



File No.: J-11015/298/2010-IA.II(M)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Dated 02/05/2024



To,

Shri Soumen Chatterjee, General Manager
BHARAT COKING COAL LIMITED
Koyla Bhawan, Koyla Nagar, Dhanbad, Jharkhand, 826005 , DHANBAD, JHARKHAND, Koyla
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Subject: Expansion of Cluster VIII Coal Mining Project for increase in production capacity from 5.603 MTPA to 6.72 MTPA in the ML area of 1183.92 ha (234.08 ha Forest Land and 949.08 ha non-forest land) of Bharat Coking Coal Limited (BCCL) located in Jharia, Dhanbad (Jharkhand) - Environmental Clearance under Ministry's OM dated 11.04.2022 (Stage I - 20% expansion) – Reg.

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/JH/CMIN/460662/2024 dated 17/02/2024 for grant of prior Environmental Clearance (EC) to the project under the provision of the EIA Notification 2006-and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24A0101JH5620466N
(ii) File No.	J-11015/298/2010-IA.II(M)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vi) Sector	Coal Mining
(vii) Name of Project	Cluster VIII Coal Mining Project
(ix) Location of Project (District, State)	DHANBAD, JHARKHAND
(x) Issuing Authority	MoEF&CC
(xii) Applicability of General Conditions	No

3. The proposal is for Environmental Clearance for Expansion of Cluster VIII Coal Mining Project for increase in production capacity from 5.603 MTPA to 6.72 MTPA in the ML area of 1183.92 Ha (234.08 ha is Forest Land and 949.08 ha is non-forest land) of Bharat Coking Coal Limited located in Village Jharia, District Dhanbad (Jharkhand) under provisions of 7(ii) (a) of EIA Notification, 2006 and under OM dated 11.04.2022 [Stage-1, 20%]. The project falls under

Schedule 1(a) of mining and is a Category - “A” project as per EIA Notification 14th September 2006 (as amended) as the mining lease area is more than 500 Ha. PP applied for expansion in under O.M dated 11.04.2022 [Stage-1, 20%]

4. Project proposal was considered by the EAC in its 8th meeting held on 28-29th Feb, 2024. Project proponent along with QCI/NABET consultant (CMPDIL) made the detailed presentation and provided the following information to the committee:

- i. The project area is covered under Survey of India Topo Sheet No. 73/I/5, 73/I/6, 73/I/9, 73/I/10 and is bounded by the geographical coordinates ranging from 23°43'37" N and 23°46'56.09" N and longitudes 86°24'55.08" & 86°27'25.57" E
- ii. The project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed a moratorium on the grant of environment clearance.

Sl. No.	Name of Colliery	Area (in Ha)	Peak Capacity (MTPA)
1	Bastacolla Colliery	239.45	2.1
2	ABDKG Colliery	753.47	3.4
3	Kujama Colliery	191.00	1.22
Total		1183.92	6.72

iv. PP submitted that 234.08 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for the diversion of 234.08 ha of forest land for non-forestry purposes has been obtained vide MoEF&CC letter No 8-44/2009-FC dated 12/04/2012.

Sl. No.	Obtained Vide letter No.	Area (in Ha)	Stage I/II	Validity
1	8-44/2009-FC Dated 09.08.2010		Stage I	30 Years or Coterminous with
2	F.NO.8-44/2009-FC 12.04.2012	234.08	Stage II	Mining Lease.
Total		234.08		

Sl. No.	Name of Colliery	Area (in Ha)	Forest Land (in Ha)
1	Bastacolla Colliery	239.45	Nil
2	ABDKG Colliery	753.47	234.08
3	Kujama Colliery	191.00	Nil
Total		1183.92	234.08

v. Project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc.

vi. Details of previous approval obtained for the said project is as follows:

Sl No.	EC Particulars	Date	Capacity (MTPA)	Remarks
1	J-11015/298/2010-IA.II (M)	15.02.2013	5.603	Original EC
2	J-11015/298/2010-IA.II (M)	15.06.2018	5.603	1st EC Amendment
3	J-11015/298/2010-IA.II (M)	15.11.2020	5.603	2nd EC Amendment
4	J-11015/298/2010-IA.II(M),	28.03.2023	5.603	3RD EC Amendment

ix. PP submitted Mining Plan (Including Mine Closure Plan) (3rd Revision) for Bastacolla Colliery (OC); Amalgamated Bera Dobari Kuya & Ghanoodih Colliery (OC); and Kujama Colliery of Cluster VIII coal mining project was approved by BCCL Board in 396th (held on 24.01.2023), 408th (held on 24.01.2024) and 406th meeting (held on 29.10.2023), respectively. PP submitted the mining plan approved by the company's board under guidelines dated 29.05.2020 for a capacity of 7.84 MTPA over an area of 1183.92 Ha.

Sl.No.	Name of Mine	Area (in Ha)	Capacity (MTPA)	Approved in BCCL Board with date of Meeting	
1.	Bastacolla Colliery	239.45	2.1	396th	24.01.2023
2.	Amal. Bera, Dobari, Kuya & Ghanoodih Colliery(ABDKGC)	753.47	4.24	408th	24.01.2024
3.	Kujama Colliery	191.00	1.5	406th	29.10.2023
Total		1183.92	7.84		

x. Total geological reserve reported in the mine lease area of 1183.92 Ha is 92.114 MT with 82.93 MT mineable reserve. Out of the total mineable reserve of 82.93MT, 82.93 MT are available for extraction. Percent of extraction is 90% of the Geological Reserve.

xi. Multiple seams with thicknesses ranging from 0.22m to 18.15 m are workable. The grade of coal is SII, W II –W IV & G5- G11 stripping ratio of 5.12 to 8.36 while the gradient is 1 in 4.5 to 1 in 15. The method of mining operations is by Opencast method of working with a Shovel and Dumper combination. The project has 19 external OB dumps in an area of 169.05 ha with 45 m height and 70.73 Mm³ of Total OB. 5 Internal OB dumps in an area of 169.38 ha with 56.40 Mm³ of Total OB is envisaged in the project. Total quarry area is 784.18 ha out of which backfilling will be done in 752.16 ha which shall be reclaimed with plantation while final mine void will be created in an area of 32.02 ha with a depth of 30 m. The final mine void will be converted into a water body.

xii. Balance life of mines involved in Cluster VIII coal Mining Project is 10 years (Bastacolla Colliery); 17 years (Amalgamated Bera Dobari Kuya & Ghanoodih Colliery) and 08 years (Kujama Colliery) from 2023-24.

xiii. The land usage pattern of the project is as follows

(a) Pre-mining Land use details

S. No	Type of Land	Within ML/ Project Area (Ha)	Outside ML/ Project Area (Ha)	Total Area (Ha)
a)	Agricultural	4.86	0	4.86
b)	Forest *	234.08	0	234.08
c)	Waste/barren land (Non-Forest)	395.1	0	395.1
d)	Grazing	0	0	0
e)	Surface water bodies	13.75	0	13.75
f)	Settlements	205.21	0	205.21
g)	Others (including green belt, road, OB dump, excavation area etc.)	330.92	0	330.92
	Total	1183.92	0	1183.92

* 234.08 Ha diverted forest land

(b) Post mining land use details:

Sl.No	Category	Land Use (in Ha)					
		Plantation/ grass carpeting	Water body	Undisturbed	Public/ Company use	Built- up area	Total
1	OB dump Area	65.97	0	0	0	0	65.97

	(External)						
2	Top Soil Dump	0	0	0	0	0	0
3	Excavation Area	748.28	32.02	0	3.88	0	784.18
4	Road	0	0	0	5.53	0	5.53
5	Built up /Homestead area	0	0	102.32	0	0	102.32
6	Undisturbed area	9.7	0	135.08	0	0	144.78
7	Green Belt	55.19	0	0	0	0	55.19
8	Other area including Peripheral Haul road, Jore/Nallah etc	0	11.01	0	14.94	0	25.95
	Total	879.14	43.03	237.4	24.35	0	1183.92

xiv. Transportation of coal has been proposed by working face to feeder breaker by dumpers, feeder breaker to BNR siding by Road and BNR siding to customers by rail mode. This is existing transportation. Reclamation Plan in an area 879.14 ha, comprising 65.97 ha of external dump, 748.28 ha of backfilled area (of total quarry area) 55.19 ha of green belt and 9.7 ha of undisturbed area.

xv. Coal linkage as per the fuel Supply Agreement of the Company.

xvi. Environmental Baseline data was generated in the winter season from 1st October-2023 to 31st December – 2023 at 20 locations. A public hearing was conducted for the Cluster VIII coal mine project on 30.12.2011. However, Public consultation is exempted from the expansion of the Cluster VIII coal mine project as per OM F. No. IA3-22/10/2022-IA.III [E 177258] dated 11.04.2022. PP submitted the ATR on issues raised during PH of Cluster VIII coal mining Project. Appropriate action to address the issues raised in the Public Hearing has already been taken/is being taken & a budgetary provision of Rs 11.38 Crore (8.45 + 2.93) has been made. The commitment made by the Project Proponent to address the Public Hearing concerns in lieu of Corporate Environment Responsibility (CER) is given in Annexure 2.

xvii. PP submitted that the Environment Management Plan (EMP) for the said project and reported that the cost of EMP will be Rs. 1991.80 lakhs (Capital) and Rs.507.46 lakhs as revenue cost.

xviii. No River/Nallah diversion is proposed in this project.

xix. No court cases or violation cases are pending against the project of the PP. The project does not involve a violation of the EIA Notification, 2006 and amendment issued thereunder. The amended EC was granted on 28.03.2023. PP submitted that following past production details along with undertaking that production has not exceeded the EC capacity granted to the Cluster VIII coal mine project

5. Proposal was considered by the EAC in its 8th EAC meeting held during 28-29th February, 2024. After detailed presentation by the PP along with the consultant, EAC noted that present proposal is for an increase of capacity from 5.603 MTPA to 6.72 MTPA within the area of 1183.92 ha for which the EC has been accorded vide J-11015/298/2010-IA.II (M) dated 15.02.2013. There is no additional land acquisition or forest land diversion involved for the proposed capacity enhancement vis-à-vis the area mentioned in the EC (i.e. 1183.92 ha), based on which Public Hearing (PH) was held earlier on 31.12.2012. EC was granted in year 2013 for the mining in 1183.92 Ha for Cluster VIII coal mining project of M/s BCCL of 5.603 MTPA PRC.

6. EAC after detailed deliberation on the compliances in terms of provision of Ministry's OM dated 11.04.2022, mining lease/mining plan/EIA-EMP report/CCR recommended the Environmental Clearance under Ministry's OM dated 11.04.2022 for Cluster VIII Coal Mine Project of M/s Bharat Coking Coal Limited with increase of production capacity from 5.603 MTPA to 6.72 MTPA (Stage I) under Ministry's OM dated 11.04.2022 in total ML area of 1183.92 ha with the specific conditions and Standard EC conditions under the provisions of EIA Notification, 2006 and its amendments.

7. The MoEF&CC has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the EAC hereby **accords** Environment Clearance for the instant proposal to Bharat Coking Coal Limited for Cluster VIII Coal Mine Project with increase of production capacity from 5.603 MTPA to 6.72 MTPA (Stage I) in ML area of 1183.92 ha under

the provisions of Environment Impact Assessment Notification, 2006 and its amendments therein and under OM dated 11.04.2022 (Stage-1 20%) with additional specific conditions Annexure (1).

8. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. Ministry reserves the right to stipulate additional conditions, if found necessary.

9. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable to the project.

10. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

11. Any appeal against this environmental clearance shall lie 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.

12. 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 orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of 'Common Cause Vs Union of India & others.

13. 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 judgment of Hon'ble Supreme Court. This environmental clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.

14. Validity of EC shall be as per the provision of the EIA Notification, 2006 and as amended thereof.

15. General Instructions:

- The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC website where it is displayed.

- The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.

- The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.

- Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

- Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

- The Regional Office of this MoEF&CC 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.

16. This issue with an approval of the Competent Authority

Copy To

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office, 2nd Floor, Headquarter- Jharkhand State Housing Board, Harmu Chowk, Ranchi, Jharkhand – 834002, Ranchi
3. The Chairman, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
4. The Regional Director, Central Ground Water Board, Mid Eastern Region, 6th & 7th Floor, Lok Nayak Jai Prakash Bhawan, Frazer Road, Dak Banglow, Patna- 800011, Bihar.
5. The Chairman, Jharkhand State Pollution Control Board, TA building, HEC complex, PO Dhurwa, Ranchi
6. The District Collector, Dhanbad Government of (Jharkhand)
7. PARIVESH Portal

Annexure 1**Specific EC Conditions for (Mining Of Minerals)****1. Specific Conditions**

S. No	EC Conditions
1.1	PP shall implement the protective measure proposed in EMP in a time-bound manner. The budget earmarked for the same is Rs 1991.80 Lakhs (Capital) and Rs 507.46 Lakhs (revenue) and should be kept in separate accounts and audited annually. The implantation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year.
1.2	PP to obtain the CTO for the Expansion of Cluster VIII Coal Mining Project for a capacity of 6.72 MTPA after the grant of EC
1.3	The budget proposed to address the issues raised during PH is Rs 1138.91 Lakhs and PP shall implement the same in a time-bound manner. The implantation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year.
1.4	The green belt and plantation plan submitted in the EIA/EMP shall be implemented in a time-bound manner. A survival rate of at least 80% shall be maintained by carrying out gap plantation in case of mortality. The budget earmarked for the plantation shall be kept in a separate account. Further, as committed during the meeting the PP shall carry out the additional plantation over an area of 75 Ha within a period of 5 years (2024-25 to 2028-29) and the budget proposed for the same is Rs 350 Lakhs @ Rs 70 Lakh/annum. PP should annually submit the audited statement of expenditure along with proof of activities viz. photographs (before & after with geolocation date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC and on PARIVESH Portal as the case may be for the activities carried out during previous year.
1.5	The green belt and plantation plan submitted in the EIA/EMP shall be implemented in a time-bound manner. A survival rate of at least 80% shall be maintained by carrying out gap plantation in case of mortality. The budget earmarked for the plantation shall be kept in a separate account. PP should annually submit the audited statement of expenditure along with proof of activities viz. photographs

S. No	EC Conditions
	(before & after with geolocation date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC and on PARIVESH Portal as the case may be for the activities carried out during previous year.
1.6	PP has proposed to install the fixed water sprinklers near Nawadih High School & Raghunathpur Middle School and the amount proposed is Rs 20 Lakh. Further, PP shall also ensure that regular maintenance of the same and budget for the same may be used from revenue expenditure. PP shall install the same during 2024-25 and submit the photographs (before and after) to the concerned RO, MoEF&CC.
1.7	As per the undertaking submitted, PP shall engage an institute of repute like Birsā Agricultural University, Ranchi, Centre of Excellence IIT(ISM), Dhanbad, Institute of Forest Productivity-Ranchi etc. to review the list of flora and fauna provided by M/S SARDA within next one month and submit to RO Ranchi.
1.8	PP shall get the feasibility study done (within one year) for the installation of a conveyor system for the transportation of coal from the mine to railway siding to reduce road transportation. PP shall also prepare and implement an action plan for deployment of CNG/LNG/EV-based tippers for the same. Based on the action plan PP shall replace the existing diesel-operated tippers in a phased manner.
1.9	Besides carrying out regular periodic health check-ups of their workers, 10% of the workers identified from the workforce engaged in active mining operations shall be subjected to health check-ups for occupational diseases and hearing impairment, if any. Further, the PP shall engage an agency such as NIOH, Ahmedabad to review the status of the implementation of the occupational health plan and suggest corrective measures.
1.10	PP shall submit an action plan for using and developing Renewable Energy for its consumption in its utilities/machinery/equipment instead of using electricity from Grid/generated from Thermal Power Plants.
1.11	PP shall obtain a 5-star rating in terms of Environment Compliance from the Ministry of Coal as per the rating system implemented by the Ministry of Coal.
1.12	PP shall ensure submission of the compliance report to the Regional Office in a timely manner and in case of any non-compliance identified so far/in future in the CCR then the same shall be complied with on priority and action taken report in this regard shall be submitted to concerned RO and get it closed.
1.13	The plantations done by the PP need to be adequately densified and audited by a third party preferably a forestry institution of MoEF&CC (eg ICFRE) to assess their efficacy. Densification of existing plantations shall also be done during the monsoon of 2024

S. No	EC Conditions
1.14	PP shall ensure that all types of plastic waste generated from the mines shall be stored separately in isolated areas and disposed of strictly adhering to the Plastic Waste Management Rules 2016. In pursuant to the Ministry's OM dated 18/07/2022, PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic(SUP) in order to ensure compliance with the Ministry's Notification published by the Ministry on 12/08/2021. A report along with the photographs of the measures taken shall also be included in the six monthly compliance reports being submitted by PP.
1.15	NoC from Central Ground Water Authority (CGWA)/ concerned local authority, as the case may be, shall be obtained before drawing the groundwater for the project activities, state pollution control board/pollution control committees shall not issue the consent to operate (CTO) under Air (prevention and control of Pollution) Act and Water (Air (prevention and control of Pollution) Act till the project proponent shall obtain such permission
1.16	The outlay of EMP should be increase and submitted to the RO.
1.17	Air pollution measures should also be increased in the surrounding areas including nearby schools.

Standard EC Conditions for (Mining of minerals)

1. Statutory Compliance

S. No	EC Conditions
1.1	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.2	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.3	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. TThe implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
1.4	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee prior to start/commencement of mining operations/production
1.5	The project proponent shall obtain the necessary permission from the Central Ground Water Authority
1.6	Solid/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.

S. No	EC Conditions
1.7	Permission of power supply to be taken from the concerned authority for meeting power demand of the project site.
1.8	The maximum production or peak production at any given time shall not exceed the limit as prescribed in the EC.
1.9	Validity of Environment Clearance is as per life of the mine mentioned in EC letter or 30 years as per EIA Notification, 2006 and its amendments therein
1.10	All the conditions stipulated in previous Environment Clearance conditions should be strictly complied within certain timeline

2. Air Quality Monitoring And Mitigation Measure

S. No	EC Conditions
2.1	Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM10, PM2.5, SO2 and NOx. 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. The new CAAQMS should be installed with expansion.
2.2	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 25th September, 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.
2.3	Transportation of coal, to the extent, if permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun/ Fog cannon 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.
2.4	The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring 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 constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
2.5	PP to install solar lights along the road used for transportation of coal to avoid the accidents at night and also seek its maintenance.
2.6	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 centres.

S. No	EC Conditions
2.7	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.
2.8	Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.
2.9	Adequate measures on EMP should be analyzed on annual basis to assess the trend of air pollution data from continuous monitoring station and quarterly report shall be generated and submitted with 6 monthly compliance reports to RO, MoEF&CC.
2.10	Effective safeguard measures for prevention of dust generation and subsequent suppression like regular water sprinkling shall be carried out in areas prone to air pollution. The Fugitive dust emission from all sources shall be regularly controlled by installation of required equipment's. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB
2.11	Adequate number of Fog canon (mist sprayer) shall be installed to reduce the impact of air pollution at dust generating sources with time bound action plan.
2.12	PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.
2.13	Post environmental closure third party monitoring by reputed institutied in air quality, water, land & soil etc shall be carried out and analysed with EMP measures at regular interval. A suitable recommendation in this regard, shall be furnished to IRO, MoEF&CC for compliance. The data used for analysis shall be obtained from continuos AQMS, site specific water regime. Also third party shall analyses the implementation of river diversion, meeting to the requirement of project report.
2.14	Comparison of average monthly temperature of pre and post mine operation after obtaining EC shall be elaborated for post three years and a record to be maintain at regular interval.

3. Water Quality Monitoring And Mitigation Measures

S. No	EC Conditions
3.1	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
3.2	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 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
3.3	Regular monitoring of ground water level and quality shall be carried out in and around the mine

S. No	EC Conditions
	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 MOEFCC/RO.
3.4	Monitoring of water quality upstream and downstream of river including ponds, lakes, tanks 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.
3.5	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.
3.6	Catch and/or garland drains and siltation ponds in adequate numbers and 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 utilised for dust suppression and green belt development and other industrial use. 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.
3.7	Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).
3.8	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 standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.
3.9	The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
3.10	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/GoI 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 or any other authority as prescribed by the law.
3.11	The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

S. No	EC Conditions
3.12	Quality of polluted water generated from the operations which include COD and acid mine drainage and metal contamination shall be monitored along with TDS, DO, TSS. The monitored data shall be uploaded on the website of the company as well as displayed at the site in public domain.
3.13	Domestic water shall be providing to the residents/villages which are coming under the zone of influence of the project due to ground water extraction and mining operation by installing adequate number of RO plants with proper supply line and Taps within 2 years
3.14	No obsolete technologies for sewage treatment shall be implemented. Construction of Sewage Treatment Plant with latest technology should be completed within 2 years and treated water shall be reused for plantation. CTE and CTO of STP shall be obtained as per the norms.

4. Noise And Vibration Monitoring And Prevention

S. No	EC Conditions
4.1	Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 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.
4.2	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
4.3	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.

5. Mining Plan

S. No	EC Conditions
5.1	5- Star Rating is mandatory to obtaine certification as per guidelines of Mininstry of Coal
5.2	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
5.3	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).
5.4	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.
5.5	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

S. No	EC Conditions
5.6	PP shall adopt mining method by preferably using surface miners for the project and silo loading through in-pit conveyor should be adopted
5.7	Transportation of coal till Railway Siding shall be developed to avoid transportation through Road

6. Land Recalvation

S. No	EC Conditions
6.1	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 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
6.2	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 diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
6.3	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 MOEFCC/RO.
6.4	Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
6.5	Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised 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.
6.6	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.
6.7	Top soil should be stored separately at marked area and necessary vegetation shall be maintained to avoid any entrainment of dust

S. No	EC Conditions
6.8	Progressive backfilling of mine and progressive reclamation of OB dump shall be done
6.9	Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles
6.10	PP shall explore the possibilities of utilization of OB material for different purposes (in construction of roads/ manufacture of artificial sand, aggregates/ use for farmers etc.)
6.11	All approach roads to mine and all other roads which are in regular use should be black topped. The maintenance of road shall be done by PP in collaboration with state government
6.12	Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a 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 the Regional Office of the MoEF&CC

7. Green Belt

S. No	EC Conditions
7.1	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic 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.
7.2	Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads. And Plantation should also be carried out in nearby area with consent of forest department and gram panchayat within 10 km radius with its proper maintenance

8. Public Hearing And Human Health Issues

S. No	EC Conditions
8.1	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.
8.2	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel 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 personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended

S. No	EC Conditions
	time to time.
8.3	Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
8.4	Implementation of the time bound 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 time bound action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
8.5	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th 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'.
8.6	PP to conduct need based assessment survey of the area to for in order to decide the activities to be carried under the CSR and to provide detail of the activity carried out with adequate budgetary provision and time bound action plan.
8.7	PP should conduct epidemiology study to (analysis of the distribution, patterns and determinants of health and disease conditions in defined populations).
8.8	Permanent Health care facilities of Hospital should be established within 5 km of project boundary for the local people.
8.9	PP must ensure an emergency action plan during pandemic in order to provide assistance to the nearby villages located within the 10 km radius buffer zone (If required)
8.10	PP is asked to also identify the rural areas for installation of solar light with its maintenance within the study area of 10 km radius buffer zone within one year
8.11	PP to take measure for installation of Renewable Energy sources in nearby area falling within 10 km radius
8.12	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
8.13	Adequate facility of drinking water, plantation and other social amenities should be provided to established R&R villages.
8.14	Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.
8.15	Compensation of the land acquired for the project shall be settled as per the R&R Policy within

S. No	EC Conditions
	fixed timeline

9. Corporate Environment Responsibility

S. No	EC Conditions
9.1	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental 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/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.
9.2	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
9.3	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company 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.
9.4	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
9.5	PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non- compliance or infringement should be reported to the concerned authority

10. Miscellaneous

S. No	EC Conditions
10.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
10.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
10.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

S. No	EC Conditions
10.4	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
10.5	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
10.6	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th 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'.
10.7	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10.8	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
10.9	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
10.10	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
10.11	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
10.12	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
10.13	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10.14	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
10.15	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.
10.16	The above conditions shall 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, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 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.

Annexure 2

Budgetary Provision

(A) The commitment made by the Project Proponent to address the Public Hearing concerns in lieu of Corporate Environment Responsibility (CER) is as below. The total fund allocation made for CER is Rs. 1138.91 Lakhs (845 lakhs + 293.91 lakhs).

Sl. No.	Detail's	Proposed expenditure to be done per year in Rs. (In Lakh)			
		2024-25	2025-26	2026-27	Total Rs. (In Lakh)
1	# Air pollution control measures	195	210	140	545
2	Drinking Water Supply and construction of wells, ponds, hand pumps and tube wells	20	10	10	40
3	Plantation (Avenue & Community Plantation)	50	50	50	150
4	Infrastructure development (Community halls; Anganwadi Kendra.)	20	10	10	40
5	Health Care and vaccination, awareness camp, mobile medical camp, Immunization, medicine etc.	20	15	15	50
6	Education (Equipments for School; Toilets for School; Infrastructure of School/Colleges)	10	5	5	20
	Total	315	300	90	845

Note- 293.91 Lakhs will be spent in next two financial year's i.e FY 2027-28 & 2028-29.

(B) Environment Management Plan (EMP) for the said project and reported that the cost of EMP will be Rs. 1991.80 lakhs (Capital) and Rs.507.46 lakhs as revenue cost.

Capital Cost:

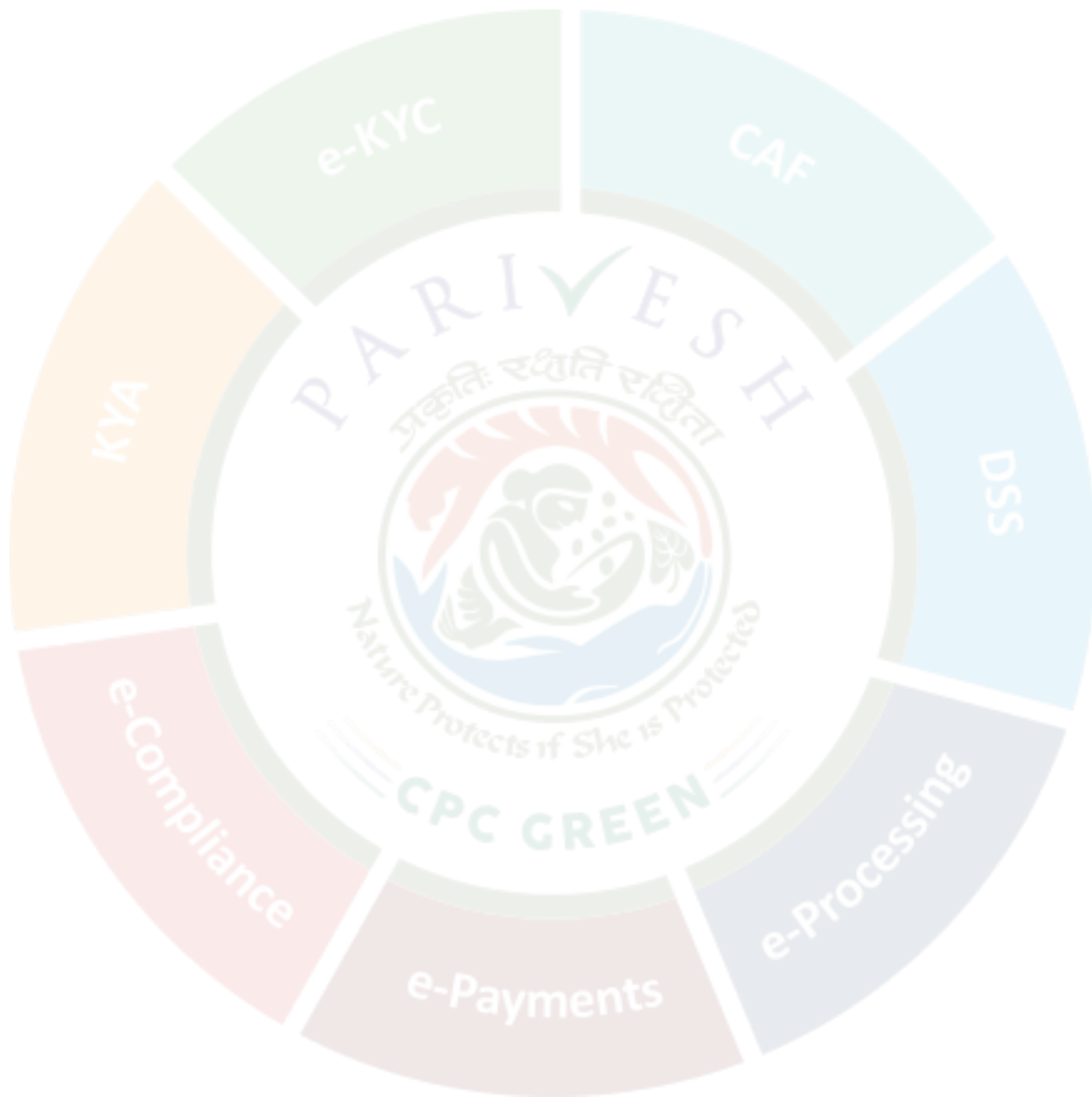
Sl No.	Particulars	Capital investment (Rs. lakh)
1	Dust suppression cost	1391
2	Water pollution control measure cost including ETP (Sedimentation tank) & STP	366
3	#Garland and storm water drainage 8500 m (included in mine closure)	-
4	#Plantation and landscaping (included in mine closure)	-
5	Rainwater harvesting	22.8
6	Environment Data generation	76
7	Avenue Plantation (2.5 Km)	36
8	EIA/EMP preparation cost	100
Total		1991.80

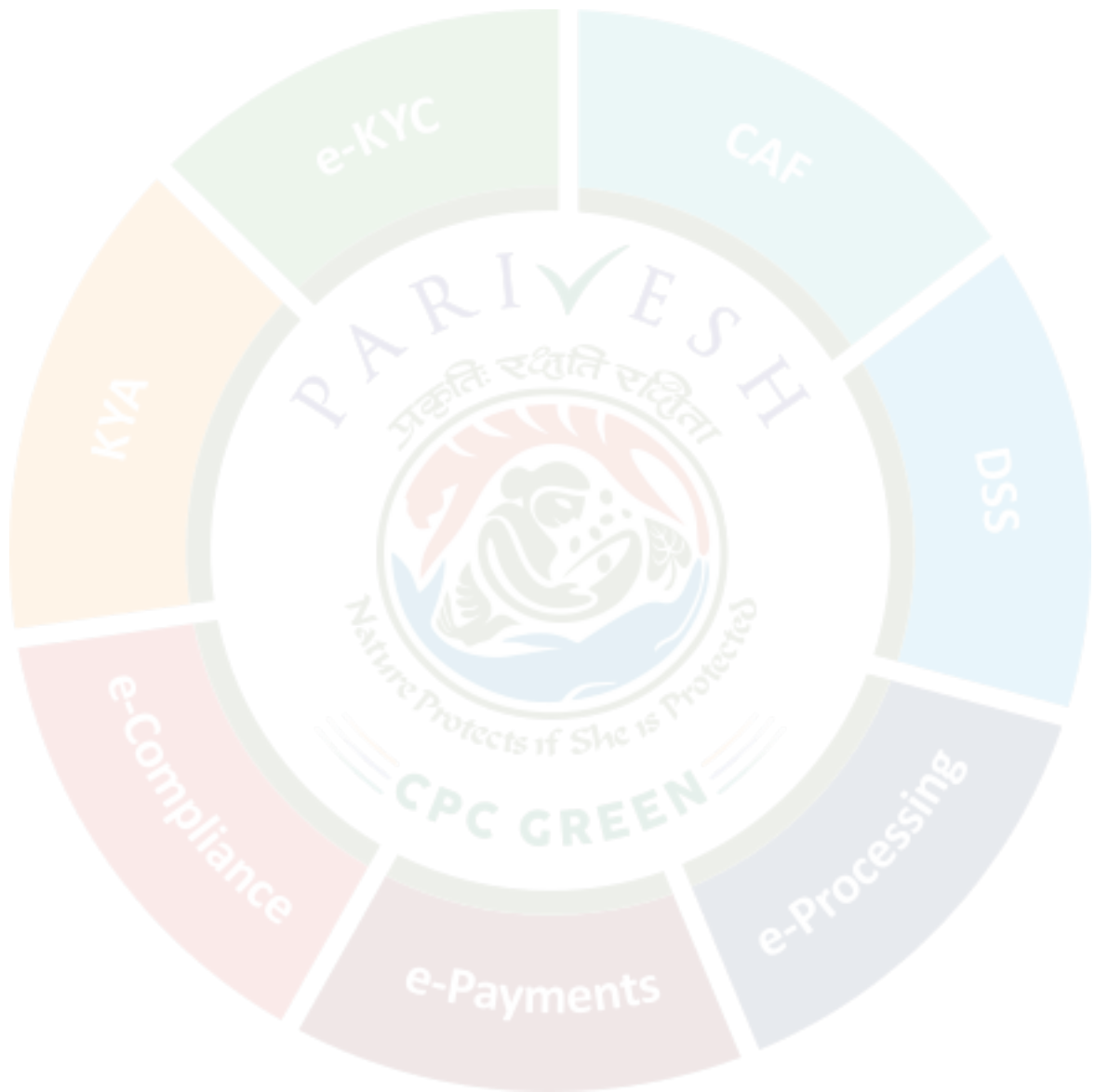
#Cost Included in Mine Closure Plan

Revenue Cost:

Sl. No.	Particulars/ Works	Annual Operating cost (in Rs Lakhs)
1	Environmental Monitoring cost of Air, water, and noise levels in and around project area of Cluster VIII	81.96
2	Operation and maintenance of E T P and Domestic STP (@ 15% of cost)	52.5
3	Operation and maintenance of Water tankers and Sprinklers	351.6
4	De-siltation / cleaning of Drains and culverts indifferent places of mine at Cluster VIII	11.4

5	Other miscellaneous expenditure like World environment day and distribution of Fruit bearing plants among employee and villagers	10
Total		507.46





File No. J-11015/298/2010-IA.II (M)

Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi – 3
Email: munna.shah@gov.in ; Tel: 011-20819177

Dated: 28th March, 2023

To

The General Manager
M/s Bharat Coking Coal Limited,
Kusunda Area, Koyla Bhawan,
Koyla Nagar, Dhanbad - 5 (Jharkhand).
E-mail: gmenv.bccl@coalindia.in

Sub: Cluster VIII Coal mining project of production capacity 5.603 MTPA in total mine lease area of 1183.92 ha by M/s Bharat Coking Coal Limited located in Jharia Coalfields, District Dhanbad (Jharkhand) – For Amendment of Environmental Clearance letter dated 15.02.2013 – reg.

Sir,

This has reference to your online proposal no. IA/JH/CMIN/297114/2023 dated 31st January, 2023, on the above-mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for amendment in Environment Clearance dated 15th February, 2013. The proposal is of Cluster VIII Coal mining project of production capacity 5.603 MTPA in total mine lease area of 1183.92 ha by M/s Bharat Coking Coal Limited located in Jharia Coalfields, District Dhanbad (Jharkhand). Amendment in EC has been granted by Ministry vide its letter dated 15th July, 2018 and further amendment vide letter dated 15th November, 2020, due to restructuring of production capacities of individual mine in the Cluster.

3. Now, Project Proponent has again requested for amendment in Environment Clearance to particularly increasing in capacity of Bastacolla and Kuya Colliery production capacities only as mentioned below to facilitate complete extraction of Coal up to the Bottom Seam, make available larger space for keeping OB, thereby reducing the requirement of re-handling of OB enabling better and speedier reclamation (technical and biological) works. This will enable de-coaled areas to provide space for storage of OB extracted for fiery coal excavation within the cluster to implement the Master Plan approved by Govt. of India. Mining Plan and Mine Closure Plan of the mine undergoing change i.e. Bastacolla Colliery and Kuya Colliery was approved in the 396th Board meeting of BCCL held on 24.01.2023.

Munna Shah

Following is the details of production capacity with mine lease area from original EC dated 15th February, 2013 and later amended dated 15th November, 2020 and further changes proposed particularly for increase in capacity of Bastacolla and Kuya Colliery from 1.80 to 2.10 MTPA and 2.60 to 2.80 MTPA respectively without any changes in overall capacity and mine lease area;

Sl. No	Name of the Mine	Type of Mine	Initial EC (Dated 15.02.2013)			Amendment dated 15.11.2020 (Existing)			Modification sought		
			Peak Production Capacity (MTPA)	Lease Area (Ha)	Type of Mine	Peak Production Capacity (MTPA)	Lease Area (Ha)	Type of Mine	Peak Production Capacity (MTPA)	Lease Area (Ha)	Proposed Amendment
1	Bastacolla Colliery	OC	0.13	239.45	Mixed	1.80	239.45	Mixed	2.10	239.45	Change in Capacity
		UG	0.429								
2	Bera Colliery	OC	0.195	209.56	OC	0.195	209.56	OC	0.195	209.56	No Change
		UG	0.247		UG	0.247		UG	0.247		No Change
3	Dobari Colliery	UG	0.312	146.90	OC	3.86	146.90	OC	3.86	146.90	No Change
4	Ghanoodih Colliery	OC	1.82	73.0	OC	1.82	73.00	OC	1.82	73.00	No Change
5	Kuya Colliery	UG	0.13	324.01 (340.50-16.49)	OC	2.60	324.01 (340.50-16.49)	OC	2.80	324.01 (340.50-16.49)	Change in Capacity
		OC	0.78								
	Goluckdih (NC)	OC	1.56								
6	Kujama Colliery	OC	0.78	191.0	OC	0.78	191.00	OC	0.78	191.00	No Change
	Total		5.603*	1183.92		5.603*	1183.92		5.603*	1183.92	

Munabhat

Production Schedule for individual mines showing Numeric addition of Production each year within Cluster Limit of 5.603 MTPA (Peak production will be achieved in different years).

Name of Mine	Type of Mine	Peak Production Capacity (In MTPA)		Production Schedule & Increase/ Decrease in Production Capacity (As per Peak Capacity) (In MTPA)					Remarks
		Existing	Proposed	Year-I	Year-II	Year-III	Year-IV	Year-V	
Bastacolla Colliery	OC	1.80	2.10	2.00	2.10	2.10	2.10	1.80	Increase in Production (Change in Peak)
				(+0.20)	(+0.30)	(+0.30)	(+0.30)	(0.00)	
Bera Colliery	Mixed	0.442	0.442	0.00	0.00	0.00	0.00	0.00	Reduction in Production
				(-0.442)	(-0.442)	(-0.442)	(-0.442)	(-0.442)	
Dobari Colliery	OC	3.86	3.86	0.00	0.00	0.60	0.40	0.40	Reduction in Production
				(-3.86)	(-3.86)	(-3.26)	(-3.46)	(-3.46)	
Kuya Colliery	OC	2.60	2.80	2.80	2.70	1.50	0.783	0.00	Increase in Production (Change in Peak)
				(+0.20)	(+0.10)	(-1.10)	(-1.817)	(-2.60)	
Ghanoodih Colliery	OC	1.82	1.82	0.00	0.00	0.60	1.50	1.50	Reduction in Production
				(-1.82)	(-1.82)	(-1.22)	(-0.32)	(-0.32)	
Kujama Colliery	OC	0.78	0.78	0.78	0.78	0.78	0.78	0.78	No Change in Production
				(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
Total		5.603*	5.603*	5.58	5.58	5.58	5.563	4.48	

4. The proposal was considered by the Expert Appraisal Committee (EAC) in its 40th meeting held during 16 -17 February, 2023 in the Ministry. The Committee has recommended the proposal for amendment in the environmental clearance dated 15th February, 2013, as proposed by the project proponent and mentioned in the table at para 3 above

5. Based on the proposal submitted by the project proponent and recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval for amendment in the Environmental Clearance dated 15th February, 2013 to Cluster VIII Coal mining project of


Munish Shah

production capacity 5.603 MTPA in total mine lease area of 1183.92 ha by M/s Bharat Coking Coal Limited located in Jharia Coalfields, District Dhanbad (Jharkhand), as stated in the table at para 3 above, under the provisions of EIA Notifications, 2006 and its amendments therein, subject to following additional condition for environmental safeguards;

- (i) PP to obtain the latest CTO from SPCB after grant of EC amendment, reflecting the capacities of each mines within overall mine lease area (1183.92 ha).
- (ii) PP shall to install 5 numbers of fog cannon with adequate throw length for suppression of fugitive dust in opencast mine within 6 months.
- (iii) PP shall deploy 5 numbers of mechanical sweeper for road cleaning in and around the 5 km of the project area.
- (iv) PP shall obtain Certified compliance report of previous EC and EC amendments letter from Ministry's IRO-Ranchi within six months from the date of issue of this letter.
- (v) PP shall conduct grassing on 15.00 Ha OB Dump and Plantation on 25.00 Ha within 1 one year and status shall be submitted with geotagged proof to Ministry's IRO with six monthly compliance report.


6 All other terms and conditions stipulated by Ministry its letters vide dated 15th February, 2013, 15th July, 2018 and 15th November, 2020 shall remain unchanged.

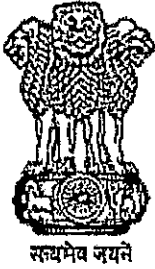
This issues with the approval of the competent Authority


(Munna Kumar Shah)
Scientist E

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Additional Principal Chief Conservator of Forests, Regional office (ECZ), Ministry of Environment & Forests, Bungalow No. A-2, Shyamali Colony, Ranchi - 834002
3. The Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi
4. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
6. The Member Secretary, Jharkhand State Pollution Control Board, TA Building, HEC Complex, PO Dhurwa, Ranchi
7. The District Collector, Dhanbad, Government of Jharkhand
8. Monitoring File/Guard File
9. PARIVESH


(Munna Kumar Shah)
Scientist E



F. No. J-11015/298/2010-IA.II (M)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi – 3
Email: lk.bokolia@nic.in Tel: 01124695301
Dated: 15th November, 2020

To

The General Manager
M/s Bharat Coking Coal Limited,
Kusunda Area, Koyla Bhawan,
Koyla Nagar, Dhanbad - 5 (Jharkhand).
E-mail: gmenv.bccl@coalindia.in

Sub: Cluster VIII Coal Mining Project of production capacity 5.603 MTPA in total mine lease area of 1183.92 ha by M/s Bharat Coking Coal Limited located in Jharia Coalfields, District Dhanbad (Jharkhand)- For Amendment in Environment Clearance-reg

Sir,

This has reference to your online proposal no. IA/JH/CMIN/169486/2020 dated 25th August, 2020, on the above-mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for further amendment in Environment Clearance dated 15th February, 2013 and 15th July, 2018. The proposal is for Cluster VIII Coal Mining Project of 5.603 MTPA capacity in mine lease area of 1183.92 ha (1200.41-16.49) by M/s Bharat Coking Coal Limited located in District Dhanbad (Jharkhand). Amendment in EC has been granted by Ministry vide its letter dated 15th July, 2018 earlier, due to restructuring of production capacities of individual mine in the Cluster.

3. Now, project proponent has again requested for amendment in Environment Clearance for speedier operation at Bastacolla Colliery (S.No. 1 in table below) only to facilitate complete extraction of Coal up to the Bottom Seam, make available larger space for keeping OB, thereby reducing the requirement of re-handling of OB enabling better and speedier reclamation (technical and biological) works and accordingly de-coaled areas will provide space for storage of OB extracted for fiery coal excavation within the cluster to implement the Master Plan approved by Govt. of India. Mining Plan (Including Progressive Mine Closure Plan) for mine undergoing change i.e. Bastacolla Colliery has been approved by the Board of Members of M/s BCCL in the 368th meeting held on 31st July, 2020.

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Following is the details of production capacity with mine lease area from original EC dated 15th February, 2013 and later amended dated 15th June, 2018 and further changes proposed

Sl. No	Name of the Mine	Lease Area (Ha)	Initial EC		Amendment dated 15.06.2018 (Existing)		Modification sought			
			Type of Mine	Peak Production Capacity (MTY)	Type of Mine	Peak Production Capacity (MTPA)	Proposed Amendment	Type of Mine	Peak Production Capacity (MTPA)	Lease Area (Ha)
1	Bastacolla Colliery	239.45	OC	0.130	OC	0.13	Increase in Capacity	Mixed	1.80	239.45
			UG	0.429	UG	0.429				
2	Bera Colliery	209.56	OC	0.195	OC	0.195	No Change	OC	0.195	209.56
			UG	0.247	UG	0.247	No Change	UG	0.247	
3	Dobari Colliery	146.9	UG	0.312	OC	3.86	No Change	OC	3.86	146.90
4	Ghanoodih Colliery	73.0	OC	1.820	OC	1.820	No Change	OC	1.82	73.0
5	Kuya Colliery	324.01 (340.50-16.49)	UG	0.130	OC	2.60	No Change	OC	2.60	324.01 (340.50-16.49)
			OC	0.780						
	Goluckdih (NC)		OC	1.560						
6	Kujama Colliery	191.00	OC	0.78	OC	0.780	No Change	OC	0.78	191.00
	Total	1183.92				5.603*	Total		5.603*	1183.92

4. The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Sector in its 2nd meeting held on 28-29 September, 2020. The Committee has recommended the proposal for amendment in the environmental clearance dated 15th February, 2013, as proposed by the project proponent and mentioned in the table at para 3 above

5. Based on the proposal submitted by the project proponent and recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval for amendment in the environmental clearance dated 15th February, 2013 to Cluster VIII Coal Mining Project (Group of 10 Opencast/Underground mines) of combined production capacity of 5.603 MTPA in total mine lease area of 1183.92 ha of M/s Bharat Coking Coal Limited located in Jharia Coalfields, District Dhanbad (Jharkhand), as stated in the table at para 3 above. In addition, all the

conditions of EC dated 15th February, 2013 shall remain also be applicable along with the following conditions mentioned below: -

- (i) Adequate number of Fog Canon/Mist Sprinkler shall be installed in six months for dust suppression at Bastacolla colliery
- (ii) Fixed Long range sprinkling system along the railway siding shall be implemented.
- (iii) As proposed, three Thousand (3000) Avenue Plantation and Twelve Thousand Block Plantation through State Forest Deptt. will be done along transport route, residential colonies road, railway siding etc. in year 2020-21 (Total 15000).
- (iv) Development of Greenbelt around quarry. Grassing of OB dump slopes shall be done using grasses for stabilizing inactive OB Dump. Plantation will be done on external dump and reclaimed area.
- (v) Controlled Blasting shall be carried out using Electronic Detonator with appropriate design of the geometry of blast holes in daytime period to minimize ground vibration and dust generation.
- (vi) One Continuous Online PM10 Analyzer shall be installed for monitoring the quality of air in Bastacolla Colliery and its data should be displayed for public domain through display panel at appropriate location.
- (vii) Coal transportation will be done through covered trucks with turpline sheets.
- (viii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (ix) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (x) 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.
- (xi) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles
- (xii) In-active OB dump shall not be kept barren/open. They should be immediately reclaimed and re-graded to improve the land form and covered by temporary grass etc. for better land use post mine closure
- (xiii) Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also 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 habitation/structures due to blasting activity.
- (xiv) The Project Proponent shall comply with all the statutory requirements and judgment of

Hon'ble Supreme Court dated the 2nd 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 judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.

- (xv) 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 NIOH for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antsnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- (xvi) Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th 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".
- (xvii) 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.
- (xviii) Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a 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".


(Lalit Bokolia)
Director

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi

2. The Additional Principal Chief Conservator of Forests, Regional office (ECZ), Ministry of Environment & Forests, Bungalow No. A-2, Shyamali Colony, Ranchi - 834002
3. The Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi
4. The Chairman, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
5. The Member Secretary, Jharkhand State Pollution Control Board, TA Building, HEC Complex, PO Dhurwa, Ranchi
6. The District Collector, Dhanbad, Government of Jharkhand
7. Monitoring File/Guard File


(Lalit Bokolia)
Director

F.No.J-11015/298/2010-IA.II (M)
Government of India
Ministry of Environment, Forest and Climate Change
IA-II (Coal Mining) Division

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi - 3
Dated: 15th June, 2018

To,

The General Manager (E&F)
M/s Bharat Coking Coal Ltd,
Koyala Bhawan,
District **Dhanbad** (Jharkhand) Email: envbccl@gmail.com

Sub: Cluster VIII Coal Mining Project of production capacity 5.603 MTPA in total mine lease area of 1183.92 ha of M/s Bharat Coking Coal Limited located in Jharia Coalfields, District Dhanbad (Jharkhand) - Amendment in EC - reg.

Sir,

This has reference to your letter No. BCCL/BA/IX/GM/EC/17/94 dated 13th September, 2017 along with online proposal No. IA/JH/CMIN/17129/2010 dated 13th September, 2017 and subsequent letters dated 01.03.2018, 15.03.2018, 26.03.2018, 02.04.2018, 04.04.2018, 13.04.2018 and 17.04.2018 on the above mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for amendment in the environmental clearance dated 15th February, 2013 to Cluster VIII coal Mining project (Group of 10 opencast/underground mines) of combined production capacity of 5.603 MTPA (peak) of M/s Bharat Coking Coal Ltd in total mine lease area of 1183.92 ha located in Jharia Coalfields, District Dhanbad (Jharkhand).

3. The amendment has been sought for the revised capacities of mines with the combined production capacity of 5.603 MTPA (peak) and the total mine lease area of 1183.92 ha remaining the same, with the details as under:-

S. No.	As per Existing EC					Amendment Sought				
	Name of the Mine	Type of Mine	Peak Production Capacity	Mine Life (Yrs)	Lease hold Area (ha)	Name of the Mine	Type of Mine	Peak Production Capacity	Mine Life (Yrs)	Lease hold Area (ha)
1	Bastacolla Colliery	OC	0.130	3	239.45	Bastacolla Colliery	OCP	0.13	3	239.45
		UG	0.429	18			UG	0.429	18	
2	Bera Colliery	OCP	0.195	3	209.56	Bera Colliery	OCP	0.195	3	209.56
		UG	0.247	13			UG	0.247	13	
3	Dobari Colliery	UG	0.312	20	146.90	Dobari Colliery	OC	3.86	6	146.90
4	Ghanoodih Colliery	OC	1.820	5	73.00	Ghanoodih Colliery	OC	1.820	5	73.00
5	Kuya Colliery	UG	0.130	20	324.01 (340.50-16.49)	Kuya Colliery	OC	2.60	15	324.01 (340.50-16.49)
		OC	0.780	5						
	Goluckdih (NC)	OC	1.560	25						
6	Kujama Colliery	OC	0.780	5	191.00	Kujama Colliery	OC	0.780	5	191.00
	Total		5.603		1183.92			5.603		1183.92

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*Peak of Cluster will remain same, as peak of individual mine will be achieved in different years to offset loss of production in other mines.

Revised Mining Plan for the changed capacities of individual mines namely, Dobari colliery and Kuya Colliery was approved by the Board of M/s BCCL on 6th March, 2018 and 29th March, 2018 respectively.

4. The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Sector in its 21st meeting held on 27th October, 2017 and 28th meeting held on 17-18 April, 2018. The Committee has recommended the proposal for amendment in the environmental clearance granted dated 15th February, 2013, as proposed by the project proponent and mentioned in the table at para 3 above.

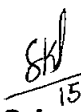
5. Based on the proposal submitted by the project proponent and recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval for amendment in the environmental clearance dated 15th February, 2013 to **Cluster VIII Coal Mining Project (Group of 10 opencast/underground mines)** of combined production capacity of 5.603 MTPA (peak) of M/s Bharat Coking Coal Ltd in total mine lease area of 1183.92 ha located in Jharia Coalfields, District Dhanbad (Jharkhand), as stated in the table at para 3 above.

6. All other terms and conditions stipulated in the EC dated 15th February, 2013, shall remain unchanged.


15/6/2018
(S. K. Srivastava)
Scientist E

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi (Jharkhand)
3. The Chief Conservator of Forests, Regional office (ECZ), Ministry of Environment Forest and Climate Change, Bungalow No. A-2, Shyamali Colony, Ranchi (Jharkhand) - 834002
4. The Member-Secretary, Jharkhand State Pollution Control Board, TA Building, HEC Complex, PO Dhurwa, Ranchi
5. The Member-Secretary, CPCB, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
6. The Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
7. The Advisor, Coal India Limited, SCOPE Minar, Core-I, 4th Floor, Vikas Marg, Laxmi Nagar, New Delhi
8. The District Collector, Dhanbad, Government of Jharkhand
9. Monitoring File 10. Guard File 11. Record File. 12. Notice Board


15/6/2018
(S. K. Srivastava)
Scientist E



J-11015/298/2010-IA.II (M)
Government of India
Ministry of Environment & Forests

BY SPEED POST

Paryavaran Bhawan,
CGO Complex,
Lodhi Road
New Delhi-110003.

Dated: 15th February, 2013

To

The Chief General Manger (Env.),
M/s Bharat Coking Coal Ltd.,
Koyla Bhawan, Koyla Nagar,
DHANBAD - 826005.
JHARKHAND

Subject: Cluster VIII Group of 10 Mines (Combined capacity 4.31 MTPA with a peak production of 5.603 MTPA) in a combined ML area of 1183.92 ha (1200.41 ha – 16.49 ha = 1183.92 ha) of M/s Bharat Coking Coal Ltd., located in Jharia Coalfields, dist. Dhanbad, Jharkhand

Sir,

This has reference to the letter no. 430II/36/2010-CPAM dated 08th September, 2010 of Ministry of Coal along with your application for Terms of Reference (TOR) and this Ministry's grant of TOR on 03rd December, 2010. Reference is also invited to the letters no. BCCL/GM (Env.)/EMP/F-/2012/256 dated 30.03.2012, 04.07.2012, 30.01.2012 on the above-mentioned subject.

2. The Ministry of Environment & Forests has considered the application. It is noted that the proposal is for Cluster VIII Group of 10 Mines (Combined capacity 4.31 MTPA with a peak prodn. of 5.603 MTPA in a combined ML area of 1200.41 ha) of M/s Bharat Coking Coal Ltd., located in Jharia Coalfields, dist. Dhanbad, Jharkhand. The proponent has informed that:

- i. The proposal is for obtaining EC at the time of renewal of lease of 10 mines which are being grouped in a cluster with a combined lease area of 1200.41 ha with a normative production of 4.31 MTPA and a peak production of 5.603 MTPA. Of the 10 mines, 9 are in operation and one mine – Goluckdih OCP is a proposed mine. Cluster-VIII is located in the eastern part of Jharia coalfields in Dhanbad, Jharkhand. The details of the proposal is as under:

Details of the land use of the mines in Cluster VIII are given below:

LAND USE DETAILS OF CLUSTER VIII						
S.N	Name of Mine	Production capacity(MTY)		Leasehold Area (ha)	Life of mine (years)	Status
		NORMATIVE	PEAK			
1	Bastacolla OCP	0.10	0.130	239.45	3	Operating
	Bastacolla UG	0.33	0.429		18	Operating
2.	Bera OCP	0.15	0.195	209.56	3	Operating
	Bera UG	0.19	0.247		13	

3.	Dobari Coliery(UG)	0.24	0.312	146.90	20	Operating
4.	Kuyu OCP	0.60	0.780	340.50	5	Operating
	Kuyu UG	0.10	0.130		20	Operating
5.	Goluckdih (NC) OCP (Proposed) Proposed OCP will commence after the closure of existing Kuya OCP)	1.2	1.560		25	Proposed
	Ghanoodih Colliery(OCP)	1.40	1.820	73.00	5	Operating
6.	Kujama Colliery(OCP)	0.60	0.780	191.00	5	Operating
	Total	4.31	5.603	1200.41		

The present levels of production from cluster-VIII are given below:

Name	Coal Production in MT for 2011-2012		
	Production (in MT)	Coal recovered (MT) during execution of Master Plan	Total Production (in MT)
Bastacolla UG & OCP	0.191	-	0.191
Bera UG & OCP	0.201	-	0.201
Dobari Colliery UG	0.21	-	0.21
Kuya UG & OCP	0.636	-	0.636
Ghanoodih Colliery (OCP)	-	0.599	0.599
kujama Colliery (OCP)	-	0.478	0.478
Goluckdih (NC) OCP	Proposed mine (will be operational after closure of Kuya OCP)		
Total	1.238	1.077	2.315

Conceptual Post Mining Land Use Pattern for Cluster - VIII					
Existing land use	Land use (ha)				
	Plantation	Water body	Public use	Undisturbed	Total
Agriculture land	-	-	-	24.71	24.71
Excavation Including dump areas	154.26	42.65	-	-	196.91
Rail & Road	-	-	-	38.92	38.92
Homestead land & service land	-	-	-	132.80	132.80
Green Belt	76.6	-	-	-	76.6
Barren land	420.22	34.70	-	-	454.92
Forest land	130	120.57	-	-	250.57
Water Body	-	15.04	-	-	15.04
Others	-	-	-	9.94	9.94
Total	781.08	92.39	-	326.94	1200.41

The details of present, proposed and post-mining land use of the cluster-VIII are as follows:

LAND USE DETAILS OF CLUSTER VIII				
S.N	Type Land Use	Present Mining Landuse (ha)	Proposed Mining Land use (ha)	Post- Mining Land Use (ha)
1.	Running quarry			
	Backfilled	5.1	273.67	0
	Not Backfilled	69.35	105	0
2.	Abandoned quarry			
	Backfilled	25.14	25.14	0
	Not Backfilled	42.65	42.65	0
3.	External OB dump	48.55	48.55	0
4.	Service building/mine infrastructure	7.9	7.9	0
5.	Coal dump	7.75	9.8	0
6.	Homestead land	118.9	118.9	118.9
7.	Agricultural land	24.71	24.71	24.71
8.	Forestland	250.57	67.11	250.57
9.	Plantation/reclamation	76.6	149.5	665.05
10.	Water body	15.04	15.04	92.39
11.	Barren land	460.96	265.25	0
12.	Road & railways,	38.92	38.92	38.92
13.	Mine pit/fan house/haulage	6.3	6.3	0
14.	others	1.97	1.97	1.97
	Total	1200.41	1200.41	1200.41

Major Technical Parameter of Cluster VIII mines

Major Technical Parameter of Cluster VIII mines							
Particular	Name of Mines						Total
	Bastacolla OCP (mixed)	Bera OCP (mixed)	Dobari Colliery(UG)	Kuya Colliery (mixed)	Ghanoodih Colliery(OCP)	Kujama Colliery(OCP)	
Method of mining	Shovel-dumper combination& Bord & pillar	Shovel-dumper combination& Bord & pillar	Bord & pillar	Shovel-dumper combination n& Bord & pillar	Shovel-dumper combination& Bord & pillar	Shovel-dumper combination	
Grade of coal	OCP-D UG-C, D, W-I	OCP-C UG-D, W-I	C, D, W-I, W-II	OCP-C, E UG-C, W-INC (OCP)-E, F,	W-III	W-III, W-IV, W-I, C, D, E	
Seam to be worked out	OCP-III Bottom UG-III Top, iii Bottom, II Bottom, I-Top	OCP-III Bottom, II UG-II Bottom-I	III Top, III Bottom,, IIBottom, I	OCP -IV Top, IV BOTTOM, III TOP, III BOTTOM, I TOP	V, VI, VII, VIII, S pecial, IX, X	XI, XII, X, IXVIII, VII, VI, V, IV, III, II, I	
Linkage	Power Plant	Steel/power	Steel/pow	NA	Power	Bhojudih coal	

		plant	er plant		plant/Road sale	washery	
Mineable Reserve MT	OCP-1.4 UG-5.48	OCP-0.515 UG-5.46	UG-13.002	OCP-3.0 UG-2.45 NC (OCP)-26.92	10.70	3.389	
Production in (1993-94) in MT	0.24	0.1246	0.1298	0.8772	0.8995	0.0341	23052
Proposed peak Production	OCP-0.13 UG-0.429	OCP-0.195 UG-0.247	UG-0.312	OCP-0.780 UG-0.130 NC (OCP)-1560	1.820	0.780	5.803

Details of Rehabilitation and Mitigation Measures and integration with the Jharia Action Plan will be as follows:

Rehabilitation and Mitigation Measures	
Parameter	Details
Unstable Sites	22 - Fire affected: 02 - Subsidence :16 - Fire & Subsidence: 04
- Area affected due to fire	0.18 Km ²
- Area affected due to subsidence.	0.41 km ²
- Area affected due to fire and subsidence	0.28 km ²
No. of Houses to be rehabilitated.	4959 as per JAP
Cost of Rehabilitation	Rs 15064.58 Lakhs
Cost of fire fighting	Rs 260.51 cores

Conceptual Post Mining Land use Pattern for Cluster-VIII					
Existing land use	Land use				
	Plantation	Water body	Public use	undisturbed	Total
Agriculture land	-	-	-	24.71	24.71
Excavation including dump areas	154.26	42.65	-	-	196.91
Rail & Road	-	-	-	38.92	38.92
Homestead land & service land	-	-	-	132.80	132.80
Green Belt	76.6	-	-	-	76.6
Barren land	420.22	34.70	-	-	454.92
Forest land	130	120.57	-	-	250.57
Water Body	-	15.04	-	-	15.04
Others	-	-	-	9.94	9.94
Total	781.08	92.39	-	326.94	1200.41

Major issues of Cluster-VIII are as follows:

Major Issues of Cluster-VIII		
S.N.	Major Issues	Mitigation measures and Benefit
1.	Total Voids (128.57 ha)	51.22ha Backfilling and 77.35 ha water body.
2.	Dumps (48.55 ha)	Use for backfilling
3.	Fire /Unstable area with 87.27 ha in 22 sites	Dig out fire and stabilise at the cost of Rs 26051 lakhs.
4.	Loss of coal (10% locked in barriers)	Recover 7.23 MT from barriers
5.	Reclamation /Mine closure	Plantation in 704.48 ha for Rs 7202.46 lakhs
6.	Rehabilitation (4959 families)	Shifting to safe areas at the cost of Rs 29948 Lakhs
7.	CSR for a total costs of Rs. 215.5 Lakh per year @ Rs 5/T of coal	Rs. 215.5 Lakh per year @ Rs 5/T of coal
8.	Forest land (250.57 ha)	Forest clearance would be obtained.
9.	Mine Closure cost	Rs 5139,59 lakhs

- ii. The cluster is mainly drained by some 1st and 2nd order seasonal nalas, which finally drain into Kashi Jore (3rd order stream) and Tisra Jore. Both these nalas flow from north to south and meet the Chatkari Jore which outfalls into River Damodar at the distance of about 8 km in the southern side. No nala diversion is required for cluster. The water table level is in the range of 1.35 to 11.03m bgl (pre-monsoon) and in the range of 0.65 to 8.93 m bgl during post-monsoon. The estimated water requirement is 5556 m3/day, of which 1992 m3/day is for mining operations and 3564 m3/day is for drinking and domestic use in the township.
- iii. The maximum subsidence over the mining area is due to extraction of upper most 3 top seams and is about 2.297m.
- iv. The mode of transportation is by road upto C. K. Railway siding. It was informed that an estimated 2.431 MTPA of coal would be transported from Cluster-VIII in Phase-II, by conveyor to railway siding.
- v. The fire control and rehabilitation of affected families from fire and subsidence area in the cluster would be carried out in a phased manner. The fire would be dealt with by cooling, quenching and removal, excavation of fire material and filling with cohesive, soil and surface sealing and blanketing.
- vi. The Public Hearing was held on 31.01.2012.
- vii. The Stage-II Forestry Clearance has been granted vide letter no. 8-44/2009 FC dated 12.04.2012 for 234.08 ha of forestland in Ghanoodih Bera and Dobari Colliery. It is proposed to further enhance capacity of the Cluster-VIII mines by amalgamating all the individual mines thereby reflecting the highest achievable production capacity from this cluster. It was informed that a fresh application for environmental clearance would be submitted after obtaining EC, based on peak capacity with sufficient cushion for enhancing production of offsetting shortfall from other mines opening.
- viii. Cluster- VIII falls in Dhanbad critically polluted area.

3. The entire Jharia Action Plan, which consists of all fire dousing projects /plans had been surveyed by DGMS, which has been designated as the monitoring and scrutinizing agency by Hon'ble Supreme Court of India under the WP (PIL) 387/1997 i.e. Haradhan Roy Vs UOI.

4. This is a violation case. As per the Office Memorandum dated 12.12.2012, issued by the Ministry of Environment and Forests, with regard to the consideration of proposals for ToR/Environment clearance/CRZ clearance involving violation of the Environment (Protection) Act, 1986/EIA notification, 2006/CRZ notification, 2011, the Environmental Clearance will be granted after the written commitment in the form of a formal resolution by the Board of Directors submitted to the MoEF to ensure that violations will not be repeated and the State Government concerned initiates credible action on the violation by invoking powers under Section 19 of the Environment (Protection) Act, 1986 for taking legal action under section 15 of the Act for the period for which the violation has taken place and evidence provided to the MoEF of the action taken. In this case, the Board's resolution has been received. As regards credible action, Jharkhand State Pollution Control Board, has issued directions of closure of collieries of M/S Bharat Coking Coal Limited under section 31A & 33A of Air (Prevention and Control of Pollution) Act, 1981 & Water (Prevention and Control of Pollution) Act, 1974 respectively for operating without obtaining Environmental Clearance. M/s BCCL has filed a Writ Petition (No. 4944/11) challenging the Board's directions of closure. The Jharkhand High Court has passed interim order on 25.08.2011 that "Till then, status quo, as on today, shall be maintained by the parties" and passed order on 18.01.2012 that "Until further orders, the interim order dated 25.08.2011 shall continue". In the light of interim orders of the Jharkhand High Court, the State Pollution Control Board is seeking legal opinion for initiating legal action against the collieries of BCCL in the Court of Law in terms of the OM of the MoEF. The State Government has been asked to expedite taking legal opinion and taking action under intimation to the MoEF.

5. Reference is invited to the letter no. BCCL/HoD(Env.)/F-EMP/13 dated 31.1.2013, stating that the proponent has confirmed that out of 250.57 ha of forest land in cluster 8, BCCL requires only 234.08 ha for diversion of forest land to mining purpose. The balance 16.49 ha of forest land falls in Kuya mines is not required for diversion for mining purpose. In this regard, you are required to follow the guidelines issued by the FC Division of the Ministry of Environment & Forests vide no. 11-362/2012-FC dated 01-02-2013 "Guidelines for diversion of forest land for non-forest purposes under the Forest (Conservation) Act 1980. Submission of proposals to obtain forest land located within the mining lease and grant of environment clearance to mining projects" addressed to the Principal Secretary (Forests), Principal Secretary (Environment) of all the States/UT Govts. and copy to concerned Government Departments/Organisations which prescribes, inter-alia, the following:

" (iii) As regards Environment Clearance (EC) cases of existing mining operations, where approval under the FC Act for the full forest area in the mining lease area is not available, granting of EC may be considered and the following process will be adopted for processing such cases:

- a) Grant of EC may be considered only for the non-forest area plus the forest area within the mining lease for which FC is available. No mining activities will be allowed in forest area for which the FC is not available; and
- b) The project proponent will seek and obtain approval under the FC Act for diversion of the entire forest land located within the mining lease within a period of two years from the date of issue of these guidelines, failing which the mining lease area will be reduced to the non-forest area plus the forest area for which the project proponent has been able to obtain the FC at the end of this time period. In the case of reduction in mine lease area, the project proponent will need to get a revised mining plan approved from the competent authority for reduced area and enter into a new mining lease as per reduced lease area. The EC will be construed to be available for the mining lease area as per the revised mining lease deed."



6. The proposal was considered in the Expert Appraisal Committee (EAC) (Thermal & Coal Mining) and recommended in its 53rd meeting held on 16-17 July, 2012 for granting Environmental Clearance. The Ministry of Environment & Forests has examined the application in accordance with the EIA Notification 2006 and under the provisions thereof, hereby accords environmental clearance for the above-mentioned Cluster VIII Group of 10 Mines (Combined capacity 4.31 MTPA with a peak production of 5.603 MTPA in a combined ML area of 1183.92 ha (1200.41 ha – 16.49 ha = 1183.92 ha) of M/s Bharat Coking Coal Ltd., located in Jharia Coalfields, dist. Dhanbad, Jharkhand under the provisions of the Environmental Impact Assessment Notification, 2006 and amendments thereto and Circulars issued thereon and subject to the compliance of the terms and conditions mentioned below. You will need to seek and obtain approval under the FC Act for diversion of the entire forest land located within the mining lease within a period of two years from the date of issue of these guidelines (i.e. 01 February, 2013), failing which the mining lease area will be reduced to the non-forest area plus the forest area for which you have been able to obtain the FC at the end of this time period. In the case of reduction in mine lease area, you will need to get a revised mining plan approved from the competent authority for reduced area and enter into a new mining lease as per reduced lease area. The EC will be construed to be available for the mining lease area as per the revised mining lease deed.

A. Specific Conditions:

- i. The maximum production shall not exceed beyond that for which environmental clearance has been granted for the mine of cluster VIII as below:

LAND USE DETAILS OF CLUSTER VIII						
S.N	Name of Mine	Production capacity(MTY)		Leasehold Area (ha)	Life of mine (years)	Status
		NORMATIVE	PEAK			
1.	Bastacolla OCP	0.10	0.130	239.45	3	Operating
	Bastacolla UG	0.33	0.429		18	Operating
2.	Bera OCP	0.15	0.195	209.56	3	Operating
	Bera UG	0.19	0.247		13	
3.	Dobari Coliery(UG)	0.24	0.312	146.90	20	Operating
4.	Kuyu OCP	0.60	0.780	340.50	5	Operating
	Kuyu UG	0.10	0.130		20	Operating
5.	Goluckdih (NC) OCP (Proposed) Propsed OCP will commence after the closure of existing Kuya OCP)	1.2	1.560		25	Proposed
	Ghanoodih Colliery(OCP)	1.40	1.820	73.00	5	Operating
6.	Kujama Colliery(OCP)	0.60	0.780	191.00	5	Operating
	Total	4.31	5.603	1200.41		

- ii. The road transpiration of coal during phase-I should be by mechanically covered trucks. The road used for coal transportation should be developed with avenue plantation on both sides.
- iii. The company must give priority to capacity building both within the company and to the local youth, who are motivated to carry out the work in future.
- iv. The details of transportation, CSR, R&R and implementation of environmental action plan for each of the 17 clusters should be brought out in a booklet form.
- v. A study should be initiated to analyse extent of reduction in pollution load every year by reducing road transport.
- vi. The expertise available internationally should be utilised for control of fire in Jharia Coalfields and for their reclamation and to further minimise time for fire and subsidence control.
- vii. The abandoned pits and voids should be backfilled with OB and reclaimed with plantation and or may be used for pisciculture.
- viii. BCCL may consider setting up a separate management structure for implementing environment policy and socio-economic issues and the capacity building required in this regard.
- ix. The locations of monitoring stations in the Jharia Coalfields should be finalised in consultation with the Jharkhand State Pollution Control Board.
- x. The smoke/dust emission vary from source to source (fuelwood, coal, flyash from TPPs, silica from natural dust, etc) and a Source Apportionment Study should be got carried out for the entire Jharia Coalfields.
- xi. Mineralogical composition study should be undertaken on the composition of the suspended particulate matter (PM₁₀ and PM_{2.5}) in Jharia Coalfields and also quantified. These studies would help ascertain source and extent of the air pollution, based on which appropriate mitigative measures could be taken.
- xii. The proponent shall prepare time -series maps of the Jharia Coalfields through NRSA to monitor and prevent fire problems in the Jharia Coalfields by Isothermal mapping /imaging and monitoring temperatures of the coal seams (whether they are close to spontaneous ignition temperatures) and based on which, areas with potential fire problems shall be identified.
- xiii. Measures to prevent ingress of air (Ventilation) in such areas, to prevent restart fresh/spread fires in other areas including in mines of cluster VIII shall be undertaken.
- xiv. Underground mining should be taken up after completion of reclamation of Opencast mine area after 15 years.
- xv. No mining shall be undertaken where underground fires continue. Measure shall be taken to prevent/ check such fire including in old OB dump areas where the fire could start due to presence of coal /shale with sufficient carbon content.
- xvi. The rejects of washeries in Cluster -VII should be send to FBC based plant.
- xvii. There shall be no external OB dumps. At the end of the mining there shall be no void and the entire mined out area shall be re-vegetated. Areas where opencast mining was carried out and completed shall be reclaimed immediately thereafter.
- xviii. A detailed calendar plan of production with plan for OB dumping and backfilling (for OC mines) and reclamation and final mine closure plan for each mine of cluster-VII shall be drawn up and implemented.
- xix. The void shall be converted into a water reservoir of a maximum depth of 15-20 m and shall be gently sloped and the upper benches of the reservoir shall be stabilised with plantation and the periphery of the reservoir fenced. The abandoned pits and voids should be backfilled with OB and biologically reclaimed with plantation and or may be used for pisciculture

- xx. Mining shall be carried out as per statuette from the streams/nalas flowing within the lease and maintaining a safe distance from the Nalas flowing along the lease boundary. A safety barrier of a minimum 60m width shall be maintained along the nalas/water bodies. The small water bodies in OC shall be protected to the extent feasible and the embankment proposed along water body shall be strengthened with stone pitching.
- xxi. Active OB dumps near water bodies and rivers should be rehandled for backfilling abandoned mine voids. However, those which have been biologically reclaimed need not be disturbed.
- xxii. Thick green belt shall be developed along undisturbed areas, mine boundary and in mine reclamation. During post mining stage, a total of 704.48ha area would be reclaimed. The total additional area under plantation would be 345.06 ha (67.79 ha abandoned quarry area, 277.27 ha active quarry area, 48.55 OB dump outside quarry area, 6.30 ha service building /mine infrastructure area /coal dump etc, 108.26 ha green belt around OCP, 196.31 ha barren area), by planting 1761200 plants in 704.48 ha at a total cost Rs 7202.46 lakhs.
- xxiii. The road should be provided with avenue plantation on both side as trees act as sink of carbon and other pollutant.
- xxiv. Specific mitigative measures identified for the Jharia Coalfields in the Environmental Action Plan prepared for Dhanbad as a critically polluted area and relevant for Cluster VII shall be implemented.
- xxv. The locations of monitoring stations in the Jharia Coalfields should be finalized in consultation with the Jharkhand State Pollution Control Board. The Committee stated that smoke/dust emission vary from source to source (fuel wood, coal, flyash from TPPs, silica from natural dust, etc) and a Source Apportionment Study should be got carried out for the entire Jharia Coalfields. Mineralogical composition study should be undertaken on the composition of the suspended particulate matter (PM10 and PM2.5) in Jharia Coalfields and also quantified. These studies would help ascertain source and extent of the air pollution, based on which appropriate mitigative measures could be taken.
- xxvi. No groundwater shall be used for the mining activities. Additional water required, if any, shall be met from mine water or by recycling/reuse of the water from the existing activities and from rainwater harvesting measures. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry to dewatering of mine.
- xxvii. Regular monitoring of groundwater level and quality of the study area shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality including Arsenic and Fluoride during the month of May. Data thus collected shall be submitted to the Ministry of Environment & Forest and to the Central Pollution Control Board/SPCB quarterly within one month of monitoring. Rainwater harvesting measures shall be undertaken in case monitoring of water table indicates a declining trend.
- xxviii. Mine discharge water shall be treated to meet standards prescribed standards before discharge into natural water courses/agriculture. The quality of the water discharged shall be monitored at the outlet points and proper records maintained thereof and uploaded regularly on the company website.

- xxix. ETP shall also be provided for workshop, and CHP, if any. Effluents shall be treated to confirm to prescribed standards in case discharge into the natural water course
- xxx. Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads, and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.
- xxxi. Sufficient coal pillars shall be left unextracted around the air shaft (within the subsidence influence area) to protect from any damage from subsidence, if any.
- xxxii. High root density tree species shall be selected and planted over areas likely to be affected by subsidence.
- xxxiii. Depression due to subsidence resulting in water accumulating within the low lying areas shall be filled up or drained out by cutting drains.
- xxxiv. Solid barriers shall be left below the roads falling within the blocks to avoid any damage to the roads.
- xxxv. No depillaring operation shall be carried out below the township/colony.
- xxxvi. The Transportation Plan for conveyor-cum-rail for Cluster-VIII should be dovetailed with Jharia Action Plan. Road transportation of coal during Phase-I should be by mechanically covered trucks, which should be introduced at the earliest. The Plan for conveyor-cum-rail for Cluster-VII should be dovetailed with Jharia Action Plan. The road transpiration of coal during phase-I should be by mechanically covered trucks.
- xxxvii. A study should be initiated to analyze extent of reduction in pollution load every year by reducing road transport.
- xxxviii. R&R of 4959 nos of PAF's involved. They should be rehabilitated at cost of shifting to safe areas at the cost of Rs 29948 Lakhs as per the approved Jharia Action Plan.
- xxxix. A detailed CSR Action Plan shall be prepared for Cluster VIII group of mines. Specific activities shall be identified for CSR the budget of Rs. 215.5 Lakhs per year@ Rs 5/T of coal as recurring expenditure. The 265.25 ha of area within Cluster VIII ML existing as waste land and not being acquired shall be put to productive use under CSR and developed with fruit bearing and other useful species for the local communities. In addition to afforesting 250.57 ha of are at the post-mining stage, the waste land /barren land within Cluster VIII ML shall be rehabilitated/reclaimed as forest/agricultural land under CSR Plan in consultation with local communities. Third party evaluation shall be got carried out regularly for the proper implementation of activities undertaken in the project area under CSR. Issue raised in the Public Hearing shall also be integrated with activities being taken up under CSR. The details of CSR undertaken along with budgetary provisions for the village-wise various activities and expenditure thereon shall be uploaded on the company website every year. The company must give priority to capacity building both within the company and to the local youth, who are motivated to carry out the work in future.

- xl. For monitoring land use pattern and for post mining land use, a time series of landuse maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional office at Bhubaneswar.
- xli. A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests five year before mine closure for approval. Habitat Restoration Plan of the mine area shall be carried out using a mix of native species found in the original ecosystem, which were conserved in-situ and ex-situ in an identified area within the lease for reintroduction in the mine during mine reclamation and at the post mining stage for habitat restoration.
- xlii. A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company for implementing environment policy and socio-economic issues and the capacity building required in this regard. .
- xliii. Implementation of final mine closure plan for Cluster VIII, subject to obtaining prior approval of the DGMS in regard to mine safety issues
- xliv. Corporate Environment Responsibility:
 - a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.
 - b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
 - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.
 - d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

B. General Conditions:

- (i) No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan of production for quantum of mineral coal shall be made.
- (iii) Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM₁₀, PM_{2.5}, SO₂ and NO_x monitoring. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six months.
- (iv) Data on ambient air quality (PM₁₀, PM_{2.5}, SO₂ and NO_x) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EPA rules, 1986 shall be furnished as part of compliance report.



- (v) Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.
- (vi) Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.
- (vii) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.
- (viii) Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EPA Rules, 1986.
- (ix) Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.
- (x) Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing.
- (xi) A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.
- (xii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhubaneswar.
- (xiii) The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at <http://envfor.nic.in>.
- (xiv) A copy of the environmental clearance letter shall be marked to concern Panchayat/Zila Parishad, Municipal corporation or Urban local body and local NGO, if any, from whom any suggestion /representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website.
- (xv) A copy of the environmental clearance letter shall be shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Sector and Collector's Office/Tehsildar's Office for 30 days.
- (xvi) The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance 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. The monitoring data of environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM₁₀, PM_{2.5}, SO₂ and NO_x (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website.
- (xvii) The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the Ministry, respective Zonal Office s of CPCB and the SPCB.
- (xviii) The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.



- (xix) The Environmental statement for each financial year ending 31 March in For -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 by E-mail

6. The Ministry or any other Competent Authority may stipulate any further condition(s) for environmental protection.

7. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.

8. 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. The proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.

9. The Environmental Clearance is subject to the outcome of the Writ Petition filed by M/S Bharat Coking Coal Limited (BCCL) in response to the closure orders issued by the Jharkhand State Pollution Control Board which is pending in the Jharkhand High Court.


(Dr. Manoranjan Hota)
Director

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi.
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, A-31, Chandrashekarpur, Bhubaneswar – 751023.
4. Chairman, Jharkhand State Pollution Control Board, T.A. Division Building (Ground Floor), H.E.C., Dhurwa, Ranchi – 834004.
5. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. District Collector, dist. Dhanbad Government of Jharkhand.
8. Monitoring File 9. Guard File 10. Record File
- 9.


(Dr. Manoranjan Hota)
Director