your letter nos. 102-31/05/EPE dated 06.12.2007 and 103-73/EPE dated 20.06.2012 as desired.

1. Environmental Compliance Reports on implementation of Environmental Safeguards with production figure from April'18 to September'18
2. Monitoring details of environmental quality (CMPDIL Monitoring reports).
3. Monitoring Report - Part - I Data sheet.
4. Format for providing particulars on green belt/plantation.
5. Performa on rehabilitation (Report- II).
6. Technical and biological reclamation Report.

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 ।

महाप्रबंधक (परिचालन), राजमहल क्षेत्र

क्षेत्रीय सर्वेक्षण पदाधिकारी, राजमहल क्षेत्र

Six Monthly EMP Compliance Report (Half Yearly - End September 2018) of Environmental Clearance from MoEFCC, in respect of Rajmahal Opencast Project Expansion (17 MTY)

A. Specific Conditions

S.No	Conditions	Compliance
i	The Environmental Clearance is subject to approval of the State land use department, Government of Jharkhand for diversion of agricultural land for non-agricultural use.	Mining operation at Rajmahal (10.5 MTY) OCP is being done after notification and acquisition of the respective land (Tenancy – Agricultural, Government & Forest) under CBA (A&D) Act 1957 in different phases. However, forestland is handed over after fulfilling the conditions as per Forest Conservation Act 1980. According to Section - 11 of CBA (A&D) Act 1957, the land is automatically handed over to the Central Government and ultimately to the Project Authority by virtue of direct vesting. Rajmahal Expansion (17 MTY) OCP covers the same mining block with an additional Area of 149 ha of land, which is already acquired after notification under CBA (A&D) Act 1957.
ii	Top soil should be stacked with proper slope at earmarked site(s) only with adequate measures and should be used for reclamation and rehabilitation of mined out areas.	At present the top soil is being stacked over earmarked site near MIPL Camp and spreading is done over slopes of backfilled area (RCML Patch) and internal OB dumps uniformly before plantation work. (Annexure – V)
iii	OB dumps should be stacked at earmarked dump site(s) only and should not be kept active for long period. Proper terracing of OB dump should be carried out so that the overall slope comes down to 28 degree. The excavated area should be concurrently back filled with the mining operation. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests on yearly basis.	OB is stacked at earmarked dump site(s) with proper terracing. OB is being concurrently backfilled into the de-coaled areas. Utmost care towards stability of OB Dumps is being taken as per DGMS guidelines. Proper benching of OB is also ensured. However, since the internal dump is still active, plantation could be carried out only on 215.8 ha area of internal dump and the remaining backfilled area will be planted only after maximum dump capacity and height is reached. Proposal for 15 Ha plantation in FY 2018-19 over backfilled and technically reclaimed diverted forest land (Phase-II) near MIPL Camp is under process.
iv	Catch drains and citation ponds of appropriate size should be constructed to arrests silt and sedimentation 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 drain should be regularly de-silted and maintained properly.	Catch drain are present in the dumps to arrest silt and runoff. Garland drains are provided along the toe of dump for collecting and discharging rain water. Yearly cleaning of the drains is carried out under monsoon preparation. Storm water flowing through garland drains is collected in a pond which is de-silted as and when required. Construction of more garland drains is under execution and will be ready soon.

S.No	Conditions	Compliance								
	Garland drains of appropriate size should be constructed, to collect surface run off from the OB and waste dump site(s) and taken to settling pond before discharge.									
v	Dimension of retaining wall at the toe of dumps and OB Benches within the mine to check run off and siltation should be based on the rainfall data.	Retaining wall of appropriate dimension (based on rainfall data) is being built in order to check run-off and siltation. More proposals to built new ones are placed.								
vi	Green belt should be raised by planting the native species around the ML Area, OB Dump sites, colony etc. in consultation with the local DFO / Agriculture Department. The density of trees should be around 2500 plants per ha.	Green belt has been raised in the colony, in the rehab. sites and also along the road side to extent of approx 92 ha of land (other than OB dump Plantation as mentioned in Sl. No. iii above). The year-wise plantation developed in the ML Area is as under: <table border="1" data-bbox="794 775 1469 1182"> <thead> <tr> <th>FY</th> <th>Plantation</th> </tr> </thead> <tbody> <tr> <td>2017-18</td> <td>a) 10,000 (Roadside plantation from Barahat to Pirpainti Railway Siding W.O. to DFO Bhagalpur) (2,991 is already done and rest is in progress). b) 1,000 (Distribution of plants to Rehab sites.)</td> </tr> <tr> <td>2018-19 (Till Sept'18)</td> <td>1500 (Pirpainti Railway Siding, Urjanagar Colony & Distribution to CISF Camp)</td> </tr> </tbody> </table> <p>(Annexure – V)</p>	FY	Plantation	2017-18	a) 10,000 (Roadside plantation from Barahat to Pirpainti Railway Siding W.O. to DFO Bhagalpur) (2,991 is already done and rest is in progress). b) 1,000 (Distribution of plants to Rehab sites.)	2018-19 (Till Sept'18)	1500 (Pirpainti Railway Siding, Urjanagar Colony & Distribution to CISF Camp)		
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2018-19 (Till Sept'18)	1500 (Pirpainti Railway Siding, Urjanagar Colony & Distribution to CISF Camp)									
vii	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, Patna.	Rajmahal Project area falls under non-critical zone as indicated by Central Ground Water Authority, Delhi. However, mine discharge water after settling tank is totally utilized for water spraying on transport roads, CHP, workshop and remaining water is fed to ponds, within our notified area, also acts as ground water recharge.								
viii	Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new Piezometers during the mining operation. The monitoring should be carried out four times in a year: - pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF, Central Ground Water Authority and CGWB, Patna.	Regular monitoring of ground water level in five designated wells in vicinity of OCP is carried out on on quarterly basis by CMPDIL, Asansol. The report is being submitted regularly as desired. The Ground water level is given below, <table border="1" data-bbox="794 1722 1442 2101"> <thead> <tr> <th>Site (Date of Sampling)</th> <th>Well water level from ground (m)</th> </tr> </thead> <tbody> <tr> <td>Bara Simra Rehab Site (09/08/2018)</td> <td>-</td> </tr> <tr> <td>Hijukitta Village (09/08/2018)</td> <td>9.60</td> </tr> <tr> <td>Lalmatia Chowk</td> <td>4.20</td> </tr> </tbody> </table>	Site (Date of Sampling)	Well water level from ground (m)	Bara Simra Rehab Site (09/08/2018)	-	Hijukitta Village (09/08/2018)	9.60	Lalmatia Chowk	4.20
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S.No	Conditions	Compliance										
		(09/08/2018)										
		Lohandia Bazar Village (09/08/2018)	9.60									
		Paharpur Village (09/08/2018)	4.15									
		02 nos. of Piezometers have been installed at following locations:										
		<table border="1"> <thead> <tr> <th>S.No</th> <th>Piezometer</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>RPZ-1</td> <td>Old Workshop / Erection Yard</td> </tr> <tr> <td>2.</td> <td>RPZ-2</td> <td>Lohandiya Panchyat Bhawan</td> </tr> </tbody> </table>		S.No	Piezometer	Location	1.	RPZ-1	Old Workshop / Erection Yard	2.	RPZ-2	Lohandiya Panchyat Bhawan
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2.	RPZ-2	Lohandiya Panchyat Bhawan										
		(Annexure – V)										
ix	The project authorities should obtain prior approval of the competent authority for withdrawal of requisite quantity of ground water.	A letter in this regard had been received from Central Ground Water Authority, Delhi, which indicates that the land cover under Rajmahal Project area falls under non-critical zone from Central Ground Water Authority, Delhi. Further, A fresh application for approval from CGWB has been processed. (Annexure – VI)										
x	The project authorities should meet the water requirement of nearby village(s), in case the village wells go dry due to de-watering of the mine.	The Rajmahal Project do meet the water requirements of nearby needy villages regularly through (i) Water tankers, (ii) Supplying water by borehole pumping and (iii) Channelizing the dewatered supply to village ponds. Financial help is also provided on opening of new wells, their maintenance and installation of hand pumps. (Annexure – V)										
xi	Coal handling plant should 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.	Sufficient numbers of high efficiency dust extraction and suppression system have been provided, at input hopper, loading and unloading areas including all the transfer points maintained and operated at Coal Handling Plant. <ol style="list-style-type: none"> 1) Total 14 nos. of Mobile water sprinklers (20 KL(06), 28 KL(06) & 34 KL(02) capacity) have been provided for dust suppression at haul roads. 2) Automatic sensor based fine nozzle mist type water sprinklers has been installed at Crushing Hopper. 3) 02 nos. of highly efficient mist gun has been installed at Crushing Point. 4) Fixed type of water sprinklers have been installed near CHP and along RJML railway siding. (Annexure – V)										
xii	Consent to operate should be obtained from SPCB before starting mining activities for expanded quantity of coal.	Consent to operate has been obtained for 05 years (30.01.2017 to 31.12.2021) vide letter no. JSPCB/HO/RNC/CTO-1112442/2017/86 dated 31.01.2017 from Jharkhand State Pollution Control Board, Ranchi.										
xiii	Vehicular emissions should be kept under control and regularly monitored.	Vehicles are regularly checked for valid emission certificate on routine basis and reports are being maintained.										

S.No	Conditions	Compliance
xiv	The project proponent should take all precautionary measures during mining operation for conservation and protection of endangered fauna such as Bear, Python etc. spotted in the study area in consultation with the concerned forest officials. Action plan for conservation of endangered fauna should be prepared and submitted to the Ministry and its Regional Office within 3 months.	Full efforts are being made during mining operation for conservation and protection of endangered fauna spotted in the study area in consultation with the forest officials. Action plan for conservation of endangered fauna will be done by forest department, Govt. of Jharkhand. In this respect follow up action is being taken up at our end and the same will be submitted to the Ministry and its Regional Office at the earliest.
xv	Land oustees and land losers should be compensated as per the State Government norms.	Land losers are paid land compensation as per norms. The last five financial years payment details are as under:- 2014-15 - Rs.714.48 Lakhs 2015-16 - Rs. 125 Lakhs 2016-17 - Rs. 217.7 Lakhs 2017-18 - Rs. 357.63 Lakhs 2018-19 - Rs. 2296.37 Lakhs* (Till Sept. 2018) *Rs. 2050.00 Lakhs for 80.23 acres Govt. Land.
xvi	A Final Mine Closure Plan along with details of Corpus fund should be submitted to the Ministry of Environment & Forests, 5 years in advance of final mine closure for approval.	For financial assurance, ECL had already opened a fixed deposit Escrow Account with a Union Bank of India, with the Coal controller Organization as exclusive beneficiary. The annual mine closure cost for 2017-18, Rs 1582.44 Lakh have been deposited in the mine closure escrow account of Rajmahal OCP.
xvii	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 MOEF and its regional office.	Digital Processing of the entire lease area using Remote Sensing Technique is done annually by CMPDIL, Ranchi and report is submitted to the mentioned authority accordingly.

B. General Conditions

Sl.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.	Till today there is no change in mining technology and scope of working; before changing, prior approval of the Ministry of Environment and Forests will be taken.
ii	No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.	Till today there is no change in the calendar plan including excavation, quantum of mineral coal and waste.
iii	At least four ambient air quality monitoring stations should be	Fortnightly AAQ Monitoring is done by CMPDI (Region - I), Asansol at 4 stations, in core and buffer

Sl.No.	Conditions	Compliance															
	<p>established in the core zone as well as the buffer zone for RPM, SPM, SO₂, Nox, and CO 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. Data on ambient air quality (RPM, SPM, SO₂, NO_x, and CO) should be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the State Pollution Control Board / Central Pollution Control Board once in six months.</p>	<p>zone. The monitory location of the stations had decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets, in consultation with the representative of JSPCB, Ranchi. The stations are as under:-</p> <ol style="list-style-type: none"> 1. Mine Dispatch Building. 2. CISF Camp. 3. Urjanagar Hospital. 4. ECL Rest House at Pirpainti Market. <p>Monitoring is carried out on fortnightly basis and submitted regularly to the Regional Office of MoEF, Bhubaneswar once in six months, and to the JSPCB, Ranchi once in a three months and also once in a year with the Environmental Statement. Photo copy of Environmental monitoring report for 2nd fort-night ending Aug'18 is enclosed with. AAQ data in microgram per cubic metre for above quarter ending is as follows:-</p> <table border="1" data-bbox="794 837 1241 1016"> <thead> <tr> <th></th> <th style="text-align: center;"><u>Min.</u></th> <th style="text-align: center;"><u>Max.</u></th> </tr> </thead> <tbody> <tr> <td>PM_{2.5}</td> <td style="text-align: center;">30.2</td> <td style="text-align: center;">35.9</td> </tr> <tr> <td>PM₁₀</td> <td style="text-align: center;">81.6</td> <td style="text-align: center;">94.3</td> </tr> <tr> <td>SO₂</td> <td colspan="2" style="text-align: center;"><10.0</td> </tr> <tr> <td>NO_x</td> <td style="text-align: center;">13.0</td> <td style="text-align: center;">14.1</td> </tr> </tbody> </table>		<u>Min.</u>	<u>Max.</u>	PM _{2.5}	30.2	35.9	PM ₁₀	81.6	94.3	SO ₂	<10.0		NO _x	13.0	14.1
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vi	<p>Drills should either be wet operated or with dust extractors.</p>	<p>Dust Extractors are provided with drills and they are fully functional during drilling operation.</p>															
v	<p>Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangements on haul roads, wagon loading, dumps; loading and unloading points should be provided and properly maintained.</p>	<p>The practices of control, monitoring and recording of dust emissions are followed at the Project.</p> <ol style="list-style-type: none"> 1. Water spraying through mobile water sprinklers is being used regularly on haul roads, wagon loading, and dumps, loading and unloading points. 2. Total 14 nos. of Mobile water sprinklers (20 KL(06), 28 KL(06) & 34 KL(02) capacity) have been provided for dust suppression at haul roads. 3. Automatic sensor based fine nozzle mist type water sprinklers has been installed at Crushing Hopper. 4. 02 nos. of highly efficient mist gun has been installed at Crushing Point. 5. Fixed type of water sprinklers have been installed near CHP and along RJML railway siding. <p>Afforestation has been done around the project site and colony. Plantations are being done. (Annexure – V)</p>															



Sl.No.	Conditions	Compliance										
vi	<p>Adequate measures should be taken for control of noise levels within prescribed standards. Workers engaged in blasting and drilling operations, operations of HEMM, etc., should be provided with ear plugs/muffs.</p>	<p>To control of noise levels within prescribed standards the following steps are being taken up :-</p> <ol style="list-style-type: none"> 1. Noise monitoring is being carried out regularly and found to be within permissible levels. Noise level report (Day time) for August'18 are appended below & photo copy is attached. <p style="margin-left: 40px;">Minimum - 53.4 dB(A) Maximum - 64.8 dB(A)</p> <ol style="list-style-type: none"> 2. All HEMM and light vehicles are provided with silencers. 3. Workers engaged in blasting and drilling operations, operations of HEMM, etc., exposed to high sound levels are provide with ear muffs and their working hours are reduced to prevent long exposure time. 										
vii	<p>Industrial wastewater (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 19th May 1993 and 31st December 1993 or as amended from time to time.</p> <p>Oil and grease trap should be installed before discharge of effluents from workshop.</p>	<p>Industrial waste water (workshop and waste water from the mine) is being properly collected and analyzed, regularly and found confirming with the MoEF Schedule - VI Standards for discharge of mine effluents. Analysis results of CHP dischrge for the 2nd fortnight- August 2018 are within permissible limit. Quality report for 4 parameters are as under:-</p> <p style="text-align: center;"><u>Location : Discharge from CHP</u></p> <table style="margin-left: 40px;"> <tr> <td>pH</td> <td style="text-align: right;">7.37</td> </tr> <tr> <td>TSS (mg/l)</td> <td style="text-align: right;">34</td> </tr> <tr> <td>TDS (mg/l)</td> <td style="text-align: right;">636</td> </tr> <tr> <td>Oil & Grease (mg/l)</td> <td style="text-align: right;"><2.0</td> </tr> <tr> <td>COD (mg/l)</td> <td style="text-align: right;">48</td> </tr> </table>	pH	7.37	TSS (mg/l)	34	TDS (mg/l)	636	Oil & Grease (mg/l)	<2.0	COD (mg/l)	48
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viii	<p>Acid mine water, if any has to be treated and disposed off after conforming to the standard prescribed the competent authority.</p>	<p>The sample of effluent mine water is collected to the intervals of three months for analyzing purpose by CMPDI, RI-I, Asansol and all the parameters are found within prescribed limit, till date no acid mine water is found in our mines.</p>										
ix	<p>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.</p> <p>Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to coal dust and take corrective measures, if needed.</p>	<p>A personnel working in dusty areas is being given adequate training and information on safety and health aspects.</p> <p>They use protective respiratory devices judiciously. PME is being done to each worker at an interval of five years under occupational health surveillance programme as per norms at Central Hospital, Kalla, ECL If it is observed any contractions due to exposure to coal dust will be taken corrective measure, as per need.</p> <p>Periodical Medical Examinations (PME) of workers is being carried out at 5 year intervals in which audiometric tests are carried out. Last 5 Year-wise details are as under:-</p>										

Sl.No.	Conditions	Compliance
		2014 - 457 2015 - 457 2016 - 463 2017 - 438 2018 - 348 (Till Sept 2018)
x	Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution control Board.	Environmental laboratory with latest equipments has been established at Central Mine Planning and Design Institute (Region - I), Asansol (WB). This lab is equipped with Atomic Absorption Spectrophotometer, weather monitoring system, BOD incubator, Photometer and other necessary equipment's. Quarterly monitoring report for Air, Water, Noise and Ground water level and quality is prepared at above laboratory and sent to Jharkhand State Pollution Control Board with Environmental Statement (Form - V), & Six monthly compliance report.
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 organization.	Company Level :- 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. Project level :- A separate environmental management cell with suitable qualified personnel has been formed at Rajmahal Area.
xii	The funds earmarked for environmental protection measures should be kept in separate account and should not be directed for other purposes. Year-wise expenditure should be reported to the Regional Office, Bhubaneswar of the MOEF and to the Ministry.	The funds earmarked for environmental protection measures are kept in separate account. Total Rupees 21.24 Crores had been allocated till the end of mine life for Environmental Management.
xiii	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 requisite date/information/ monitoring reports.	The Project authorities are extending full cooperation to the officer(s) of the Regional Office of MoEFCC, Bhubaneswar & Ranchi by furnishing requisite date/information/ monitoring reports whenever the office monitor compliance of the stipulated conditions.
xiv	A copy of the clearance letter will be marked to the concerned Panchayat/local NGO, if any, from whom any suggestions/ representation has been received while processing the proposal.	A copy of the clearance letter has been marked to the concerned Panchayat / local NGO from whom suggestions / representation has been received. Moreover the EC letter of Rajmahal OCP is available on the official website of Eastern Coalfields Limited.

Sl.No.	Conditions	Compliance
xv	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.	The Rajmahal Opencast (17 MTY) Project has been approved on 6 th February, 2006 vide Letter No. 43011-28-2003-CPAM from Ministry of Coal, Govt. of India, the copy of which had been submitted to the Regional Office of MoEF, Bhubaneswar. Land development work is a continuous job, which is being done from the inception of Rajmahal Opencast Project.
xvi	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's / Tehsildar's office for 30 days.	The information regarding Environment Clearance has been conveyed to Jharkhand State Pollution Control Board, Ranchi. Moreover the EC letter of Rajmahal OCP is available on the official website of Eastern Coalfields Limited.
xvii	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 (seven) days of the issue 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 web site of the Ministry of environment and Forests at http://envfor.nic.in .	Advertisements regarding "Notice of information of Environmental Clearance of Rajmahal 17 MTY OCP" had been done in two local news papers i.e. "Deoghar Publication of Prabhat Khabar" and "Bhagalpur Publication of Dainik Jagaran" on 23.02.2006 for wide circulation.

Production figure of Rajmahal Open Cast Project
M 1 Report 2018 – 2019 (April 2018 to September 2018)
Coal – 6.81 M.Te. OBR – 7.90 M.Cum.

Date: 09.11.2018


GM (OP)
Rajmahal OCP


MINISTRY OF ENVIRONMENT AND FORESTS
REGIONAL OFFICE BHUBNESHWAR
MONITORING REPORT

PART - I
(DATA SHEET)

(End Sept'18)

1. Project Type : Open Cast
 2. Name of Project : Rajmahal Open Cast Coal Mines
 3. Clearance/Approval letter(s) no. and dated : Letter no. 43011-28-2003-CPAM
Dated : 6th Feb. 2006 issued from MOC, Govt. of India.
 4. Location :
 - a. District (s) : Godda
 - b. State (s) : Jharkhand
 - c. i. Latitudes : 25 1' 12" - 25 3' 15"
 - ii. Longitudes : 87 21' 0" - 87 24' 0"
 5. Address of correspondence
 - a. Address of concerned head of organisation (with Pin code and Telephone/Telex/ FAX numbers) : Director Technical (OP)
Eastern Coalfields Limited
AT : Sanctoria
PO : Dishergarh
Dist : Burdwan (WB)
 - b. Address of Head of the Project (with Pin code and Telephone/Telex/ FAX numbers) : General Manager (I/c)
Rajmahal Opencast Mines
AT : Lalmatia Colliery
PO : Lalmatia Colliery
Dist.: Godda - 814 165
Phone & FAX 06437 228366
 6. Salient features:
 - a. Of the project : Enclosed Annexure - I
 - b. Of the Environmental Management plans. : Enclosed Annexure - II
1. Break up of the project area (In ha) :
 - a. Forest area : 107.39 ha
 - b. Non-forest area : 1870.61 ha
 2. Break up of project affected population : Affected population - 12791
(1981 Census)

(Village-wise details along with R & R package to be given)

	Homestead Land	Number of oustees	
		Landless	Oustees artisans
a. SC, ST/Advasis -			
SC -	3.88%		
ST -	34.08%		
b. Others -	62.04%		

3. Financial details :

- a. Project cost as originally planned and subsequent revised estimates and the years of price reference : 2078.35 Crores
- b. Allocations made for environmental management plans, with item-wise and year-wise break-up : Enclosed in Annexure -III
- c. Benefit cost ratio/internal rate of return and the year of assessment : IRR - 4.4% in 1987
- d. Whether (c) includes the cost of environmental management as shown in (b) above. : Yes
- e. Actual expenditure incurred on the environmental management plan, so far : Rs. 147.81 Lakhs Till Sept. 2018

4. Status of construction

- a. Date of commencement (actual and/or planned) : 2005-06
- b. Date of completion (actual and / per planned) : 2009-10 (Planned)

5. Project progress details

Components	Date of		
	Construction	Completion	Commissioning
a. Engineering and other project components	Please attach a separate sheet, if required.		
b. Environmental : management and pollution control components.	<ol style="list-style-type: none"> 1. Source of pollution are checked regularly and measures are taken to minimize the pollution near the source as far as possible. 2. If (1) is not possible, measures are taken to restrict the pollution to transmit from one place to other. 3. Regular monitoring of pollution by CMPDIL. 4. Afforestation. 		

Date : 09.11.2018


 9/11/18
GM (OP)
Rajmahal Project


Salient features of the Project

1.	Location	-	Latitude	-	25° 1' 12"	-	25° 3' 15"
			Longitude	-	87° 21' 0"	-	87° 24' 0"
2.	Nearest Railway Station	-			Pirpainti (30 KM North)		
3.	Total geological reserve of the mine	-			316.28 Million tonnes		
4.	Total mine-able reserve of the mine	-			300.47 Million tonnes		
5.	Total area under the pit limit	-			1344 ha		
6.	Grade of Coal	-			'F'		
7.	No. of major workable seams	-			3		
	Thickness of seam III	-			2 to 10 mtr.		
	Thickness of seam II TOP	-			7 to 9 mtr.		
	Thickness of seam II Bottom	-			8 to 17 Mtr.		
8.	Average stripping ratio	-			1.89		
9.	Life	-			20 years		
10.	OMS	-			22.57		
11.	Total sanctioned investment (17 MTY)	-			Rs. 2078.35 Crores		
	Total sanctioned investment (17 MTY Expansion)	-			Rs.153.82 Crores		
12.	Actual Capital investment (17MTY)	-			Rs. 156827.02 Lakhs		(till 31/10/18)
13.	Gradient of the seams varies from 2 degree to 4 degree.						
14.	Annual target of production as per project report is 17 Million Tonnes coal						
15.	At present Maximum depth of the mine	-			200.0 Meter		
17.	Presently bottom of the mine is at (-) 87 meter R.L.						
18.	Presently Max. length and width of the mine is 3.90 x 3.57 Km.						
19.	Total land required for the project	-			1978 hectare		

CHAPTER - II
SUMMARY DATA

Sl. No.	Particulars	Unit	Value as per PR of Rajmahal OCP (17 MTY)
01.	Reference Date		April 2003
02.	Mineable Reserve	M.T.	300.47 (as on 1.04.03)
03.	Average Stripping Ratio		1.89 Cu.m. Per Year
04.	Target Production	m.t. /yr.	17 MTY
05.	Year of achieving target production		2009-10
06.	Project life		20
07.	Manpower Strength		2963
08.	Number of houses		1737
09.	Population of township		12000 Approx.
10.	Water demand		
	(a) Total	MLD	5.30
	(b) Potable	MLD	3.30
	(c) Industrial & fire fighting	MLD	2.00
11.	Source of water		Ground Water
Sl. No.	Particulars	Unit	Value as per PR of Rajmahal OCP (17 MTY)
12.	Average rainfall/annum	mm	As per PR 1554 ml (2011-12)
13.	Temperature		
	(a) Maximum	Degree C.	46
	(b) Minimum	Degree C.	6
14.	Total land Requirement	Hectare	1978
15.	Forest Land Requirement	Hectare	107.39
16.	Total Solid waste to be removed in the project.	Mill. Cu.m.	545.58
17.	Total capital for Environmental Control measures.		
	Total	Rs. Crores	51.88
	(a) Rehabilitation of villages	do	16.65
	(b) Compensatory Afforestation	do	4.48
	(c) Anti-polution Measures in mine and Industrial site	do	21.24
	(d) Restoration	do	9.51
18.	Cost of land reclamation/te	-	-
	Total revenue expenditure in Environmental control measures Other than reclamation:		Rs. 147.81 Lakhs (Till Sept'18)

**Estimated Capital Expenditure on Environmental Control Measures
as per PR for Rajmahal 17 MTY OPEN CAST**

Capital provision as per PR

Sl. No.	Particulars	Amount (Rs. Crores)
1.	Rehabilitation of Villages	
a.	House building grant	15.90
b.	Shifting charges	
c.	Cost of houses	
d.	Schools, hospitals, roads etc. in rehabilitation colony	
e.	Cost of land of Rehabilitation colony	0.75
	Sub - total (1)	16.65
2.	Compensatory Afforestation	
a.	Compensation for acquiring forest land including cost of forest, cost of revenue land, rehabilitation cost forest personnel and cost of preservation of rare species of plant and animal	4.18
b.	Cost of compensatory afforestation	0.30
	Sub- total (2)	4.48
3.	Capital for Restoration	
a.	HEMM for reclamation	6.93
b.	Biological reclamation & greening	1.50
c.	Housing for reclamation personnel	1.08
	Sub - total (3)	9.51
4.	Capital for anti-pollution measures in mine and industrial site	
a.	4 nos. 60 KL Water sprinklers	10.30
b.	Environmental control measures in CHP	0.75
c.	Drains / sewerage in workshop	0.55
d.	Oil and grease trap in workshop	0.02
e.	Surface water storage settling tanks and garland drains	6.94
f.	Construction of 3.5 km long open channel for draining water to Dhullia nalla	0.98
g.	Arboriculture /plantation in Industrial sites	0.21
h.	Cost of laboratory equipment	0.40
i.	Housing for personnel for pollution control Measures	1.09
	Sub - total (4)	21.24
	Total (1 to 4)	51.88

REHABILITATION SCHEME FOR THE OUSTEES FROM RAJMAHAL PROJECT

1. There is no habitation in the forest area, which has been transferred to the project for mining and other purposes. However, there are 19 villages which are falling in the core zone of project area covering 5931 families (approx). Five villages and part of one village have already been rehabilitated. Other villages are taken in process of rehabilitation as the mine advances. Rehabilitation process is guided by R&R Policy 2012.

- i. Land for construction of the Houses: of 5 decimals (3 Kathas).
- ii. House survey committee assesses value of the existing house and this amount will be paid to the house owner for construction of his new house.

Infrastructure & Community Facilities: It will consist of

- Approach road to the village
- Arterial roads and Branch roads in the village
- Wells & tube wells for drinking water
- School Building
- Community Hall
- Temple, Church, Mosque etc.
- Cremation / Burial ground
- Drains
- Indira Aawas to eligible persons
- Pond
- Electrical accessories
- Cable TV
- Transformer and electrical accessories.

- iii) Rehabilitation of Bhadotola of Bara Bhorai and Lohandia Basti are in process.
- iv) Total cost of rehabilitation has been taken into account in the budget of current financial year.

2. Manpower:

For effective and for satisfactory implementation of the above rehabilitation scheme the following manpower is functioning:

a.	Head, Rehabilitation Cell	-	1
b.	Officer In-charge	-	6
c.	Personnel Officer	-	1
d.	Finance Officer	-	1
e.	Inspector	-	Nil
f.	Land Surveyor	-	3
g.	Steno/Clerk	-	2
h.	Amin	-	2
i.	Peon	-	2

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT AND FORESTS
EASTERN REGIONAL OFFICE
A/3, CHANDRASEKHARPUR, BHUBANESHWAR – 751 023

**FORMAT FOR PROVIDING PARTICULARS ON GREEN BELT/
PLANTATION UNDER FOREST CONSERVATION ACT 1980 AND
ENVIRONMENT PROTECTION ACT 1986**

1. a. Name of the organisation : Rajmahal Open Cast Project (17MTY), Eastern Coalfields Ltd
b. Environment/Forest clearance order no. : Letter no. J/11015/30/2004- IA.II (M) Dated 11th May 2005
2. Location : Lalmatia
Block/ : Boarijore
Sub-division/ District/ : Godda
State : Jharkhand – 814 165
3. Address for communication : General Manager (I/c)
Rajmahal Group of Mines
PO: Lalmatia Colliery, Dist: Godda
State: Jharkhand – 814 165
4. Existing vegetation in the area/region:-
 - a) Species (trees/shrubs/grasses /climbers) : Tal, Kajhur, Mahua (In non- forest land)
Sal, Shirish, Khair, Dhaw, Sisoo (In forest land).
 - b) Major prevalent species of each type :
5. Land coverage by the Project :
 - a) Total area under the project : 1978 ha
 - b) Area covered for basic infrastructure (roads/building/ factory etc.) : 358 ha
6. Details about natural vegetation -
 - a) Name and number of trees/species felled : 7.62 lacs approx. / Tar, Khajur, Aam, Mahua.
 - b) Name and number of plant species still available in the area. : Tar, Khajur, Aam,
 - c) By protecting the area will indigenous stock come up? : Yes.
 - d) Extent of green belt developed. : 92 Ha (approx)
7. Plantations required to be carried out as per –
 - a) Conditions of environmental clearance in ha/nos. : Both in external and internal dump. External dump should not exceed 276 ha.
 - b) Conditions of Forest Conservation Act, clearance in ha/nos. : Compensatory afforestation has to be done in equivalent amount of forest land required for the project (107.39 ha).
 - c) Voluntarily in ha / nos. : Not measured / analysed.
8. Detail about plantation :

Total area available for plantation in each category:-

 - i. Green Belt : Nil (Gap filling may be done)
 - ii. Dumps : 15 ha (OB dump)

- iii. Back filled areas : Backfilling going on. (~30 Ha)
- iv. Road sides : 01 KM
- v. Block Plantation : 15 ha

a) Plantation details (Category wise and methodology used) :-

- i. Year of plantation : Since 1985
- ii. Species planted : Casia Simea, Green Semal, Dalbergia Sisoo, Holoptelia Aeglbilia, Aecia mangiem, Aesea ariculibesins, Melia Azedarech, Parkinsonia acuateata, Termi Nalia Arguna, Aecacia Catchu, Chatni and Eucalyptus etc. (these plants are capable of providing humidity to the atmosphere).
- iii. Spacing : 1.5 M
- iv. Height attained : More than 25 ft.
- v. Total Area covered : 327.8 ha (approx) on Internal+External OB Dump, Other Areas and Avenue Plantation
- vi. Area still available : 45 ha approx.

c. Survival % of plantation :
Year

Year	Total plantation	Survival (in %)
2017-18	10,000	80%
2018-19 (Till Sept' 18)	1500	Latest Survival data not available.

9. Agency carrying out plantation and maintenance. : Forest & Agriculture Dept., Godda Government of Jharkhand.
Forest & Agriculture Dept., Bhagalpur Government of Bihar

10. Financial details (Year-wise, plantation wise and Item-wise):

Sl. No.	Year	Funds allocated	Expenditure made	Average cost of each surviving plant in rupees.
---------	------	-----------------	------------------	---

11. Inspection of plantation by field experts with their comments and follow up action. : Time to time inspection has made by Area Survey Officer, Rajmahal Area, and survival report has submitted to Competent authority.

12. Remarks/ any other information : Forest department is always kept in touch.

Date: 09.11.2018


 9/11/18
GM (OP) /Agent
Rajmahal OCP



ANNEXURE - V



Top Soil Conservation Site at Rajmahal OCP.



Top Soil Spreading over Technically Reclaimed OB Dumps before Plantation.



Plantation on OB Dumps.



Plantation on OB Dumps.



Plantation on Coal Transportation Road (Barahat to Pirpainti).



Paddy Cultivation On Backfilled Area.



Vegetable Cultivation on Backfilled Area



Plantation in Rehabilitation Sites.



Fixed type water sprinkler at CHP for dust suppression.



Mobile water sprinkler for dust suppression.



Mist Gun (02 nos.) at CHP for efficient dust suppression.



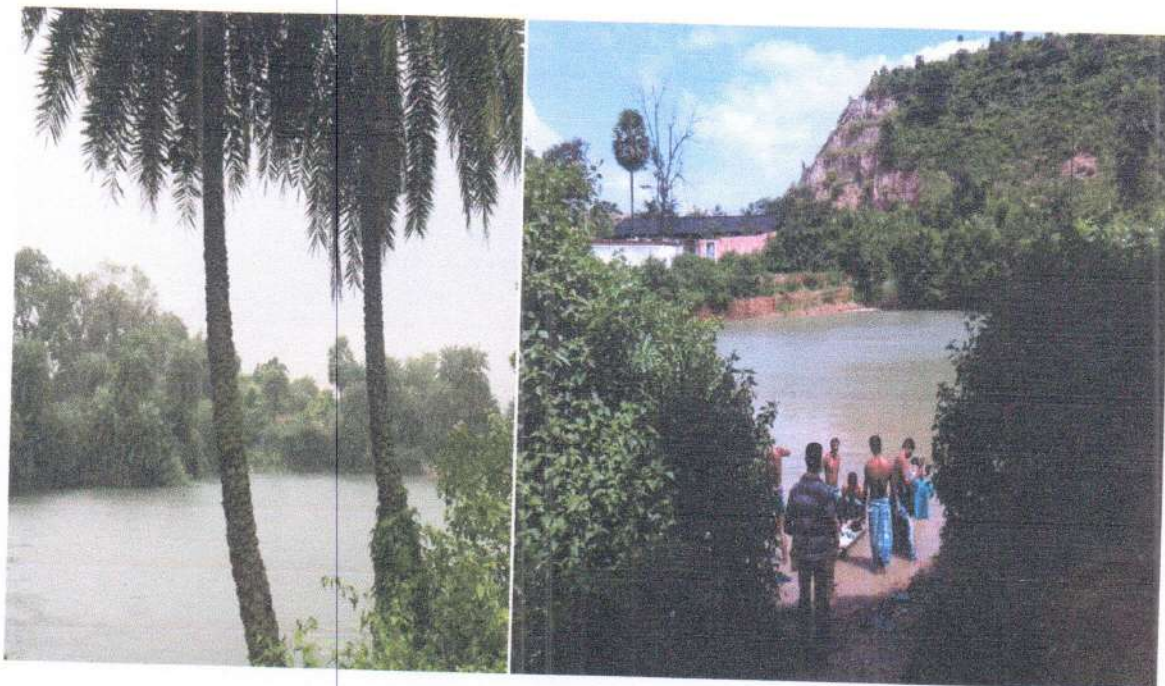
Sensor Based Fine mist water sprinkler at CHP.



Piezometers (02 Nos.) installed at Rajmahal OCP.



Rain Water Harvesting System (02 nos.) At Rajmahal House (Expert Hostel).



Pond Recharge to meet water requirement of nearby villagers.



Handpump installed to meet water requirement of nearby villagers.



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 पर्चा./ III

दिनांक - 27.06.2018

सेवा में,

Regional Director

Central Ground Water Board

Mid Eastern Region

6th & 7th Floor, Lok Nayak Jai Prakash Bhawan

Frazer Road, Dak Banglow

Patna - 800011

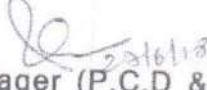
विषय - Application for Permission to dewater Ground Water for mining industry (for New NOC).

महाशय,

Kindly find enclosed herewith the duly filled application form for permission to dewater ground water with necessary attachments required in respect of Rajmahal Opencast Project, ECL.

सादर !

भवदीय,


Area Manager (P.C.D & Env)

Rajmahal Area



प्रतिलिपि :

1. GM (Environment) , ECL HQ, Borachak House
2. GM (OP), ROCP

Government of India
Central Ground Water Authority (CGWA)
Ministry of Water Resources, River Development and Ganga Rejuvenation
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

**Application for Permission to Dewater Ground Water for Mining Industry
(Application for New NOC)**

Application Number : 21-4/282/JH/MIN/2018

1. General Information:	
Water Quality:	Fresh Water
Whether Ground Water Utilization for:	Existing Industry
Date of Commencement Mine/Project:	01/04/1984
Date of Expansion:	
Application Type Category/ Type of Application	Coal
2. Name of Mine/Project:	RAJMAHAL OPENCAST PROJECT
3. Location Details of the Mining Unit- (Attach Site, Approved Mining Plan) (\$) :	
Address Line 1 :	AREA OFFICE, RAJMAHAL GROUP OF MINES (ECL), DHANKUNDA, POST- BARA SIMRA
Address Line 2 :	
Address Line 3 :	
State:	JHARKHAND
District:	GODDA
Sub-District:	BOARIJOR
Village/Town:	Bara Simra
Area Type :	Non-Notified
Area Type Category :	Safe
4. Communication Address	
Address Line 1:	AREA OFFICE, RAJMAHAL GROUP OF MINES (ECL), DHANKUNDA, POST- BARA SIMRA
Address Line 2:	
Address Line 3:	
State:	JHARKHAND
District:	GODDA
Sub-District:	BOARIJOR
Pincode:	814165
Phone Number with Area Code:	
Mobile Number:	91 9771447298
Fax Number:	
E-Mail:	gmpcde@gmail.com
5. Salient Features of the Activity:	
It is an opencast project of eastern coalfield limited of production capacity 17 MTY. Shovel-Dumper in conjunction with surface miner mining method is in operation.	
6. Land Use Details of the Surroundings (km 10 Radius - Outside): (\$)	
Land Use Details of the Surroundings(km 10 radius):	Land use comprises of vegetation cover ,shrubs ,social forestry ,agricultural lands ,water bodies,settlements.

27/06/2018 09:52 AM

Page 1 of 6

Government of India
Central Ground Water Authority (CGWA)
 Ministry of Water Resources, River Development and Ganga Rejuvenation
 Applications for Issue of NOC to Abstract Ground Water (NOCAP)

**Application for Permission to Dewater Ground Water for Mining Industry
 (Application for New NOC)**

Application Number : 21-4/282/JH/MIN/2018

7. Land Use Detail of Project Area			
Land Use Details	Existing (sq meter)	Proposed (sq meter)	Grand Total (sq meter)
Green Belt Area	2158000.00	0.00	2158000.00
Open Land	13942000.00	0.00	13942000.00
Road/ Paved Area	100000.00	0.00	100000.00
Rooftop area of building/ sheds	3580000.00	0.00	3580000.00
Total	19780000.00	0.00	19780000.00
8. Topography of the Area			
a) Regional		Ground surface elevation varies from 70 m to 100 m above mean sea level. General slope thereof is towards the North-East and South-West on either side of the Lalmatia Hill that is aligned in a North-South direction is 204 m to the North and 168 m to the South.	
b) Project Area		The Project physiography is characterised mostly by plains except Lalmatia Hill which is located to the North of the mine property and the hills to the extreme East and South of the property.	
9. Drainage in the Area (River / Nala etc)			
a) Regional		There is no year-round drainage within the project area, and overall drainage thereof is poorly and sparsely developed. However, the Ganges river flowing 35 km to the North of the area overall dominates the drainage.	
b) Project Area		Ephemeral streams, Dhulia Nallah, 6 km North-East of the pit and Sundar river, 10 km South of the OCP constitute the definite surface drainage. They flow through the area during the monsoon, and eventually, tribute or terminate to the Ganges.	
10. Source of Availability of Surface Water – Furnish Details:		Rain water and mine water to some extent.	
11. Average Annual Rainfall in the Area (in mm):		1554.00	
12. Townships/Villages within 10 km radius of the Project:		Ghat Simra, Bara Simra, Toyatola, Dhoatanr, Nimakala, Ghatnima, Suarmari, Hijukita, Bara Borai, Chota Simra, Kendua, Tetaria	
13. Whether the Groundwater Table will be Intersected by Activity :-			
(a) At What Depth (m bgl)		No	
		Pre-monsoon	Post-monsoon
Minimum (m bgl)			
Maximum (m bgl)			
(b) Maximum Depth Proposed to Dewater (m bgl)			
(c) Groundwater Flow Direction (Attach Map)(\$)			
(d) Any Other Information			
14. Total Water Requirement for various Purpose to be Mentioned			
		(m3/day)	(m3/year)
Ground Water Required through Abstract Structure		1775.00	647875.00
Ground Water Abstracted on account of Dewatering / Mining Seepage			

27/06/2018 09:52 AM

Page 2 of 6

Government of India
Central Ground Water Authority (CGWA)
Ministry of Water Resources, River Development and Ganga Rejuvenation
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

**Application for Permission to Dewater Ground Water for Mining Industry
(Application for New NOC)**

Application Number : 21-4/282/JH/MIN/2018

Total Ground Water Withdrawal		1775.00	647875.00
15. Details of De-Watering Structure			
(a) De-Watering Existing Structure			
Number of Existing Structures:		0	
SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)
			Discharge (m3/Hour)
			Operational Hours(Day) / Days (Year)
			Mode of Lift Name
			Horse Power of Pump
			Whether fitted with Water Meter
			Whether Permission Registered with CGWA /If so Details Thereof
(b) De-Watering Requirement and Proposed Structure Detail			
Number of Proposed Structures:		0	
SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)
			Discharge (m3/Hour)
			Operational Hours(Day) / Days(Year)
			Mode of Lift Name
			Horse Power of Pump
			Whether fitted with Water Meter
			Whether Permission Registered with CGWA/If so Details Thereof
16. Proposed Utilization of Pumped Water (Please Attach Details)(m3/year) (\$)			
(a)	Domestic Use in Mines		3650.00
(b)	Water Supply		73000.00
(c)	Agriculture		
(d)	Green Belt Development		3650.00
(e)	Suppression of Dust		511000.00
(f)	Recharge		
(g)	Any Other Item	Pumped out mine water (approx. 56000 cu.m/yr) is used for fire fighting, cleaning of HEMMs etc.	
17. Monitoring of Ground Water Regime (Attach Map(\$))			
(a)	Location Details of the Wells / Piezometers (Latitude, Longitude, Reduced Level)		Monitoring of ground water regime is done at five locations. 1. Bara simra Rehab. site 2. Hijukitta village 3. Lalmatia chowk 4. Lohandia Bazar village 5. Paharpur village
(b)	Number of Wells / Piezometers		05
(c)	Attach Details of GW Level of Observation Wells / Piezometers(At Least for One Year)(\$)		Attached.
(d)	Number of Wells / Piezometers Proposed to Monitor		02
(e)	Number of Piezometers Proposed to Monitor to Construct in Surroundings		Two numbers of piezometers are purposed to be installed on july 2018.
(f)	General Water Quality Report from NABL accredited lab(in the Arae and Surroundings) (\$)		Attached.

Government of India
 Central Ground Water Authority (CGWA)
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 Applications for Issue of NOC to Abstract Ground Water (NOCAP)

**Application for Permission to Dewater Ground Water for Mining Industry
 (Application for New NOC)**

Application Number : 21-4/282/JH/MIN/2018

(g) Any Other Item

Na

18. Proposed Pump / Pumping Groundwater Outside the Mine Pit for Domestic or Other Use (If so, give Details):

Number of Existing Structures:

0

SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)	Discharge (m3/Hour)	Operational Hours (Day) / Days (Year)	Mode of Lift Name	Horse Power of Pump	Whether fitted with Water Meter	Whether Permission Registered with CGWA/If so Details Thereof
------	---	-------------------------------	--	---------------------	---------------------------------------	-------------------	---------------------	---------------------------------	---

Number of Proposed Structures:

0

SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)	Discharge (m3/Hour)	Operational Hours (Day) / Days (Year)	Mode of Lift Name	Horse Power of Pump	Whether fitted with Water Meter	Whether Permission Registered with CGWA/If so Details Thereof
------	---	-------------------------------	--	---------------------	---------------------------------------	-------------------	---------------------	---------------------------------	---

19. Groundwater Availability Report (Please Enclose a Comprehensive Report on Groundwater Condition / Groundwater Quality in and Around 5Km of the Area) Map showing location of groundwater regime monitoringwells, flow chart showing details of water requirement and recycle water use and gainfull of pumped water- (\$)

Attached.

20. Details of Rainwater Harvesting / Artificial Recharge Measures for Groundwater Recharge in the Area. If already Implemented, details may be Furnished. (Attach Report on Comprehensive & Feasible Rainwater Harvesting / Recharge Proposal).- (\$)

Rainwater harvesting structure is at Rahmahal House (Project Township).

21. TOR/EC/Approval letter from statutory bodies viz Ministry of Environment & Forest (MoEF) or State Pollution Control Board (SPCB) or State Level Expert Appraisal Committee(SEAC) or State Level Environment Impact Assessment Authority (SLEIAA)- (\$)

Attached Referral Letter No Record Found!

Letter Number

J-11015/30/2014- I.II (M), Dated- 11 May 2005

22. Have you Applied Earlier for the Same Purpose with CGWA / State Ground Water Authority:

If Yes, so Details thereof with Status:

MINING USE- Self Declaration

It is to Certify that the Data and Information Furnished Above are True to the Best of My Knowledge and Belief and I am Aware that if any Part of the Data / Information Submitted is Found to be False or Misleading at any Stage the Application will be Rejected Out Rightly.

1. Application Proforma is subject to modification from time to time.

2. Application should be submitted to Regional Office.

Regional Director, Central Ground Water Board Mid Eastern Region, 6th & 7th Floor, Lok Nayak Jai Prakash Bhawan, Frazer Road Dak Banglow, PATNA, BIHAR, 800011

3. Incomplete Application will be Summarily Rejected.

Government of India
Central Ground Water Authority (CGWA)
Ministry of Water Resources, River Development and Ganga Rejuvenation
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

**Application for Permission to Dewater Ground Water for Mining Industry
(Application for New NOC)**

Application Number : 21-4/282/JH/MIN/2018

Submitted Application will not be Processed till the Print Out of the Signed Complete Application is Submitted to Regional Office.

4. Applicant has to Submit Processing Fee of Rs. 1000.00/- (Rupees One Thousand Only) through NON TAX RECEIPT PORTAL (<https://bharatkosh.gov.in>). A receipt will be generated. Please fill in the Transaction Ref No. and Date from the receipt, in print out of application and attach receipt along with hard copy of application.

Bharatkosh Details:- (Attached the Payment Receipt)

Transaction Ref Number:- 2706180000419

Dated:- 27/06/2018

Note:- The Processing Fee is Non-Refundable. Applicant should ensure and Check Eligibility of Submission of Application and Required Documents before Submitting Online Application.

Attached Files:

1). Site Plan : (Refer 3)

No Attachment Found!

2). Approved Mining Plan : (Refer:3)

S.No	Attachment Name	File Name
1	Mine Plan/PR Approval letter	Mine Plan -ROCP.pdf
2	Project Report / Mine Plan	Rajmahal PR.pdf

3). Toposketch of Surroundings 10 km Radius Outside : (Refer: 3)

No Attachment Found!

4). Document of Ownership of the land : (Refer-7)

No Attachment Found!

5). Source of Availability of Surface Water : (Refer-10)

No Attachment Found!

6). GroundWater flow Direction Map : (Refer: 13-C)

No Attachment Found!

7). Proposed Utilization of Pumped Water : (Refer: 16)

No Attachment Found!

8). Monitoring of Groundwater Regime Map : (Refer: 17)

No Attachment Found!

9). GW Level of Observation Wells / Piezometer : (Refer: 17-C)

No Attachment Found!

10). General Quality of Ground Water in the Area : (Refer: 17-f)

S.No	Attachment Name	File Name
1	Ground Water Quality Report	Ground Water Quality Report.pdf

Government of India
Central Ground Water Authority (CGWA)
Ministry of Water Resources, River Development and Ganga Rejuvenation
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

**Application for Permission to Dewater Ground Water for Mining Industry
(Application for New NOC)**

Application Number : 21-4/282/JH/MIN/2018

11). Hydrogeological Report (Previous:Groundwater Availability Report) : (Refer: 19)

S.No	Attachment Name	File Name
1	Hydrogeological Report	Hydrogeological report .JPG

12). Rain Water Harvesting/Artificial Recharge proposal (Previous:Details of Rainwater Harvesting and Artificial Recharge Measures) : (Refer: 20)

S.No	Attachment Name	File Name
1	Rain Water Harvesting Structure	Ground Water Harvesting Structure.pdf

13). Authorization Letter (Previous:Authorization) :

S.No	Attachment Name	File Name
1	CTO Rajmahal OCP	CTO Rajmahal 2017.pdf

15). Extra Attachment :

S.No	Attachment Name	File Name
1	Ground Water Level Report	GWL ROCP Jan'2018.pdf
2	EMP	Rajmahal EMP.pdf

16). Scanned Mining Application :

No Attachment Found!

17). TOR/EC/Approval Letter :

S.No	Attachment Name	File Name
1	EC LETTER RAJMAHAL	EC letter of Rajmahal.pdf

Date :

Place :

Name & Signature of the applicant

(With official seal)

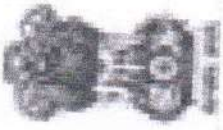
क्षेत्रीय प्रबंधक (पो.नि.वि. प्रयाग)
राजमहल क्षेत्र, ईसीएल

Associated User : rajmahal07

Submitted By User : rajmahal07

Submission Date : 27/06/2018

* In case signed by any authorized signatory, the details of the signatory with the authorization shall be enclosed.



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Government of India Receipt Portal

RECEIPT

Transaction Ref.No. 2706180000419
10:48AM

Dated: Jun 27 2018

Received from M/S. RAJMAHAL with Transaction Ref.No.
2706180000419

Dated Jun 27 2018 10:48AM the sum of INR 1000 (One Thousand Only)
through Internet based

Online payment in the account of PROCESSING FEE OF FRESH NOC FOR
GROUND WATER EXTRACTION, Ground Water Authorization Fee for Rajmahal
OCP, ECL.

**Disclaimer:- This is a system generated electronic receipt, hence no physical signature
is required for the purpose of authentication**

Printed On: 27-06-2018 10:51:03

Courtesy :- Controller General of Accounts

Rajmohal OC Project

CMPDI

AMBIENT AIR QUALITY DATA

Name of the Company: Eastern Coalfield Limited Year : 2018

Name of the Project : Rajmohal Project Month : August.

Industrial Area

1st fortnight

Station Code	Station Name	Date of Sampling	Parameters			
			PM ₁₀	PM _{2.5}	SO ₂	NO _x
16A1	Mine Dispatch Building	7-Aug-18	95.3	36.8	<10.0	14.4
16A2	CISF Camp	7-Aug-18	94.2	35.4	<10.0	14.0

2nd fortnight

Station Code	Station Name	Date of Sampling	Parameters			
			PM ₁₀	PM _{2.5}	SO ₂	NO _x
16A1	Mine Dispatch Building	29-Aug-18	94.3	35.9	<10.0	14.1
16A2	CISF Camp	29-Aug-18	93.7	34.8	<10.0	13.6

Residential Area

1st fortnight

Station Code	Station Name	Date of Sampling	Parameters			
			PM ₁₀	PM _{2.5}	SO ₂	NO _x
16A3	Urjanagar Hospital	7-Aug-18	82.0	31.2	<10.0	13.4
16A4	ECL Rest House at Pirpainthee Market	8-Aug-18	89.6	30.5	<10.0	13.2

2nd fortnight

Station Code	Station Name	Date of Sampling	Parameters			
			PM ₁₀	PM _{2.5}	SO ₂	NO _x
16A3	Urjanagar Hospital	30-Aug-18	81.6	30.4	<10.0	13.0
16A4	ECL Rest House at Pirpainthee Market	30-Aug-18	88.8	30.2	<10.0	13.1

National Ambient Air Quality Standards (NAAQS)

National Ambient Air Quality Standards (NAAQS) for industrial, residential and rural areas for 24 hours samples:

Pollutant	PM ₁₀	PM _{2.5}	SO ₂	NO _x
Concentration	100.0	60.0	80.0	80.0

➤ All values are expressed in microgram per cubic meter.

Rajmohal OC Project

CMPDI

WATER QUALITY DATA (Effluent Water)

Name of the Company: Eastern Coalfield Limited

Year : 2018.

Name of the Project : Rajmohal Area

1. 16MMW1- OCP Discharge

2. 16MMW2- Discharge from CHP

Stations & Code : 4. 16MMW4- D/S Dhulia Nallah

3. 16MMW3- U/S Dhulia Nallah
5. 16MMW5- O & G Trap at Workshop

First Fortnight data

Sl. No.	Parameters	16MMW1	16MMW2	16MMW3	16MMW4	16MMW5	General Standards for Discharge of Effluent (Schedule VI)	Method of Detection	Detection Limit
		8-Aug-18	8-Aug-18	8-Aug-18	8-Aug-18	8-Aug-18			
1	pH	8.06	7.75	8.42	8.25	7.73	5.5 - 9.0	Electrometric	0.01
2	TSS	22	38	42	40	58	100 (Max)	Gravimetric Method	5.0
3	TDS	290	606	328	336	416	Not specified	Gravimetric Method	1.0
4	Oil & Grease	<2.0	<2.0	<2.0	<2.0	<2.0	10 (Max)	Partition Gravimetric	2.0
5	COD	28	44	52	48	72	250 (Max)	Closed Reflux	4.0

Second Fortnight data

Sl. No.	Parameters	16MMW1	16MMW2	16MMW3	16MMW4	16MMW5	General Standards for Discharge of Effluent (Schedule VI)	Method of Detection	Detection Limit
		29-Aug-18	29-Aug-18	29-Aug-18	30-Aug-18	30-Aug-18			
1	pH	8.38	7.37	8016.00	8.00	7.63	5.5 - 9.0	Electrometric	0.01
2	TSS	22	34	30	38	58	100 (Max)	Gravimetric Method	5.0
3	TDS	274	636	304	320	400	Not specified	Gravimetric Method	1.0
4	Oil & Grease	<2.0	<2.0	<2.0	<2.0	<2.0	10 (Max)	Partition Gravimetric	2.0
5	COD	32	48	36	40	80	250 (Max)	Closed Reflux	4.0

All values are expressed in mg/L unless specified.

Rajmohal OC Project

CMPDI

NOISE LEVEL DATA

Name of the Company: **Eastern Coalfield Limited**

Year : **2018.**

Name of the Project: **Salanpur Area, Mohanpur**

Month. : **August**

Name of the Stations & Code : 1. 16N1- Mine Dispatch Building
 2. 15N2- CISF Camp
 3. 15N3- Urjanagar Hospital
 4. 15N4- Rest House at Pirpainthee

Sl. No.	Station Code	Station Name	Measurement Details			Permissible Limit of Noise level in dB(A)
			Date	Duration (In Hrs.)	Noise level dB(A) Leq	
1	16N1	Mine Dispatch Building	7-Aug-18	10.00 to 11.00	64.8	75
2	16N2	CISF Camp	7-Aug-18	8.30 to 9.30	58.7	75
3	16N3	Urjanagar Hospital	7-Aug-18	7.00 to 8.00	53.4	75
4	16N4	Rest House at Pirpainthee	7-Aug-18	11.30 to 12.30	56.8	75

National Ambient Air Quality Standards (NAAQS) in respect of noise for Industrial, commercial and residential areas.

Station Category	Limits for noise (Leq dB (A))	
	Day Time: 6.00 AM to 10.00 PM	Night Time: 10.00 PM to 6.00 AM.
Industrial	75.0	70.0
Commercial	65.0	55.0
Residential	55.0	45.0

Rajmohal OC Project

CMPDI

Well water level for the month of August, 2018

Sl. No.	Station code	Location of Dug well	Date of measurement	Water level (in Meters) Below Ground Level
1	16GWL1	Dugwell at Bara Simra Rehab Site		Dry
2	16GWL2	Dugwell at Higukita Village	9-Aug-18	9.60
3	16GWL3	Dugwell at Lalmatia Chowk	9-Aug-18	4.20
4	16GWL4	Dugwell at Lohandia Bazar	9-Aug-18	9.60
5	16GWL5	Dugwell at Paharpur Village	9-Aug-18	4.15