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17/7/13

No. J-11015/11/2010-IA.II(M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex,
New Delhi-110510.

Dated: 06th June, 2013

To

The General Manager (E&F)
M/s Bharat Coking Coal Ltd.,
Koyala Bhawan, Dhanbad,
Jharkhand

Sub. : Cluster XIII coal mines 7 mines of a total capacity of 0.18 MTPA and a peak production of 2.34 MTPA in an ML area of 1865.74 ha (1898.62 ha - 32.88ha = 1865.74ha): EC to Murulidih 20/21 Pits UG of 0.18 MTPA and a peak production of 2.34 MTPA in an ML area of 538.44 ha (571.32 ha - 32.88 ha = 538.44ha) of M/s Bharat Coking Coal Ltd., located in Jharia Coalfields, dist. Dhanbad, Jharkhand – Environment Clearance – reg.

Sir,

This is with reference to letter no.43011/03/2011-CPAM dated 13.01.2010 along with the application for Terms of Reference (TOR) and this Ministry's letter Dated 28.04.2010 granting TOR. Reference is also invited to the letter no. BCCL/GM (Env.)/EMP F-2012/210(A) dated 22.03.2012 and 04.07.2012 and 25.12.2012 for environmental clearance on the above-mentioned subject.

GM(Env)
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2. The Ministry of Environment & Forests has considered your application. The proponent has informed that:

i. The proposal is for obtaining EC for lease renewal by preparation of a combined EIA-EMP for Cluster XIII consisting of 6 UG and one OC mine in a total combined ML area of 1898.62 ha. The 7 mines are (i) Murulidih Pits (0.234 MTPA peak in an ML area of 571.32 ha, (ii) Bhurungiya Colliery in an ML area of 170.44 ha, (iii) Mucharaidih Colliery in an ML area of 83.33 ha, (iv) Hantoodih Colliery in an ML area 193.41 ha, (v) Padugora Colliery in an ML area of 17.6 ha. (vi) Murulidih Colliery in an ML area of 315.62 ha and (vii) Bhatdee Colliery in an ML area of 547ha. Murulidih 20/21 pits (571.32 ha) is an operating mine.

GM(Environment)

ii. The proposal is for opening a new cluster XIII consists of 7 mines of which 6 are UG mines and 1 are OC of a combined ML area of 1898.62 ha and production capacity of 0.18 MTPA (normative) and 2.34 MTPA (peak) as given below:

Sr. M. Khan
for Compliance
18/07

S.N	MINES IN CLUSTER XIII				
	Name of Mine	**Production capacity (MTPA)**		**LEASE HOLD AREA (ha)**	**Status of mine**
		NORMATIVE	PEAK		
1	Murulidih	0.18	0.234	571.32	Operating
2	Bhurungiya Colliery	nil	nil	170.44	Closed for production
3	Mucharaidih Colliery	nil	nil	83.23	Closed for production
4.	Hantoodih Colliery	nil	nil	193.41	Closed for production
5	Padugora Colliery	nil	nil	17.6	Closed for production
6.	Murulidih Colliery	nil	nil	547	Closed for production
7.	Bhatdee Colliery	nil	nil	315.62	Closed for production
	Total	**0.18**	**0.234**	**1898.62**	

SUMMARISED DATA OF OPERATING MURULIDIH MINE	
PARAMETER	**Murulidih 20/21 Pits**
Manpower	1259
Leasehold Area (ha)	571.32
Seam to be worked	III/IIIA(Mahuda Top)
Degree of gassiness	III
Mineable Reserve (MT)	2.9
Grade of coal	W-II
Cost of Production	**Rs 3500 /tonne**

LAND USE OF CLUSTER XIII			
Particular	**Description**	**Present**	**Post mining**
Mining	Abandoned	32.4	0.00
	Running		
	OB dump		
	Coal dump		
	Pit/CHP		
Settlement	Service	159.09	159.09
	Residential/Homestead land		
Water Body	Water body	88.26	94.88
Forest land	Forest	39.29	39.29
Agriculture land	Agriculture land	1441.76	1441.76
Plantation	Plantation	3.36	91.75
Others(rail/road)	Others(rail/road)	71.83	71.83
Waste land/Barren	Waste land/Barren	62.99	0
	Total	**1898.62**	**1898.62**

iii. The cluster is located in South–Western part of Jharia coalfields and is adjoining Cluster XIV in the west and is flanked in the South by River Damodar.

iv. A total area of 91.75 ha would be reclaimed and afforested. Eco-restoration of BCCL mine areas is to be implemented in two phases over a period of 10 years, of which, Phase-I is from 2011-16 and Phase-II from 2016-2021. During Phase-I, development of a model restoration plantation is being carried out and thereafter 90 ha area of the area would be restored by BCCL in their 3 mining areas. During Phase-II (2016-2021), replication/expansion of proposed restoration models in the 126 ha area spread over 13 mines area of BCCL would be taken up.

v. The rehabilitation and mitigation measures are as follows:

Rehabilitation and Mitigation measures	
Parameter	**Details**
Unstable sites	15 Subsidence:15
Area affected due to subsidence	2.48 Km^2
No. of Houses to be rehabilitated.	2187 as per JAP
Cost of Rehabilitation	Rs 11199.89 Lakhs

S.N.	**Major Issues**	**Mitigation measures and Benefit**
1.	Mine closure	Rs. 2122.657 lakhs
2.	Rehabilitation (2187 families) under the Master Plan of 15 site	Shifting to safe areas at the cost of Rs 11199.89 Lakhs
3.	CSR	Rs. 9.00 Lakh per year @ Rs 5/T of coal

vi. The existing level of production in Cluster XIII is given below:

NAME OF MINE	**Coal production in MT for 2011-12**		
	Normal production (in MT)	**Coal recovered (MT) during execution of Master Plan**	**Total (in MT)**
Murulidih 20/21 pits UG	0.061	-	0.061
Bhurungiya Colliery	Closed for production		
Mucharaidih Colliery	Closed for production		
Hantoodih Colliery	Closed for production		
Padugora Colliery	Closed for production		
Murulidih Colliery	Closed for production		
Bhatadee Colliery	Closed for production		

vii. The conceptual plan for Post Mining Land use for Cluster XIII is given below:

Conceptual Post Mining Land use Pattern for Cluster-XIII					
Existing land use	**Land use (in ha)**				
	Plantation	**Water body**	**Public use**	**Undisturbed**	**Total**
Agriculture land	-	-	-	1441.76	1441.76
Excavation including dump areas	25.41	6.63	-	-	32.04
Rail & Road	-	-	-	71.84	71.84
Homestead land & service land	-	-	-	159.09	159.09
Green Belt	3.36	-	-	-	3.36
Barren land	62.98	-	-	-	62.98
Forest land				39.29	39.29

Water Body		88.25			88.25
Others					
Total	**91.75**	**94.89**		**1711.98**	**1898.62**

viii. Of the total ML area, 254.8342 ha would be covered under the Jharia Action Plan.

viii. The ML has abandoned opencast pits that require reclamation. The area is under exploration for mineable reserves for mining below 600m depth. The exploration may take 6-8 years.

ix. The peak water requirement is 4300 m3/day, of which 95 m^3/day is for Murulidih 20/21 Pit UG and 1170m3/day is for domestic use and for colony. Water table level is in the range of 2.85 to 11.00 m bgl (pre-monsoon) and 1.85 to 11.07 m bgl during post-monsoon.

x. A total 2187 PAF will be rehabilitated as per as per JAP at the cost of Rs 11199.89 lakhs.

xi. The maximum subsidence over the mining area due to extraction is 1240 mm in panel P40 in Mohuda top seam. The maximum possible tensile strain likely to occur is 7.78mm/m respectively.

xii. Capital costs for EMP is Rs 152.25 lakhs (capital) and Rs 32.99 lakhs (recurring) during the initial years and Rs 15.59 lakhs from 7th year onwards.

xiii. The transportation of 780 T/day from Murulidih 20/21 Pits is by road upto Railway Siding for a distance of 1km.

xiv. The Public Hearing was held on 25.2.2012.

xv. The proponent informed that land acquisition has been divided into two Phases. In Phase-I, only 6.41 ha of area of outcropped/exposed seam is required to be excavated in Murulidih to curb illegal mining and curb possibility of fire in the coal seam.

xvi. The proponent informed that the approval for the diversion of forest land of 6.41 ha has been granted vide letter no 5-JHC188/2010-BHU dated 5th March, 2013 by the Regional Office, MoEF, Bhubaneswar.

xvii. The proponent, vide letter no BCCL/HOD((Env.)/ F-EMP/13 dated 05.04.2013 has informed that the total mining lease for Cluster – XIII which is 1898.62 ha, as applied in Form –I include a total of 39.29 ha of forest land. However, mining activity shall not require diversion of all this forest land except 6.41 ha of forest land for which Forestry Clearance is available for the sole purpose of prevention of illegal mining and safety of nearby people. The remaining 32.88 ha of forest land in the mining lease of the cluster shall not be used for any mining or other purpose and shall remain intact in the post-mining land-use scenario also.

3. It was further stated that the Jharia Action Plan, which consists of all fire dousing projects/plans had been surveyed by DGMS and DGMS is also the monitoring and scrutinizing agency constituted by the Hon'ble Supreme Court of India under the WP(PIL) 387/1997 i.e. Haradhan Roy Vs UOI. It was clarified that any new scheme of fire dousing would need the approval of DGMS.

4. The BCCL letter no. BCCL/HOD((Env.)/ F-EMP/13 dated 05.04.2013 states that 39.29 ha of forest land is a part of the ML area and that mining activity shall not require diversion of all this forest land except 6.41 ha of forest land for which Forestry Clearance is available for the sole purpose of prevention of illegal mining and safety of nearby people. The remaining 32.88 ha of forest land in the mining lease of the cluster shall not be used for any mining or other purpose and shall remain intact in the post-mining land-use scenario also. The proponent, therefore, in this regard, is 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."

5. 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 Clarence 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.

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. 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 XIII coal mines (7 mines of a total capacity of 0.18 MTPA and a peak production of 2.34 MTPA in an ML area of 1865.74 ha (1898.62 ha - 32.88ha= 1865.74ha): EC to Murulidih 20/21 Pits UG of 0.18 MTPA and a peak production of 2.34 MTPA in an ML area of 538.44 ha (571.32 ha-32.88 ha= 538.44ha) 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 in addition to the general conditions as 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) No mining shall be undertaken in/under the forestland until prior forestry clearance has been obtained under the provisions of FC Act 1980.

(ii) The EC is granted to Murulidih 20/21 Pits UG of 0.18 MTPA and a peak production of 2.34 MTPA in an ML area of 571.32 ha.

(iii) The maximum production from the opencast section in the cluster shall not exceed beyond that for which environmental clearance has been granted for the cluster XIII as below:

S.N	MINES IN CLUSTER XIII				
	Name of Mine	**Production capacity (MTPA)**		**LEASE HOLD AREA (ha)**	**Status of mine**
		NORMATIVE	PEAK		
1	Murulidih	0.18	0.234	571.32	Operating
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	Total	**0.18**	**0.234**	**1898.62**	

(iv) The measure identified in the environmental plan for cluster XIII groups of mine and the conditions given in this environmental clearance letter shall be dovetailed to the implementation of the Jharia Action Plan.

(v) As there is no fire in Cluster XIII but the measure should be adopted by proponent to control spread of neighbouring fire to this Cluster XIII. 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. Measures to prevent ingress of air (Ventilation) in such areas, to prevent restart fresh/spread fires in other areas including in mines of cluster XIV shall be undertaken.

(vi) Underground mining should be taken up after completion of reclamation of Opencast mine area after 2 years.

(vii) No mining shall be undertaken where underground fires continue. Measure shall be taken to prevent/ check such fire including in old OB dump

(viii) There shall be no external OB dumps. OB from One Patch OCP mine shall be backfilled. 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.

(ix) 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- XIII shall be drawn up and implemented.

(x) The void in 5 ha area shall be converted into a water reservoir of a maximum depth of 15-20 m in post mining stage 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

(xi) 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.

(xii) 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.

(xiii) Thick green belt shall be developed along undisturbed areas, mine boundary and in mine reclamation. During post mining stage, a total of 91.75 ha would be reclaimed and afforested by planting native species in consultation with the local DFO/Agriculture Department/institution with the relevant discipline. The density of the trees shall be around 2500 plants per ha.

(xiv) The road should be provided with avenue plantation on both side as trees act as sink of carbon and other pollutant.

(xv) Specific mitigative measures identified for the Jharia Coalfields in the Environmental Action Plan prepared for Dhanbad as a critically polluted are and relevant for Cluster -XIII shall be implemented.

(xvi) 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 (PM_{10} 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.

(xvii) 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.

(xviii) 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 peizometers. The monitoring for quantity shall be dome 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.

(xix) 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.

(xx) 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.

(xxi) 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.

(xxii) 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.

(xxiii) High root density tree species shall be selected and planted over areas likely to be affected by subsidence.

(xxiv) Depression due to subsidence resulting in water accumulating within the low lying areas shall be filled up or drained out by cutting drains.

(xxv) Solid barriers shall be left below the roads falling within the blocks to avoid any damage to the roads.

(xxvi) No depillaring operation shall be carried out below the township/colony.

(xxvii) The Transportation Plan for conveyor-cum–rail for Cluster- XIII 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- XIV should be dovetailed with Jharia Action Plan. The road transpiration of coal during phase–I should be by mechanically covered trucks.

(xxviii) A study should be initiated to analyze extent of reduction in pollution load every year by reducing road transport.

(xxix) R&R of 2187 nos of PAF's involved. They should be rehabilitated at cost of Rs 11199.89 Lakhs as per the approved Jharia Action Plan.

(xxx) 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 for and submitted to Ministry.

(xxxi) A detailed CSR Action Plan shall be prepared for Cluster XIII croup of mines. Specific activities shall be identified for CSR of Rs 20.25/Annum @ of Rs 5/ton of coal production. as recurring expenditure. The area within Cluster XIII ML that would be 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. 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.

(xxxii) For monitoring land use pattern and for post mining land use, a time series of land use maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional office at Bhubaneswar.

(xxxiii) 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.

(xxxiv) 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 companyfor implementing environment policy and socio-economic issues and the capacity building required in this regard. .

(xxxv) Implementation of final mine closure plan for Cluster XIII, subject to obtaining prior approval of the DGMS in regard to mine safety issues

(xxxvi) 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 PM_{10}, $PM_{2.5}$, SO_2 and NOx 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 (PM_{10}, $PM_{2.5}$, SO_2 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/ZilaParishad, 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 PM_{10}, $PM_{2.5}$, SO_2 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

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

8. 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.

9. 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.

10. 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.

06 June 2013

(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 11. Notice Board

06 June 2013

(Dr. Manoranjan Hota)
Director