



File No.: EC/SEIAA/2024-25/3499/2024
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), JHARKHAND)



Dated 08/04/2025



To,

Rajeev Kumar Singh
CENTRAL COALFIELDS LIMITED
CENTRAL COALFIELDS LIMITED, DARBHANGA HOUSE, KUTCHERY ROAD, Ranchi,
RANCHI, JHARKHAND, Raj Bhawan Jharkhand, 834001
moef-parivesh.ccl@coalindia.in

Subject: Grant of prior Environmental Clearance (EC) to the proposed Mining Project under the provisions of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application submitted to SEIAA vide proposal number SIA/JH/CMIN/515359/2024 dated 28/02/2025 for grant of prior Environmental Clearance (EC) to the project under the provision of the EIA Notification 2006-and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24B0605JH5747719N
(ii) File No.	EC/SEIAA/2024-25/3499/2024
(iii) Clearance Type	Fresh EC
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	Amlo Expansion OCP
(ix) Location of Project (District, State)	BOKARO, JHARKHAND
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	No

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-2(Part A, B and C)/ EIA & EMP Reports were submitted to the SEIAA for an appraisal by the SEIAA under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by SEIAA in the meeting held on 19/03/2025. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed from the PARIVESH portal by scanning the QR Code above. Brief description of the project is as under: The project is

necessary for energy security of the nation and reduce the import of coal

5. Details of the minerals to be mined along with production capacity and the brief on the salient features of the project as submitted by the project proponent in Form 1 (Part A and B) in the reports and as presented during SEIAA are annexed to this EC as Annexure (1).
6. The SEIAA, in its meeting held on 19/03/2025, based on information submitted viz: Form 1 (Part A, B and C), EIA/EMP report etc & clarifications provided by the project proponent and after detailed deliberations on all technical aspects and public hearing issues and compliance thereto furnished by the Project Proponent, recommended the proposal for grant of Environment Clearance under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of Specific and Standard EC conditions as detailed in the point below.
7. The SEIAA has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the SEIAA hereby accords Environment Clearance for the instant proposal to M/s. Rajeev Kumar Singh under the provisions of EIA Notification, 2006 and as amended thereof subject to compliance of the Specific and Standard EC conditions as given in Annexure (2)
8. The Ministry reserves the right to stipulate additional conditions, if found necessary.
9. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
10. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.
11. Validity of EC is upto 28/02/2025 from which the prior environmental clearance is granted by the regulatory authority.
12. General Instructions:
 1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of SEIAA website where it is displayed.
 2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.
 3. The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.
 4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
 5. 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.
 6. The Regional Office of this SEIAA 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.

7. Any appeal against this EC 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.

13. This issue with an approval of the Competent Authority.

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N/A

Annexure 1

Standard EC Conditions for (Mining of minerals)

1. Statutory Compliance

S. No	EC Conditions
1.1	The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project
1.2	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.3	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.4	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. TThe implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
1.5	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.
1.6	Validity of EC is as per life of the mine mentioned in EC letter or 30 years as per EIA Notification, 2006 and its amendments therein
1.7	The maximum production or peak production at any given time shall not exceed the limit as prescribed in the EC.
1.8	Permission of power supply to be taken from the concerned authority for meeting power demand of the project site.
1.9	The project proponent shall obtain the necessary permission from the Central Ground Water Authority
1.10	Solid/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.

Additional EC Conditions

N/A

Details of the Project

S. No.	Particulars	Details	
a.	Details of the Project	Amlo Expansion OCP	
b.	Latitude and Longitude of the project site	23.7727310838453,85.9833322548629 23.7917695012486,86.0022704216903	
c.	Land Requirement (in Ha) of the project or activity	Nature of Land involved	Area in Ha
		Non-Forest Land (A)	0
		Forest Land (B)	
		Total Land (A+B)	247.59
d.	Date of Public Consultation	Public consultation for the project was held on	
e.	Rehabilitation and Resettlement (R&R) involvement	NO	
f.	Project Cost (in lacs)	46632.46	
g.	EMP Cost (in lacs)	1822.72	
h.	Employment Details		

Details of Minerals Products & By-products

Name of the Mineral to be mined	Classification of mineral [Major/Minor]	Production capacity in MTPA	Remarks
Coal	Major	3.6	



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/2024-25/3499/2024/

Ranchi, Date :

To: Shri Rajeev Kumar Singh,
Office of the Project Officer,
Amalgamated Amlo Dhori Opencast Project, Dhori Area
Post : Dhori, District : Bokaro, Jharkhand : 829144.

Sub: Environmental Clearance for the project "Amlo Expansion Opencast Project (3.00 MTPA to 3.6 MTPA) of M/s Central Coalfields Limited (CCL) at Village : Karo, Amlo & Dhori, Tehsil : Bermoo, District : Bokaro, Jharkhand (247.59 Ha)", (Proposal No. : SIA/JH/CMIN/515359/2025) - regarding.

Ref: Your application no. PO/AADOCM/EC_APP/2024-25/3810, dated – 24.02.2025.

Sir,

It is in reference to the project "Amlo Expansion Opencast Project (3.00 MTPA to 3.6 MTPA) of M/s Central Coalfields Limited (CCL) at Village : Karo, Amlo & Dhori, Tehsil : Bermoo, District : Bokaro, Jharkhand (247.59 Ha)" submitted by you for seeking prior Environmental Clearances (EC).

This is an expansion project which has been taken for appraisal on 10.03.2025.

Project Sector: 1(a) Mining of Minerals (Coal), Category: B1.

Application for expansion of Environment Clearance under clause 7(ii) (a) of EIA Notification, 2006.

EC Application for: Opencast Coal Mining & Highwall Mining: 3.60 MTPA in an area of 247.59 Ha.

Amlo OCP, an existing opencast coal mine in East Bokaro Coalfields under the Dhori area of CCL, currently operates with EC for 3.0 MTPA (Peak) within a project area of 247.59 Ha. To enhance production, a revised Mining Plan & Mine Closure Plan was approved by the CCL Board on 20.06.2024 for 4.50 MTPA, including the introduction of high wall mining in designated patches.

For Phase-I expansion, the EIA/EMP has been prepared for increasing capacity from 3.0 MTPA to 3.60 MTPA within the existing area, following MoEFCC's OM dated 11.04.2022 under Clause 7(ii)(a) of EIA Notification, 2006. Baseline data was collected during Winter 2023-24,

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and the proposal for EC expansion was submitted to MoEFCC on 20.12.2024 as per the Standard ToR.

PROJECT and LOCATION Details:

Sl	Parameter	Details
1	Project Name	: Amlo Expansion OCP
2	Project Proponent	: Shri Rajeev Kumar Singh, Project Officer, Amlo Expansion OCP
3	Address	: Office of the Project Officer, Amlo OCP, Dhori Area, Central Coalfields Limited, PO-Dhori, Dist-Bokaro, Jharkhand. PIN- 825102 Phone Number – 8987784922
4	Area	: 247.59 ha Acres: 611.81 Acres
5	Type of Land	: Forest Land: 197.724 Ha & Non-Forest Land: 49.866 Ha
6	Project Cost	: 23848.46 Lakh
7	EMP Budget	: Capital: 3476.33 Lakhs Recurring: 211.31 Lakh / year
8	PH Compliance Budget	: Rs. 1507.87 Lakh (for compliance of action plan of Public Hearing)
9	New or Expansion	: Expansion
10	Mineable Reserves	: Coal: 13.72 Million Tonnes OB: 5.25 Million Cu. M.
11	Mine Life	: 04 years
12	Man power	: 928
13	Water Requirement	: 738 KL/Day
14	Water Source	: Mine seepage & rain water stored in mine sump
15	DG Set / power	: 3 DG Sets of 180 kVs are there in the project
16	Crusher	: Yes 5 Numbers of capacity 4.5 MTPA
17	Nearest Water Body	: Damodar River (2 KM)
18	Nearest Habitation	: Phusro (1 KM)
19	Nearest Rail Station	: Phusro Railway Station (3 KM)
20	Nearest Air Port	: Ranchi (130 KM)
21	Nearest Forest	: Within Project boundary
22	Road & Highways	: Phusro-Dumri Road (0.5 km)

CO-ORDINATES:

1	Latitude	From 23°46' N	To 23°48' N
2	Longitude	From 85°59' E	To 86°01' E

STATUTORY CLEARANCES:

1	Lease docs	: The said land has been acquired under CBA vide S.O. No.: 3160 dated 29.07.1983 & Nationalization deed 2267 of 1936.
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2	CO	:	The CO, Bermo (Bokaro) vide letter no. 144, dated 06.02.2025 has mentioned that the 39.975 Ha of the project is recorded as “Jangle Jhari” in R.S. Khatiyani & Register II.																
3	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 888, dated 17.05.2024 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. 1954, dated 13.09.2024 certified that the distance of reserved / protected forest is Zero (0) meter from proposed project site.																
5	Mine Plan Approval	:	Ref No.: - CS/BM/540/2024/205, Dated: - 20.06.2024.																
6	Public Hearing	:	Conducted on 05.08.2008.																
7	CGWA	:	NOC for Ground Water Abstraction from CGWA has been approved vide Application No.21-4/1019/JH/MIN/2022 dated 24.01.2024.																
9	Consent to Operate (CTO)	:	CTO issued by JSPCB vide Ref. No. JSPCB/HO/RNC/CTO-19428526/2024/1550, dated 30.09.2024 for capacity 3 MTPA.																
10	Monitoring report on the status of compliance of the conditions in EC	:	Monitoring report on the status of compliance of the conditions in EC issued by Regional Office, MoEF&CC, Govt. of India vide F.No. 103-302/11/EPE/660, dated 18.10.2024.Issuance of Certified Action Taken Report by RO vide F.No. 103-302/11/EPE/134, dated 24.02.2025.																
11	Previous EC	:	Previous EC granted by MoEF, Govt. of India vide No. J-11015/35/2007-IA.II (M), dated 30.09.2010. Issuance of Certified Action Taken Report by RO vide F.No. 103-302/11/EPE/134, dated 24.02.2025.																
12	Hazardous Waste Authorization	:	JSPCB/HO/RNC/HWM-14225840/2023/46 Dated: 05.08.2023.																
13	Forest Clearance	:	<table><tr><td>TOTAL ML/PROJECT AREA (ha)</td><td>TOTAL FOREST LAND</td><td>Proposal No. and Date of FC</td><td>Extent of forest land</td><td>Balance area for which FC is</td><td>Status of appl. For diversion of forest land</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>					TOTAL ML/PROJECT AREA (ha)	TOTAL FOREST LAND	Proposal No. and Date of FC	Extent of forest land	Balance area for which FC is	Status of appl. For diversion of forest land						
TOTAL ML/PROJECT AREA (ha)	TOTAL FOREST LAND	Proposal No. and Date of FC	Extent of forest land	Balance area for which FC is	Status of appl. For diversion of forest land														

				D (ha)			yet to be obtain ed	
			247.59 (Forest=1 97.724) +Non- Forest=49 .866)	197.724 (158.06 1+ 39.663)	a.222.324 Ha (FNo.8- 136/2002- FCdated 07/06/2004) b.39.663 Ha (FP/JH/MIN/25 031/2017/4572 dated05/03/202 1)	158.06 Ha	Nil	Already Diverted
						39.663 Ha	Nil	Already Diverted

Production Details: Since grant of previous EC:

Year	Coal (in MTe)	Year	Coal (in MTe)
2010-11	2.041	2017-18	1.117
2011-12	1.686	2018-19	1.939
2012-13	1.147	2019-20	1.430
2013-14	2.302	2020-21	1.184
2014-15	1.867	2021-22	1.934
2015-16	1.937	2022-23	2.472
2016-17	2.066	2023-24	2.613

Working Details:

1	Mining Method	:	Shovel-Dumper Combination & Highwall Mining
2	Mineable Reserve	:	13.72 millionTe
3	Overburden Generation	:	16.97million Cu. M.
4	Stripping Ratio	:	1.37Cu.M/Te
5	Working Days	:	365
6	Depth of quarry	:	160m (maximum)
7	Seams considered	:	BERMO, X, IX, VIII, VI by opencast and Seam VI to X by highwall miner

8	Grade	:	W-III - W-IV
9	Life	:	04 Years

Coal Transportation Route:

Out of total coal production of 3 MTPA, following transport arrangement is proposed.

- In pit: By Dumpers
- Surface to siding: Through Dhori railway siding (approx. 2.3 km from mine) and to local consumers by State-Highway (Dumri-Bermo Road)

LAND DETAILS:

Land schedule of 247.59 Ha. of Amlo Expansion OCP						
Amlo, Khata No's :- 1 2 3 4 9 10 11 12 13 14 16 17 18						
20 21 22 24 25 26 27 28 30 31 34 39 40						
Karo , Khata No's :- 1						
Dhori, Khata No's :- 131						
SL. No.	Village	Plot No.	GM (Acre)	Tenancy (Acre)	Notified Forest (Acre)	GM J/J (Acre)
1	Amlo	38		0.15		
2	Amlo	39(P)			8.955	10.205
3	Amlo	41		1.96		
4	Amlo	42		0.50		
5	Amlo	43		0.20		
6	Amlo	44		0.55		
7	Amlo	45		1.88		
8	Amlo	46(P)			41.463	8.772
9	Amlo	47(P)			26.667	0.445
10	Amlo	138(P)			10.526	
11	Amlo	139			71.026	5.474
12	Amlo	140	1.36			
13	Amlo	141		1.36		
14	Amlo	142		0.07		
15	Amlo	143		0.12		
16	Amlo	144		0.04		
17	Amlo	145		0.01		
18	Amlo	146		0.03		
19	Amlo	147		0.31		
20	Amlo	148		0.19		
21	Amlo	149		0.07		

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22	Amlo	150		0.42		
23	Amlo	151		0.26		
24	Amlo	152		0.27		
25	Amlo	153		0.22		
26	Amlo	154		0.06		
27	Amlo	155		0.46		
28	Amlo	156		0.04		
29	Amlo	157		0.09		
30	Amlo	158		0.56		
31	Amlo	159		0.37		
32	Amlo	160		0.62		
33	Amlo	161			32.222	37.697
34	Amlo	162		0.27		
35	Amlo	163		0.58		
36	Amlo	164		0.08		
Sl. No.	Village	Plot No.	GM (Acre)	Tenancy (Acre)	Notified Forest (Acre)	GM J/J (Acre)
37	Amlo	165		0.29		
38	Amlo	166		0.52		
39	Amlo	167		0.06		
40	Amlo	168		0.23		
41	Amlo	169		0.15		
42	Amlo	170		0.44		
43	Amlo	171		0.24		
44	Amlo	172		0.41		
45	Amlo	173		0.13		
46	Amlo	174		0.10		
47	Amlo	175		1.43		
48	Amlo	176		0.68		
49	Amlo	177		0.59		
50	Amlo	178		1.77		
51	Amlo	179		0.30		
52	Amlo	180			6.04	
53	Amlo	181		1.26		
54	Amlo	182		1.39		
55	Amlo	183	0.20			
56	Amlo	184		0.38		
57	Amlo	185		1.05		
58	Amlo	186		1.01		
59	Amlo	187(P)			1.54	
60	Amlo	188		0.19		

61	Amlo	189		0.36		
62	Amlo	190		0.02		
63	Amlo	191	0.07			
64	Amlo	192		0.01		
65	Amlo	193		0.48		
66	Amlo	194		0.47		
67	Amlo	195		0.32		
68	Amlo	196		1.96		
69	Amlo	197		0.43		
70	Amlo	198			0.10	
71	Amlo	199				0.2
72	Amlo	200		1.79		
73	Amlo	201(P)		0.67		
74	Amlo	202(P)		0.28		
75	Amlo	203(P)		0.89		
76	Amlo	208(P)		1.74		
77	Amlo	219(P)		2.95		
78	Amlo	226(P)				7.734
79	Amlo	227		0.35		
Sl. No.	Village	Plot No.	GM (Acre)	Tenancy (Acre)	Notified Forest (Acre)	GM J/J (Acre)
80	Amlo	228		0.53		
81	Amlo	462(P)		0.59		
82	Amlo	464(P)	0.37			
83	Amlo	465(P)		0.17		
84	Amlo	466		0.55		
85	Amlo	467(P)				0.35
86	Amlo	468	0.36			
87	Amlo	469		0.67		
88	Amlo	470		0.16		
89	Amlo	471		0.04		
90	Amlo	472		0.09		
91	Amlo	473		0.10		
92	Amlo	474		0.08		
93	Amlo	475	0.10			
94	Amlo	476		0.24		
95	Amlo	477		0.21		
96	Amlo	478		0.11		
97	Amlo	479	0.05			
98	Amlo	480	0.01			
99	Amlo	481		0.28		

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100	Amlo	482	0.05			
101	Amlo	483		0.78		
102	Amlo	484	0.02			
103	Amlo	485		0.58		
104	Amlo	486	0.03			
105	Amlo	487		0.43		
106	Amlo	488		0.2		
107	Amlo	489		0.08		
108	Amlo	490		0.44		
109	Amlo	491		0.20		
110	Amlo	492		0.51		
111	Amlo	493(P)		0.29		
112	Amlo	494(P)		0.57		
113	Amlo	495		0.21		
114	Amlo	496		0.18		
115	Amlo	497(P)		0.57		
116	Amlo	498(P)		0.34		
117	Amlo	543(P)		0.25		
118	Amlo	545(P)		0.42		
119	Amlo	546		0.05		
120	Amlo	547		0.35		
121	Amlo	548		0.01		
122	Amlo	549(P)	0.57			
Sl. No.	Village	Plot No.	GM (Acre)	Tenancy (Acre)	Notified Forest (Acre)	GM J/J (Acre)
123	Amlo	550	0.06			
124	Amlo	551		0.30		
125	Amlo	552		0.26		
126	Amlo	553		0.19		
127	Amlo	554		0.37		
128	Amlo	555		0.02		
129	Amlo	556	0.03			
130	Amlo	557		0.02		
131	Amlo	558		0.07		
132	Amlo	559		0.12		
133	Amlo	560		0.01		
134	Amlo	561		0.49		
135	Amlo	562		0.03		
136	Amlo	563	0.21			
137	Amlo	564		0.18		
138	Amlo	565		0.02		

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139	Amlo	566		0.61		
140	Amlo	567		0.06		
141	Amlo	568		0.03		
142	Amlo	569		0.06		
143	Amlo	570		0.19		
144	Amlo	571		0.02		
145	Amlo	572		0.04		
146	Amlo	573(P)		0.38		
147	Amlo	574		0.15		
148	Amlo	575(P)	0.08			
149	Amlo	576(P)		0.11		
150	Amlo	754(P)		2.66		
151	Amlo	756(P)		0.30		
152	Amlo	757		0.03		
153	Amlo	758		0.02		
154	Amlo	759(P)	0.95			
155	Amlo	760		0.24		
156	Amlo	761		0.17		
157	Amlo	762		1.43		
158	Amlo	763		0.5		
159	Amlo	764		0.29		
160	Amlo	765		0.45		
161	Amlo	766		0.41		
162	Amlo	767		1.05		
163	Amlo	768		0.21		
164	Amlo	769		0.43		
165	Amlo	770		0.13		
Sl. No.	Village	Plot No.	GM (Acre)	Tenancy (Acre)	Notified Forest (Acre)	GM J/J (Acre)
166	Amlo	771		0.38		
167	Amlo	772		0.32		
168	Amlo	773		0.47		
169	Amlo	774		0.40		
170	Amlo	775				0.41
171	Amlo	776		0.38		
172	Amlo	777		2.33		
173	Amlo	778		0.41		
174	Amlo	779		0.53		
175	Amlo	780		0.18		
176	Amlo	781	0.53			
177	Amlo	782	0.32			

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178	Amlo	783		0.15		
179	Amlo	784		0.38		
180	Amlo	785	0.08			
181	Amlo	786		0.46		
182	Amlo	787		0.11		
183	Amlo	788	0.49			
184	Amlo	789		0.32		
185	Amlo	790		0.43		
186	Amlo	791		0.01		
187	Amlo	792		0.15		
188	Amlo	793		0.22		
189	Amlo	794	0.02			
190	Amlo	795		0.1		
191	Amlo	796		0.04		
192	Amlo	797		0.25		
193	Amlo	798		0.35		
194	Amlo	799		0.05		
195	Amlo	800		0.02		
196	Amlo	801		0.2		
197	Amlo	802		0.03		
198	Amlo	803		0.05		
199	Amlo	804	0.02			
200	Amlo	805		0.33		
201	Amlo	806		0.05		
202	Amlo	807	0.15			
203	Amlo	808		0.15		
204	Amlo	809		0.08		
205	Amlo	810		0.09		
206	Amlo	811		0.06		
207	Amlo	812		0.26		
208	Amlo	813		0.06		
Sl. No.	Village	Plot No.	GM (Acre)	Tenancy (Acre)	Notified Forest (Acre)	GM J/J (Acre)
209	Amlo	814		0.34		
210	Amlo	815(P)		0.2		
211	Amlo	816		0.56		
212	Amlo	817		0.01		
213	Amlo	818		0.21		
214	Amlo	819		0.39		
215	Amlo	820(P)	0.01			
216	Amlo	821		0.11		

217	Amlo	822		0.48		
218	Amlo	823		0.48		
219	Amlo	824		0.27		
220	Amlo	825		0.22		
221	Amlo	826		0.12		
222	Amlo	830		1.4		
223	Amlo	831		0.1		
224	Amlo	832		0.1		
225	Amlo	834		0.24		
226	Amlo	835		0.19		
227	Amlo	836		0.12		
228	Amlo	838		0.01		
229	Amlo	839		1.56		
230	Amlo	840(P)		0.24		
231	Amlo	841		0.13		
232	Amlo	842		0.16		
233	Amlo	843		0.04		
234	Amlo	844		0.94		
235	Amlo	846		0.54		
236	Amlo	847		0.85		
237	Amlo	848		1.95		
238	Amlo	849		0.25		
239	Amlo	850		0.42		
240	Amlo	851		0.13		
241	Amlo	852		0.06		
242	Amlo	853		0.02		
243	Amlo	854		0.04		
244	Amlo	855(P)		0.59		
245	Amlo	856(P)		0.33		
246	Amlo	857(P)		3.09		
247	Amlo	860(P)		0.2		
248	Amlo	861		0.08		
249	Amlo	862(P)		0.19		
250	Amlo	866(P)				4.75
251	Amlo	867		0.46		
Sl. No.	Village	Plot No.	GM (Acre)	Tenancy (Acre)	Notified Forest (Acre)	GM J/J (Acre)
252	Amlo	868		1.1		
253	Amlo	869		0.11		
254	Amlo	870		0.16		
255	Amlo	871				0.10

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256	Amlo	872		0.06		
257	Amlo	873		2.26		
258	Amlo	876		1.09		
259	Amlo	877		0.51		
260	Amlo	878		0.15		
261	Amlo	879		0.06		
262	Amlo	881		1.92		
263	Amlo	882		1.64		
264	Amlo	883		0.85		
265	Amlo	885		0.1		
266	Amlo	886		0.13		
267	Amlo	887		0.36		
268	Amlo	888		0.24		
269	Amlo	889		1.72		
270	Amlo	890		0.5		
271	Amlo	891		1.01		
272	Amlo	892		0.3		
273	Amlo	893		0.37		
274	Amlo	894		0.25		
275	Amlo	895		0.75		
276	Amlo	896		0.16		
277	Amlo	897				2.80
278	Amlo	898		0.21		
279	Amlo	899		0.19		
280	Amlo	900		0.13		
281	Amlo	901		1.01		
282	Amlo	902		0.86		
283	Amlo	903		0.37		
284	Amlo	904		0.37		
285	Amlo	905		0.68		
286	Amlo	906		0.35		
287	Amlo	907		0.35		
288	Amlo	908		0.4		
289	Amlo	909		0.24		
290	Amlo	910				0.33
291	Amlo	911		0.29		
292	Amlo	912		0.47		
293	Amlo	913		0.62		
294	Amlo	914		0.08		
Sl. No.	Village	Plot No.	GM (Acre)	Tenancy (Acre)	Notified Forest (Acre)	GM J/J (Acre)

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295	Amlo	915		0.22		
296	Amlo	916(P)			30.141	5.667
297	Amlo	921		0.12		
298	Amlo	947		0.16		
299	Amlo	948		0.09		
300	Amlo	839/947		0.16		
301	Amlo	838/948		0.09		
		750/				
302	Amlo	949(P)		0.12		
303	Karo	351		1.96		
304	Karo	352				0.21
307	Karo	353				1.836
305	Karo	354		0.86		
306	Karo	355				0.759
308	Karo	356				0.30
309	Karo	357(P)		3.85		
310	Karo	358			0.717	
311	Dhori	3020			160.400	1.127
312	Dhori	241				9.612
			6.140	117.080	389.797	98.778
Area in Acre			123.22		389.797	98.778
Area in Ha.			49.866		157.749	39.975
Total Area in Ha.					247.59	

Land Type Breakup:

SN	Particulars	Area (Ha.)
1	Notified Forest Land	157.749
2	GM JJ Land	39.975
Total Forest Land (a)		197.724
3	Non-Forest Land (b)	49.866
Total Project Area (a+b)		247.59

Status of Forest Land:

TOTAL FOREST LAND (ha)	Proposal No. and Date of FC	Total Area in Ha	Extent of forestland within Project Area of Amlo OCP	Status of appl. For diversion of forest land
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197.724 Ha	FNo.8-136/2002-FC Dated:07/06/2004	222.324 Ha	158.06Ha	Stage-II FC granted
	FP/JH/MIN/25031/2017/4572 Dated:05/03/2021	39.663 Ha	39.663Ha	Stage-II FC granted

The major conditions prescribed as per the approved Forestry Clearance are submitted below:

- 1) Wherever possible and technically feasible, the User Agency shall undertake afforestation measures by involving local community in the blanks within the lease area, as well as along the roads outside the lease area diverted under this approval, in consultation with the State Forest Department at the project cost.
- 2) The User Agency either itself or through the State Forest Department shall undertake fencing, protection and afforestation with native species of the safety zone area (7.5-meter strip shall be kept within the mining lease or mining cluster, as applicable and such other areas as specified in the approved mining plan) at the project cost.
- 3) The mining should be done in scientific and systematic phased manner.

It was further instructed that the Project Proponent (PP) shall ensure compliance with all conditions stipulated in the Stage-II Forest Clearance (FC) letters for 222.324 Ha and 39.663 Ha.

Land Use During Mining:

SN	Land Use	Total Area in Ha
1	Excavation Area & Haul Road (Including High wall Mining, Internal Dump and Mine Void)	145.46
2	External OB Dump	46.26
3	Infrastructure Area (W/S, Store, S/S, Rest shelter)	3.06
4	Greenbelt and Safety zone	52.81
	Total Area in Ha.	247.59

Post-Mining Land Use Plan:

Proposed Mining Plan			Post Mining Land Use		
SN	Land Use	Area (Ha)	Plantation	Public/Company Use	Void filled with water
1	Proposed Excavation Area	35.32	16.08	-	19.24
2	Area Proposed for High-wall Mining	23.95	-	23.95	-

3	Area excavated and Backfilled and external dump	132.45	132.45	-	-
4	Infrastructure Area	3.06	-	3.06	-
5	Greenbelt and Safety zone	52.81	52.81	-	-
Total		247.59	201.34	27.01	19.24

ENVIRONMENT MANAGEMENT PLAN:

a) Green Belt & Plantation Development Plan:

Year	Green Belt Development		Plantation on Backfilled area and External OB dump		Total Plantation cost (in Rs. Lakhs)
	Area (Ha)	Trees (000)	Area (Ha)	Trees (000)	
Y1	12	30	-	-	42
Post Closure Y1	-	-	38	95	133
Post Closure Y2	-	-	50	125	175
Post Closure Y3	-	-	35.24	88.10	123.34
Total	12	30	123.24	308.10	473.34

b) Water Quality Management:

Existing Measures:

- Mine Sumps have been provided for collection and treatment of Mine Seepage water.
- Workshop effluent is being treated at ETP consisting of Oil and grease trap and Sequential Settling ponds.
- Embankment along Joria Nala and other local stream (nala) to prevent surface run-off.
- Garland drains along with ponds have been provided all around the mine periphery to treat surface run-off and prevent soil erosion.
- Catch/Strom water drains have been provided in residential colonies/industrial installations
- Roof-Top Rainwater Harvesting Structures have been established at Project Office, Amlo OCP by the project authority to replenish the GW level in the study area
- Check dams have been made over local streams to enhance the recharge potentiality of the stream bed as a result of increment residence time of surface water in the stream due to the artificial structures.

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Proposed Measures:

SN	Details	Cost (in Rs. Lakhs)	Timeline
1	1.5 km of the retaining wall constructed, at the toe of the OB dumps within the mine to check run-off and siltation	70	June-2025
2	Upgradation of the existing Effluent Treatment Plant	42	July-2025
3	Sewage Treatment Plant for Colony	900	April-2026
4	Proposal to establish 2 nos. piezometers with Digital Water Level Recorder	20	May-2025

c) Air Quality Management:

Existing Measures:

- Fixed water sprinkling System at Dhori siding
- 5 water sprinklers of 12 KL and 20 KL capacities and 2. No. of 28kL Mist type sprinklers deployed
- Shower type water sprinklers for coal loaded trucks
- 01 number Wheel Washing System installed at Mine entry & Exit Point
- 1 no. of continuous air monitoring systems deployed at Transit Camp, Chapri near Amlo OCP
- 1 no. of PM10 Analyzer is deployed at Dhori Siding, Amlo OCP.
- 33.50 Ha of the area has been reclaimed with plantation.
- Personnel working in mines are provided with protective respiratory devices and PPE kit.

Proposed Measures:

SN	Activity	Cost (in Rs. Lakhs)	Timeline
1	Installation and commissioning of fixed type water sprinklers a) Along both platforms at Dhori siding under AADOCM b) From Check post to 7 No. Coal stock, along haul roads, and other permanent dusty places	150.00	Sep-2025
2	Trolley mounted Fog Canon	40.00	Dec-2025
3	08 nos.Trolley/Truck mounted Air mist guns/ fog canons to be installed & made operational to reduce air pollution.	52.00	Dec-2025
4	PM ₁₀ Rom (10ft X 10ft) at E&M Workshop	2.00	Dec-2025

d) Socio-Economic Study:

- i) Socio-economic study of core and buffer zone of Amlo OCP was carried out by CMPDI during Post-Monsoon of 2024. This includes an analysis of the project's impact on employment, income, education, health facilities, rural infrastructures and local businesses, as well as its effects on the overall health and well-being of the community.
- ii) With a total population of 115568 people, the study area consists of 44 villages spread throughout 3 sub districts of the Bokaro district with no village in the core zone.
- iii) No Rehabilitation and Resettlement is involved in this project.
- iv) The mitigation measures focus on education and health, including setting up schools, scholarships, healthcare centers, and telemedicine services. Water and sanitation initiatives involve installing hand pumps, water treatment plants, drainage systems, and waste management programs. Livelihood support includes skill training, apprenticeships, and local business investment. Environmental conservation efforts promote water conservation, rainwater harvesting, and pollution control. Accordingly, a need-based CSR Action plan has been prepared and proposed as below:

Sector	Activity	Objective	Budget Allocation (in Lakh)	Timeline	Expected Outcome
Healthcare	Organizing Health Camps and Mobile Medical Units	Provide preventive healthcare services and address primary health concerns in nearby villages	15.00	Throughout the mine life	Improved health awareness, early detection of diseases, and increased access to medical services for over 2000 beneficiaries per camp
	Installation of RO Water Purifiers in Schools	Ensure access to clean drinking water for students	12.00	Throughout the mine life	Enhanced health conditions, reducing water-borne diseases for approximately 1,200 students
Education	Distribution of Educational Kits (Books, Stationery, and Bags)	Support underprivileged students to continue their education	10.00	Throughout the mine life	500 students to benefit from improved access to learning materials
	Community development and livelihood	Enhance employability for youth through	40.00	Throughout the mine	youth trained in trades such as welding, tailoring,

	related activities	technical and vocational training		life	and electrical work
Environment	Drive of distribution of Plants saplings	Improve the local ecosystem and reduce dust pollution	10.00	Throughout the mine life	5,000 saplings planted with community involvement
	Development of a Desilting of Ponds/ dug well	Conserve water resources and ensure sustainable water supply	16.00	Throughout the mine life	Improved groundwater recharge benefiting over 2-3 Villages
Infrastructure	Construction of Toilets in Schools and Community Halls	Promote hygiene and sanitation	6.00	Throughout the mine life	Improved sanitation facilities for approximately 1,500 beneficiaries
Sports & Culture	Organizing Annual Sports Tournament	Promote fitness, teamwork, and community bonding	10.00	Throughout the mine life	Participation from 20+ local teams and youth engagement
	TOTAL		119.0		

e) Provision of Action Plan of Public Hearing:

- Public consultation including public hearing was conducted on 05.03.2008 through JSPCB as per the as per the provisions/procedure contained in the EIA notification, 2006.
- A detailed compliance of issues raised in PH along with additional budgetary provision and timeline for Rs. 15.07 Crore has been prepared and submitted as below:

SN	Issues Raised	Budgetary Provision in Lakh	Timeline
1	Plan for tree plantation	Budget separately provided under EIA/EMP Head	--
2	Plan for pollution prevention, sprinkling / adverse effects of mines on the environment.	Budget separately provided under EIA/EMP Head	--
3	Plan to reduce the impact of blasting and dust particles		
4	Water supply in the nearby	700 Lakh	Throughout the mine

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	village		life
5	Electricity supply in the nearby villages	57.87 Lakh	FY 2025-26
6	Provision for employment of displaced people and Skill Development	150 Lakh	Throughout the mine life
7	Plan to provide medical facilities to the nearby villagers	300 Lakh	Throughout the mine life
8	Basic Amenities & its improvement like roads etc.	300 Lakh	Throughout the mine life
Total Cost		1507.87 Lakh	

f) Solid Waste Management:

- Overburden 16.97million Cu. M. will be generated which will be stored in the external & internal OB Dump and will be utilized as per approved mine closure plan.
- Municipal Solid Waste expected to be generated is 1913 KG/Day. Segregation of waste will be done at the source itself. Recyclable waste will be handed over to the Govt. authorised recycling agency as per the MSW Rules, 2016. Bio-degradable waste will be dumped at composting site for decomposition and the output manure will be used by the project for the plantation and reclamation activities.

g) Wildlife Management Plan and Budgetary Provision:

- There are no National parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant reserves (existing as well as proposed), within 10 km of the mine lease area.
- 06 Schedule I species viz. Shikra, Indian Jackal, Jungle Cat, Common Indian Porcupine, Indian peafowl, Common Rat Snake has been observed in the study area.
- The Project authorities have submitted a comprehensive Conservation Plan of Schedule-I Species to the Divisional Forest Officer Bokaro vide letter no. PO/AADOCM/Comp. Conc. Plan/2024-25/2789 dated 02.12.2024 for approval.

Component	Provision in Rs. Lakh
Conservation Measures for Schedule-I species	98.12 Lakh

Total EIA/EMP Expenditure:

- Total Capital Environmental Management Cost has been estimated as Rs. 3476.33 Lakh whereas the annual recurring management cost is assessed to be around 211.31 Lakh. The detailed head-wise break-up is given below:

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SN	Particulars	Capital Cost (in Lakh)	Revenue Cost /Year (in Lakh)
1	Air Pollution Prevention measures	244	85
2	Water Pollution Prevention measures	1012	30
3	Conservation measures for schedule-I species	98.12	-
4	Afforestation and Plantation	473.34	46
5	Environmental Monitoring Cost	22	50.31
6	Public Hearing Cost	1507.87	-
7	Need-based CSR Action plan	119	-
Total		3476.33	211.31

Provision of Final Mine Closure:

- Land reclamation and enrichment through plantation will be done to bring back the land-use as similar as possible to the pre-mining land as per the mine closure plan.
- Around 2579.18Lakh has been provisioned for carrying out progressive and final mine closure activities.

Status of Demand Raised under Common Cause Judgement in respect of Amlo OCP:

- Demand Notice was issued for Amlo OCP on 13.12.2017
- Revision application (RA Application No.08 of 2018-PCA) in respect of Amlo OCP was filed before Revisional Authority of Ministry of Coal. Hearing for Revision Application held on 16.01.2018 before the Revisional Authority, Coal Tribunal, Ministry of Coal, Government of India and Stay Order for the demand notices was issued on 16.01.2018.
- Revisional Authority, Coal Tribunal, Ministry of Coal has set aside the order on 23.07.2024.

Energy Conservation:

- Solar Plant (50 kW) is proposed to be installed in Amlo OCP for
- Other measures include use of LED lights in the mine area during operation.
- Periodical maintenance of equipment's, energy audits, optimization of distribution networks Promoting use of renewables and energy efficient appliances in Project and nearby villages.

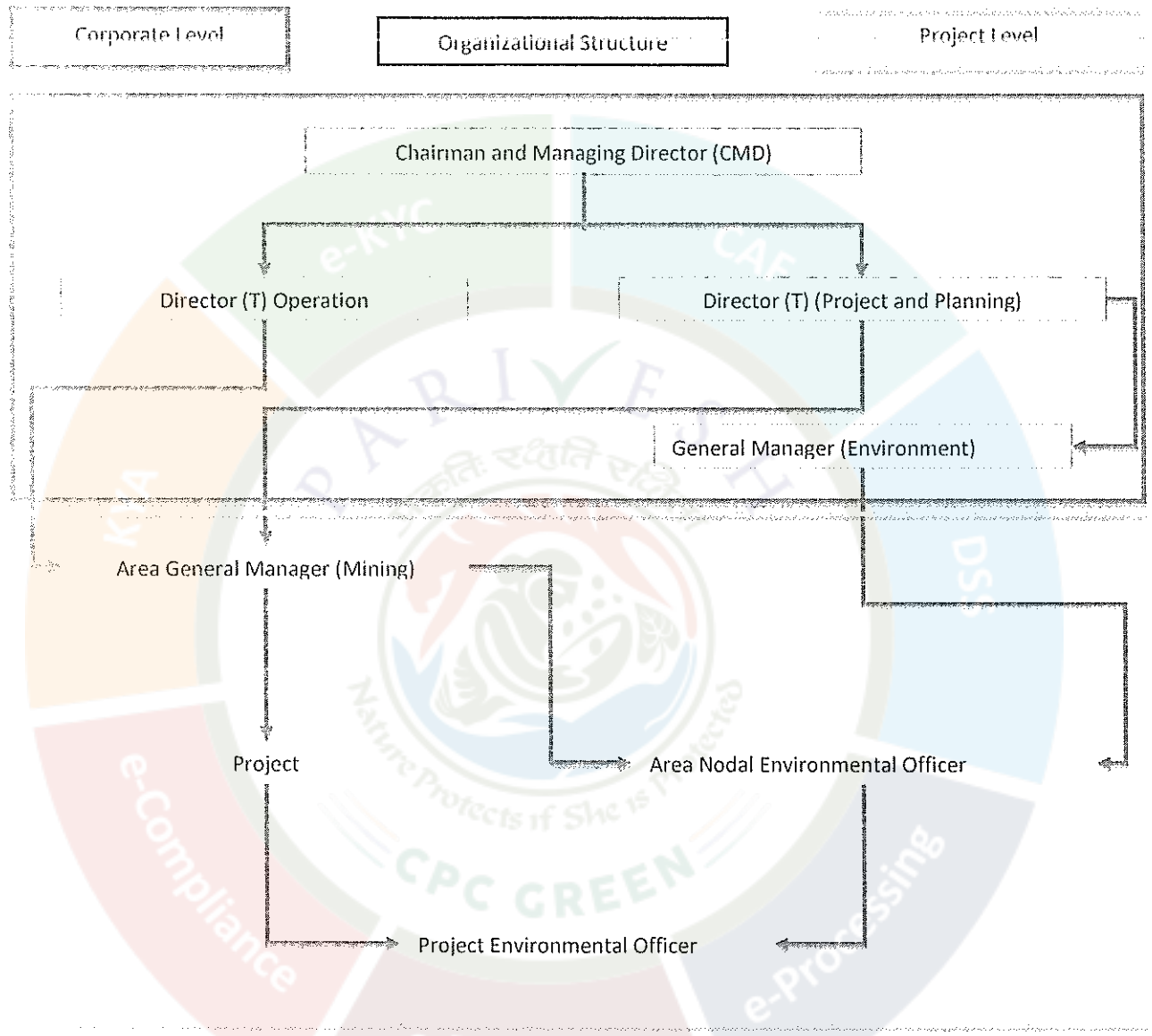
Environmental Cell & Organization Chart:

The organizational structure for environmental management operates at two levels: Corporate Level (policy formulation and strategic oversight) and Project Level (implementation and compliance). At the corporate level, the CMD, Directors (Tech.), and General Manager (Environment) provide oversight to ensure regulatory adherence. The Project Level, led by the

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Area General Manager (Mining), includes Project Officers and Environmental Officers responsible for on-site execution. This structure enables effective coordination, compliance with environmental regulations, and sustainable mining practices. An organization chart showing the hierarchy is submitted below:



The latest CCR from IRO, Ranchi dated 24.02.2025 has been submitted. The Action Taken Report for the points which are said to be partially complied has also been submitted.

State Level Environment Level Impact Assessment Authority (SEIAA), Jharkhand in its 121st meeting held on 19th & 20th March, 2025 discussed the project proposal along with recommendations made by SEAC in its 121st meeting held on 08th, 09th, 10th, 11th and 12th March, 2025 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 “Amlo Expansion Opencast Project (3.00 MTPA to 3.6 MTPA) of M/s Central Coalfields Limited (CCL) at Village : Karo, Amlo & Dhorl, Tehsil : Bermo, District : Bokaro, Jharkhand (247.59 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. In compliance of OM no.F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign “*Ek Ped Ma Ke Naam*” and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>).
- iii. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- iv. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests. Summary findings of same to submitted along with 6 monthly compliance.
- v. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- vi. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- vii. Project Proponent will ensure that a safety barrier of 45 m on both side of the road passing within ML area will be maintained and no mining activity will be carried out in the safety barrier. After getting the permission for diversion of road from the competent authority, the copy of the permission for diversion shall be submitted to SEIAA/SEAC, Jharkhand alongwith the 06 monthly compliance report.
- viii. Mining activities in the safety barrier can be undertaken after diversion of the road is fully implemented and said land must be included in approved Mine Plan for the mining purposes.
- ix. The Project Authorities must ensure Offset of conventional energy requirement of not less than 2% by installation of solar panel. Overall conservation of not less than 20% is to be ensured by use of efficient energy measures.






- x. No mining/activity shall be undertaken in the forest land or deemed forest without obtaining requisite prior forestry clearance.
- xi. 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.
- xii. 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).
- xiii. 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, 1980, 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 (L) 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

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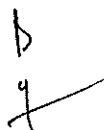
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constructed so that the impact of sound, dust and accidents could be appropriately mitigated.

- 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/Gol 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.

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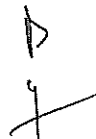
- ii. Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
- iii. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen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

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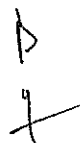
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- iii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Implementation of the action plan 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 authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- viii. 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.
- ix. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- x. 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.
- xi. 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).





- xii. 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.
- xiii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xv. 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.
- xvi. 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.
- xvii. 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.
- xviii. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF & CC, Govt. of India.

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

Memo No : EC/SEIAA/2024-25/3499/2024/ 698

Ranchi, Date : 20/03/2025

Copy to:

1. Principal 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.

