



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

To,

The PO

CENTRAL COALFIELDS LIMITED

Office of the Project Officer, Selected Dhori Opencast Mine, P.O-Phusro
Bazaar -829144

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/413519/2023 dated 10 Jan 2023. The particulars of the environmental
clearance granted to the project are as below.

1. EC Identification No.	EC23B000JH130372
2. File No.	EC/SEIAA/2022-23/2655/2023
3. Project Type	New
4. Category	B
5. Project/Activity including Schedule No.	N/A
6. Name of Project	SELECTED DHORI (LOWER) OPEN CAST MINE
7. Name of Company/Organization	CENTRAL COALFIELDS LIMITED
8. Location of Project	JHARKHAND
9. TOR Date	N/A

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

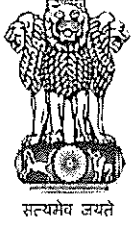
Date: 08/02/2023

(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/2022-23/2655/2022/

Ranchi, Date :

To: M/s Central Coalfields Limited,
Shri Soumitra Singh (General Manager (Env.),
Darbhanga House, P.O. – Ranchi,
Distt - Ranchi, Jharkhand – 834001.

Sub: Environmental Clearance for the project “Selected Dhori (Lower) Open Cast Mine of M/S Central Coalfield at Village : Turio, Makoli, Tarmi, Tehsil : Bermo, Distt. : Bokaro, Jharkhand”, (Proposal No. SIA/JH/CMIN/413519/2023) - regarding.

Ref: Your application no.- 2680, dated – 10.01.2023.

Sir,

It is in reference to the project “Selected Dhori (Lower) Open Cast Mine of M/S Central Coalfield at Village : Turio, Makoli, Tarmi, Tehsil : Bermo, Distt. : Bokaro, Jharkhand” submitted by you for seeking prior Environmental Clearances (EC).

This is a new project which has been taken for appraisal on 12.01.2023.

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.

AR

8/1

Ar

Background and Executive Summary:

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 98th meeting held on 02-05.11.2022 and SEIAA, Jharkhand has approved the ToRs in 99th meeting held on 28th & 29th November, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2022-23/2655/2022/290, date 12.12.2022. The final EIA / EMP submitted by PP to SEIAA on 10.01.2023 and which was forwarded to SEAC on 10.01.2023.

Name of the consultant: CMPDI, Kanke Road, Ranchi

This is a new project which has been taken for appraisal on 12.01.2023.

Background and Executive Summary:

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 98th meeting held on 02-05.11.2022 and SEIAA, Jharkhand has approved the ToRs in 99th meeting held on 28th & 29th November, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2022-23/2655/2022/290, date 12.12.2022. The final EIA / EMP submitted by PP to SEIAA on 10.01.2023 and which was forwarded to SEAC on 10.01.2023.

Selected Dhori GoM is a brown field project which has been under operation since nationalization. The project was accorded EC vide letter no. F.No. 23-80/2018-IA.III (M) dated 27.04.2020 for a mine life of 02 years involving extraction of coal reserves from upper seams i.e. Seam VI to X, which are on the verge of exhaustion.

Therefore, it is proposed to tap the lower Karo V and Karo III seams of Selected Dhori Project. The lower seams (Karo-V and Karo-III) have an estimated coal reserve of around 10.72 Mte, which can add eight years to the life of mine at rate of proposed production capacity of 2 MTPA within the project area of 211.82 Ha. Accordingly, the Mining plan and Mine closure plan of Selected Dhori (Lower) OCM within the project area of 211.82 Ha has been prepared and was approved by CCL Board in its 509th Meeting held on 09.12.2021.

The mineable reserves available in Selected Dhori GoM (Lower Seams) is a high-grade coking coal of washery grade-III. Extracting coal from this mine would help in bridging gap between the energy needs and the supply of coal.

This project has been a major economical source to the nearby villagers. This project, when in operation, provides direct employment to around 1038 people and indirect employment to 1500 villagers. Thus, this project has been playing a major role in the socio-economic upliftment of the nearby villagers.

The project falls in the East Bokaro Coalfields, Bermo CD Block located in Bokaro District of Jharkhand. The project falls within latitudes 23° 45' 30.50"N to 23° 46' 33.91"N and longitudes 86° 01' 35.77"E to 86° 02' 43.64"E and falls in the Survey of India Toposheet no. 73 I/1.

The Gomoh-Barkakana loop line of the Eastern Railway passes adjacent to the area. The nearest railway Station 'Phusro' on the Barkakana-Gomoh loop line is about 2 km to the west of the area. The area is well connected by an all-weather Phusro-Dumri metalled road up to the existing Tarmi opencast project of CCL. The block is about 30km from Bokaro, about 80km from Dhanbad & about 110 km from Ranchi. The nearest commercial airport is situated at Ranchi.



The Selected Dhori block represents rugged topography being traversed by a major flat-topped hill, some isolated hillocks and dumps of existing and old quarries. The general elevation within the block lies between 213 m to 326 m above mean sea level. The ground slopes generally from north to south in the project area.

The balance mineable reserve of project within the quarry area of 179.44 Ha is 10.72 Mte for life of 8 years. The mineable reserves available is a high-grade coking coal of washery grade-III. Proposed seams to be worked in the project are Karo VI to X combined, Karo V and Karo III. Final depth of the quarry will be 120 meters.

Total overburden quantities estimated for the proposed project is 66.00 Mcum of OB. Out of which about 9.72 Mcum of OB has been proposed to be rehandled from 4th year onwards. All the OB removed will be backfilled within the quarry itself. The proposed dump height is maximum 60m from immediate surface level. Total two decks of height 30m each leaving 30m wide berms on each deck have been proposed and the final stage dump will attain a maximum RL of 270m. Coal produced from the project is transported to nearby Tarmi railway siding for onward transportation to projects.

The proposed Pre-mining & Post-Mining Land Use is given below:

SN	Land Use	Area in Ha	Post Mining Land Use	Area in Ha
1	Quarry	179.44	Internal dump reclaimed with Plantation	151.51
			void filled with water	27.93
2	Tisri Nala and Joria Nala	1.48	Tisri Nala and Joria Nala	1.48
3	Road & Infrastructure	5.06	Infrastructure for future use	5.06
4	Embankment	1.69	Plantation on Embankment	1.69
5	Green Belt & Safety Zone	24.15	Plantation on Green Belt & Safety Zone	24.15
Total		211.82	Total	211.82

The peak industrial water demand for the project was projected as 1013 cum/day. The domestic water demand (colony + industrial buildings) was projected as 870 cum/day. Thus, the total water requirement is 1883 cum/day.

The capital investment for the project is approximately Rs. 197.71 Crore.

This project has been a major economical source to the nearby villagers. This project, when in operation, provides direct employment to around 1038 people and indirect employment to 1500 villagers. Thus, this project has been playing a major role in the socio-economic upliftment of the nearby villagers. Further, this project has been effectively contributing to the developmental activities in nearby villages through CSR and other means.

AA





LAND DETAILS:

Mouza	Thana no.	Khata No.	Plot No.
Makoli	69	1	114/119
		12	114/118
Turio	70	34	1 & 289
Tarmi	71	52	1

The Mining plan and Mine closure plan of Selected Dhori (Lower) OCM within the project area of 211.82 Ha has been prepared and was approved by CCL Board in its 509th Meeting held on 09.12.2021. The existing & proposed configuration of the project is summarized below :

Sl. No.	Particular	Existing Configuration as per EC dated: 27.04.2022	Proposed Configuration as per Present Proposal	Remarks
1	Peak Capacity	11 MTPA	2 MTPA	--
2	Seams Proposed to be mined out	Seam VI to Seam X	Seam III to Seam X	Inclusion of lower seams from Seam III to Seam V
3	Balance Life	2 Years	8 Years	Increase in balance life due to reduction in peak capacity & addition of lower Seam
4	Overburden	3.04 Mcum	66 Mcum	Increase in Total OB due to addition of lower Seam
5	Mineable Reserve	12.32 MT	10.72 MT	--
6	Project Area	264.85	211.82	Reduction in area due to removal of un-diverted forest land
7	Stripping Ratio	0.25 Cum/T	6.16 Cum/T	

In addition, it is also proposed to amend condition no. 5 (i) of the Environmental Clearance of Selected Dhori GoM (11 MTPA/ 264.85 Ha) related to NCRAP of the project.

Sl. No.	Existing Condition as per EC dated: 27.04.2022	Proposed Configuration as per Present Proposal	Remarks
1	Drinking Water Facility (Construction of bore wells with pressure filters and water towers) in 20 villages at a cost of Rs 40	The fund will be diverted into a corpus for sustainability of Sports and Educational Complex (30 Crores and beautification of three ponds in Dhori Area (Site Name: Pichri North,	The said activity needs to be removed as the said work is already being undertaken by Jharkhand State Govt. under the scheme of Jal Jivan Mission. In view of this, the said amount that is Rs 40

	Crores	Pichri South & Bhola Nagar) (10 Crores)	Crores is to be diverted into a corpus for sustainability of Sports and Educational Complex (30 Crores and beautification of three ponds in Dhor Area (Site Name: Pichri North, Pichri South & Bhola Nagar) (10 Crores) under Natural and Community Resource Augmentation Plan
--	--------	-----------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Description of Seams:

Karo VI to X combined has been considered for mining. This seam forms the topmost seam in the proposed mining area. The seam has been mined extensively with an occurrence of fire in the area. Presence of this seam is possible in patches in the proposed mining area. Since its extent and quantity could not be ascertained due to past mining, its reserve has not been assessed. However, the same needs to be mined out along with the underlying seams. Seam IV, Seam II and Seam I. These seams are not mineable due to very low thickness.

Sl.No.	Seam Name	Avg Thickness considered (m)	Thickness range (m)	Geological Reserve (MT)	Mineable Reserve (MT)
1	Karo VI to X	-	57.33-69.28	-	-
2	Karo V	3.00	2.92-4.93	7.01	4.51
3	Karo IV	-	0.18-1.15	-	-
4	Karo III	4.00	3.25-7.66	12.75	6.21
5	Karo II	-	0.17-1.25	-	-
6	Karo I	-	0.30-0.40	-	-
	TOTAL			19.76	10.72

Proposed Calendar Programme of Production:

The summarized mining schedule for coal extraction and corresponding overburden load for the project, annual coal & OB production schedule has been provided in the table below:

Period	Year	Coal Production (Mt)	OB Removal (Mcum)	Stripping Ratio (cum/te)
Capacity built-up	1	0.50	3.70	7.41
	2	1.00	7.41	7.41
	3	1.50	10.18	6.79
Production	4	2.00	12.36	6.18
	5	2.00	11.40	5.70

	6	2.00	11.43	5.72
Tapering	7	1.20	6.66	5.55
	8	0.52	2.85	5.49
TOTAL		10.72	66.00	6.16

Power Requirement:

It is envisaged that this project will receive power at 33 kV from Bokaro Thermal Power Station (BTPS) of DVC. For this, two nos. existing 33 kV overhead lines from BTPS to B&K Main-sub-station shall be extended up-to proposed quarry. A 33 kV energy meter shall be installed for recording its energy consumption. Approximate distance of the quarry from B&K Sub-station is approximately 5 km.

Further, it is proposed to establish 1 no 2 X 5 MVA, 33/6.6 kV sub -station with provision for 2 nos. incoming 33 kV feeders and 12 nos. outgoing 6.6 kV feeders for supply of power to different power consuming equipment of the project.

Water Requirement:

The peak industrial water demand for Selected Dhori GoM (Lower Seams) was projected as 1013 cum/day. The domestic water demand (colony + industrial buildings) was projected as 870 cum/day. Thus, the total water requirement is 1883 cum/day.

Proposed source of water is from mine water of Selected Dhori Quarry & from Integrated Water Supply System (IWSS). NOC from CGWA has been granted vide no: CGWA/NOC/MIN/ORIG/2021/ 13591 Dated:01.11.2021 for a permitted quantity of 2841 KLD.

The proposed land use for the project is given below:

Sl. No.	Land Use	Area in Ha
1	Quarry	179.44
2	Tisri Nala and Joria Nala	1.48
3	Road & Infrastructure	5.06
4	Embankment	1.69
5	Green Belt & Safety Zone	24.15
Total (in Ha)		211.82 Ha

STATUTORY CLEARANCES:

1	LOI/Lease docs	:	Land of SDOCM has been partially vested through Coal Mines Nationalization Act and Partially acquired through CBA Act.
2	CO	:	The CO, Chandrapura (Bokaro) vide letter no. 875, dated 09.09.2022 and CO, Bermo (Bokaro) vide letter no. 556, dated 05.09.2022 have mentioned the plot nos. of the project are recorded as "Jungle Jhari" in R.S. Khatyan & Register II.
3	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 1906, dated 24.09.2022 certified that the said project is outside Eco Sensitive Zone of

			Parasnath & Topchanchi Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Bokaro Forest Division vide letter no. 2788, dated 30.09.2022 certified that the applied plots of proposed project site is forest land.
5	Mine Plan Approval	:	Ref No.: - CS/BM/509/2022/32, Dated: - 03.01.2022.
6	CGWA	:	NOC for Ground Water Abstraction vide NOC no. CGWA/NOC/ORIG /2021/13591, dated 01.11.2021.
7	Public Hearing	:	The Project Authorities have requested for waiver of Public Hearing. The present EC dated 27.04.2020 has been granted by MoEF&CC, Govt. of India based on Public Hearing conducted on 27.08.2016. After due deliberations that the present proposal is for lesser production capacity and area thus Public Hearing is waived as per the decision of SEIAA. This was based on recommendation of SEAC.
8	Diversion of forest land	:	<ul style="list-style-type: none"> i. Stage-I granted MoEF, Govt. of India vide F. no. 8-122/90-FC, dated 03.01.1992 for area 143.05 ha. ii. Stage-II granted MoEF, Govt. of India vide F. no. 8-122/90-FC, dated 01.07.1996 for area 143.05 ha. iii. Stage-I granted MoEF, Govt. of India vide F. no. 8-69/2004-FC, dated 10.09.2004 for area 69.183 ha. iv. Stage-II granted MoEF, Govt. of India vide F. no. 8-69/2004-FC, dated 02.03.2009 for area 69.183 ha. v. Re-application for diversion of forest land vide proposal no. FP/JH/MIN/40575/2019, dated 17.05.2021 for area 143.05 ha.

The PAs have requested for diversion of fund (40 crores earlier allocated for supply of drinking water is now proposed to be utilized for Rain Water Harvesting construction and sports activities) due to avoiding the duplicacy of the work w.r.t. remediation plan and natural & community resource augmentation plan as prescribed by MoEF&CC vide Environmental Clearance letter F. no. 23-80/2018-IA.III(M), dated 27.04.2020. This will be spent within a span of 03 years.

The PAs have further requested that due to Covid Pandemic the funds could not be utilized within stipulated 03 years period and requested that utilization period of the funds may be extended by another 02 years.

24

65

h

The SEAC has examined the request of PAs in this regard and accordingly remediation plan and natural & community resource augmentation plan is to be diverted as table given below within a extended period of 02 years i.e. 2025:

SN	Head	Activity Approved in Damage Remediation Plan in Existing EC	Total Fund allocated in existing EC (Rs in Lakhs)	Proposed Modification in Fund (Rs in Lakhs)	Fund after proposed Modification (Rs in Lakhs)
1	Water Environment	Construction of check dam across Tisri Nallah for ground recharge and other community purposes	100	-	100
2		Rainwater Harvesting by construction & beautification of ponds, wells etc. in nearby villages	100	+ 1000	1100
Total Water Environment			200	+ 1000	1200
1	Ecology	Plantation in nearby villages along community buildings & barren lands (20 villages)	100	-	100
Total Ecological Environment			100	-	100
1	Air & Noise Environment	Additional Health Camps to monitor the respiratory and health status of nearby villages (20 villages * 2 Camps/Year * Rs 2 Lakh)	80	-	80
2		Road Sweeping Machine for nearby villages (5 Machines * Rs 55 Lakhs)	275	-	275
Total Air & Noise Environment			355	-	355
1	Land Environment	Community Solid waste collection bins in 20 villages	30	-	30
2		Providing colour coded bins in schools, hospitals etc (100 Numbers)	5	-	5
Total Land Environment			35	-	35
1	Socio-Economic	Establishment of 5 Kayakalp schools for peripheral villages and corpus for sustainability of educational initiatives	4800	-	4800
Total Socio-Economic Environment			4800	-	4800
Total Cost			5490	+ 1000	6490

SN	Activity Approved in NCRAP in Existing EC	Total Fund allocated in existing EC (Rs in Lakhs)	Proposed Modification in Fund (Rs in Lakhs)	Fund after proposed Modification (Rs in Lakhs)
	Natural Resource Augmentation plan			
1	Drinking Water Facility (Construction of bore wells with pressure filters and water towers) in 20 villages	4000	- 4000	00.00
	Community Resource Augmentation Plan			
2	Establishment of Sports and Educational Complex			
	a. Establishment and operation of a Sports Academy (Archery, shooting, swimming, athletics, cycling, boxing & Hockey)	3800	+ 3000	6800
	b. Construction of School for sports academy cadets and other students	800	-	800
Total		8600	-	7600

Summary of DRP & NCRAP (Approved & Proposed)

SN	Activity Approved in DRP & NCRAP in Existing EC	Total Fund allocated in existing EC (Rs in Lakhs)	Proposed Modification in Fund (Rs in Lakhs)	Fund after proposed Modification (Rs in Lakhs)
1	Cost of Damage Remediation Plan	5490	+ 1000	6490
2	Cost of Natural Resources Augmentation Plan	4000	- 4000	0.0
3	Cost of Community Resources Augmentation Plan	4600	+ 3000	7600
Total		14090	00.00	14090

- I. Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is Rs. **14090 Lakhs**.
- II. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. **14090 Lakhs** towards implementation of remediation plan and natural and community resource augmentation plan with the Jharkhand State Pollution Control Board.

SA

2

1

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 25.01.2023 bearing Bank Guarantee No. : 0089BGR0009320 dated : 27.08.2019 valid up to 26.08.2024.

- 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.

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 **“Selected Dhori (Lower) Open Cast Mine of M/S Central Coalfield at Village : Turio, Makoli, Tarmi, Tehsil : Bermo, Distt. : Bokaro, Jharkhand”** 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.

NA

6

1

- ii. 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 till 2025 with the consultation of Local / Urban Bodies / State Govt. Deptt.
- iii. No mining/activity shall be undertaken in the forest land or deemed forest without obtaining requisite prior forestry clearance.
- iv. 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.
- v. 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 within 10 km. of protected area).
- vi. 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. (in case 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 be 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 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.

BA

65

1

- 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-IA.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.

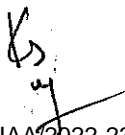
- ii. Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
- iii. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen 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. 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..

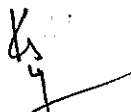
IX. Public hearing and Human health issues:

- 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 & its 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; PM₁₀, SO₂, 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/2022-23/2655/2022/364

Ranchi, Date : 30/01/2023

Copy to:

1. Additional Chief Secretary, Department of Forests, Environment & Climate Change, Govt. of Jharkhand.
2. Deputy Commissioner, District- Bokaro, Jharkhand.
3. Divisional Forest Officer, Bokaro Forest Division, Bokaro, 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.

SA

JS