

Annexure -3

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**MINUTES OF 53rd EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING)
MEETING HELD ON 16th-17th JULY 2012 IN SCOPE COMPLEX, NEW DELHI.**

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 – EC based on TOR granted on 03.12.2010

The proposal was last considered in the EAC (T&C) meeting held on 23rd-24th April 2012 and issues raised therein were further considered.

The proposal is 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 namely, Goluckh OCP is a proposed mine

It was informed that OB dump fires would be dealt with by cooling, quenching and removal, excavation of fire material and filling with cohesive, soil and surface sealing and blanketing. Public Hearing was held on 25.02.2012. It was informed that Stage-I Forestry Clearance has been obtained. 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. The present levels of production from cluster-VIII are given below


EXISTING LEVEL OF PRODUCTION IN CLUSTER- VIII

NAME OF MINE	Coal production in MT for 2011-12		
	Production (in MT)	Coal recovered (MT) during executi of Master Plan	Total Production (in MT)
Bastardona 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
Ghandodh Colliery(OCP)	-	0.599	0.599
Kulama Colliery(OCP)	-	0.478	0.478
Goluckh (NC) OCP	Proposed mine (will be operational after closure of Kuya OCP)		
TOTAL	1.238	1.077	2.315

Details of voids at post mining stage land use, abandoned pits/voids that would be reclaimed and ecologically restored were presented.

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


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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

It was informed that 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. It was informed that Stage-II Forestry Clearance has been granted by MOEF vide letter no. 8-44/2009 FC dated 12.04.2012 for 234.08 ha of forestland in Ghanoodih Bera & Dobari Colliery.

The Committee desired that the Plan for conveyor cum-rail for Cluster-VII should be dovetailed with Jharia Action Plan. The Committee desired that road transportation of coal during phase-I should be by mechanically covered trucks. The Committee desired that the rejects of washeries should be utilised in FBC based Power Plant. The Committee desired that after completion of 15 years, UG mining should be taken up. The Committee desired that 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. The Committee desired that 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. The Committee desired that a study should be initiated to analyse extent of reduction in pollution load every year by reducing road transport. The Committee also desired that the road used for coal transportation should be developed with avenue plantation on both sides. The Committee desired that 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. The Committee desired that the abandoned pits and voids should be backfilled with OB and reclaimed with plantation and or may be used for pisciculture. The Committee desired that 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.

The Committee recommended the locations of monitoring stations in the Jharia Coalfields should be finalised in consultation with the Jharkhand State Pollution Control Board. The Committee stated that 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. 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.

The Committee recommended the project for EC to Cluster VIII and subject to implementation of the conditions as given above and given in earlier consideration by EAC of the proposal and subject to other clusters as applicable, subject to obtaining prior approval of the DGMS in regard to mine safety issues and subject to MOEF Circulars as applicable.


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BY SPEED POST

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

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GOI Complex
Lodhi Road
New Delhi 110003
Phone : 23380000

To

The Chief General Manager (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

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This has reference to the letter no. 43011/36/2010-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 04th December, 2010. Reference is also invited to the letters no. BCCL/GM (Env) /EMP/T-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:

- 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	

EC Cluster VIII BCCL


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Dobari Colliery(UG)	0.24	0.312	146.90	20	Operating
Kuya OCP	0.60	0.780	340.50	5	Operating
Kuya UG	0.10	0.130		20	Operating
Goluckdih (NC) OCP (Proposed)	1.2	1.560		25	Proposed
Proposed OCP will commence after the closure of existing Kuya OCP)					
Ghanoodih Colliery(OCP)	1.40	1.820	73.00	5	Operating
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

LC Cluster VIII DCE

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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	5.1	273.67	0
2	Backfilled	69.35	105	0
3	Not Backfilled			
4	Abandoned quarry			
5	Backfilled	25.14	25.14	0
6	Not Backfilled	42.65	42.65	0
7	External OB dump	48.55	48.55	0
8	Service building mine	7.9	7.9	0
9	infrastructure			
10	Coal dump	7.75	9.8	0
11	Homestead land	118.9	118.9	118.9
12	Agricultural land	24.71	24.71	24.71
13	Forestland	250.57	67.11	250.57
14	Plantation/reclamation	76.6	149.5	665.05
15	Water body	15.04	15.04	92.39
16	Barren land	460.96	265.25	0
17	Road & railways	38.92	38.92	38.92
18	Mine pit/fan house haulage	6.3	6.3	0
19	others	1.97	1.97	1.97
20	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)	Ghanoudih Colliery (OCP)	Kujania Colliery (OCP)
Method of mining	Shovel-dumper combination & Bord & pillar	Shovel-dumper combination & Bord & pillar	Bord & pillar	Shovel-dumper combination & 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,, II Bottom, 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

10. Cluster VIII (BCL)

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Mineable Reserve MT	OCP-1.4 UG-5.48	plant OCP-0.515 UG-5.46	er plant UG-13.002	OCP-3.0 UG-2.45 NC (OCP)-26.92	plant/Road side 10.70	washery 3389
Production in (1993-94) in MT	0.24	0.1246	0.1298	0.8772	0.8995	0.0341
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

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				Total
	Plantation	Water body	Public use	undisturbed	
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
1.	Total Voids (128.57 ha)
2.	Dumps (48.55 ha)
3.	Fire /Unstable area with 87.27 ha in 22 sites
4.	Loss of coal (10% locked in barriers)
5.	Reclamation /Mine closure
6.	Rehabilitation (4959 families)
7.	CSR for a total costs of Rs. 215.5 Lakh per year @ Rs 5/T of coal
8.	Forest land (250.57 ha)
9.	Mine Closure cost

Mitigation measures and Benefit

51.22ha Backfilling and 77.35 ha safe body.
 Use for backfilling
 Dig out fire and stabilise at the cost of Rs 26051 lakhs.
 Recover 7.23 MT from barriers.
 Plantation in 704.48 ha for Rs 7202.46 lakhs
 Shifting to safe areas at the cost of Rs 29942 Lakhs
 Rs. 215.5 Lakh per year @ Rs 5/T of coal
 Forest clearance would be obtained
 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 EC 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.



FC Cluster VIII BCL



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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/IA 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 order 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."

FC Counter V/12/10/11

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The proposal was considered in the Expert Appraisal Committee (EAC) Meeting 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 thereof 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 FC will be construed to be available for the mining lease area as per the revised mining lease deed.

A. Specific Conditions:

- 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)		Leaschold Area (ha)	Life mine (years)	Status
		NORMATIVE	PEAK			
1	Bastacolla OCP	0.10	0.130	239.45	3	Operating
	Bastacolla UG	0.33	0.429		18	Operating
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	Kuya 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	8	Operating
6	Kujama Colliery(OCP)	0.60	0.780	191.00	8	Operating
	Total	4.31	5.603	1200.41		

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- The road transportation of coal during phase I should be by mechanically covered tracks and for coal transportation should be developed with avenue plantation on both sides. The company must give priority to capacity building both within the company and to the local people who are motivated to carry out the work in future.
- The details of transportation, CSR, R&R and implementation of various environmental measures for each of the 17 clusters should be brought out in a booklet form.
- A study should be initiated to analyse extent of reduction in pollution and every year to study the road transport.
- 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.
- The abandoned pits and voids should be backfilled with OB and reclaimed with plantation and may be used for pisciculture.
- BCCL may consider setting up a separate management structure for implementing the policy and socio-economic issues and the capacity building required with regard to the locations of monitoring stations in the Jharia Coalfields should be finalised and submitted to the Jharkhand State Pollution Control Board.
- The smoke/dust emission vary from source to source (fuelwood, coal, flyash from the mines, etc.) from natural dust, etc) and a Source Apportionment Study should be got carried out for the Jharia Coalfields.
- Mineralogical composition study should be undertaken on the composition of the 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.
- 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 VIII shall be undertaken.
- Underground mining should be taken up after completion of reclamation of Opencast mines after 15 years.
- No mining shall be undertaken where underground fires continue. Measures should be taken to prevent check such fire including in old OB dump areas where the fire is still burning in the presence of coal/shale with sufficient carbon content.
- The rejects of washeries in Cluster -VII should be send to FBC based plant.
- 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.
- A detailed calendar plan of production with plan for OB dumping and backfilling (for Opencast) and reclamation and final mine closure plan for each mine of cluster-VII shall be drawn up and implemented.
- 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.

12 Cluster-VII


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- 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 peizometers. 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.

EC, Cluster VII, BOCU

परियोजना पदाधिकारी
Project Officer
कुईर्यो कोलियरी
Kuya Colliery

- xxix. ETP shall also be provided for workshop, and CHP, if any. Effluent, shall be treated to conform 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 bullard 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 area 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 transportation of coal during phase I should be by mechanically covered trucks.
- xxxvii. A study should be initiated to analyze extent of reduction in pollution and every year road and 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 area 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.


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xi For monitoring land use pattern and for post mining land use, a time series of land use map 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 MCD, District Regional office at Bhubaneswar.

xii 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 re-introduction in the mine during mine reclamation and at the post mining stage for habitat restoration.

xiii 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.

xiii Implementation of final mine closure plan for Cluster VIII, subject to obtaining prior approval of the DGMS in regard to mine safety issues

xiv Corporate Environment Responsibility:

- The Company shall have a well laid down Environment Policy approved by the Board of Directors.
- 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.
- 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.
- 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:

- No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.
- No change in the calendar plan of production for quantum of minerals shall be made.
- 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 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.
- 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.

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Kuya Colliery

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 HMM, etc shall be provided with ear plugs/muffs.

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.

Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.

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.

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.

Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contraindications 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.

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.

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.

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>.

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.

A copy of the environmental clearance letter shall 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.

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.

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 of CPCB and the SPCB.

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.

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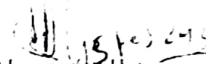
(xix) The Environmental statement for each financial year ending 31st March shall be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended, and the statement shall be uploaded on the company's website along with the status of compliance of EPC conditions and shall be sent to the respective Regional Offices of the MoEF by 1st April.

6. The Ministry or any other Competent Authority may stipulate such conditions relating to environmental protection.

7. Failure to comply with any of the conditions mentioned above may render the Environmental 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 Bhilai Coking Coal Limited (BCCL) in response to the closure orders issued by the Jharkhand Pollution Control Board which is pending in the Jharkhand High Court.


(Dr. Manoranjan Halder)
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.M. Chandrashekarapur, Bhubaneswar - 751023.
4. Chairman, Jharkhand State Pollution Control Board, E.A. Division Building (Ground Floor) H.E.C. Dhurwa, Ranchi - 834004.
5. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, Plot-8, Aruna Asan, New Delhi - 110032.
6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Connaught 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 Halder)
Director


परियोजना पदाधिकारी
Project Officer
कुईर्यो कोलियरी
Kuya Colliery

CC: CMB/CCMB/BCCL

KUYA Colliery

File No. J-11015/298/2010-1A.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.

Page 1 of 4

EC Amendment to Cluster VIII of M/s BCCL

Munna Shah


परियोजना पदाधिकारी
Project Officer
कुईर्यो कोलियरी
Kuya Colliery

Following is the details of production capacity with mine lease area from original EA dated 1st 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	Initial EC (Dated 15.02.2013)			Amendment dated 15.11.2020 (Existing)			Modification sought			
		Type of Mine	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	

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परियोजना पदाधिकारी
Project Officer
कुईयों कोलियरी
Kuya Colliery

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)	(-0.30)	
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)	(-2.46)	
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 48th 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

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EC Amendment to Cluster VIII of M & BCCI

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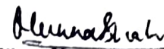
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Kuya Colliery

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.

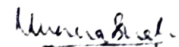
6 All other terms and conditions stipulated by Ministry its letters vide dated 15th February, 2013, 15th July, 2018 and 15th November, 2020 shall remain unchanged.


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


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