

Office of General Manager Kusunda Area

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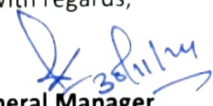
To,
The Director(s)
Ministry of Environment, Forest and Climate Change (MoEFCC),
(Govt. of India)
Regional Office (ECZ),
Bungalow No. A-2,
Shyamali Colony,
Ranchi - 834002

Sub : Six monthly compliance report on Environmental Clearance Conditions for the period from March '2024 to September '2024 in respect of Cluster-VII Group of mines, EC order no.: J-11015/238/2010-1A.II (M) Pt dated 12-10-2018 and amended 20th August, 2020

Dear Sir,

Enclosed please find herewith six monthly compliance report on environmental clearance conditions for the period from **March '2024 to September '2024** in respect of **Cluster-VII** Group of mines, **EC order no.: J-11015/238/2010-1A.II (M) Pt dated 12-10-2018 amended 20th August, 2020** for your kind perusal.

With regards,


General Manager
Kusunda Area, BCCL

महाप्रबंधक
General Manager
कुसुन्दा क्षेत्र / Kusunda Area

COMPLIANCE OF EC CONDITIONS of CLUSTER-VII

EC order no.: J-11015/238/2010-1A.II (M) Pt dated 12th October, 2018

(April'24 to September'24)

Sl.no.	Specific Conditions by MOEF:	Compliance
4 (i)	The project proponent shall obtain Consent to establish from the State Pollution Control Boards of Jharkhand for the proposed peak capacity of 11.42 MTPA prior to commencement of the increased production.	Complied. Consent to Establish has been obtained from JSPCB for the projects where production enhancement is granted. Annexure - I
4 (ii)	Transportation of coal from face to coal heap shall be carried out by truck. Further, the coal transportation from coal heap to Coal Handling Plant shall be carried out through covered trucks.	Complied. From face to coal heap – Coal is being transported in Trucks/Dumpers. From Coal heap to CHP/sidings - Coal transportation is being done by trucks covered with tarpaulin cover. Covering of trucks has been made mandatory in the transportation contracts. Annexure - II
4 (iii)	Mitigation measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.	Complied. 1) Sufficient no. of Mobile Water Sprinklers are being used for Sprinkling water on transportation roads. Annexure - III 2) Truck mounted fog Canons are also used for spraying mist on transportation roads. Annexure - IV 3) One no. of Mechanical Sweeper has been procured and is under operation. Additionally, one more Mechanical Sweeper is under final stages of Delivery. Annexure - V 4) Additionally, Manual Sweeping is done on Public roads on routine basis to remove dust settled along the dividers. Annexure - VI
4 (iv)	Sufficient coal pillars shall be left un-extracted around the air shaft (within the subsidence influence area) to protect from any damage from subsidence, if any.	Complied. Sufficient coal pillars have been left around air shafts as per Coal Mines Regulations 2017 and DGMS Orders. Annexure - VII
4 (v)	Solid barrier shall be left below the roads falling within the block to avoid any damage to the roads and no depillaring operation shall be carried out below the township/colony.	Complied. Barriers have been left for saving the surface installation and infrastructures as per Coal Mines regulation 2017 and DGMS Orders . Annexure - VIII
4 (vi)	Depression due to subsidence resulting in water accumulating within the low lying areas shall be filled up or drained out by cutting drains.	Complied. Though all the operational projects are Open Cast projects still non operational underground mines are monitored for subsidence, if any and Time to time depression created by the mining operations have been filled up by the locally available material and over burden. Annexure - IX
4 (vii)	Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.	Complied. Annexure - X
4 (viii)	The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 11.42 MTPA.	Complied. NOC for groundwater abstraction was granted for the period 2021-23 and application of

		renewal of NOC is under process at CGWA end. Annexure - XI
4 (ix)	Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.	Complied. Proper safety, health hazards and the corrective measures are being taken by Area and HQ Level Safety/Medical Board on regular basis. For proper monitoring of occupational safety, Safety officers are deputed in each mine and at Area Level, Area Safety officer looks after the same. Regular Pit safety talks, Bipartite and tripartite safety meetings, Safety several workshops, company level Safety meetings are being organized. Detail of safety meetings attached as Annexure – XII. And for health hazards doctors and dispensaries have been provided in each mine. IME/PME of the workmen are conducted regularly. Periodical Medical Examination Data enclosed as Annexure - XXXI
4 (x)	The fire dealing operations by excavating out fire should be expedited.	Complied. Mining is being carried out by OC Method and fiery coal is being excavated out as per Jharia Master Plan. Annexure - XIV

Generic Conditions by MOEF:

A. Mining		
i	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.	Complied. All stipulated provisions and subordinate legislations of Mines Act 1952 are being followed under the guidance of DGMS.
ii	No change in mining method, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forest and Climate Change.	Complied. No change in mining method, calendar programme and scope of work has been made.
iii	Mining shall be carried out as per the approved mining plan including Mine Closure Plan, abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).	Complied. Mining is being carried out in accordance to Mining Plan and abiding by mining laws and relevant circulars issued by DGMS. Mine Closure Plan, has been prepared for each Mine in this cluster. Progressive mine closure is being implemented regularly as per the approved Mine Closure Plan prepared by CMPDIL.

iv	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.	Complied. No forest land is present in the cluster.
B. Land reclamation and water conservation		
i	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 4:50000 scale shall be submitted to Ministry of Environment, Forest and Climate Change/Regional Office (RO).	Complied. Land Use Map of Cluster VII has been prepared by CMPDIL using remote sensing data for monitoring of land use pattern and for post mining land use. The land use map is attached in Annexure XV .
ii	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/Gol Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS.	It is being complied. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EMP report. Approval form competent authority of State Govt. shall be sought in case of diversion of Natural Water Course. Embankment has been constructed along the mine boundary to prevent in rush of surface water. Geomorphological Map and Surface water and ground Water recharge and quality improvement strategies Attached as Annexure - XVI
iii	The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective state government as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27 th August, 2009 and subsequent amendments.	It is being complied. ▪ Backfilling process in abandoned pits and voids are continuously carried out along with the mining operation. ▪ Ecological restoration and Plantation shall be carried out on finalization of dumps. ▪ Abandoned Pits will be utilized for Pisciculture in Post Mining Phase.

iv	The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining"/"post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the Ministry of Environment, Forest and Climate Change/Regional Office on six monthly basis.	Being complied. Post Mining land use pattern as per mining Plan to be achieved after completion of Mining Activities.
V	The top soil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized for long. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilized with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office on six monthly basis.	It is being complied. Top soil dumps have been created separately. Top soil is spread over Slopes of OB Dumps, used in plantation activities. Annexure - XVII Top soil is spread over slopes of OB dumps and grass seed balls are thrown over it for grassing. Annexure - XVIII Once the OB dump reaches its final stage it would be taken up for Three tier plantation and eco-restoration. Seeds of Native flora species are also spread on these sites.

C. Emissions, effluents, and waste disposal

i	Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM10/PM2.5) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.	Complied. 1) Sufficient no. of Mobile Water Sprinklers are being used for Sprinkling water on transportation roads. Annexure - III 2) Truck mounted fog Canons are also used for spraying mist on transportation roads. Annexure - IV 3) One no. of Mechanical Sweeper has been procured and is under operation. Additionally, one more Mechanical Sweeper is under final stages of Delivery. Annexure - V 4) Additionally, Manual Sweeping is done on Public roads on routine basis to remove dust settled along the dividers. Annexure - VI
ii	Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area in a phased manner. The green belt comprising a mix of native species shall be developed all along the major approach/ coal transportation roads.	Being Complied.. Plantation is being developed along mine lease area in available spaces in a phased manner. Green belt are also being developed along transportation roads. Annexure - XLIV
iii	The transportation of coal shall be carried out as per the provisions and route proposed in the approved Mining Plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so	Being complied. Transportation of coal is being done through the best possible route keeping public disturbance minimal. Further PQC roads are being constructed for transportation.

	constructed so that the impact of sound, dust and accidents could be appropriately mitigated.	
iv	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centers.	Complied. Vehicles used for transportation of coal have PUC certificate from authorized pollution testing centers. Copy of some Pollution Under Control Certificates has been enclosed as Annexure XIX .
v	Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.	Complied. Crushers/feeders breakers are fitted with water sprinklers Coal handling plant are enclosed with metal sheets and are fitted with water sprinklers to check fugitive emissions. Drills are operated with wetting arrangement or fitted with dust extractors Annexure - XX
vi	Coal handling plant shall be operated with effective control measures viz. bag filters/water or mist sprinkling system etc. to check fugitive emissions from crushing operations, conveyor system, transfer points, etc.	Complied. Coal handling plant are enclosed with metal sheets and are fitted with water sprinklers to check fugitive emissions. Annexure - XXI
vii	Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.	It is being complied. Mine water is used for the industrial as well as domestic purposes. Mine water is also supplied to colonies and community after filtration. Proposal for mine water supply to nearby village/community is taken up under CSR Policy of the company. Mine water is used for fire dealing as well. Rain Water Harvesting is being implemented. A MoU has been signed between Coal India Ltd. & Govt. of Jharkhand for providing mine water to nearby villages. A copy of MoU has been enclosed as Annexure XXII

viii	Catch/garland drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de- silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilized for dust suppression measures and green belt development. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.	It is being complied. In phased manner, garland drains, siltation ponds, toe wall are constructed around finalized OB Dumps to prevent run off water and flow of sediments directly into the river & water bodies. Garland Drains are also prepared in monsoon season. Annexure - XXIII
ix	Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Oil and grease trap shall be installed and maintained fully functional with effluents discharge adhering to the norms. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste.	It is being complied. Effluents discharge standards are regularly monitored by CMPDIL for cluster VII group of mines.. Mine water monitoring report has been enclosed as Annexure XXIV Oil & grease Trap has been installed. Annexure – XXV For domestic sewage soak pits has been provided in the residential colonies.
x	Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	It is being complied. Rain Water Harvesting is being constructed. Annexure – XXIII Mine water is also supplied to colonies and community after filtration through pressure filters, slow sand filters and rapid sand filters. Mine sumps also act as a recharge structure for its whole catchment area. Log Book of Water Supply to local villages is attached as Annexure - XXVI
D. Illumination, Noise & Vibration		
i	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis.	Complied. Adequate illumination is being ensured in all mine locations as per DGMS standards and the same is being monitored by Area & HQ Level Safety Committees on regular basis. Illumination survey is conducted mine wise and proper records are maintained. Annexure - XXVII

ii	Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.	Complied. Personnel operating HEMMs, drilling machine and other machines comply with safety regulation and are equipped with PPEs. Procurement of PPEs data attached as Annexure – XXVIII . Training programs are also conducted at VTC for awareness. Noise monitoring data has been enclosed as Annexure XXIX .
iii	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations and fly rocks as per the guidelines prescribed by the DGMS.	Complied. DGMS regulations are followed strictly for blasting. Additionally Personnel operating HEMMs, drilling machine and other machines are given training on regular basis. Vibration Report has been attached as Annexure - XXX
iv	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.	Complied. Noise level monitoring is done by CMPDIL on monthly basis. Noise monitoring data has been enclosed as Annexure XXIX .

E. Occupational health & safety

i	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the workers engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.	It is being complied. Initial and Periodical Medical Examination (PME) of all the mining and other personnel is being carried out regularly at Area Hospital, as per the Statutes and guidelines of Director General of Mines Safety (DGMS). PME also includes checkup of occupational diseases and hearing impairment. IME/PME data attached as Annexure XXXI .
ii	Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.	Complied. Protective respiratory devices & other PPEs are supplied to personnel working in dusty areas. Details attached as Annexure – XXVIII . Also, a separate full-fledged Human Resource Development (HRD) Department is conducting regular training programme on these issues. Apart from this Vocational Training Centers (VTCs) are existing in all the Areas of BCCL, which provides periodical training on the safety and occupational health issue to the workers.
iii	Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.	Complied. HRD Department & Area level Vocational Training Centers are conducting regular training programs. Status of training enclosed as Annexure XXXII .

F. Ecosystem and biodiversity conservation

i	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.	Complied. No endangered flora/fauna has been reported in the mining area. However, Conservation and Protection of endangered flora/fauna shall be taken with utmost priority if spotted/reported.
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G. Public hearing, R&R and CSR

i	Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land ousters shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.	It is being complied. The issues raised during Public Hearing is mentioned in the EMP and measures are being taken to ensure its implementation. Attached as Annexure – XXXIII. Land Ousters are being compensated as per the norms laid down in the R&R Policy of the Company.
ii	The project proponent shall ensure the expenditure towards socio-economic development in and around the mine, in every financial year as per the Corporate Social Responsibility Policy as per the provisions under Section 135 of the Companies Act, 2013	It is being complied. BCCL is implementing CSR activities from HQ. A separate department of CSR is engaged for the said work. Annual report is available on BCCL Website. - https://www.bcclweb.in/?page_id=20417 (dated 05.11.2024)
iii	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.11 (M) dated 29" October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.	Being Complied. Habitation issues are taken due care during course of mining operations and the points mentioned in the OM is being followed.

iv	The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.	It shall be complied, if any grazing land is involved.
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H. Corporate Environment Responsibility

i	The Company shall have a well laid down environment policy duly approved by Board of Directors. The environment policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions. Also, the company shall have a defined system of reporting of non-compliances/violations of environmental norms to the Board of Directors and/or shareholders/stakeholders.	Complied. A well-defined Corporate Environment Policy has already been laid down and approved by the Board of Directors. This is also uploaded on company's website. https://www.bcclweb.in/environment/CEP_280220.pdf (dated 06.11.2024)
ii	The project proponent shall comply with the provisions contained in this Ministry's OM dated 1 st May, 2018, as applicable, regarding Corporate Environment Responsibility	It is being complied. Activities mentioned in the OM regarding Corporate Environment Responsibility is being taken up in phase wise manner like plantation, RWH, etc.
iii	The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions should be displayed on website of the Company.	Complied. A hierarchical system of the company to deal with environmental issues from corporate level to mine level already exists.
iv	A separate environmental management cell both at the project and company headquarter level, with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Complied. - A full-fledged Environment Department, headed by a GM (Environment) along with a suitable qualified multi-disciplinary team of executives have been established at Company Headquarters for implementation of Environment Policy of the company. - One Executive in each area has also been nominated as Nodal Officer (Environment) for looking after routine environment related jobs along with an Environment Management Cell at Area Level. Environment Management Cell at Area Level is attached as Annexure - XXXIV - For implementing and look after Socio-Economic Issues, an executive of Community Development Cadre is also posted at area level.

v	Action plan for implementing EMP and environmental conditions shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.	It is being Complied. Action plan for implementation of environmental management plan and environmental conditions are allocated to environment cell of the mine for field implementation. Funds (both Capital and revenue expenses) are allocated from Headquarter level to the project unit and expenditure is being booked under different heads. Funds are not being diverted for any other purpose. Year wise progress of implementation of action plan is being reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
vi	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Complied. Internal audit is done periodically and third party audit has been done by ICFRE. Attached as Anneuxre - XXXV

I. Statutory Obligations

i	The environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Court, NGT and any other Court of Law from time to time, and as applicable to the project.	Agreed
ii	This environmental clearance shall be subject to obtaining wildlife clearance, if applicable, from the Standing Committee of National Board for Wildlife.	Agreed
iii	The project proponent shall obtain Consent to Establish/Operate under the Air Act, 1981 and the Water Act, 1974 from the concerned State Pollution Control Board.	Complied.
iv	The project proponent shall obtain the necessary permission from the Central Ground Water Authority. (CGWA).	Complied. NOC for usage/extraction of Ground water was granted for the period 2021-23 by CGWA for Cluster VII group of Mines and application of renewal of the same is under process. Annexure - XI

J. Monitoring of project

i	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM ₁₀ , PM _{2.5} , SO _x and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.	Complied. Regular Monitoring is being carried out by CMPDIL. Monitoring report attached as Annexure - XXXVIII PM10 Analysers has been installed in each operational unit. Annexure - XXXVI Establishment of ambient environment quality monitoring stations has been finalized with the consultation of Jharkhand State Pollution Control Board. Enclosed in Annexure XXXVII.
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ii	The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.	Complied. Ambient Air quality monitoring Data is regularly submitted to ministry along with compliance report. Ambient Air Quality monitoring report attached as Annexure XXXVIII.
iii	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.	Complied. Effluents discharge standards are regularly monitored by CMPDIL for cluster VII group of mines. Mine water monitoring report has been enclosed as Annexure XXXIX.
iv	The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.	Complied. Annexure – XL
v	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to Ministry of Environment, Forest and Climate Change/Regional Office.	Complied. Drilling of Piezometric well has been completed and DWLR has been installed for monitoring of Ground Water level. Annexure - XLI CMPDI is regularly conducting study of groundwater level and quality of areas within Cluster VII. Groundwater monitoring data has been enclosed as Annexure XLII.
vi	Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.	Complied. CMPDI RI-II is regularly conducting study water quality. Water Quality report attached as Annexure XXXIX.
vii	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental conditions to the Ministry of Environment, Forest and Climate Change/Regional Office. For half yearly monitoring reports, the data should be monitored for the period of April to September and October to March of the financial years.	Complied.

viii	The Regional Office of this Ministry 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 data / information/monitoring reports.	Complied.
K. Miscellaneous		
i	Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.	Being complied. Conventional bulbs are being replaced by LED bulbs and conventional fans are being replaced by BLDC fans in official/industrial premises. Energy efficient High Mast Lighting towers, energy efficient fans are being procured replacing the old ones. Solar Energy is also being harnessed at different locations in BCCL.
ii	The project authorities shall inform to the Regional Office regarding commencement of mining operations.	Agreed.
iii	A copy of the environmental clearance shall be marked to concerned Panchayat. A copy of the same shall also be sent to the concerned State Pollution Control Board, Regional Office, District Industry Sector and Collector's Office/Tehsildar Office for information in public domain within 30 days.	Complied.
iv	The EC shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain.	Complied.
v	The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of this clearance, informing that the project has been accorded environmental clearance and a copy of the same is available with the State Pollution Control Board and also at website of the Ministry.	Complied. Enclosed in Annexure XIII.
vi	The environmental statement for each financial year ending 31 March in Form-V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the Company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF&CC by e-mail. Concerns raised during public hearing.	Complied. EC Compliance is regularly updated on company's website.

vii	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter.	Agreed
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COMPLIANCE OF ADDITIONAL EC CONDITIONS of CLUSTER-VII

EC order no.: J-11015/238/2010-1A.II (M) Pt dated 20th August, 2020

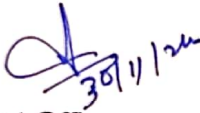
Sl.no	Conditions by MOEF:	Compliance
(i)	Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression, arrangement at loading and unloading points, etc.	Complied. 1) Sufficient no. of Mobile Water Sprinklers are being used for Sprinkling water on transportation roads. Annexure - III 2) Truck mounted fog Canons are also used for spraying mist on transportation roads. Annexure - IV 3) One no. of Mechanical Sweeper has been procured and is under operation. Additionally, one more Mechanical Sweeper is under final stages of Delivery. Annexure - V 4) Additionally, Manual Sweeping is done on Public roads on routine basis to remove dust settled along the dividers. Annexure - VI
(ii)	Continuous monitoring of occupational safety and other health hazards, and the corrective actions needs to be ensured.	Complied. Initial and Periodical Medical Examination (PME) of all the mining and other personnel is being carried out regularly at Area Hospital, as per the Statutes and guidelines of Director General of Mines Safety (DGMS). PME also includes checkup of occupational diseases and hearing impairment. IME/PME data attached as Annexure XXXI .
(ii)	Persons of nearby villages shall be given training on livelihood and skill development to make them employable.	It is being complied. Complied. HRD Department & Area level Vocational Training Centers are conducting regular training programs. Status of training enclosed as Annexure XXXII . CSR department is selecting candidates from PAFs and sending them for training at CIPET, Ranchi . Students from CIPET after training has also got placements in different firms. Further a Sewing centre is also being run for skill development. Annexure XLIII .
(iv)	Thick green belt of adequate width at the final boundary in the downwind direction of the project	It is being complied. Plantation is done regularly in land available. Annexure XLIV

	site shall be developed to mitigate/check dust pollution.	
(v)	Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing dependability on a single source.	It is being complied. Mine water is being used for the industrial as well as domestic purpose. Mine water is also supplied to colonies and community after filtration through pressure filters, slow sand filters and rapid sand filters. Rain Water Harvesting is being implemented in phased manner.
(vi)	Continuous monitoring of occupational safety and other health hazards, and the corrective actions needs to be ensured.	Complied. Initial and Periodical Medical Examination (PME) of all the mining and other personnel is being carried out regularly at Area Hospital, as per the Statutes and guidelines of Director General of Mines Safety (DGMS). PME also includes checkup of occupational diseases and hearing impairment. IME/PME data attached as Annexure XXXI .
(vii)	A third party assessment of EC compliance shall be undertaken once in three years through reputed Government Institutes or any other expert agency identified by the Ministry.	Complied. Third party audit has been done by ICFRE. Annexure XXXV .
(viii)	Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air borne of particles.	It is being complied. Grass seed balls are spread over slopes of active OB Dumps. Annexure XLV
(ix)	Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitations/structures due to blasting activity.	Complied. Blasting is done after obtaining necessary permission from DGMS. Annexure - XLVI
(x)	The Project proponent shall comply with all the statutory requirements and judgement of Hon'ble Supreme Court dated 2 nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgement of Hon'ble Supreme Court dated the 2 nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.	Agreed.
(xi)	Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measures for burns, malaria and provision of anti-	Complied. Initial and Periodical Medical Examination (PME) of all the mining and other personnel is being carried out regularly at Area Hospital, as per the Statutes and guidelines of Director General of Mines Safety (DGMS). PME also includes checkup of occupational diseases and hearing impairment. IME/PME data attached as Annexure XXXI .

	snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.	
(xii)	Project proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29 th October, 2014, titled “ Impact of mining activities on Habitations- Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or habitations and the village are surrounded by the mine lease area.”	Agreed.
(xiii)	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.	It is being complied. Illumination and Noise Reports attached as AnnexureXXVII and Annexure XXIX
(xiv)	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, 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. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.	It shall be complied if any endangered fauna spotted. No endangered flora/fauna has been reported in the said area.
(xv)	Hon’ble Supreme Court in a Writ Petition(s) Civil No. 114/2014, Common Cause v Union of India & Ors vide its judgment dated 8 th January, 2020 has directed the Union of India to impose a condition in the mining lease and similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna, etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent”. The implementation report of the above said condition shall be sent to Regional Office of the MoEFCC.	It is being complied.

5	The Project proponent shall abide by all the commitments and recommendations made in EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.	Agreed.
6	The project proponent shall obtain all necessary clearances/approvals required before start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.	Complied.
7	Any appeal against this environmental clearance lies with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Agreed.
8	The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the judgement dated 2 August, 2017 of Hon'ble Supreme Court in WP (Civil) No. 114/2014 in the matter of 'Common Cause Vs Union of India & others'.	Agreed.
9	The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology, in strict compliance of the judgement of Hon'ble Supreme Court.	Noted.

10	This environmental clearance shall not be operational till such time the project proponent complies with the above said judgement of Hon'ble Supreme Court, as applicable and other statutory requirement.	Agreed.
11	This issues in supression of the earlier EC granted vide letter No.J-11015/238/2010-IA.II (M) dated 6th February, 2013, with approval of the competent authority.	Agreed.


Project Officer
Ena OC


Project Officer
ADIC


Project Officer
Rajapur/S-Jharia


Project Officer
Kusunda OC


Project Officer
AEBSC


Project Officer
Alkusa UG


Project Officer
Burragarh UG


Project Officer
Hurriladih UG


Project Officer
Kustore UG

Annexure – I – Copy of CTE



JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI 834004

Telephone: 0651-2400850 (Fax)/ 2400851/2400852/2401847/2400979/2400139

Ref No.: JSPCB/HO/RNC/CTE-3630377/2019/590

Dated : 2019-10-10

Consent to Establish (CTE) under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981

1. Reference: Application (s) No.- 3630377 / dated : 11/09/2019 of ENA COLLIERY, SS Singh for consent under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981
2. **Documents Relied Upon:**
 - (a) The content of Inspection Report (I/R) Checklist dated 04.10.2018 vide Ref No. 1361 dated 06.10.2018 of R O-Cum-Laboratory, J.S.P.C.Board, Dhanbad.
 - (b) The content of copy of EC issued vide Ref. No. F.NO. J-11015/238/2010-IA.II (M) Pt dated 12.10.2018 for expansion of Cluster VII COal Mining Project from 8.16 MTA to 11.42 MTPA mine lease area of 2127.70 Ha of M/s BCCL locted in Jharia Coal fields, Dist- Dhanbad (Jharkhand).
 - (c) The content of Copy of CTO issued vide Ref. No. JSPCB/HO/RNC/CTO-518168/2016/556 Dated : 2016-09-10 for Coal (Peak capacity- 0.221 MTPA, Normal capacity- 0.170 MTPA valid up to 31.12.2020
 - (d) The content of Form - I & Proposal for one time 40% capcity enhancement for Cluster VII of BCCL Mines in which the name of ENA OC is mentioned with Balance Life of Mine (years) as 25.
3. The consent is granted under section 25 / 26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 to establish the project in Mauza- BHAGATDIH, P S -ENA, District-DHANBAD as follows:

Project	Site-Area		Investment (Rs)/ Year	Product & Capacity	Period of CTE
	Plot Nos.	Area			
In Expansion	Mauza- Bhagatdih and as per EC	2129.70 Ha	2559.561 Lacs	Coal - 3.0 MTPA (as per EC)	Date of issue to Six months

Annexure – II – Covered Transportation



Annexure – III – Mobile Water Sprinklers



Annexure – IV – Truck Mounted fog Canon



Annexure – V – Mechanical Sweeper



Annexure – VI – Manual Sweeping on Transportation Roads



Annexure – VII – Surface Plan showing sufficient Coal Pillars around Shaft



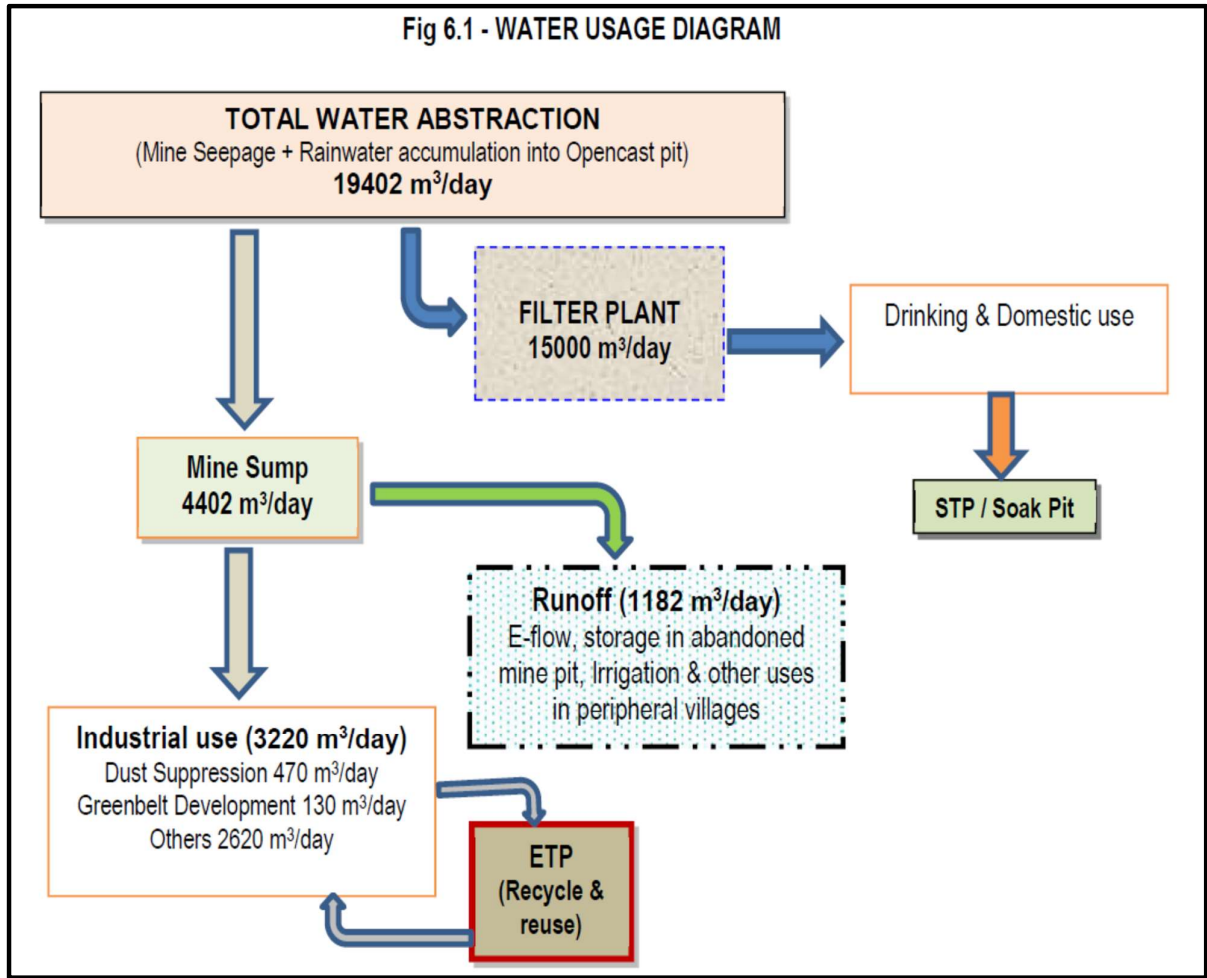
Annexure – VIII – Surface Plan showing sufficient Barriers below Infrastructures



Annexure – IX– Filling up of Subsidence area with OB



Fig 6.1 - WATER USAGE DIAGRAM



Annexure – XI– GW ABSTRACTION NOC & APPLICATION



भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास
और गंगा संरक्षण विभाग
केंद्रीय भूमि जल प्राधिकरण
Government of India
Ministry of Jal Shakti
Department of Water Resources,
River Development & Ganga Rejuvenation
Central Ground Water Authority

(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)

NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

Project Name:	Cluster VII Group Of Mines Of Bccl		
Project Address:	Office Of The General Manager, Kusunda Area, Bccl		
Town:	Dhanbad (m Corp.)	Block:	Dhanbad
District:	Dhanbad	State:	Jharkhand
Pin Code:			
Communication Address:	Office Of The General Manager, Kusunda Area, Bccl, Dhanbad, Dhanbad, Jharkhand - 828116		
Address of CGWB Regional Office :	Central Ground Water Board Mid Eastern Region, 6th & 7th Floor, Lok Nayak Jai Prakash Bhawan, Frazer Road Dak Banglow, Patna, Bihar - 800011		

1. NOC No.:	CGWA/NOC/MIN/ORIG/2021/13617		
2. Application No.:	21-4/274/JH/MIN/2018	3. Category:	Semi Critical
		(GWRE 2020)	
4. Project Status:	Existing Project	5. NOC Type:	New
6. Valid from:	02/11/2021	7. Valid up to:	01/11/2023
8. Ground Water Abstraction Permitted:			

Application Detail

Application No : 21-4/274/JH/MIN/2018

Name of Mining : CLUSTER VII GROUP OF MINES OF BCCL

Renew 1st - Present

Existing NOC	Status	Digital Signed Letter	Scan Letter	Issued NOC	Apply Type	Submitted Date
CGWA/NOC/MIN/ORIG/2021/13617 (02/11/2021 - 01/11/2023)	In Process View	Print		Self Compliance	Online	31 Oct 2023

[Go Back](#)

DETAILS OF SAFETY MEETINGS UNDER KUSUNDA AREA

1) BIPARTITE MEETING DATES -

YEAR	DATE
2020	07.10.2020
2021	27.10.2021
2022	07.09.2022
2023	22.07.2023

2) TRIPARTITE MEETING DATE

YEAR	DATE
2020-21	18.02.2020
2021-22	20.01.2022
2022-23	12.01.2023
2023-24	19.03.2024

3) AREA SAFETY COMMITTEE MEETING

YEAR	DATE
2020	17.06.2020, 24.12.2020
2021	06.01.2021, 03.02.2021, 04.03.2021
2022	13.04.2022, 23.11.2022
2023	27.04.2023, 28.12.2023
2024	24.02.2024, 13.09.2024

4) PIT SAFETY COMMITTEE MEETING IN MINES

YEAR	NUMBER / DATE
2021	110
2022	107
2023	101
2024	89 UPTO OCT.2024

Annexure – XIII– PME Data & Newspaper Advertisement

S.No.	TARGET	ACHIEVEMENT
2020	1117	935
2021	1025	826
2022	1033	795
2023	1012	740
2024	1012	310 (UPTO OCT.2024)



भारत कोकिंग कोल लिमिटेड

'एक मिनीरल कम्पनी'
(कोल इण्डिया लिमिटेड का एक अंग)

पर्यावरण विभाग, कोयला भवन

सभी संबंधित व्यक्तियों को सूचित किया जाता है कि भारत कोकिंग कोल लिमिटेड के क्लस्टर VII कोयला खनन परियोजना को पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय के द्वारा पर्यावरणीय स्वीकृति में संशोधन दिया गया है जो इस प्रकार है :-

क्रम संख्या	परियोजना का नाम	स्वीकृति पत्र संख्या एवं दिनांक
1.	धनबाद जिला, झारखण्ड में स्थित भारत कोकिंग कोल लिमिटेड के क्लस्टर VII कोयला खनन परियोजना की पर्यावरण स्वीकृति जिसका कुल क्षेत्र 2127.70 हेक्टेयर है एवं उत्पादन क्षमता 11.42 मिलियन टन प्रति वर्ष है को संशोधित किया गया है जिसमें राजापुर/द-झरिया ओसीपी परियोजना की पीक उत्पादन क्षमता 2.56 एमटीपीए की गयी है पर क्लस्टर VII की उत्पादन क्षमता 11.42 मिलियन टन प्रति वर्ष यथावत है।	J-11015/238/ 2010-IA-II (M) Pt. दिनांक 20 अगस्त 2020

पर्यावरणीय स्वीकृति की प्रतिलिपि झारखंड राज्य प्रदूषण नियंत्रण बोर्ड के पास उपलब्ध है तथा इसे पर्यावरण एवं वन मंत्रालय की अधिकारिक वेबसाइट <http://envfor.nic.in> और भारत कोकिंग कोल लिमिटेड के आधिकारिक वेबसाइट <http://www.bcclweb.in> पर देखा जा सकता है।

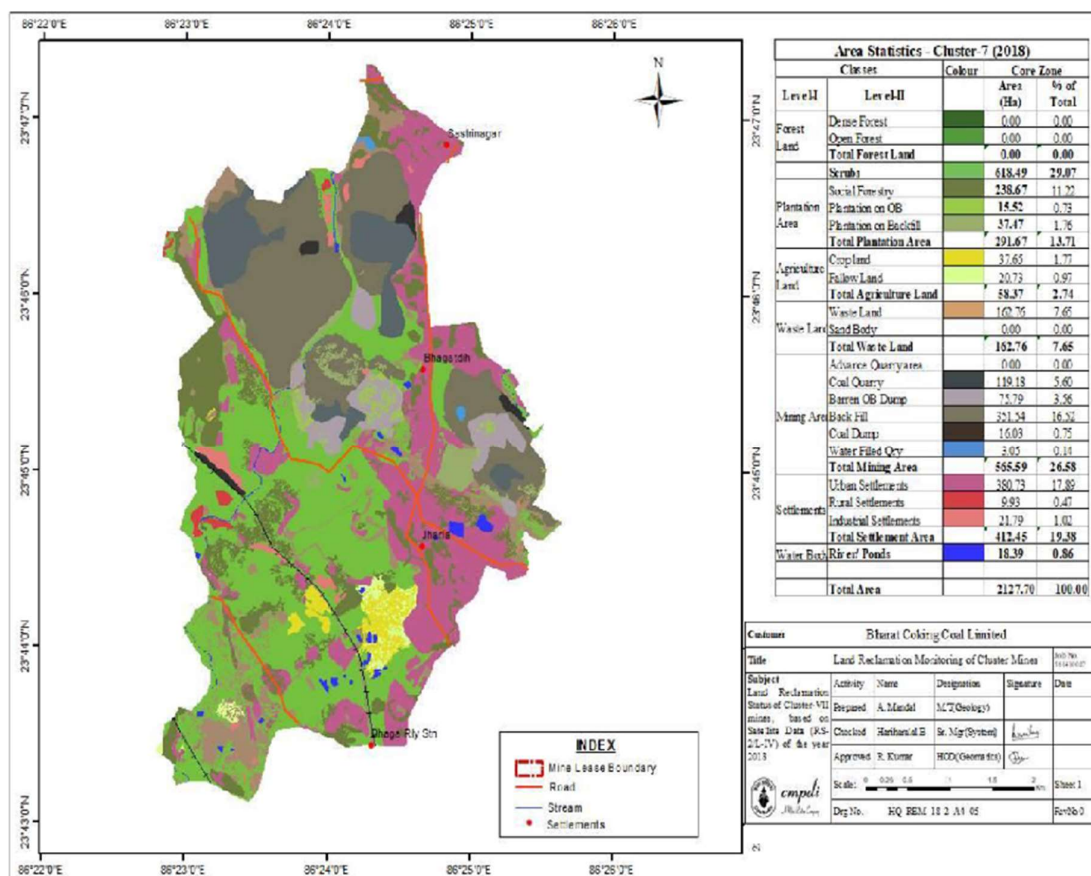
हो/-
विभागाध्यक्ष (पर्यावरण), कोयला भवन

Annexure – XIV– Fire Dealing Operations – Excavation and Cooling



Annexure – XV– Land Use Map of Cluster VII

LAND USE / LAND COVER MAP OF THE CLUSTER-VII MINES, BCCL



Sl no	Land Use Details	Existing (sq. meter)	Proposed (sq. meter)	Grand Total (sq. meter)
1	Green Belt Area	968.53 x 10 ⁴	968.53 x 10 ⁴	968.53 x 10 ⁴
2	Open Land	746.72 x 10 ⁴	746.72 x 10 ⁴	746.72 x 10 ⁴
3	Road/ Paved Area	380.73 x 10 ⁴	380.73 x 10 ⁴	380.73 x 10 ⁴
4	Rooftop area of building/ sheds	31.71 x 10 ⁴	31.71 x 10 ⁴	31.71 x 10 ⁴
5	Total	2127.70 x 10 ⁴	2127.70 x 10 ⁴	2127.70 x 10 ⁴

Annexure – XVI– Surface water and GW recharge and quality improvement strategies

As a part of environmental protection, the project authorities has already adopted measures in optimum extent natural / artificial recharge structures to augment groundwater recharge and use the available access water, enhance quality and sustainability of the groundwater as well as surface water regime in the study area. In addition to that few more mitigation measures were also proposed and has been adopted. Mine sumps has been provided for collection and treatment of Mine Seepage water.

- ❖ Workshop effluent is being treated at ETP consisting of Oil and grease trap and Sequential Settling ponds.
- ❖ Collection of direct catchment of storm / rainwater into open mine pits and dewatering as for safety aspects.
- ❖ Excess mine water is provided in residential colonies/industrial installations on 'as and when required' basis.
- ❖ Rain water harvesting system has been installed.
- ❖ Mine sumps / Sedimentation tank to arrest the suspended solids before discharge exists.

CLUSTER-VII MINES, BCCL

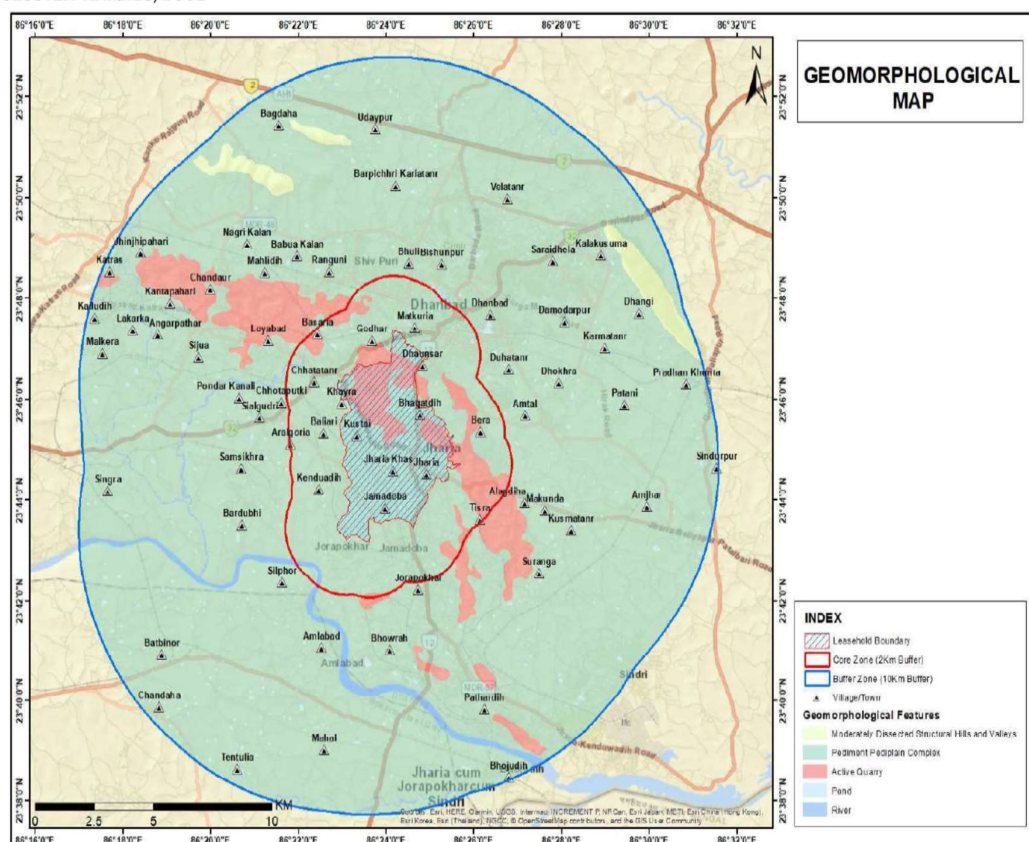


Plate- 2.3.1 Geomorphological Map

Annexure – XVII– Top Soil Stacking



Annexure – XVIII– Grassing on OB Dump



Annexure – XIX– PUC certificates validity of transporting vehicles

Vehicle Number	JH10BS5446
Owner Name	*.*.*R*N*P*R* *O*
Registering Authority	DHANBAD, Jharkhand
Vehicle Class	Goods Carrier(HGV)
Fuel Type	DIESEL
Emission Norm	BHARAT STAGE IV
Vehicle Age	5 Years & 9 months
Hypothecated	Yes
Vehicle Status	ACTIVE
Tap to Check the Vehicle Impound and Seizure Document Status	
Registration Date	02-Jan-2019
Fitness Valid UpTo	19-Jan-2025
Tax Valid UpTo	28-Dec-2024
Insurance Valid UpTo	23-Nov-2024
PUCC Valid Upto	10-May-2025

Vehicle Number	JH10CL5071
Owner Name	*H*V*M* *H*N*E*W*L*
Registering Authority	DHANBAD, Jharkhand
Vehicle Class	Goods Carrier(HGV)
Fuel Type	DIESEL
Emission Norm	BHARAT STAGE II
Vehicle Age	14 Years & 10 months
Hypothecated	No
Vehicle Status	ACTIVE
Tap to Check the Vehicle Impound and Seizure Document Status	
Registration Date	13-Dec-2009
Fitness Valid UpTo	11-Jun-2025
Tax Valid UpTo	20-Oct-2024
Insurance Valid UpTo	29-Mar-2025
PUCC Valid Upto	17-Dec-2024
Permit Valid UpTo	18-Oct-2027

Annexure – XX, XXI– CHP Covering, Sprinkling arrangement



Memorandum of Understanding

for

Utilization of mine water by villages situated near mines of CIL in command area of Central Coalfields Limited, Bharat Coking Coal Limited and Eastern Coalfields Limited in the State of Jharkhand

This Memorandum of Understanding "MoU" ("Agreement") is made on 30th day of October 2017 at Ranchi

By and Between

Government of Jharkhand (hereinafter referred to as "GoJ"), represented through Department of Industries, Mines & Geology and Department of Drinking Water & Sanitation, Government of Jharkhand having its office at Ranchi which expression shall, unless the context otherwise requires, includes its successors and assignees of the FIRST PART;

And

Coal India Limited (hereinafter referred to as "CIL"), a Government of India Enterprise having its Registered Office at Coal Bhawan, Premise No-04 MAR, Plot No- AF-III, Action Area- 1A, Newtown, Rajarhat, Kolkata- 700156 and represented by General Manager, Corporate Social Responsibility, which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors, and permitted assignees of the SECOND PART;

The expressions GoJ and CIL shall hereinafter, as the context may admit or require, be individually referred to as the 'The Party' and collectively as 'the Parties'.

Whereas:

- A. The Government of Jharkhand (GoJ) and Coal India Limited (CIL), both parties have agreed in principle to the objective of achieving the common goal of providing surplus water from suitable mines for use by habitations, located in the command area of subsidiaries of CIL in the state of Jharkhand for their various needs. These subsidiaries are Central Coalfields Limited (CCL), Bharat Coking Coal Limited (BCCL) and Eastern Coalfields Limited (ECL).
- B. Mine water available in mine voids and from mine discharge in Central Coalfields Limited (CCL), Bharat Coking Coal Limited (BCCL) and Eastern Coalfields Limited (ECL), subsidiaries of CIL, are presently supplied to several colonies of these subsidiary companies of CIL. At some places mine water is drawn by Department of Drinking Water & Sanitation and other agencies/ organizations of Government of Jharkhand. Surplus mine water available at other mines can be used by surrounding habitations for their various needs.
- C. Presently, about 25250 million gallon of water is estimated to be available in 88 opencast mine voids of CCL, and about 31million gallon/ day of water is estimated to be available as surplus/excess mine water discharge at 23 mine sites of BCCL and 07mine sites of ECL in State of Jharkhand . The list of mines where water is available in mine voids in CCL and in mine water discharge in BCCL and ECL are enclosed at **Annexure I, Annexure II, and Annexure III respectively.**

D. The Parties hereby agree, undertake and affirm as under:-

- i. That sampling and analysis of quality of water available at various mine sites (voids or mine discharge), to assess the suitability for potability, agricultural or other uses will be done by a third party having a recognized environmental laboratory and the party will be selected by mutual consent between CIL (represented by its subsidiaries - CCL, BCCL and ECL) and GoJ.
- ii. The report of analysis of quality of water of various mine sites will be submitted by the selected third party to GoJ and CIL (represented by its subsidiaries - CCL, BCCL and ECL).
- iii. That cost of sampling and analysis of quality of water of various mine sites will be borne by CIL (represented by its subsidiaries - CCL, BCCL and ECL).
- iv. That CIL (represented by its subsidiaries CCL, BCCL and ECL) shall bear all initial cost for construction of civil works like foundation, platform and shed for installation of motor and pumps for drawal of water at identified mine sites.
- v. That Government of Jharkhand shall bear the cost of pumps, motors, associated power supply, pipelines and their installation at identified mine sites from where water is to be drawn. The cost of running these facilities would be borne by Government of Jharkhand or community benefitted.
- vi. The construction, operation and maintenance cost for treatment and distribution facilities of water from identified mine sites will be borne by GoJ.

- vii. The list of mine sites where water is available in voids or as mine discharge are placed at **Annexure I, Annexure II, and Annexure III for CCL, BCCL, and ECL** respectively. The number of mine sites may increase / decrease in future. So modalities for pumping water from the additional sites will be same as laid down at serial no D (i) to D (vi).
- viii. In case of dispute, the matter shall be mutually resolved and either party will not be held responsible for non discharge of responsibility under this agreement.
- ix. In case of force majeure or an Act of God, preventing the parties from fulfilling part or all the obligations, both parties shall be exonerated from carrying out further action as per MoU until the force majeure no longer exists.
- x. The MoU will be in force for 30 (thirty) years. The MoU may be renewed as mutually agreed upon by CIL (represented by its subsidiaries CCL, BCCL and ECL) and GoJ beyond the mentioned period of MoU.

Provided further that in case dewatering is required to start coal production in national interest from these mines then the parties will sit together and mutually decide modalities for the same.

- xi. The sustainability of mine sites in respect of future availability of water will be assessed/ studied by CIL.
- xii. This MoU shall be in accordance with applicable Acts, Rules and Guidelines for coal mining including mine closure guidelines and shall not be in contravention with provisions made therein.

IN WITNESS THEREOF, both parties hereto have signed this MoU
in two original copies in English on the date indicated above.

For Coal India Limited

For Government of Jharkhand

Department of Industries, Mines &
Geology

1. Siddh Nath Singh, General
Manager, CSR,
Coal India Limited

1. Aboobacker Siddique P., I.A.S.
Mines Commissioner,
Mines & Geology Department,
Government of Jharkhand.

(.....)

(.....)

Drinking Water & Sanitation
Department

2. Ramesh Kumar,
Engineer in Chief,
Drinking Water & Sanitation
Department, Government of
Jharkhand.

(.....)

Witness 1 (Soumitra Singh)

Witness 1

30/10/18
(Ajay Nath Singh)

Witness 2

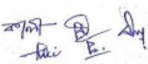
Witness 2

Annexure – XXIII Toe Wall Garland Drain and RWH





Annexure – XXIV – Mine Water Monitoring Report

 cmpdi <i>A MacRae Company</i>		CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II SURFACE WATER ANALYSIS TEST REPORT				CMPDI, RI-II KOYLA BHAWAN COMPLEX DHANBAD, -826005 Phone: 0326-223-850 email: rdri2.cmpdi@coalindia.in	
Month & Year	QUARTE ENDING JUNE 2024	Name of Cluster	VI & VII		ULR No.	TC10122240000009 34P TC10122240000009 35P	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcci@coalindia.in)				Date of Issue	16.08.2024	
Project	Sample Ref. No.		REM/BCCL/23-24/SW /	Sampling Method	(IS 3025, Part-1) CMPDI/RI-II/LPM 13		
Sampling Stations	(i)	Upstream in Kari Jore(SW16)	Date of Sampling	25.06.2024	Period of Analysis		
	(ii)	Downstream in Kari Jore(SW17)	Date of Sampling	25.06.2024	24.06.2024 to 07.08.2024		
Sl. No.	Parameter	Method of Analysis	Observed Values		IS : 2296 INLAND SURFACE WATER [1982] Class 'C	Range of Testing	LDL
			(i)	(ii)			
1	BOD (3 days 27°C), mg/l	IS 3025 (Part 44) : 1993, R-2019 , 3 day incubation at 27°C	2.4	2.6	3	2.00-100.00	2
2	Colour:Hazen Units	APHA 24th edition , 2120-B-:2023	2	3	10	1-500.0	1
3	Chlorides, mg/l	IS-3025(Part 32):1988, R-2019 Argentometric Method	74	79	600	2.0-1500.0	5
4	Copper, mg/l	IS 3025 (Part 42) : 1992 R : 2019, AAS-Flame Method	<0.2	<0.2	1.5	0.2-10.0	0.2
5	Dissolved Oxygen, mg/L	IS 3025 (Part 38) : 1989, R:2003 Winkler Azide Method	4.7	4.8	4	1.0-10.0	0.1
6	Fluoride, mg/l	APHA, 24th edition, SPADNS Method	0.57	0.53	1.5	0.2-2.00	0.2
7	Hexavalent Chromium, mg/l	APHA 24th edition, 1.5-Diphenylcarbohydrazide Method IS 3025 (Part 52) : 2003.R-2019	<0.01	<0.01	0.05	0.01-1.4	0.01
8	Iron, mg/l	IS 3025 (Part 53):2003.R:2019, AAS-Flame Method	<0.2	<0.2	50	0.2-10	0.2
9	Nitrate , mg/l	APHA, 24th edition, UV-Spectrophotometric Method	10.08	13.37	50	0.5-45.0	0.5
10	pH value	IS 3025, (Part 11) : 1983 R-2023 Electrometric (Ph Meter) method	7.38	7.68	6.5-8.5	1.0-14.0	2
11	Sulphate, mg/l	APHA - 24th edition, 4500- S, Turbidity Method	72	80	400	10.0-400.0	10
12	Total Dissolved Solids, mg/l	IS 3025, (Part 16): 1984 R-2023 Gravimetric method	684	713	1500	25.0-10000.0	25
13	Zinc, mg/l	IS 3025(Part 49) : 1994, R : 2019, AAS-Flame Method	<0.1	<0.1	15	0.10 - 10.0	0.1
**Grab sampling carried out for water samples. *LDL indicates Lower Detection Limit & BDL indicates Below Detection Limit							
***All units in mg/L unless specified otherwise Sample Collected in 5 Ltr Jerricane, Color as observed is transparent							
 Analysed by		 (Kumar)		 (Amit Raj Mishra)			
REVIEWED BY		Authorised Signatory					
Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env) , CMPDI, RI-II.							
---- End of Report ----							
Page -1 of 2							



CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
SURFACE WATER ANALYSIS TEST REPORT

CMPDIL, RI-II
KOYLA BHAWAN COMPLEX
DHANBAD, -826005
Phone: 0326-223-850
email: rdri2.cmpdi@coalindia.in

Month & Year	QUARTER ENDING JUNE 2024	Name of Cluster	VI & VII				
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)				Date of Issue	16.08.2024	
Project	Sample Ref. No.		REM/BCCL/23-24/SW /	Sampling Method	(IS 3025, Part-1) CMPDI/RI-II/LPM 13		
Sampling Stations	(i)	Upstream in Kari Jore(SW16)	Date of Sampling	25.06.2024	Period of Analysis		
	(ii)	Downstream in Kari Jore(SW17)	Date of Sampling	25.06.2024	24.06.2024 to 07.08.2024		
Sl. No.	Parameter	Method of Analysis	Observed Values		IS : 2296 INLAND SURFACE WATER [1982] Class 'C	Range of Testing	LDL
			(i)	(ii)			
1	Arsenic (as As), mg/l, Max	IS-3025,Part 37:1988, R-2019/ APHA 24th edition AAS-VGA	<0.006	<0.006	0.2	0.006-10	0.006
2	Lead (as Pb), mg/l, Max	APHA, 24th edition, AAS-GTA	<0.005	<0.005	0.1	0.005-10	0.005
3	Phenolic compounds (as C ₆ H ₅ OH), mg/l, Max	APHA, 24 th Edition 4-Amino Antipyrine	<0.002	<0.002	0.005	0.002-10	0.002
4	Selenium, mg/l, Max	IS-3025,Part 56:2003, R-2019/ APHA 24th edition, AAS-VGA	<0.007	<0.007	0.05	0.007-10	0.007
**Grab sampling carried out for water samples. *LDL indicates Lower Detection Limit & BDL indicates Below Detection Limit							
***All units in mg/L unless specified otherwise Sample Collected in 5 Ltr Jerrycane, Color as observed is transparent							
Analysed by		REVIEWED BY		Authorised Signatory			
Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env), CMPDI, RI-II.							
---- End of Report ----							
Page -2 of 2							

Month & Year		QUARTER ENDING	Name of Cluster	CLUSTER VII			
June 2024		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)	Date of Issue		16.08.2024		
Project		Dhansar colliery	Sample Ref. No.	REM/BCCL/24-25/MW/	Sampling Method	CMPDI/RI-II/LPM 13.(IS 3025:Part -1)	
Sampling Stations		MW7	Date of Sampling	24.06.2024	Sample Collected in 5 Ltr Jerrycane, Color as observed is transparent		
				Period of Analysis	24.06.2024	TO	07.08.2024
Sl. No.	Parameter	Method of Analysis	MW7	Range Of Testing	LDL	MOEF -SCH-VI STANDARDS Class 'A'	
1	Ammonical Nitrogen, mg/l, Max	IS 3025/34:1988,R : 2009, Nessler's	<0.02	0.02-100	0.02	50	
2	Arsenic (as As), mg/l, Max	IS-3025.part 37:1988, R-2019/ APHA 24th edition AAS-VGA	<0.006	0.006-5	0.006	0.2	
3	Free Ammonia, mg/l, Max	IS:3025/34:1988, Nessler's	<0.01	0.01-10	0.01	5	
4	Lead (as Pb), mg/l, Max	IS-3025(Part 59):2006, R 2023 AAS-GTA/APHA, 24 th Edition, 3111B, AAS-GTA	<0.005	0.005-10	0.005	2	
5	Phenolic compounds	APHA, 24th edition 4-Amino Antipyrine	<0.002	0.002-5	0.002	1	
6	Selenium, mg/l, Max	IS-3025.part 56:2003, R-2019/ APHA 24th edition, AAS-VGA	<0.007	0.007-5	0.007	0.05	
7	Sulphide (as S ²⁻) mg/l Max.	APHA 24th edition Methylene Blue Method	<0.005	0.005-5	0.005	2	
8	Total Kjeldahl Nitrogen, mg/l, Max	IS:3025/34:1988, Nessler's	<1	1-200	1	100	
9	Total Residual Chlorine, mg/l, Max	APHA, 24th Edition, 4500-Cl B. (Iodometric Method-D)	<0.04	0.04-5.00	0.04	1	
***All units in mg/L unless specified otherwise,							
**Grab sampling carried out for water samples. *LDL indicates Lower Detection Limit & BDL indicates Below Detection Limit,							
ANALYSED BY		REVIEWED BY		Authorised Signatory			
(Kumar Vaibhav)		(Amit Raj Mishra)					
Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env) , CMPDI, RI-II.							
---- End of Report ----							
Page -2 of 2							

Month & Year		Cluster	Cluster VII	ULR No.	TC1012224000001066F		
07/2024		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)	Date of Issue		23.09.2024		
Project		Dhansar OCP	Sampling Ref. No.	REM/BCCL/2024/07	Sampling Method	IS 3025 (Part-1) CMPDI/RI-II/LPM 13	
Sampling Stations		(i) Dhansar OCP	Sample Collected in 2.5 Ltr Jerrycane, Color as observed is transparent			Period of Analysis	08.07.2024 to 06.08.2024
			Date of Sampling	08.07.2024	22.07.2024		
Sl. No.	Parameter	Method of Analysis	First Fortnight	Second Fortnight	STANDARDS FOR COAL MINES (Stipulated by Ministry of Environment and Forests (MoEF), Vide Notification No. GSR 742E, Dt: 25.09.2000)	LDL	
1	Total Suspended Solids	IS 3025/17:1984, R :2017, Gravimetric	38	41	100 (Max)	10	
2	pH	IS-3025/11:1983, R-2017, Electrometric	7.89	7.92	5.5 - 9.0	0.2	
3	Oil & Grease	IS 3025/39:1991, R : 2019, Partition Gravimetric	<2.0	<2.0	10 (Max)	2	
4	COD	APHA 23 rd Edition 5220 C Titrimetric Method	36	36	250 (Max)	4	
**All units in mg/L unless specified otherwise. *LDL indicates Lower Detection Limit & BDL indicates Below Detection Limit,							
**Grab sampling carried out for water samples.							
ANALYSED BY		REVIEWED BY		Authorised Signatory			
(Kumar Vaibhav)		(Amit Raj Mishra)					
Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env) , CMPDI, RI-II.							
2024---- End of Report ----							
Page -1 of 1							

Annexure – XXV – Oil and Grease Trap



[illegible]

8/6/24 1 दिन बागड गंगा पानी नदी मिल
1 दिन अनाया से पानी ले कर
करतु गोरक और मकहोरी
मिनेहा को डिमा

अशीका-मीठा, क.प.

7/6/24 x x x x नदी बाग

19/6/24 1 दिन अनाया से पानी ले कर
सराइ सराव 24 मिनेहा सराव के
दिना

अशीका-मीठा, क.प.

1 दिन अनाया से पानी ले कर गोप
उसी दि कुवा से डिमा

19/6/24 1 दिन अनाया से पानी ले कर

CISF को दस्तावेज दे डिमा

अशीका-मीठा, क.प.

12/6/24 1 दिन पानी ले कर अलकुला से

बकरी बाग शु राइ करतु को डिमा

17/6/24 1 दिन अलकुला से पानी ले कर

गोरक छोला सराव से राइ सराव
को डिमा

अशीका-मीठा, क.प.

14/6/24 1 दिन पानी ले कर मकहोरी

उपेहा मिनेहा प्रताप और 13

KP बांटा के डिमा बाक सारा

I
23/7/24 1 दिन पानी लेना नहीं है।
पापु को दिन भर बसा। डोशी का पीठान।
को इन्टरी में दिमाग को दिन भर बसा।
को इन्टरी में दिमाग को दिन भर बसा।
को इन्टरी में दिमाग को दिन भर बसा।

I
24/7/24 1 दिन अलकुश से पानी लेना नहीं है।
कठ मरुपुरिया कोना मनेडा। डोशी का पीठान।
को दिन भर बसा। को दिन भर बसा।
और कठु को दिन भर बसा। को दिन भर बसा।

I
25/7/24 गेट पानी का इन्टरी नहीं है।
भा इन्टरी नहीं पाया।

I
26/7/24 1 दिन पानी अलकुश से लेना नहीं है।
बसा कोना बाबुलुसि। डोशी का पीठान।
कहने से पाइव बसा। को दिन भर बसा।
को दिन भर बसा। को दिन भर बसा।

Annexure – XXVII – Illumination Report

Illumination survey of A-01 Colliery conducted on dated
09/04/24

S.No.	Place to be Illuminated	Type	Place Name	Standard Illumination		Measured value	
				V	H	V	H
1.	Attendant Roo/ACM Room			15	25	16	22
	ACM Room			15	25	16	22
2	Dispensary			15	25	20	25
3	Washing Point			15	25	15	23
4	Checkpoint Entry Point			15	25	15	25
5	Dispatch		Near Tower light	15	25	15	28
6	North South Dept		Near light Pole	15	15	18	14
7	Dump (Combined Seam)		on the edge	15	15	09	08
8	West Dump Dept		Near Light Pole				
	Near Karjore		on the edge	15	15	15	10
9	E&M. Section						
10	Haul Road		'J' Patch.	10		14	
11	Light Vehicle Road		From dispatch Entry point to old New Point	10		11	
12	Haul Road Coal		From Coal depot on N Patch.	15		15	
13	Shovel 542		Front loading Point	15	25	65	146
			Back light	15	25	15	25
			Face	15	25	15	26
14	Talq 2060 (Diesel Shovel)		Front Loading Pit	15	25	15	24
			Back light	15	25	17	24
			Face	15	25	15	24
15	BE 1000 253 (Diesel Shovel)		Front loading Pit	15	25	14	24
			Back light	15	25	15	25
			Face	15	25	15	25
16	Electrical Substation			100	50	109	55
17	Workshop		Dump Maint shed	100	50	105	50
			Out of Maint shed	100	50	105	48
			Dozer Maint shed	100	50	107	50
			Out of Maint shed	100	50	106	51
			Diesel filling station	100	50	107	50
			Near Engine Section	100	50	100	49

[illegible]

Illumination Survey of ADI Colliery Conducted on dt. 12/9/24

SNo	Place to be Illuminated Type	Place Name	Standard of Illumination H	Measured Illumination Value H
1.	ACM Room / Attendance Room		15	25
2	Dispensary		15	25
3	Washing Point		15	25
4	F&M section		15	25
5	check post Entry Point		15	25
6	Dispatch	Near Tower light	15	25
7	North South Depot	Near light pole.	15	15
8	Dump Combined Seam	on the edge	15	15
9	West Dump Dump Near Kanizore	Near light pole on the edge	15	15
	Electrical Substation	—	—	110
10	Haul Road	J' Patch	10	—
11	Light Vehicle Road	From dispatch Entry Point to old viewpoint	10	—
12	Shovel 542	From loading Point	15	25
		Back light	15	25
		Face	15	25
13	Tata 2060 (D. shovel)	From loading point	15	25
		Back light	15	25
		Face	15	25
14	BE-1000 (253) (D. shovel)	From loading point	15	25
		Back light	15	25
		Face	15	25
15	Workshop	Dump Maint shed	100	50
		out of Maint shed	100	50
		Dozer Maint shed	100	50
		Diesel Filling Section	100	50
		Near Engine Sec.	100	50
16	Dump parking (J' Patch)	Near tower light at distance 20m	50	—
17	Dump parking (North)	Near tower light at distance 30m	50	—
18	Drill 977	Front light	15	25
		Back light	15	25
19	Coal depot	Near weigh Bridge	15	25

20	Rest Shelter	Combined Seam	30		33	
21	Pumping Place	South 3' Patch	40		42	
22	Electrical Substation	—	100	50	110	55
23	Wleigh Bridge	—	—	—	44	138

(K)
 Safety Officer
 Am. College

Annexure – XXVIII – PPE distribution data



Coal India Limited

A Maharatna Company
www.coalindia.in

BHARAT COKING COAL LIMITED

(A Subsidiary of Coal India Ltd.)

भारत कोकिंग कोल लिमिटेड

OFFICE OF THE AREA GENERAL MANAGER

Kusunda area,.

PO: Kusunda, Dist- Dhanbad, Jharkhand, India-828116

Phone No:

Fax :

Website :

CIN : U10101JH1972GOI000918

Email :

GSTN : 20AAACB7934MPZB



Purchase Order No: 5800099338

PURCHASE ORDER

Document Date: Jul 14, 2022

To,

S & S ENTERPRISES

THANA MORE, PUTKEE, PO- KUSUNDA

DHANBAD

826001

Jharkhand

India

Department : MM

MSE Status : NON-MSE

PCC BY REGD. POST/MAIL

E-Mail Address : MANOJKRSINGHDHN@GMAIL.COM

Telephone : 9504445103

GST No : 20AURPS5946E1ZC

Vendor Code : 10008873

Sub: Supply of Spares for ADIC of BCCL, Kusunda Area

Ref: Our Open tender NIT NO.BCCL/AREA-VI/PUR/22-23/018 dated 09.06.2022 and opened on 24.06.2022

Item No	Material No.	Short Text	HSN/SAC	UOM	Quantity	Unit Price	Price (Rs)
10	4600003468	KIT;SFTY,DUST MASK(4NO),EAR PLG(1NO)		EA	225.000	436.00 INR	115758.00
Manufacturer Part No :					Gross Price		98100.00
Material Description : KIT; TYPE: SAFETY, COMPRISING: DUST MASK (4 NO), EAR PLUG (1 NO), REFLECTIVE HARNESS (1 NO), GOGGLES (1 NO)					SGST%(9.00)		8829.00
Batch :					CGST%(9.00)		8829.00
Batch Description :							
Total Net Value Exclusive of Tax						INR	98100.00
Total Net Value Inclusive of Tax						INR	115758.00
Amount in words:		One Lakh Fifteen Thousand Seven Hundred Fifty Eight Rupees Only					

General Terms and Conditions

TERMS & CONDITIONS:

01 Price Firm and FOR destination basis.

02 Packing & Forwarding, Frt. & Ins NIL

03GST (a) GST shall be paid extra as legally applicable during the scheduled delivery period. Present rate of GST is 18% as above. The firm shall be advised to raise Tax Invoice as per GST Act / rules, so as to avail Input Tax Credit by BCCL.

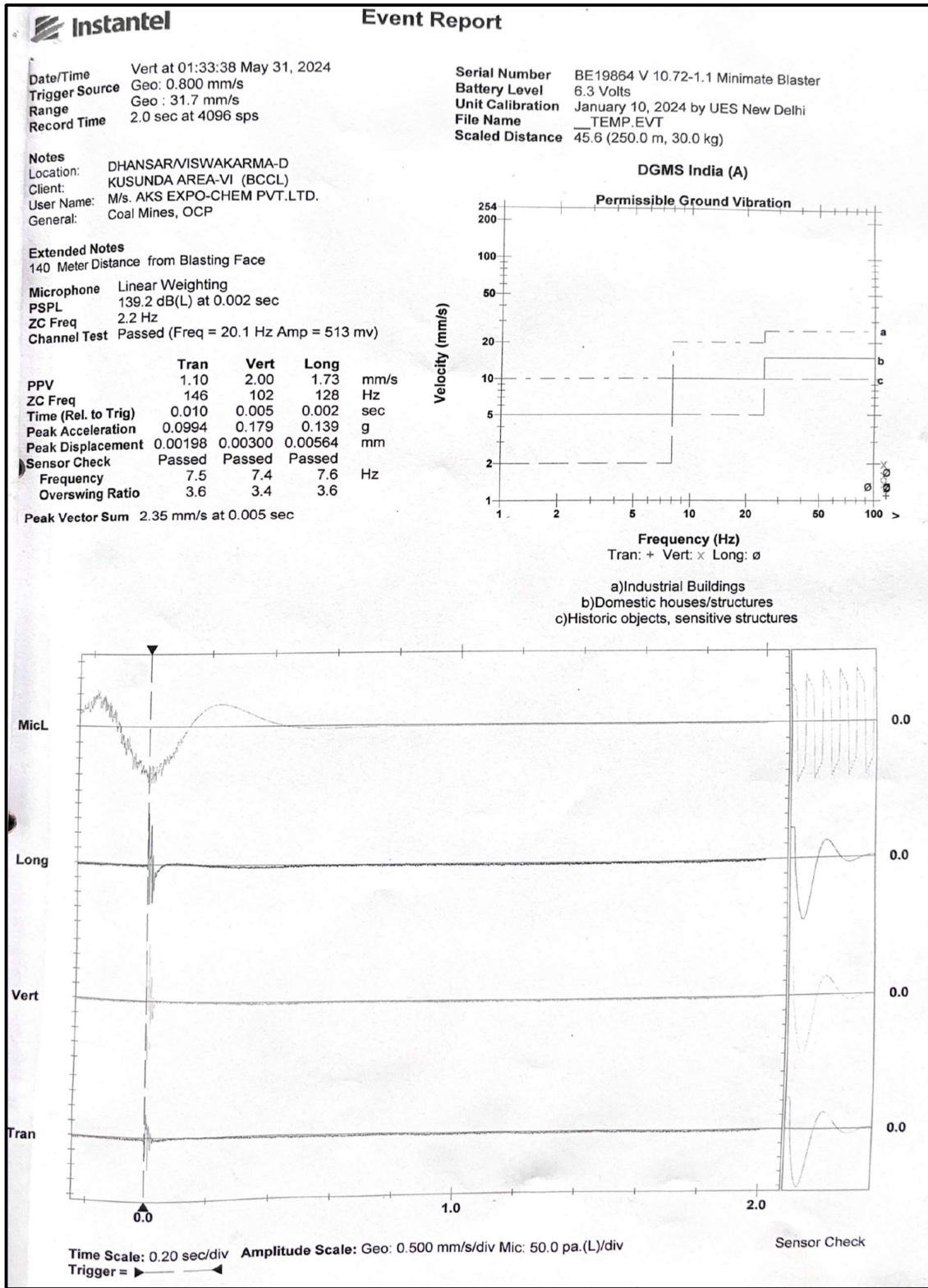
(b) You have to ensure proper uploading in your return so that BCCL may be able to avail Input Tax

Annexure – XXIX – Noise Monitoring Data

cmpdi <i>A Min India Company</i>		CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II Ambient Noise Level Test Report				CMPDI, RI-II KOYLA BHAWAN COMPLEX DHANBAD - 826005 Phone: 0326-223-850 email: rdi2cmpdi@coalindia.in			
Month & Year	07/2024	Cluster	Cluster VII			ULR No.	TC101222400001082F		
Customer	Environment Department, Bharat Coking Coal Limited (BCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcl@coalindia.in)					Date of Issue	23.09.2024		
Project		Sample Ref. No.	REM/BCL/2024/07		Sampling Method	CMPDI/RI-II/LPM 22			
Sampling Stations	i	Kusunda OCP	Date of Sampling	05.07.2024	22.07.2024	Zone Category of Station:	Core Zone		
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A)) First Fortnight	Observed Values (in Leq dB(A)) Second Fortnight	Method of Analysis	Range Of Testing	LDL	NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 Standards Zones Limits in dB	
1	Noise Level dB(A)Leq - Day	06:00 - 07:00	52.5	52.8	CPCB, Protocol for Ambient Level Noise Monitoring - 2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	56.1	53.1					
3		08:00 - 09:00	59.5	55.4					
4		09:00 - 10:00	65.2	63.3					
5		10:00 - 11:00	67.5	66.2					
6		11:00 - 12:00	66	64.6					
7		12:00 - 13:00	69.2	67.7					
8		13:00 - 14:00	69.7	68.3					
9		14:00 - 15:00	69.7	63.1					
10		15:00 - 16:00	62.7	62					
11		16:00 - 17:00	62.9	69.4					
12		17:00 - 18:00	62.4	61					
13		18:00 - 19:00	59.7	59					
14		19:00 - 20:00	59.9	59					
15		20:00 - 21:00	59.3	58.3					
16		21:00 - 22:00	59.7	58.4					
		Leq DAY	65.0	63.9					
1	Noise Level dB(A)Leq - Night	22:00-23:00	52.8	38.7	CPCB, Protocol for Ambient Level Noise Monitoring - 2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	70 55 45 50
2		23:00- 00:00	46.7	34.8					
3		00:00- 01:00	45.8	34.4					
4		01:00-02:00	42.1	34.3					
5		02:00-03:00	40.7	34					
6		03:00-04:00	42.3	37.3					
7		04:00-05:00	43.2	37					
8		05:00-06:00	42.8	36.8					
		Leq NIGHT	42.7	34.7					
*LDL indicates Lower Detection Limit									
**All noise measurements are integrated for a 01 hour period, All units in dB(A)									
Sampling Assistants		 (Gaurav Kant)			 (Amit Raj Mishra)				
ANALYSED BY		REVIEWED BY			Authorised Signatory				

Note: The monitor shows noise in the frequency band as specified. This report can not be considered in court as full without the written permission of the DOP/Env. CMPDI RI II

Annexure – XXX – Vibration Report





Event Report

Date/Time Vert at 01:39:16 May 22, 2024
Trigger Source Geo: 0.800 mm/s
Range Geo: 31.7 mm/s
Record Time 2.0 sec at 4096 sps

Serial Number BE19864 V 10.72-1.1 Minimate Blaster
Battery Level 6.3 Volts
Unit Calibration January 10, 2024 by UES New Delhi
File Name TEMP.EVT
Scaled Distance 45.6 (250.0 m, 30.0 kg)

Notes
Location: DHANSAR/VISWAKARMA-D
Client: KUSUNDA AREA-VI (BCCL)
User Name: M/s. AKS EXPO-CHEM PVT.LTD.
General: Coal Mines, OCP

Extended Notes

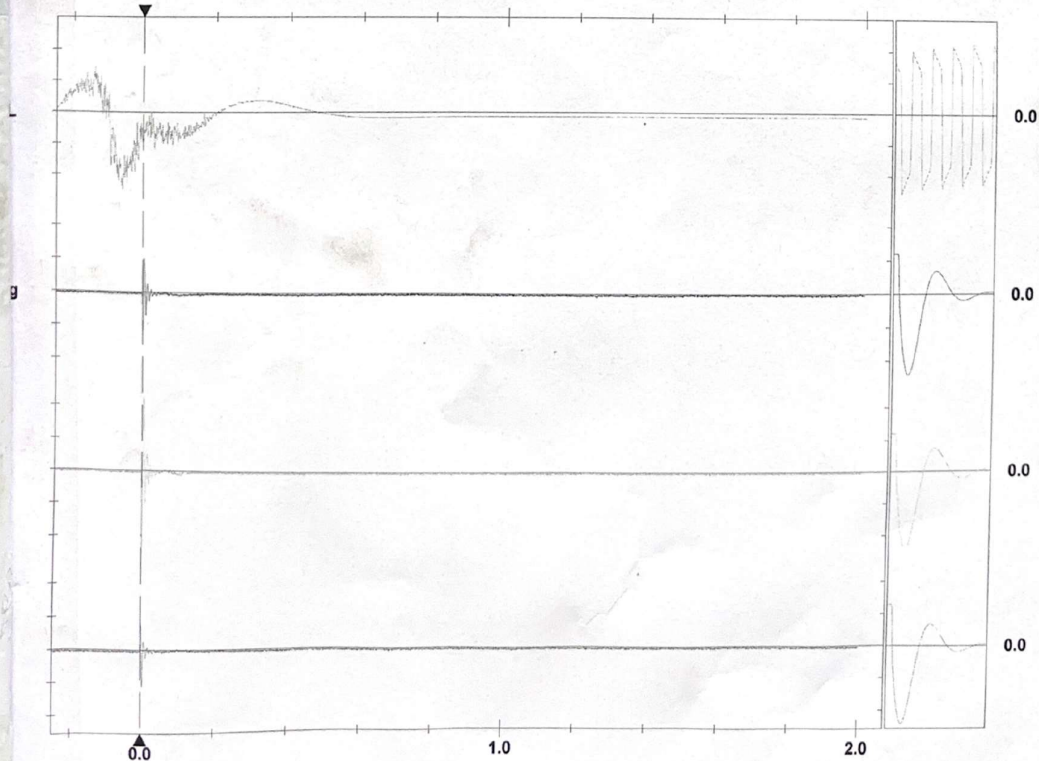
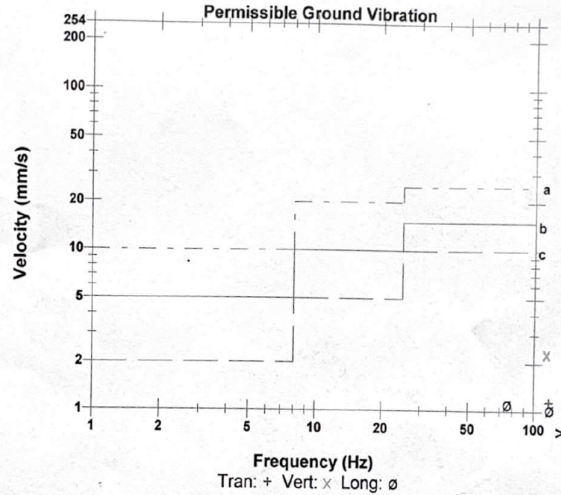
30 Meter Distance from Blasting Face

Microphone Linear Weighting
SPL 127.9 dB(L) at -0.058 sec
Freq 4.2 Hz
Channel Test Passed (Freq = 20.1 Hz Amp = 456 mv)

	Tran	Vert	Long	
Vel	1.14	2.35	1.11	mm/s
Freq	108	108	76	Hz
Time (Rel. to Trig)	0.005	0.001	0.001	sec
Peak Acceleration	0.0994	0.232	0.126	g
Peak Displacement	0.00142	0.00366	0.00169	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.5	7.4	7.6	Hz
Overswing Ratio	3.6	3.4	3.6	

Peak Vector Sum 2.75 mm/s at 0.005 sec

DGMS India (A)



Form O
(See Sule 29 F (2) and 29L)
REPORT OF MEDICAL EXAMINATION UNDER RULE 29B
(To be issued in triplicate)**

Certificate No. 192
Certified that Sri Kaneshwar Bheer employed as Tram
in East Bawana mine, Form B No. _____ Employee No. 02375223 has
been examined for an initial / periodical * medical examination. He / She * appears to be _____ years of
age. DOB 28/05/1974. The findings of the examination authority are given in the attached sheet.
It is considered that Shri / Smt. * K. Bheer

(a) * is medically FIT for any employment in mines.

(b) * is suffering from _____ and is medically unfit for
i) any employment in mine or
ii) any employment below ground or
iii) any employment of work _____

(c) * is suffering from _____ and should get this
disability* cured /controlled and should be again examined within a period of _____
months.* He/ She will appear for re-examination with the results of test of _____ and
the opinion of _____ specialist from _____. He/She * may be
permitted / Not * permitted to carry on his /her _____ * duties during this period.



Signature of the examining Authority
Dr. Kaneshwar Bheer
Name & Designation in Block Letters

Place KRM
Date 30.08.24

* Delete whatever not applicable

** One copy of the certificate should be handed over to the person concerned and another copy shall be send to the Manager of the mine concerned by registered post and third copy shall be retained by the examining authority

Report of the Examining Authority

(To be filled in for every examination whether initial or periodical or re-examination or after cure/control of disability)

Left Thumb impression of the candidate

Annexure – XXXII – Training Report



Annexure – XXXIII – Public Hearing Issues and Action

Public hearing Compliance in respect of PH held at Kustore Club, Kustore, Dhanbad on 25.01.2012 for environmental clearance of Cluster-VII Mines of BCCL

SN	Name & Address	Question Asked by Citizens	Reply given by representative of Company	Present Status of the Issues raised during public hearing
1	Sri Ranjit Kumar Singh alias Bablu Sing, Gopalichak	Arrangement for spray of wate is to be done. Illegal removal of plants is to be stopped.	Arrangement for spray of water is being done. Illegal removal of plants are not done in any place.	Regular spraying of water on haul roads, sidings etc is done to ensure dust suppression.
2	Sri Dilip Kumar Singh Naya Tola, Kustore.	Proper arrangement for spray of water should be done on the road and Illegal removal of plants is to be stopped.	Spray of water is being done. Illegal removal of plants are not done in any place.	Regular spraying of water on haul roads, sidings etc is done to ensure dust suppression.
3	Sri Dasrath Singh, Burrahgarh.	Arrange to prevent the domestic pollution and transporting of covered Truck should be followed and regular arrangement for spray of water should be done on the road for prevention of pollution.	Regular spray of water has arranged and transporting of coal is done by covered Truck and It will be followed strictly.	It is being complied and transporting of coal is being done with tarpaulin covered trucks. Regular spray of water is done through mobile water tankers at all critical locations to prevent dust emissions.
4	Sri Ratan Vishawkarma, Kustore, Jora Chimni.	There are water problems in our area. Proper solution is necessary.	Drinking water is given by the water tankers. If scarcity of water is observed then, then it will be arranged.	Drinking water requirements are sufficiently fulfilled by MADA water supply arrangements. Filter plants are installed at Dhansar colliery and at old Kustore Area office to treat mine water and potable water is supplied in nearby colonies
5	Sri Bajrang Rawani, Godhar Basti Kusunda.	Arrangement of drinking water/pit water is to be done and spray of water should be arranged in siding.	Regular arrangement of drinking water/pit water is being done by the Tanker and spray of water has been arranged in siding.	Drinking water requirements are sufficiently fulfilled by MADA water supply arrangements. Filter plants are installed at Dhansar colliery and at old Kustore Area office to treat mine water and potable water is supplied in nearby colonies

Annexure – XXXIV – Environment Management Cell

Draft Report– August, 2023

**Third Party Environmental Compliance Audit Report
of
Cluster-VII Coal Mine Project
(M/s. Bharat Coking Coal Limited)
Jharia Coalfields, Dhanbad, Jharkhand**

For



M/s. Coal India Limited
(A Government of India Undertaking, A Maharatna Company)



Submitted By



ENVIRONMENT MANAGEMENT DIVISION
Directorate of Extension
Indian Council of Forestry Research and Education
(An Autonomous Body of Ministry of Environment, Forest and Climate Change, GoI)
Dehradun-248006 (Uttarakhand) India
www.icfre.gov.in

Annexure – XXXVI – PM 10 Analyser



Location of Air & Noise Monitoring Stations in BCCL



Annexure – XXXVIII – Air Quality Monitoring Report

		CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II Ambient Air Quality Test Report				CMPDIL, RI-II KOYLA BHAWAN COMPLEX DHANBAD - 826005 Phone: 0326-223-850 email: rdrizcmpdi@coalindia.in		
Test Report for Ambient Air Samples								
Month & Year	07/2024	Cluster	Cluster VII			ULR No.	TC1012224000001048F	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcl@coalindia.in)					Date of Issue	23.09.2024	
Project	Kusunda OCP	Sample Ref. No.	22.07.2024	REM/BCCL/2024/07	Sampling Method	CMPDI/RI-II/LPM 11, (IS 5182)		
Date of Sampling	05.07.2024	Period of Analysis	05.07.2024 to 20.09.2024			Zone of Station:	Core Zone	
Sl. No.	Parameter	Method of Analysis	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25 th September, 2000 (GSR 742 E)	NAAQS, 2009
			1 st FN	2 nd FN				
S1	PM ₁₀	IS -5182(Part 23):2006, R-2017	91	98	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100
2	PM _{2.5}	IS -5182(Part 24):2019	49	54	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60
3	SO ₂	IS-5182(Part-2): 2001, R-2017	12	10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80
4	NO ₂	IS-5182 (Part-6): 2006, R-2017	30	29	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80
**All units are in µg/m3, 24 hourly Average * LDL indicates Lower Detection Limit,								
 ANALYSED BY		 REVIEWED BY (Gaurav Kant)			 Authorised Signatory (Amit Raj Mishra)			

TRACE METAL CONCENTRATION IN AMBIENT AIR QUALITY

Name of the Company: **Bharat Coking Coal Limited** Year : **2024-25.**
 PERIOD: **HALF YEAR ENDING June. 24**

HEAVY METAL ANALYSIS REPORT OF AMBIENT AIR QUALITY

SAMPLE CODE	Station Name	Date	Cd CONC. IN µg/m3	Hg CONC. IN µg/m3	As CONC. IN ng/m3	Cr CONC. IN µg/m3	Ni CONC. IN ng/m3	Pb CONC. IN µg/m3
A1	Karmatand Village	20.06.2024	<0.001	<0.001	<1.0	<0.01	2.02	0.005
A2	Damoda	19.06.2024	<0.001	<0.001	<1.0	<0.01	1.33	<0.005
A3	Madhuband Washery	18.06.2024	<0.001	<0.001	<1.0	<0.01	1.96	0.008
A4	Block-II	19.06.2024	<0.001	<0.001	<1.0	<0.01	2.45	0.015
A5	Muraidih	17.06.2024	<0.001	<0.001	<1.0	<0.01	3.08	<0.005
A6	Block-IV	28.06.2024	<0.001	<0.001	<1.0	<0.01	1.00	<0.005
A7	Govindpur/Ramkanali	27.06.2024	<0.001	<0.001	<1.0	<0.01	<1.0	0.021
A8	Nichitpur	29.06.2024	<0.001	0.002	<1.0	<0.01	<1.0	<0.005
A9	East Basseriya	29.06.2024	<0.001	<0.001	<1.0	<0.01	1.40	0.005
A10	Dhansar/Kusunda	28.06.2024	<0.001	<0.001	<1.0	<0.01	<1.0	<0.005
A11	Dobari	21.06.2024	<0.001	<0.001	<1.0	<0.01	1.05	0.008
A12	Kusmatand Village	20.06.2024	<0.001	<0.001	<1.0	<0.01	<1.0	<0.005
A13	Jeenagora	20.06.2024	<0.001	<0.001	<1.0	<0.01	<1.0	0.006
A14	Bhowrah North	27.06.2024	<0.001	<0.001	<1.0	<0.01	<1.0	<0.005
A15	Sudamdih Washery	25.06.2024	<0.001	<0.001	<1.0	<0.01	1.70	0.024
A16	Pootki	29.06.2024	<0.001	<0.001	<1.0	<0.01	<1.0	0.009
A17	Moonidih UGP	22.06.2024	<0.001	<0.001	<1.0	<0.01	1.02	<0.005
A18	Rudih Basti	22.06.2024	<0.001	<0.001	<1.0	<0.01	<1.0	0.012
A19	Murlidih 20/21	24.06.2024	<0.001	<0.001	<1.0	<0.01	1.00	0.005
A20	Lohapatti	21.06.2024	<0.001	<0.001	<1.0	<0.01	<1.0	<0.005
A21	Kharkharee	25.06.2024	<0.001	<0.001	<1.0	<0.01	<1.0	<0.005

Annexure – XXXIX – Water Quality Monitoring Report

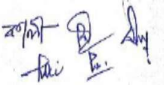
		CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II MINE EFFLUENT TEST REPORT				CMPDI, RI-II KOYLA BHAWAN COMPLEX DHANBAD - 826005 Phone: 0326-223-850 email: rdi2cmpdi@coalindia.in	
Test Report for Mine Effluent samples							
Month & Year	07/2024	Cluster	Cluster VII		ULR No.	TC101222400001066F	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcci@coalindia.in)					Date of Issue	23.09.2024
Project	Dhansar OCP	Sampling Ref. No.	REM/BCCL/2024/07		Sampling Method	IS 3025 (Part-1) CMPDI/RI-II/LPM 13	
Sampling Stations	(i)	Dhansar OCP	Sample Collected in 2.5 Ltr Jerrycane, Color as observed is transparent			Period of Analysis	08.07.2024 to 06.08.2024
			Date of Sampling		08.07.2024	22.07.2024	
			Observed Values		STANDARDS FOR COAL MINES (Stipulated by Ministry of Environment and Forests (MoEF), Vide Notification No. GSR 742(E), Dt: 25.09.2000)		
Sl. No.	Parameter	Method of Analysis	First Fortnight	Second Fortnight	LDL		
1	Total Suspended Solids	IS 3025/17:1984, R : 2017, Gravimetric	38	41	100 (Max)		
2	pH	IS-3025/11:1983, R-2017, Electrometric	7.89	7.92	5.5 - 9.0		
3	Oil & Grease	IS 3025/39:1991, R : 2019, Partition Gravimetric	<2.0	<2.0	10 (Max)		
4	COD	APHA 23rd Edition 5220 C Titrimetric Method	36	36	250 (Max)		
**All units in mg/L unless specified otherwise. *LDL indicates Lower Detection Limit & BDL indicates Below Detection Limit, **Grab sampling carried out for water samples.							
 ANALYSED BY		 REVIEWED BY		 Authorised Signatory			
Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env), CMPDI, RI-II.							
2024---- End of Report ----							

		CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II MINE EFFLUENT TEST REPORT				CMPDI, RI-II KOYLA BHAWAN COMPLEX DHANBAD - 826005 Phone: 0326-223-850 email: rdi2cmpdi@coalindia.in	
Test Report for Mine Effluent samples							
Month & Year	05/2024	Cluster	Cluster VII		ULR No.	TC101222400000818F	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcci@coalindia.in)					Date of Issue	10.07.2024
Project	Dhansar OCP	Sampling Ref. No.	REM/BCCL/2024/05		Sampling Method	IS 3025 (Part-1) CMPDI/RI-II/LPM 13	
Sampling Stations	(i)	Dhansar OCP	Sample Collected in 2.5 Ltr Jerrycane, Color as observed is transparent			Period of Analysis	06.05.2024 To 28.05.2024
			Date of Sampling		06.05.2024	20.05.2024	
			Observed Values		STANDARDS FOR COAL MINES (Stipulated by Ministry of Environment and Forests (MoEF), Vide Notification No. GSR 742(E), Dt: 25.09.2000)		
Sl. No.	Parameter	Method of Analysis	First Fortnight M0881	Second Fortnight M0910	LDL		
1	Total Suspended Solids	IS 3025/17:1984, R : 2017, Gravimetric	56	54	100 (Max)		
2	pH	IS-3025/11:1983, R-2017, Electrometric	8.05	8.04	5.5 - 9.0		
3	Oil & Grease	IS 3025/39:1991, R : 2019, Partition Gravimetric	<2.0	<2.0	10 (Max)		
4	COD	APHA 23rd Edition 5220 C Titrimetric Method	32	36	250 (Max)		
**All units in mg/L unless specified otherwise. *LDL indicates Lower Detection Limit & BDL indicates Below Detection Limit, **Grab sampling carried out for water samples.							
 ANALYSED BY		 REVIEWED BY		 Authorised Signatory			
Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env), CMPDI, RI-II.							
---- End of Report ----							
Page -1 of 1							



CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
SURFACE WATER ANALYSIS TEST REPORT

CMPDIL, RI-II
KOYLA BHAWAN COMPLEX
DHANBAD - 826005
Phone: 0326-223-850
email: rdri2.cmpdi@coalindia.in

Month & Year	QUARTE ENDI NG JUNE 2024	Name of Cluster	VI &VII		ULR No.	TC1012224000009 34P TC1012224000009 35P	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)				Date of Issue	16.08.2024	
Project	Sample Ref. No.		REM/BCCL/23-24/SW /		Sampling Method	(IS 3025 , Part-1) CMPDI/RI-II/LPM 13	
Sampling Stations	(i)	Upstream in Kari Jore(SW16)	Date of Sampling		25.06.2024	Period of Analysis	
	(ii)	Downstream in Kari Jore(SW17)	Date of Sampling		25.06.2024	24.06.2024 to 07.08.2024	
Sl. No.	Parameter	Method of Analysis	Observed Values		IS : 2296 INLAND SURFACE WATER [1982] Class 'C	Range of Testing	LDL
			(i)	(ii)			
1	BOD (3 days 27°C), mg/l	IS 3025 (Part 44) : 1993, R-2019 , 3 day incubation at 27°C	2.4	2.6	3	2.00-100.00	2
2	Colour,Hazen Units	APHA 24th edition , 2120-B- :2023	2	3	10	1-500.0	1
3	Chlorides, mg/l	IS-3025(Part 32):1988, R-2019 Argentometric Method	74	79	600	2.0-1500.0	5
4	Copper, mg/l	IS 3025 (Part 42) : 1992 R : 2019, AAS-Flame Method	<0.2	<0.2	1.5	0.2-10.0	0.2
5	Dissolved Oxygen, mg/L	IS 3025 (Part 38) : 1989, R:2003 Winkler Azide Method	4.7	4.8	4	1.0-10.0	0.1
6	Fluoride, mg/l	APHA, 24th edition, SPADNS Method	0.57	0.53	1.5	0.2-2.00	0.2
7	Hexavalent Chromium, mg/l	APHA 24th edition, 1,5- Diphenylcarbohydrazide Method IS 3025 (Part 52) : 2003,R-2019	<0.01	<0.01	0.05	0.01-1.4	0.01
8	Iron, mg/l	IS 3025 (Part 53):2003,R:2019, AAS-Flame Method	<0.2	<0.2	50	0.2-10	0.2
9	Nitrate , mg/l	APHA, 24th edition, UV- Spectrophotometric Method	10.08	13.37	50	0.5-45.0	0.5
10	pH value	IS 3025, (Part 11) : 1983 R-2023 Electrometric (Ph Meter) method	7.38	7.68	6.5-8.5	1.0-14.0	2
11	Sulphate, mg/l	APHA -24th edition,4500- S, Turbidity Method	72	80	400	10.0-400.0	10
12	Total Dissolved Solids, mg/l	IS 3025, (Part 16): 1984 R-2023 Gravimetric method	684	713	1500	25.0-10000.0	25
13	Zinc, mg/l	IS 3025(Part 49) : 1994, R : 2019, AAS-Flame Method	<0.1	<0.1	15	0.10 - 10.0	0.1
**Grab sampling carried out for water samples. *LDL indicates Lower Detection Limit & BDL indicates Below Detection Limit							
***All units in mg/L unless specified otherwise Sample Collected in 5 Ltr Jerricane, Color as observed is transparent							
							
Analysed by		REVIEWED BY		Authorised Signatory			

Annexure – XL – Monitoring Board

CLUSTER - VII (PART)
ADMINISTRATIVE CONTROL - KUSUNDA AREA, BCCL

PRODUCTION CAPACITY - 400 MT
ORDER NO. 1015/23, DATED 14.01.2023

NAME OF AREA	PRODUCTION (MT) - 20		LEASE
	OC	UG	
KUSUNDA AREA			1.45

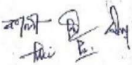
CONCENTRATION VALUES OF ENVIRONMENTAL PARAMETERS MONITORED BY

WATER PARAMETERS	NOISE (dB)	AIR PARAMETERS
pH -		NO _x
TSS - (mg/l)		SO ₂
COD - (mg/l)		PM ₁₀
OIL & GREASE - (mg/l)		PM _{2.5}

Annexure – XLI – Piezometer



Annexure – XLII – Ground Water Quality

 cmpdi <i>A Mini Ratna Company</i>		CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II GROUND WATER ANALYSIS TEST REPORT				CMPDI, RI-II KOYLA BHAWAN COMPLEX DHANBAD - 826005 Phone: 0326-223-850 email: rdri2cmpdi@coalindia.in	
Month & Year	QUARTER ENDING JUNE 2024	Name of Cluster	CLUSTER VII			ULR No.	TC10122240000009 08P
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	16.08.2024
Project	Hurriladih	Sample Ref. No.	REM/BCCL/24-25/GW	Sampling Method	CMPDI/RI-II/LPM 13, (IS 3025:Part -1)		
Sampling Stations	Hurriladih	Date of Sampling	06.05.2024	Sample Collected in 5 Ltr Jerrycan, Color as observed is transparent			
		Period of Analysis		06.05.2024	TO	07.08.2024	
Sl. No.	Parameter	Method of Analysis	Observed Values			IS 10500: 2012	
			GW7 G0103	Range Of Testing	LDL	Acceptable Limit (Max)*	Permissible Limit in the Absence of Alternate Source (Max)
1	Colour, Hazen unit	APHA, 24th edition, 2120-c-Spectrophotometric Single Wavelength Method, 2023	1	1-500.0	1	5	15
2	Calcium, mg/l	IS 3025, (Part 40): 1991 R-2019, AAS-Flame Method & EDTA Method	88	2.0-800.0	2	75	200
3	Chlorides, mg/l	IS-3025(Part 32):1988, R-2019, Argentometric Method	86	2.0-1500.0	5	250	1000
4	Fluoride, mg/l	APHA, 24th Edition, SPADNS Method	0.66	0.2-2.00	0.2	1	1.5
5	Iron, mg/l	IS 3025 (Part 53) : 2003, R : 2019, AAS-Flame Method	<0.2	0.2-10	0.2	1	No relaxation
6	Magnesium	APHA 24th edition, 3500-Mg B: Calculation Method	53	6.0-700	6	30	100
7	Nitrate, mg/l	APHA, 24th edition, UV-Spectrophotometric Method	27.95	0.5-45.0	0.5	45	No relaxation
8	Odour	APHA, 24th Edition, 2150-C	Agreeable	Qualitative	Qualitative	Agreeable	Agreeable
9	pH value	IS 3025, Part 11 : 1983 R 2023 Electrometric (pH Meter) Method	7.56	1-14	0.1	6.5-8.5	No relaxation
10	Sulphate, mg/l	APHA -24th edition, 4500 S, Turbidity Method	100	10.0-400.0	10	200	400
11	Taste	APHA, 24th edition, 2160-C	Acceptable	Qualitative	Qualitative	Acceptable	Agreeable
12	Total Alkalinity (CaCO ₃), mg/l, Max	IS 3025, Part 23: 1986 R 2019 Titration Method	175	4.0-2000.0	4	200	600
13	Total Dissolved Solids, mg/l	IS 3025, Part 16: 1984 R 2023 Gravimetric method	711	25.0-5000.0	25	500	2000
14	Total Hardness, mg/l	IS 3025, (Part 21): 2019 EDTA Method	440	4.0-2000.0	4	200	600
15	Turbidity, NTU	IS 3025, (Part 10):1984, R-2023 Nephelometric/Turbidimetric Method	2.2	1-800	0.1	1	5
16	Zinc, mg/l	IS 3025(Part 49) : 1994, R:2019, AAS-Flame Method	0.16	0.10 - 10.0	0.1	5	15
***All units in mg/L unless specified otherwise,							
**Grab sampling carried out for water samples. *LDL indicates Lower Detection Limit & BDL indicates Below Detection Limit,							
 (Kumar Vaibhav)		 (Kumar Vaibhav)		 (Amit Raj Mishra)			
ANALYSED BY		REVIEWED BY		Authorised Signatory			



CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
GROUND WATER ANALYSIS TEST REPORT

CMPDIL, RI-II
KOYLA BHAWAN COMPLEX
DHANBAD. -826005
Phone:0326-223-850
email: rdri2cmpdi@coalindia.in

Month & Year	QUARTER ENDING JUNE 2024		Name of Cluster	CLUSTER VII				
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)						Date of Issue	16.08.2024
Project	Hurriladih		Sample Ref. No.	REM/BCCL/24-25/GW		Sampling Method	CMPDI/RI-II/LPM 13,(IS 3025:Part -1)	
Sampling Stations	Hurriladih		Date of Sampling	06.05.2024	Sample Collected in 5 Ltr Jerricane , Color as observed is transparent			
				Period of Analysis		06.05.2024	TO	07.08.2024
Sl. No.	Parameter	Method of Analysis	Observed Values			IS 10500: 2012		
			GW7	Range Of Testing	LDL	Acceptable Limit (Max)*	Permissible Limit in the Absence of Alternate Source (Max)	
1	Boron (as B), mg/l. Max	APHA, 24th edition ,Carmine	<0.2	0.2-10	0.2	0.5	1	
2	Copper (as Cu), mg/l. Max	IS 3025 Part 42 : 1992 R : 2019, AAS-Flame APHA, 24th edition, AAS-GTA	<0.01	0.01-10.0	0.01	0.05	1.5	
3	Free Residual Chlorine, mg/l. Min	APHA, 24 th Edition. , 4500-Cl- B. (Iodometric Method-I)	<0.04	0.04-5	0.04	0.2	1	
4	Lead (as Pb), mg/l. Max	IS:3025(Part 47):1994 (Reaffirmed 2019) APHA, 24th edition, AAS-GTA	<0.005	0.005-10	0.005	0.01	No relaxation	
5	Phenolic compounds (as C6H5OH), mg/l. Max	APHA, 24th Edition,4-Amino Autipyrine	<0.001	0.001-10	0.001	0.002	0.002	
6	Selenium, mg/l. Max	APHA 24th edition IS-3025,part 56:2003, R-2019/, AAS-VGA	<0.007	0.007-10	0.007	0.01	No relaxation	
7	Total Arsenic (as As), mg/l. Max	IS-3025,part 37:1988, R-2019/ APHA 24th edition AAS-VGA	<0.006	0.006-10	0.006	0.01	0.05	
8	Total Chromium (as Cr), mg/l. Max	IS-3025 Part 52:2003, R:2019,AAS-Flame APHA, 24th edition, AAS-GTA	<0.01	0.01-10.0	0.01	0.05	No relaxation	
9	Nickel as Ni, mg/l Max	IS 3025 Part 54 : 2003,R : 2019, AAS-Flame APHA, 24th edition, AAS-GTA	<0.005	0.005-10	0.005	0.02	No relaxation	
10	Manganese as Mn, mg/l. Max	APHA, 24 TH Edition:2023 AAS-GTA Method	<0.02	0.02-10.0	0.02	0.1	0.3	

***All units in mg/L unless specified otherwise,

**Grab sampling carried out for water samples. *LDL indicates Lower Detection Limit & BDL indicates Below Detection Limit,

ANALYSED BY

(Kumar Vaibhav)

REVIEWED BY

(Amit Raj Mishra)

Authorised Signatory

Annexure – XLIII – CIPET Training Notification & Sewing Centre



सेंट्रल इंस्टिट्यूट ऑफ़ पेट्रोकेमिकल्स इंजीनियरिंग एंड टेक्नोलॉजी (सिएट)
(रसायन एवं पेट्रोकेमिकल विभाग, रसायन एवं उर्वरक मंत्रालय, भारत सरकार)
काजू बागान, हेहल, रांची- 834005

ranchi@cipet.gov.in, cipetvtcranchi@gmail.com

प्रायोजक : भारत कोकिंग कोल लिमिटेड, धनबाद
भारत सरकार का उपक्रम



विज्ञापन सं.: कौवि०/BCCL/23-24/06

निःशुल्क रोजगारमुख कार्यक्रम

दिनांक: 07.10.2023

भारत कोकिंग कोल लिमिटेड, धनबाद (भारत सरकार का उपक्रम) द्वारा प्रायोजित 06 माह का कौशल विकास प्रशिक्षण सिएट रांची में प्लास्टिक इंजीनियरिंग के क्षेत्र में निःशुल्क रोजगारमुखी पाठ्यक्रम का प्रारंभ सुनिश्चित है। सेंट्रल इंस्टिट्यूट ऑफ़ पेट्रोकेमिकल्स इंजीनियरिंग एंड टेक्नोलॉजी (सिएट), भारत सरकार की प्रीमियर राष्ट्रीय संस्थान है, जो की प्लास्टिक एवं संबद्ध इंजीनियरिंग के क्षेत्र में कौशल विकास प्रशिक्षण प्रदान करने के लिए समर्पित है। सिएट, उम्मीदवारों से निम्नलिखित पाठ्यक्रमों में नामांकन हेतु आवेदन आमंत्रित करता है।

क्र.	पाठ्यक्रम का नाम	न्यूनतम शैक्षणिक योग्यता	उम्मीदवारों की संख्या	कार्यक्रम अवधि
01	मशीन ऑपरेटर - प्लास्टिक प्रोसेसिंग (MO-PP)	8 th पास	40	06 माह (960 घंटा)
02	मशीन ऑपरेटर - इंजेक्शन मोल्डिंग (MO-IM)	8 th पास	40	06 माह (960 घंटा)

आवश्यक योग्यता :

उम्मीदवारों का चयन SC,ST,OBC,EWS तथा General से किया जाएगा।

उम्मीदवारों की आयु 18 से 28 वर्ष होनी चाहिए (आयु में छूट: SC/ST- 05 साल तथा OBC- 03 साल)।

प्रशिक्षण कार्यक्रम के दौरान प्रशिक्षण सामग्री, रहने एवं खाने की सुविधा तथा ड्रेस निःशुल्क प्रदान किया जायेगा।

आकर्षक प्रशिक्षण

आवश्यक दस्तावेज:

शैक्षणिक योग्यता प्रमाण पत्र

जाति प्रमाण-पत्र

आवासीय प्रमाण-पत्र

फोटो आईडी/ आधार कार्ड

04 रंगीन पासपोर्ट साइज फोटो

**80-100 %
PLACEMENT**

आवेदन जमा करने की अंतिम तिथि : 17-10-2023

कार्डसलिंग तिथि : 27-10-2023

संपर्क करे :— 8235292054, 9654462728, 7979969791, 8580025493

अधिक जानकारी के लिए BCCL के website : www.bcclweb.in पे जा सकते है या ऊपर दिए गये नंबर पे कॉल कर सकते है।

(कॉल करने का समय : Mon to Friday, 10:00 AM to 5:00 PM)



Annexure – XLIV – Plantation



Annexure – XLV– Grassing on OB Dump



Annexure – XLVI– Blasting Permission

T. *segr, 9/10/2021*



भारत सरकार / Government of India
श्रम एवं रोजगार मंत्रालय / Ministry of Labour & Employment
खान सुरक्षा महानिदेशालय / Directorate General of Mines Safety
मध्य जोन, क्षेत्र सं० ३ / Central Zone, Region No. 3
धनबाद, झारखण्ड-826001 / Dhanbad, Jharkhand-826001

निबंधित



ई मेल - dir.ccr3.dgms@gmail.com
टेली/फैक्स नं० - 0326-2221035

पत्र सं०: क्षे०-३/010171/P-09/Reg.112(1) & 196(3)/2021/ 625 धनबाद, दिनांक: ०७/१०/२०२१

प्रेषक:

खान सुरक्षा निदेशक,
क्षेत्र सं०-३, धनबाद

सेवा में,
अभिकर्ता,
ऐणा कोलियरी
मे. भा. को. को. लि.,
पोस्ट - झरिया, जिला - धनबाद,
झारखण्ड, पिन-828111

Sub: Permission under Regulations 112(1) and relaxation under Regulations 196(3) of Coal Mines Regulations, 2017 to extract developed pillars of No. XIV, XIII, XI/XII, IX/X, VIIIA, V/VI/VII/VIII seams in opencast workings within Patch "DE" by opencast method using HEMM in conjunction with deep hole blasting within 500 m but outside 100 m of surface structures at ENA Colliery of M/s BCC Ltd. – Renewal thereof.

महोदय,

Please refer to your application vide letter No. BCCL/KA/Ena/2021/551, dated 09.07.2021, Online application Id. 163787, dated 09.07.2021 enclosing therewith Surface plan No. ENA/2021/21, dated 03.07.2021, ISO clearance vide letter No. BCCL/GM I/C (S & R)/Safety clearance/2019/389 dated 15.05.2019, study report by M/s CSIR -CIMFR on 'Advice for optimization of blast design parameters' vide project no. CNP/4784/2018-19, dated 06.05.2019, study report by M/s CSIR -CIMFR on "Advice for slope stability of pit and external dump for Ena Colliery, Kusunda Area, BCCL" vide project no. CNP/4897/2019 -20, dated 15.04.2021 and other documents on the above subject.

The matter has since been examined on the basis of the information furnished by you.

In exercise of the powers conferred on the Chief Inspector of Mines (also designated as Director-General of Mines Safety) under Regulations 112(1) and 196(3) of the Coal Mines Regulation, 2017 and by virtue of the authorization granted to me by the Chief Inspector of Mines (also designated as Director-General of Mines Safety) under

07/10/2021