



Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), Jharkhand)

To,

The Project Officer
 CENTRAL COALFIELDS LIMITED
 Project Officer
 Kabribad OCP
 Giridih Project Village: Beniadih -815311

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/JH/CMIN/76338/2018 dated 17 Oct 2022. The particulars of the environmental clearance granted to the project are as below.

1. EC Identification No.	EC23B042JH110426
2. File No.	EC/SEIAA/2022-23/2656/2022
3. Project Type	New
4. Category	B1
5. Project/Activity including Schedule No.	1(a) Mining of minerals
6. Name of Project	Kabribad OCP
7. Name of Company/Organization	CENTRAL COALFIELDS LIMITED
8. Location of Project	Jharkhand
9. TOR Date	27 Apr 2021

The project details along with terms and conditions are appended herewith from page no 2 onwards.

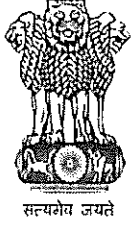
Date: 08/02/2023

(e-signed)
 Ashok Kumar, IFS
 Member Secretary
 SEIAA - (Jharkhand)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

This is a computer generated cover page.





State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834004

E-mail: msseiaa.jhk@gmail.com/chr-seiaajhr@gov.in

website: www.jseiaa.org

Letter No : EC/SEIAA/2022-23/2656/2022/

Ranchi, Date :

**To: Sri Soumitra Singh,
Deputy General Manager (Env. & Forest),
Central Coalfields Limited, Darbhanga House,
P.O. - Ranchi, District - Ranchi, Pin Code - 834001.**

Sub: Environmental Clearance for the project “Kabribad Opencast Coal Mine Project of M/s Central Coalfields Limited at Village : Kabribad, Chunjka, Patrodih, Khandih, Chilga, Tehsil : Giridih, Distt. : Giridih, Jharkhand (90.84 Ha)”, (Proposal No. SIA/JH/CMIN/76338/2018) - regarding.

Ref: Your application no.- PO(G)/Sectt./2022/68, dated – 17.10.2022.

Sir,

It is in reference to the project “Kabribad Opencast Coal Mine Project of M/s Central Coalfields Limited at Village : Kabribad, Chunjka, Patrodih, Khandih, Chilga, Tehsil : Giridih, Distt. : Giridih, Jharkhand (90.84 Ha)” submitted by you for seeking prior Environmental Clearances (EC).

This is a new project which has been taken for appraisal on 11.01.2023.

However, The Honorable Supreme court in its order dated 9th December 2021 In the matter of the Civil appeal No 7576-7577 of 2021 in the Electro steel Steels Limited Vs Union of India and Ors in its para 93 has inter- alia observed the following for identification and handling of violation cases under EIA Notification, 2006:

“The interim order passed by the Madras high Court appears to be misconceived. However, this court is not hearing an Appeal from that interim order. The interim stay passed by the Madras High court can have no application of operations of the Standard Operating Procedure to the projects in territories beyond the territorial jurisdiction of Madras High court. However, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021.”

Thus, the SEIAA, Jharkhand, in the light of Hon’ble Supreme Court order dated 9th December 2021, Office Memorandum no. F.No.22-21/2020-IA.III[E 138949] dated 28.01.2022 of MoEF & CC, Govt. of India and Standard Operating Procedure (SOP) issued by MoEF & CC, Govt. of India vide its file number 22-21/2020-IA-III, dated 07.07.2021, the project has taken for consideration & recommendation of EC for violation projects.

04

Kabribad OC is an operating mine located in Giridih coalfields of Central Coalfields Limited, Jharkhand. Mining activity in the coalfield started as early as 1871 by M/s Bangal Coal Company & by then State Railway and subsequently transferred to National Coal Development Corporation (NCDC) about 60 years back. Later in the year 1973, it came under the control of Central Coalfields Limited (CCL), a subsidiary of Coal India Limited. Presently it is under the administrative control of Giridih Area of CCL.

The Kabribad OCP is located about 3.50 kms to the south of Giridih town and is covered in Survey of India toposheet no. 72L/8 (in 1:50,000 scale). The block boundary by latitudes 24°8'45'' to 24°9'41'' North and Longitudes 86°17'39'' to 86°18'42'' East. The nearest railway station Giridih is about 5 km from the project. Giridih railway station is on the Giridih-Madhupur line of the Asansol Railway division in the Eastern Railway Zone of Indian Railway.

The general flow of the streams is towards south. Most of the streams meet Barakar River at about 6 km south-west of the proposed OCP. The water level is very close to the surface during rainy season and about 20 m below surface during dry season.

The method of mining proposed to be adopted to extract coal and OB in Kabribad Opencast mine will be inclined slicing with shovel-dumper combination as the gradient of the seams vary from 6-10° with an average gradient of 8°. It is proposed to mine Khandiha I & II seams in Kabribad OC.

The mineable reserve of Kabribad OC is estimated as 3.60 Mte with corresponding volume of OB estimated as 5.14 Mm³ with an average stripping ratio of 1.43 cum/t. The life of proposed project is 7 years.

Kabribad OC receives power at 11 KV from Beniadih substation of CCL DVC substation at Bhandaridih at a distance of 25 kms is the main source of power. The power consumption demand is max. 4500 KVA (Total annual consumption = 18375.30 MWH).

Water requirement:

Industrial water	Domestic water	Mine discharge
225 m ³ /day	317 m ³ /day	300 m ³ /day
Industrial water demand of Kabribad OC is being fulfilled by mine water discharge. The domestic water demand is fulfilled from Giridih Colliery abandoned UG water source.		

The total project area of Kabribad OCP is 90.84 Ha. The proposed land use during mining is as given below:

Land Use During Mining	
Particulars	Area (Ha.)
Quarry	39.94

At

§

h

OB dump	31.95
Old mine void filled with water	3.77
Infrastructures (W/S, coal Stock, etc.)	2.62
Road	0.91
Safety zone & vacant land	11.65
Total Area	90.84

Sl. no.	Description of land	Area in Ha.
1.	Revenue land	63.47
2.	Jungle Jhari land	27.37
Total		90.84

The Project Authorities have submitted the application for diversion of Jungle Jhari land under the Forest (Conservation) Act, 1980 vide proposal no. FP/JH/MIN/414009/2023 dated 10.01.2023 for the area 27.37 ha.

The coal production from Kabribad OC was as given below:

Year	Kabribad OC Coal Prod. (Mte)
1993-94	0.297
1994-95	0.280
1995-96	0.195
1996-97	0.288
1997-98	0.249
1998-99	0.128
1999-00	0.078
2000-01	0.104
2001-02	0.110
2002-03	0.146
2003-04	0.122

Year	Kabribad OC Coal Prod. (Mte)
2004-05	0.150
2005-06	0.137
2006-07	0.201
2007-08	0.403
2008-09	0.415
2009-10	0.371
2010-11	0.338
2011-12	0.234
2012-13	0.310
2013-14	0.431
2014-15	0.559
2015-16	0.331
2016-17	0.188
2017-18	0.25
2018-19	0.19
2019-20	0.00
2020-21	0.00

Geological and Mining Characteristics of Kabribad OC

Sl. No.	Particulars	Unit	Value
I.	COAL SEAMS		
A.	SEAM THICKNESS		
1	Khandia III/IV seam	M	2.74-7.73
2	Upper Khandia	M	6.4-13.41
3	Lower Khandia	M	1.10-4.98
B.	GRADIENT OF THE SEAM	Degree	6-10
C	AV. SP. GRAVITY OF SEAM		1.5-1.70
1	Khandia III/IV seam	Te/Cum	1.62
2	Upper Khandia	Te/Cum	1.63
3	Lower Khandia	Te/Cum	1.62
D.	DRILLING CATEGORY	Assumed	VIII
E	EXCAVATION CATEGORY	Assumed	Cat.III
			Cat. IV
II	OVERBURDEN		
1.	OB Thickness		
1	Above Khandia III/IV	M	0-30.00

li	Parting between Khandia III/IV and upper Khandia	M	7.99-19.94
lii	Parting between upper Khandia and Lower Khandia	M	0.61-6.50
3.	Drilling Category	Assumed	II-X
4.	Excavation Category	Assumed	Cat. III
			Cat IV
5.	O.B Volume weight	T/cum	2.40
III	QUARRY PARAMETERS		
1.	Maximum strike length along quarry floor	M	1275
2.	Maximum length of quarry along dip at quarry floor	M	435
3.	Maximum Depth of quarry	M	70
4.	Area of excavation	Sq km	0.40

Kabribad OC: Seamwise details of Geological vis-à-vis Mineable Reserves:

Seam	Avg Thickness (m)	Net Geological Reserve (MT)	Mineable reserve (MT)
Khandiha II Top	2.91	1.137	0.821
Khandiha II Bot	2.60	1.094	0.732
Khandiha I Top	4.11	2.146	1.290
Khandiha I Bot	2.40	1.373	0.757
Total		5.750	3.600

LAND DETAILS :

Khata No.:-

Chilga: - 1,21,22,29

Chunjka: -2,19,220

Akdoni Khurd: -75,145,60,204,135,216,1

SA

By

h

Khandiha: 1,2,3,5,6,7,8,9,10,11,13,14,16,17,18,19,20,21,22,23,24,25,26,28,29,30,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,90,91,92

Plot No.: -

Chilga: - 204(P),205(P), 206, 207(P),214(P), 215(P), 240(P), 254(P), 255(P), 256(P), 257(P),258, 259(P),260 to 275, 276(P),277,278,279(P),284(P),287,289

Chunjka: - 1(P), 2(P), 222, 224(P),225(P), 226(P),227(P),1233

Akdoni Khurd: - 1426(P), 1427, 1428(P),1429, 1430(P),1431(P), 1432 to 1474, 1475(P), 1476(P), 1477(P), 1492(P), 1501(P),1502(P),1503(P)

Khandiha:- 1(P), 2(P),13(P), 14(P), 15(P), 16(P), 24(P), 27(P), 28(P), 30 to 34, 35(P), 36 to 49, 50(P),52(P), 54(P), 58(P), 60(P), 61(P), 62(P), 66(P), 74(P),75(P), 76 to 117,118(P),119(P),120(P), 121(P),125(P),127(P),128(P),130(P),132(P),133(P),134(P),135(P),136 to 149, 150(P),151 to 235, 236(P), 237,238(P), 239(P), 242(P), 243(P), 244 to 396, 400 to 409, 411, 412, 415(P), 416

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	Land has been Transferred to National Coal Development Corporation (NCDC)
2	CO	:	The CO, Giridih Sadar vide letter no. 726, dated 01.08.2022 has clarified that some of the plots within the project area are recorded as "Jungal - Jhari" in Khatian / Revenue record.
3	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 1550, dated 16.08.2022 certified that the said project is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Giridih East Division vide letter no. 1922, dated 09.06.2022 certified that the distance of reserved / protected forest is less than 250 m from the existing project site. The DFO, Giridih East Division also informed vide memo no. 3401, dated 24.09.2022 that the plots belong to the Jungal - Jhari are broken prior to Forest (Conservation) Act, 1980.
5	Mine Plan Approval	:	Ref No.:- CS/BM/510/2022/62, Dated:- 22.02.2022.
6	Public Hearing	:	Public Hearing conducted on 26.02.2022

7	Terms of Reference (ToR)	:	Violation Terms of Reference (ToR) granted by MoEF&CC, Govt. of India vide F.No. 23-1/2020-IA.III, dated 27.04.2021.					
8	Diversion of forest land		Application for diversion of forest land(GMJJ) vide proposal no. FP/JH/MIN/414009/2023, dated 10.01.2023 for area 27.37Ha.					
			DETAILS OF PATCH-WISE GMJJ LAND OF KABIBAD OCP					
			SL. NO	PATCH NO.	MOUZA	PLOT NO.	AREA (IN HA)	TOTAL AREA (IN HA)
			1	PATCH - 1	AKDONI KHURD	1492(P)	2.90	2.90
			2	PATCH - 2	AKDONI KHURD	1501(P)	1.42	18.49
					KHANDIHA	1(P)	7.37	
						400	9.70	
			3	PATCH - 3	KHANDIHA	239(P)	0.63	0.63
			4	PATCH - 4	KHANDIHA	242(P)	1.48	1.48
			5	PATCH - 5	KHANDIHA	325(P)	2.02	2.02
			6	PATCH - 6	KHANDIHA	385	0.18	1.15
						390	0.97	
			7	PATCH - 7	CHUNJKA	227(P)	0.43	0.43
			8	PATCH - 8	KHANDIHA	130(P)	0.27	0.27
			TOTAL					27.37

Earlier this proposal was presented in SEAC on 02 - 05.11.2022 in which requisite documents were sought are under –

- Clarification from DFO, Giridih East Division that Forest (Conservation) Act, 1980 is applicable or not for this project in respect of the plots which belong to the Jungal - Jhari category but are broken prior to Forest (Conservation) Act, 1980 .
- Calculation of OB dump to be revised.
- Land use plan to be revised.
- Air quality impact should be readdressed.
- Water balance diagram to be revised.
- Details with respect to number of RWH pits to be provided.
- Proposed water pollution control measures to be revised.
- Soil analysis to be reconducted.
- Time bound action plan alongwith budgatory provisions for the issues raised during public hearing to be provided.
- Presentation to be revised as per ToR points.
- Revised remediation plan and natural & community resource augmentation plan to be submitted.

[Signature]

[Signature]

[Signature]

- xii. Need based socio economic study to be conducted and included in revised EIA/EMP report.

The Project Authorities have submitted the above mentioned documents.

The present application for EIA / EMP has been considered under MoEF & CC, Govt. of India notification no. S.O. 804 (E), dated 14.03.2017 since MoEF & CC has granted the ToR under violation category in pursuance of the notification dated 14.03.2017.

The PAs has proposed the remediation plan and natural & community resource augmentation plan before the Committee.

On the basis of above the State Level Expert Appraisal Committee (SEAC), Jharkhand recommended an amount of rupees 148 Lakh as per CPCB guidelines towards remediation plan and natural & community resource augmentation plan to be spent within a period 03 years. The details of summary of Natural resource and Environmental / Ecological Damage assessment with budgetary provision for expenditure under the below mention head for remediation:-

Remediation plan & budgetary provisions			
Sl N O		Activity Proposed	Total (₹)
1	Water Environment	Development and protection of banks of water body adjacent to the project.	10,00,000
2		Restoration and beautification of existing wells and water bodies in the vicinity of villages	5,00,000
3		Protection and Cleaning of local stream	10,00,000
Total Water Environment			₹ 25,00,000
1	Ecology	Additional plantation in nearby villages	10,00,000
2		Distribution of fruit bearing Saplings like Amla, Guava, Mango, Lichi etc. to nearby villagers	1,00,000
3		Development of Nursery for raising samplings, training and distribution and to nearby villagers	5,00,000
Total Ecological Environment			₹ 16,00,000
1	Air & Noise Environment	Monthly Health Camps to monitor the respiratory and E&T health status of nearby villages (Beniadih, Patrodih, Chunjka, Chilga etc.)	50,00,000

Remediation plan & budgetary provisions			
SI N O		Activity Proposed	Total (₹)
2		Additional avenue Plantation and maintenance in subsequent years on village roads adjacent to project boundary	5,00,000
Total Air Environment			₹ 55,00,000
1	Land Environment	Construction of permanent collection point for municipal solid waste from colonies nearby villages (Beniadih, Chilga etc.)	1,50,000
2		Providing colour coded bins in schools, hospitals etc	50,000
Total Land Environment			₹ 2,00,000
1	Socio- Economic	Additional Skill development training programme to the unemployed youth	5,00,000
2		Construction of additional community toilets for nearby villages	5,00,000
3		Organizing additional Sports and cultural festivals	1,00,000
4		Additional awareness programs on Environmental protection	1,00,000
Total Socio-Economic Environment			₹ 12,00,000
Total Fund for remediation measures			₹ 110,00,000.00

Table 2.0 Proposed budgetary provisions for Natural and Community Resource Augmentation Plan

SI No	Activity Proposed	Total (₹)
Natural Resource Augmentation Plan		
1	Repair and maintenance of roads in nearby villages	5,00,000
2	Development of green belt along streams, ponds etc	5,00,000

GA

By

b

Community Resource Augmentation Plan		
3	Providing solar lamps along the roads and supply of Solar lights to households in nearby villages (50 Nos Approx.)	5,00,000
4	Training/Workshop on advance agriculture/irrigation practices	1,00,000
5	Providing Communities toilet in nearby villages/school / communities	10,00,000
6	Providing smart classes at schools	12,00,000
Total		₹ 38,00,000

- I. Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is Rs. **148 Lakhs**.
- II. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. **148 Lakhs** towards implementation of remediation plan and natural and community resource augmentation plan with the Jharkhand State Pollution Control Board.
On the basis of 100th Minutes of Meeting of SEAC, the project Authority has submitted the Bank Guarantee to Jharkhand State Pollution Control Board, Ranchi, and the evidence of the same has been submitted to SEIAA, Jharkhand on **30.01.2023** bearing Bank Guarantee No. : **0089NDLG00058123** dated : **30.01.2023** valid up to **29.01.2028**.
- III. The bank guarantee shall be released after successful completion of remediation plan, duly recommended by the SEAC, Regional Office – MoEF & CC, Govt. of India and its approval from Regulatory authority(SEIAA). Remediation plan shall be completed in 03 years with the consultation of Local / Urban Bodies / State Govt. Deptt.
- IV. Approval / permission from CGWA shall be obtained before drawing ground water for the project activities, if applicable. Jharkhand State Pollution Control Board shall not issue Consent to Operate (CTO) until the PAs obtains such permission.
- V. PAs shall take other necessary clearances / permissions under various act and rules if any, from the respective authorities / departments.
- VI. STP of adequate capacity shall be established within the project premises.
- VII. Energy conservation measures adhering to part of ECBC norms shall be complied with.
- VIII. Action will be taken for the violation by the Jharkhand State Pollution Control Board under the provision of section 19 the Environment (Protection) Act, 1986.

The PAs have submitted the above required documents.

Jharkhand State Pollution Control Board and project Authorities will **ensure** that the amount of Bank Guarantee shall not be released/lapsed **till the completion** of remediation plan, natural and community resource augmentation plan as directed by MoEF & CC vide **SO - 804 (E)**, dated **14th March, 2017**. In case of non compliance of the said directions/conditions, the Environmental Clearance issued will be deemed to be cancelled with immediate effect.

GAH

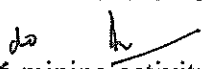
[Signature]

[Signature]

State Level Environment Level Impact Assessment Authority (SEIAA), Jharkhand in its 101st meeting held on 23rd & 24th January, 2023 discussed the project proposal along with recommendations made by SEAC in its 100th meeting held on 09th, 10th, 11th, 12th, 13th and 14th January, 2023 and decided to grant EC to the project

On the basis of recommendation of SEAC and decision of SEIAA to grant of EC, Environmental Clearance is hereby issued to the **“Kabribad Opencast Coal Mine Project of M/s Central Coalfields Limited at Village : Kabribad, Chunjka, Patrodih, Khandih, Chilga, Tehsil : Giridih, Distt. : Giridih, Jharkhand (90.84 Ha)”** alongwith the following specific conditions as recommended by SEAC:-

I. Specific Conditions:

- i. This Environmental Clearance is valid subject to the following condition below –
That this project has-
 - a. Obtained all legal rights to operate at concerned place.
 - b. Complied with all existing concerned laws of the land and
 - c. Complied with the decisions of SEIAA on the issue of Environmental Clearance till date. 
- ii. The project Authorities will ~~be~~ mining activity on the Jungle Jhari land i.e. 27.37 Ha only after obtaining approval under the Forest (Conservation) Act, 1980 for which they have submitted the application vide proposal no. FP/JH/MIN/414009/2023, dated : 10.01.2023. The project Authorities will have to submit the state – 1 Forest Clearance within a period of 18 month from the date of grant of Environmental Clearance as per the Office Memorandum F.No. – J-11013/12/2013-IA-II(I) (Part), dated : 19.06.2014. In case the Forest Diversion Clearance is obtaining after a period of 18 month from the date of issue of EC the proposal will be referred to SEAC for having a re-look on the Environment Merits of project and the site.
- iii. The bank guarantee shall be released after successful completion of remediation plan, duly recommended by the SEAC, Regional Office – MoEF & CC, Govt. of India and approval of regulatory authority. Remediation plan shall be completed in 03 years with the consultation of Local / Urban Bodies / State Govt. Deptt.
- iv. No mining/activity shall be undertaken in the forest land or deemed forest without obtaining requisite prior forestry clearance.
- v. This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT, MoEF & CC and any other Court of Law, if any, as may be applicable to this project.
- vi. Environmental clearance is subject to obtaining prior clearance from forestry and Wildlife angle including clearance from standing committee of NBWL, as may be applicable to this project (in case any fauna occurs / is found in the Project area or if the area involves forest land or Wildlife habitat i.e. core zone of elephant/tiger reserve etc. and or located with in 10 km. of protected area).







- vii. The project proponent may apply simultaneously for forest and NBWL clearance, in order to complete the formalities without undue delay, which till process on their respective merits, no rights will vest in or accrue to them unless all clearance are obtained.

II. Statutory compliance:

- i. 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.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. 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. The implementation report shall be furnished along with the six-monthly compliance report. (incase of the presence of schedule-I species in the study area).
- iv. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to".
- v. 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.
- vi. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- vii. Solid waste/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016 as amended from time to time.
- viii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi/SEIAA/CPCB.
- ix. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this

RA

§

11

clearance and attract action under the provisions of Environment (Protection) Act, 1986.

- x. The SEIAA, Jharkhand or any other competent Authority may alter modify the above conditions or stipulate any further condition in the interest of Environment Protection.

III. Air quality monitoring and preservation:

- i. 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. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
- ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water / mist sprinkling / rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM10/PM2.5) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- iv. 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.
- v. 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.
- vi. 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



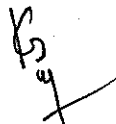
air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

- vii. 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.

IV. Water quality monitoring and preservation:

- i. 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 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. 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-20012/1/2006-1A.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- iii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- iv. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change / Regional Office.
- v. 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.
- vi. 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.

- vii. 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).
- viii. 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.
- ix. 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.
- x. 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.
- xi. The project proponent shall take all precautionary measures to ensure reverian/ riparian ecosystem in and around the coal mine upto a distance of 5 km. A reverian /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

V. Noise and Vibration monitoring and prevention

- i. 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.
- ii. 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.
- iii. 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.



VI. Mining Plan:

- i. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- ii. 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).
- iii. No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980
- iv. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

VII. Land Reclamation:

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MOEF&CC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- ii. 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.
- iii. 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.
- iv. 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.
- v. 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.

GA

GS

[Signature]

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.

- vi. 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.

VIII. Green Belt:

- i. 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.
- ii. 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..

IX. Public hearing and Human health issues:

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six- monthly basis.
- ii. 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 time to time.
- iii. 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.
- iv. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing.



Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

- v. 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.

X. Corporate Environment Responsibility:

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. 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. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. 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.
- iv. 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.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the plants shall be implemented.
- vii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

XI. Miscellaneous:

- i. 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.



- ii. 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.
- iii. 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.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10} , SO_2 , NO_x (ambient levels as well as stack emissions) 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.
- v. 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.
- vi. 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.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. 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.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xi. 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.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. 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.
- xv. 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 Transboundary 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.
- xvi. 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.
- xvii. The Environmental Clearance accorded shall be valid for the period of lease of the mine, the PP does not increase production rate and alter lease area during the validity of Environmental Clearance.

Sd/-
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.

Memo No : EC/SEIAA/2022-23/2656/2022/365

Ranchi, Date : 30/01/2023

Copy to:

1. Additional Chief Secretary, Department of Forests, Environment & Climate Change, Govt. of Jharkhand.
2. Deputy Commissioner, District- Giridih, Jharkhand.
3. Divisional Forest Officer, Giridih East Forest Division, Giridih, Jharkhand.
4. Divisional Forest Officer, Wildlife Division, Hazaribagh, Jharkhand.
5. Director IA Division, Monitoring Cell, MoEF and Climate Change, Indira Paryavaran Bhavan, Jorbag Road, Aliganj, New Delhi – 110003.
6. Integrated Regional Office, Ranchi, Ministry of Environment, Forest and Climate Change, 2nd Floor, Jharkhand State Housing Board (HQ), Harmu Chowk, Ranchi, Jharkhand – 834002.
7. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
8. Secretary, Jharkhand State Expert Appraisal Committee, Ranchi.
9. Website.
10. Guard file.

Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.