



File No.: J-11015/397/2008-IA.II(M)
Government of India
Ministry of Environment, Forest and
Climate Change
IA Division



Dated 15/03/2025



To,

Uren Pattnaik
M/s. Mahanadi Coalfields Limited (MCL)
Ananta Open Cast Project, Jagannath Area, Mclpo-Dera Colliery, Talcherdistt- Angulstate-Odisha-759
103.
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Subject: Expansion of Ananta OCP project from 20 MTPA to 24 MTPA in lease area reducing from 1419.821 Ha to 1214.49 Ha by M/s. Mahanadi Coalfields Limited located at villages Hensmul, Dera, Purunia, Chandpur, Nakhtrapur, Ekdal, Hiloi, Rakas, Brundabanpur, Ajatipur, Rangamatia, Kurihan, Dinabandhupur, Biraramachandrapur and Kantapalli. Tehsil Talcher, District Angul, Odisha- Environmental Clearance for expansion up to 20% under para 7(ii) of EIA, 2006 as per MoEF&CC OM dated 11/04/2022 — regarding.

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/OR/CMIN/508532/2024 dated 27/11/2024 and subsequent reply to the additional information on 07/02/2025 along with written submission dated 05/03/2025 seeking for grant of prior Environmental Clearance (EC) under the provision of the EIA Notification 2006-and as amended thereof for the project mentioned above.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24A0101OR5751759N
(ii) File No.	J-11015/397/2008-IA.II(M)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals, 1(a) Mining of minerals
(vi) Sector	Coal Mining
(vii) Name of Project	ANANTA OPEN CAST PROJECT
(ix) Location of Project (District, State)	ANUGUL, ODISHA
(x) Issuing Authority	MoEF&CC

3. M/s Mahanadi Coalfields Limited has made an online application vide proposal no. IA/OR/CMIN/508532/2024 dated 27/11/2024 along with copy of EIA/EMP report, Form and Certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for capacity enhancement from 20 MTPA to 24 MTPA (i.e., 20%) as per the MoEF&CC O.M. dated 11/04/2022. The proposed project activity is listed at schedule no. 1(a)-Mining of Minerals with Coal under Category "A" of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

4. The proposal was earlier considered in 19th EAC Meeting held on 10th & 11th December 2024 and the same was deferred for want of additional information from the proponent. Proponent submitted the additional information on 07/02/2025. The proposal was further considered in 21st EAC meeting held on 20th -21st February, 2025. The written information was submitted on 05.03.2025. The MoM for the same may be seen using the web link: parivesh.nic.in.

Details submitted by the project proponent

5. Details of Previous Approvals in chronological orders:

S. No.	Details of Letter No.	EC/Expansion EC/Amendment in EC/Validity extension/Transfer Of EC	Capacity (MTPA)	Area (in Ha)	Date of Issuance	Status of Implementation
1	J-11015/7/86-IA	EC	4.00	147.00	13/06/1991	Implemented
2	J-11015/4/94-IA. II(M)	Expansion EC under the provisions of EIA Notification 1994 (and subsequent amendments)	8.00	691.091	02/05/2005	Implemented
3	J-11015/83/2005-IA. II(M)	Expansion EC under the provisions of EIA Notification 1994 (and subsequent amendments)	12.00	691.091	14/07/2006	Implemented
4	J-11015/397/2008-IA. II(M)	Expansion EC under the provisions of EIA Notification 2006 (and subsequent amendments)	20.00	1181.968	10/12/2014	Being Implemented
5	J-11015/397/2008-IA. II(M)	Amendment in EC	20.00	1419.821	16/02/2018	Being Implemented

6. **Production details of the existing EC:** W.r.t the previous approvals. PP has submitted the actual production details of the concerned mines and submitted that the mines became operational from 1988-89 onwards. CTO renewal has been obtained from the OSPCB and is valid up to 31.03.2025. Details of production are as follows:

Year	EC sanctioned capacity (MTPA)	Actual Production (MTPA)	Excess production beyond the EC sanctioned capacity
1988-89	--	0.013	0.00
1989-90	--	1.00	0.00
1990-91	4.00	1.95	0.00
1991-92	4.00	3.34	0.00
1992-93	4.00	3.89	0.00
1993-94	4.00	4.01	0.01

1994-95	4.00	4.63	0.63
1995-96	4.00	5.38	1.38
1996-97	4.00	5.39	1.39
1997-98	4.00	6.38	2.38
1998-99	4.00	6.69	2.69
1999-00	4.00	7.03	3.03
2000-01	4.00	7.63	3.63
2001-02	4.00	7.00	3.00
2002-03	4.00	7.82	3.82
2003-04	4.00	9.47	5.47
2004-05	4.00	7.41	3.41
2005-06	8.00	9.16	1.16
2006-07	12.00	12.26	0.26
2007-08	12.00	12.83	0.83
2008-09	12.00	12.52	0.52
2009-10	12.00	12.82	0.82
2010-11	12.00	11.74	0.00
2011-12	12.00	9.92	0.00
2012-13	12.00	8.91	0.00
2013-14	12.00	7.52	0.00
2014-15	20.00	10.58	0.00
2015-16	20.00	5.87	0.00
2016-17	20.00	2.90	0.00
2017-18	20.00	4.15	0.00
2018-19	20.00	8.25	0.00
2019-20	20.00	10.93	0.00
2020-21	20.00	8.83	0.00
2021-22	20.00	13.58	0.00
2022-23	20.00	17.10	0.00
2023-24	20.00	20.00	0.00
2024-25 up to 19 Feb 24	20.00	19.60	0.00

PP submitted that while Ministry accorded EC for expansion vide letter dated 10.12.2014, the violation aspect regarding over production has been taken into cognizance. Wherein, the EC was granted after a written commitment in the form of Board Resolution by the Board of Directors vide letter no. MCL/SBP/CS/Bd-150/Exct/2013/7364 dated 24.07.2013 was submitted to the Ministry to ensure that violations will not be repeated. Also, on directions of the Ministry, the Regional Office, MoEF&CC, Bhubaneswar has filed the complaint in the Court of SDJM, Talcher under section 19 of EPA, 1986 (Case No. 2(C) C31/2014 dated 21.06.2014) against the collieries for operating with excess production.

7. Certified Compliance Report: The project was inspected by the Regional Office, MoEF&CC, Bhubaneswar on 18.10.2024 and CCR was issued vide letter no.101-958/EPE/2053 dated 19.11.2024. Action taken report of the issued CCR dated 19.11.2024 was submitted by the project proponent on 28.12.2024.

The Compliance and Monitoring Division of the MoEF&CC, New Delhi also issued letter to the project vide letter no. IA. J-11014/294/2024-IA-I dated 13.01.2025 to the Regional Office, Bhubaneswar to verify the Action taken report/inputs submitted by the project proponents in reference to the partial compliances and observations reported by the Regional Office, Bhubaneswar and submit comments/ Review Report to the Ministry.

In light of the above, the Regional Office, Bhubaneswar, carried out site visit of the Ananta project on 22.01.2025 to verify the Action taken report/inputs submitted by the project proponent and submitted a report to the IA- C&MD on 27/01/2025.

Further, the Compliance and Monitoring Division – IA Division of MoEF&CC, New Delhi issued the Action Closure

Letter on non-compliances observed w.r.t. to the EC letters of Ananta OCP vide letter dated 06.02.2025.

8. Environmental Site Settings: The project area is covered under Survey of India Toposheet No. F45T1 & F45N4 and is bounded by the geographical coordinates ranging from 20°57'16" N and 21°00'00" N and longitudes 85°07'14" E and 85°09'09" E. Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment 2018.

Forest Area: The project involved total 334.362 Ha of forest land the details of the approval already obtained are as follows:

S. No.	Obtained vide letter No.	Area(ha)	Stage I/II	Validity
1	F.No. 144/89 FC dt. 28/9/1990	31.02	Stage II	Life of the mine
2	F.No. 8-43/2004-FC dt.19/11/2004	62.67	Stage II	Life of the mine
3	F.No. 8-37/2015 FC dt.18/05/2018	240.672	Stage II	Life of the mine
Total		334.362		

Total broken forestland as on 05.12.2024 is 217.77 Ha and PP submitted that there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

Protected Area: The project is not located within 10 KM of any ESZ/ ESA/ National park/ Wildlife sanctuary/ Biosphere reserve/ Tiger reserve/ Elephant reserve etc. PP submitted that there is Kahnejena – Anantapur Elephant Corridor at a distance of 5.27 km from ML area and Satkosia – Simlipal Tiger Corridor at a distance of 9.01 km. Schedule – I species (such as Elephas maximus (Asiatic Elephant), Naja naja (Common cobra), Daboia russelii (Russel Viper), Chameleon zeylanicus (Bahurupi), Python molurus (Python), Pavo cristatus (Common peafowl), Felis chaus (Cat, Jungle), Canis aureus (Jackal), Hystrix indica (Porcupine) were observed in the Study area. Wildlife management plan has been prepared and approved by PCCF (WL) & CWLW vide m.no. 6800 dated 29.07.2017. PP further submitted that there is no violation of WLP Act.

Mine Lease Details: PP submitted the following details of ML area:

Project	CBA/ LA	Name of the Villages	Govt. Order/Notification	Total Area in Ha
Ananta OCP (PH-I)	CBA	Allahad Nagar	4(1)-S0-1549, Dt-06.04.1975,	165.208
		Nakhetrapur(P)	7(1)-50-532, Dt-12.11.1975,	65.973
		Hensmul(P)	9(1)-50-4107, Dt-20.10.1976	77.531
		Balanda(P)		0.259
		Chandpur		6.253
		Purnia		2.461
	LA	Chandpur	Case No.-20/84.4(1)-05.02.85,	21.890
		Kateni	7(1)-07.06.86, 11(1)-11.06.87	17.770
		Kateni	Case No.- .4(1)-01.10.91, 7(1)-06.09.94, 11(1)-31.10,94	1.101
		Hensmul	Case No.-21/87.4(1)-21.05.87, 7(1)-22.07.89, 11(1)-12.08.90	124.701
		Hensmul	Case No.-_ 4(1)-16.06.90	1.287
		Balanda(P)	-	1.204
		Allahad Nagar	-	0.291
Ananta OCP (PH-II)	CBA	Allahad Nagar	4(1)-50-2614, Dt-08.12.1998,	54.840
		Hensmul	7(1)-S0-1083(E), Dt 04.12.2000, 9(1)-S0-3240 Dt-18.11.2003	50.324
	LA	Hensmul	Case No.-15/2000.4(1)- 01.11.2000, 7(1)- 26.12.2002, 11(1)- 29.04.2003	44.207
Ananta OCP (PH-	CBA	Allahadnagar	4(1)/ 2637- 16.09.2009,	68.608

III)		Hiloi	7(1) / 3001- 08.12.10,	305.868
		Ekdal	9(1) / 1672 (E)- 20.07.11,	202.270
		Ajatipur	11(1)/ 3718 (SR)- 16.12.11	29.607
		Birarama Chandrapur		66.592
		Rangamatia		9.142
		Kantapali		54.367
		Dinabandhupur		18.187
		Kurihan		43.590
		Raghunathpur		5.884
	CBA	Brundabanpur	4(1)/1297- 19.03.2005, 7(1)/1045- 14.04.2007, 9(1)/ 2192- 08.09.2008, 11(1)/1712- 20.06.2009	42.756
GRAND TOTAL				1482.171

The total lease area acquired was 1482.171 Ha under CBA Act 1957 and LA Act 1894. However, the EC was accorded on 1419.821 Ha vide EC letter dated 10.12.2014 and its subsequent EC amendment date 16.02.2018. The current proposal is for expansion in the production capacity from 20 MTPA to 24 MTPA in reduction in the lease area from 1419.821 Ha to 1214.49 Ha. Out of 205.331 Ha area being reduced, 80.776 Ha of forestland on which forest clearance is not accorded and 124.55 Ha of non-forest land.

Other Sensitive Receptors:

Project site proximity to sensitive area i. Habitation ii. School iii. River/Waterbody iv. Forest v. Archaeological Survey of India (ASI) protected site vi. Any other	i. Habitation (within 1 km)			
	S. No.	Habitation	Distance (Km)	Direction
	1.	Village Ekdal	Within the Mine Lease Area	SE
	2.	Village Hiloi		N
	3.	Village Biraramachandrapur		E
	4.	Village Brundabanpur		W
	5.	Village Nakhtrapur		E
	6.	Village Hensmul		W
	7.	Village Dera		E
	8.	Village Purunia		W
	9.	Village Kurihan		SE
	10.	Village Dinabandhupur		N
	11.	Village Ajatipur		N
	12.	Village Rangamatia		NE
	13.	Village Kantapalli		N
	14.	Village Chandpur		W
	15.	Village Rakas		W
ii. School: (Within 10 Km)				
Sl No	Name of School	Distance (in km)	Direction	
1	Upper Primary High School, Hiloi	Within ML	N	
2	Upper Primary High School, Ekdal		SE	
3	Chakadal High School, Ekdal		SE	
4	Bibekananda School, Ekdal		SE	
5	Joragadia High School, Kurihan		NW	
6	Balanda Upper Primary School	3.90	S	
7	DAV Public School, Ananta Vihar	3.05	E	
8	DAV public School, Jagannath Area	2.58	SE	

9	Ghantapada High School, Ghantapada	3.40	SE
10	Brajanathpur UPS	2.81	NE
11	Danara High School	3.90	SW
12	Bhaguaboli UP School	6.91	SE
13	Vivekananda Sikshakendra	3.57	SE
14	Saraswati Sishu vidya Mandir	1.20	SE
iii. River/Waterbody (Within 10 Km)			
	Water body	Distance (Km)	Direction
	Singhada Stream	9.60	NW
	Bangaru Stream	Within ML	Within ML
	Brahmani River	6.0	E
	Nandira Stream	9.25	S
iv. Forest (Within 10 Km)			
S. No.	Particulars	Distance	Direction
Forest			
1	Rakas R. F	Within ML area	W
2	Kandahal R. F	1.75 Km	NE
3	Pathuria R.F	2.6 Km	NE
4	Petachira R. F	2.5 km	NE
5	Kuio P. F	4.0 Km	SW
6	Rabipur RF	3.4 Km	NW
7	Kauchiakhhol R. F	1.75 Km	SW
8	Kahneijena R. F	3.4 Km	N
9	Gopal Prasad R. F	3.5 Km	W
v. ASI protected site: None within 10 km radius from ML boundary.			
vi. Any other:			
— Kahneijena - Anantapur Elephant corridor which is 5.27 km from the mine lease area.			
— Pabitra Mohan Hospital 2.66 km from the mine lease area.			

9. Mine Plan and Mine Closure Plan: Mine Plan and Mine Closure Plan of 30 MTPA has been approved by the MCL Board vide MCL/SBP/CS/CR-08/2024-25/14432 dated 11.11.2024.

- Method of mining to be adopted shall be opencast mining by shovel dumper and surface miner.
- The total geological reserves reported by the proponent are 861.11 MT and the mineable reserves are 619.8 MT, out of which extractable reserves are 588.51 MT. Percentage of extraction is 95%. Balance reserves as on 01.04.2024 are 299.95 MT.
- There are total 21 nos of seams, out of which 18 nos of seams are workable.
- Grade of coal is G – 11.
- Stripping ratio is 2.10.
- Life of mine is 13 years (as on 01.04.2024)
- Quantity of topsoil to be generated will be 2.9 Mm³. The topsoil generated will concurrently spread over backfilled area. There will be 1 nos of top soil dump.
- There are 2 nos of OB dumps for this mine. One is internal dump within an area of 932.54 ha, with the maximum height of 90 m and the other is external dump (within the ML area) in an area of 23.2 ha with the height of 20 m.
- Land – use pattern:

A. Pre-mining land use:

S. No	Type of Land	Area in ha
1.	Agricultural	255.150
2.	Forest	334.362

S. No	Type of Land	Area in ha
3.	Waste land	557.998
4.	Grazing	--
5.	Surface water bodies	36.740
6.	Others (specify) (Govt. land)	30.240
	Total Mining Lease Area	1214.490

B. Post-mining land use:

S. No.	Category	Land Use (in ha)						
		Agricultural land	Plantation / Temp. Grass carpeting	Water Body	Public/ Company Use	Forest Land (Returned)	Undisturbed	Total
1	Excavation Area		548.84	35.52	72.54	311.162		968.06
2	OB Dump (Within ML Area)					23.2		23.20
3	Safety Zone		14.09					14.09
4	Diversion below River/Stream/ Canal		6.30	12.64				18.94
5	Road & Infrastructure area		35.8		54.2			90.00
7	Undisturbed/ Blasting danger zone & Others				73.828		26.37	100.20
Total Lease area			605.03	48.16	200.57	334.36	26.37	1214.49

x. Details of transportation:

1. In pit to surface:

- Existing – By dumpers/ tippers from quarry face
- Proposed – By dumpers/ tippers from quarry face to inpit truck receiving hopper.

2. Surface to siding:

- Existing – by dumpers/ tippers to railway siding within lease through internal coal transportation roads of 5-6 km.
- Proposed – from truck receiving hoppers to SILO at railway siding by belt conveyor of 1.47 km (belt conveyor will be operational from June 2025 onwards.)

3. Siding to loading:

- Existing - Payloader into the rail wagons
- Proposed: Through Silo and Pay loader in combination

4. Quantity being transported by road/ rail/ conveyor:

- Existing (20 MTPA) – 15 MTPA of coal is being dispatched through internal coal transportation roads of 5-6 km which is dispatched through the railway siding within lease and remaining 5 MTPA is being dispatched through road to the local consumers.
- Proposed (24 MTPA) - Out of proposed 24 MTPA coal production in 2025-26, entire 24 MTPA of coal will be transported by belt conveyor (1.47 Km) from TRH to SILO for onward rail transport.

xi. Details of reclamation: Afforestation shall be done progressively covering an area of 939.39 ha till the end of mining. This will include backfilled area (reclaimed with plantation) of 860 ha, OB dump of 23.20 ha, greenbelt area of 10.80 ha, safety zone of 14.09 ha, embankment (avenue plantation) of 6.30 ha and area around the building and infrastructure and roads of 25 ha.

10. Baseline Date:

Period	15th March 2024 – 14th June 2024
AAQ parameters at 10 Locations (min and max)	Core zone: — PM_{2.5} = 42.0 to 66.0 µg/m³ — PM₁₀ = 88.0 to 147.3 µg/m³ — SO₂ = 8.3 to 20.6 µg/m³ — NO_x = 8.7 to 22.7 µg/m³ — CO = 0.55 to 1.09 mg/m³ Buffer Zone: — PM_{2.5} = 25.5 to 51.3 µg/m³ — PM₁₀ = 63.7 to 85.7 µg/m³ — SO₂ = 8.0 to 21.5 µg/m³ — NO_x = 7.5 to 23.8 µg/m³ — CO = 0.52 to 1.05 mg/m³
Incremental Level	Core zone: — PM_{2.5} = 15.21 µg/m³ Incremental & 80.01 µg/m³ absolute value. (Level 0.5 km in downwind direction) — PM₁₀ = 40.56 µg/m³ Incremental & 187.87 µg/m³ absolute value. (Level 0.5 km in downwind direction) — SO₂ = 10.81 µg/m³ Incremental & 31.41 µg/m³ absolute value. (Level 0.5 km in downwind direction) — NO_x = 25.50 µg/m³ Incremental & 46.20 µg/m³ absolute value. (Level 0.5 km in downwind direction) Buffer Zone: — PM_{2.5} = 1.44 µg/m³ Incremental & 52.34 µg/m³ absolute value (Level at 1.2 km in downwind, North Direction) — PM₁₀ = 6.71 µg/m³ Incremental & 90.72 µg/m³ absolute value (Level at 5.5 km in downwind, North Direction) — SO₂ = 11.73 µg/m³ Incremental & 31.03 µg/m³ absolute value (Level at 5.5 km in downwind, North Direction) — NO_x = 9.83 µg/m³ Incremental & 29.33 µg/m³ absolute value (Level at 5.5 km in downwind, North Direction)
Groundwater Quality at 6 Locations	Core zone: — pH: 7.22 to 7.7 — Total Hardness: 71.71 to 179.28 mg/l — Chlorides: 19.71 to 31.54 mg/l — Fluoride: 0.42 to 0.73 mg/l — Heavy metals - o Zn: 0.16 to 0.19 mg/l; - o Fe: BQL (QL:0.1 mg/l) - o Cu: BQL (QL:0.03 mg/l) - o Pb: BQL (QL:0.005 mg/l) - o Cd: BQL (QL:0.001 mg/l) - o As: BQL (QL:0.005 mg/l) - o Se: BQL (QL:0.005 mg/l) - o Mg: 3.84 to 6.77 mg/l - o Mn: BQL. (QL:0.04 mg/l) - o B: BQL (QL:0.2 mg/l) - o Total Chromium: BQL (QL:0.01 mg/l) Buffer Zone — pH: 6.93 to 7.45

Period	15th March 2024 – 14th June 2024																								
	— Total Hardness: 83.66 to 187.25 mg/l — Chlorides: 17.73 to 88.69 mg/l — Fluoride: 0.46 to 0.61 mg/l — Heavy metals o Zn: 0.15 to 2.22 mg/l o Fe: BQL (QL:0.1 mg/l) o Cu: BQL (QL:0.03 mg/l) o Pb: BQL (QL:0.005 mg/l) o Cd: BQL (QL:0.001 mg/l) o As: BQL (QL:0.005 mg/l) o Se: BQL (QL:0.005 mg/l) o Mg:2.89 to 14.50 mg/l o Mn: BQL. (QL:0.04 mg/l) to 0.12 mg/l o B: BQL (QL:0.2 mg/l) o Total Chromium: BQL (QL:0.01 mg/l)																								
Surface Water Quality at 8 Locations	Core zone: — pH: 7.58 to 7.69 — DO: 4.8 to 5.2 mg/l — BOD: 2 to 2 mg/l — COD: 24 to 32 mg/l Buffer Zone: — pH: 6.98 to 7.59 — DO: 5.9 to 6.9 mg/l — BOD: 2 to 2.9 mg/l — COD from 24 to 56 mg/l																								
Noise levels Leq (Day and Night) at 10 Locations	Industrial area: — 60.20 to 67.30 dB(A) for the daytime and 57.30 to 62.20 dB(A) for the Nighttime. Residential Area: — 34.5 to 54.10 dB(A) for the daytime and 26.9 to 44.3 dB(A) for the Nighttime.																								
Traffic Assessment Study findings	Traffic study has been conducted at CT Road which is passing adjacent to the mine site. Transportation of mineral will be done 10 % by road. Existing PCU is 594.8 PCU/hr on CT Road and existing level of service (LOS) is: <table><tr><td>Road</td><td>V (Volume in PCU/hr.)</td><td>C (Capacity in PCU/hr.)</td><td>Existing V/C Ratio</td><td>LOS</td></tr><tr><td>CT Road</td><td>594.8</td><td>3000</td><td>0.2</td><td>A</td></tr></table> PCU load after proposed project will be 594.8 (Existing) + 325.6 (Additional) PCU/hr and level of service (LOS) will be: <table><tr><td>Road</td><td>V (Volume in PCU/hr.)</td><td>C (Capacity in PCU/hr.)</td><td>Existing V/C Ratio</td><td>LOS</td></tr><tr><td>CT Road</td><td>920.4</td><td>3000</td><td>0.3</td><td>B</td></tr></table> Note: Capacity as per IRC: 106 -1990 is 3000 PCUs/hr for CT (Coal Transportation) Road. Conclusion: The level of service will very good (B) after including additional traffic due to proposed project.					Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	CT Road	594.8	3000	0.2	A	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	CT Road	920.4	3000	0.3	B
Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS																					
CT Road	594.8	3000	0.2	A																					
Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS																					
CT Road	920.4	3000	0.3	B																					

11. Details of Water Requirement: PP submitted that the source of water will be Surface water and ground water. The permission for surface water withdrawal has been obtained from Angul Irrigation Division, Govt of Odisha (vide reference no. 01-SW 2000-2001 and the same is valid till the life of coal fields) from the intake well at downstream side of Samal barrage of river Brahmani. NoC of CGWA was valid up to 26.10.2023 and the renewal application for the same has already been submitted. At present the proposal is under scrutiny at CGWA, New Delhi. However, surface water will only be used for potable purpose. Total water requirement submitted by the proponent, post expansion is 3823.09 KLD (1010.59 KLD for potable water and 2812.50 KLD for industrial use and firefighting). Out of the total water being used, 2470.09 KLD is being derived from surface water and the rest 1353 KLD is being derived from groundwater.

The Bangaru stream which flows from west to east through the central part of the block, and the same is proposed to be diverted to allow continued mining in the area. A request for permission to divert the stream was submitted to the Water Resources Department in March 2020.

Subsequently, on 30.09.2020, an inspection was carried out by the Superintending Engineer of the Irrigation Division. Following the inspection, they recommended a detailed study to support the proposed diversion. The diversion plan has been prepared and submitted to the Water Resources Department. A request has again been made by GM (Envt & Forest), MCL vide letter no 1992 dtd 30.11.2024 to EIC(ER), Govt. of Odisha for diversion of Bangaru stream for Ananta OCP.

Further, a work order dated 14.10.2024 has been issued to National Institute of Hydrology, Roorkee for the Ecological and hydrological study of Bangaru Stream. The study for the same has been initiated on 23-10-2024 by experts from NIH, Roorkee. The study shall be completed by May' 2025.

12. Details of Solid and Hazardous Waste: The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No.	Type of Waste	Source	Quantity (TPA)	Disposal
1.	Domestic waste	Administrative building & residential area	467.712	MSW collection & disposal
2.	Plastic waste	Colony, Offices, Regional store, workshop	26	Waste segregation & selling to authorized recyclers
3.	e-Waste	Office buildings	0.2	Auction to recyclers authorized by SPCB
4.	Battery Waste	HEMM workshop	3	Auction to recyclers, authorized by SPCB
5.	Bio medical waste	Soiled cotton, dressings, disposed syringes, medicine	0.59	Area Dispensary
6.	Used Oil	HEMM Workshop	200	Auction to recyclers authorized by SPCB
7.	Waste/ Residues containing Oil	HEMM Workshop	280	Handed over to CHTDSF Authorized by SPCB
8.	Empty Barrels contaminated with Chemicals/waste	HEMM Workshop	60	Auction to recyclers authorized by SPCB
9.	Sludge & Filters contaminated with Oil	HEMM Workshop	20	Handed over to CHTDSF Authorized by SPCB
10.	Rubber Wastes, Types of HEMM	HEMM Workshop & Stores	1000	Auction to recyclers authorized by SPCB

13. Details of Power Requirement and diversion of Hi-Tension/ Transmission Line: PP submitted the total Power requirement for the project will be 7.15 MW, and there is no diversion of Hi-Tension Line/ Transmission Line proposed.

14. Details of Public Hearing: There is no fresh Public Hearing conducted, as the proposal has been submitted under clause 7(ii) of EIA Notification 2006. However, details of the Public Hearing held for EC dated 10.12.2014 are as follows:

Advertisement for Public Consultation was given in The Times of India (English daily) & Pragativadi (Odiya daily), dated 25.06.2011. Public Consultation took place on 27.07.2011 at Jagannath Kala Kendra, Talcher, Angul district, under the chairmanship of Shri. Debraj Senapati, OAS (S), Additional District Magistrate, Angul. Around 200 persons attended the Public Hearing. As per approved proceedings of PH approved by ADM, Angul, in the attendance sheet there are 31 signatures for persons attending the PH meeting. Additional one sheet having 6 signature are of the persons who have delivered their views. These 6 peoples are inclusive of the 31 signatories who attended the meeting. Major issues raised during the PH were as follows:

- The mine authority should ensure a permanent supply of drinking water to nearby villages throughout the year.
- The coal transportation road should be separated from public roads.
- The mine authority should prioritize giving employment to local people.
- Proper solid waste management should be followed, and the mine's closing procedure should be strictly adhered to.
- The mine authority should develop a green belt and avenue plantation in the area.
- Controlled blasting should be followed, and the fire in the coal yard should be controlled.
- The mine authority should follow the State Government's R&R policy impartially and allocate separate funds for the development of roads, health, education, and drinking water supply.

Compliance status of the PH action plan is as follows:

Issues Raised by the Public	Compliance Status	Expenditure till Oct'2024 (in Crore)	Proposed budget (tentative) (in Crore)	2024-25	2025-26	2026-27	2036-37
The mine authority should make arrangements for permanent supply of drinking water to nearby villages through-out the year.	Mine authority has made an arrangement for the supply of Drinking water through tanker as well as through pipeline to the villages of Hariharpur (Kaniha Block) Dumduma, Sadashiv, Godibandha Hospital, Diajharan Tentulei Bhanja Colony & Gurudwar Adibasi Nua Sahi Ekdal, Sanjamunda Sahi, Nayaksahi, Puruna Sahi, and Barhajharia Sahi & Hiloi.	1.28	2.27	1.00	1.00	0.27	-
The coal transportation road should be separated from public road.	The coal transportation road has been separated from public road. A dedicated concreted coal corridor road with a total length of 3.2 Km has been constructed within mine lease area and bypassing all the residential/sensitive areas for coal transportation of road sale trucks. The internal coal transportation roads and approach roads are concreted and provided with drains. Mobile fog cannons and mobile water tankers are deployed for dust suppression on roads. One Mechanical roads sweeper has been deployed on approach roads for cleaning of dust. Apart from these, Project has also developed green belt with 44224 nos plants over 27.64 Ha along the approach roads and public road. Regular maintenance of transportation and public road is being carried out.	116.39	1.15	0.30	0.38	0.47	-
The mine	The mine authority has	49.56	1.92	0.64	0.64	0.64	-

Issues Raised by the Public	Compliance Status	Expenditure till Oct'2024 (in Crore)	Proposed budget (tentative) (in Crore)	2024-25	2025-26	2026-27	2036-37
authority should give employment to the local people on a priority basis.	provided direct employment to the project effected persons and local people have been provided with contractual/outsourcing employment. Out of the total 1287 persons eligible for employment 1239 have been provided employment / cash compensation in lieu of employment. Only 48 balance persons are to be provided employment.						
The mine authority should follow proper solid waste management and the closing procedure of the mine should be strictly followed.	The project authority is adhered to the solid waste management/ method for the backfilling of OB material into mine voids and mine closure is being implemented as per the approved mining plan and mine closure plan. The internal OB dumps are being backfilled up to prescribed level followed by plantation after spreading of topsoil over technically reclaimed OB dumps.	92.98	63.43	3.58	3.76	3.95	52.14
The mine authority should go for development of green belt and avenue plantation in the area.	The project proponent have raised green belt within and outside the mine premises. The details of plantation as on Oct'2024 is as follows: · Internal OB dump area-101.20 Ha/247600 Nos. · External dump- 10.80/-27000 nos. · Block plantation- 2.34Ha./5850 nos. · Avenue plantation-27.64 Ha./ 44224 nos. · Safety Zone Plantation= 7.5 Ha/12000Nos. · Plantation at Dera village- 10.0 Ha/ 16000 Nos · Plantation at Colony/township area- 5 Rkm/ 8000 nos Species planted are Bel, Karanja, Krishnachuda, Neem, Amala, Rakatachandan, Kaju, Saguan, Chakunda, Bamboo etc.	3.21	40.03	3.00	3.53	4.00	29.50
The mine	Controlled blasting using	14.11	28.60	1.68	1.76	1.85	23.31

Issues Raised by the Public	Compliance Status	Expenditure till Oct'2024 (in Crore)	Proposed budget (tentative) (in Crore)	2024-25	2025-26	2026-27	2036-37
authority should follow controlled blasting and the fire in the coal yard should be controlled.	NONEL electronic detonators technology is practiced between 1pm to 2pm in day time. It is reported that using this technology, ground vibrations are minimum and fly rocks and boulders are arrested effectively. As per the information submitted by the project, it is noted that, · Value of blast measured in PPV for the period April-24 to Sep-24 is between 1.38 mm/sec to 3.2 mm/sec. · Threshold vibration =10 PPV · Maximum reading =3.2 PPV The following measure are implemented for firefighting and for prevention of fire in stock yards. · The coal stock are maintained in dome shape · Fire tenders have been deployed · Stock yards are arranged with perforated pipelines and sprinklers along the base and sides of stockpiles connected to a high-pressure water source to ensure even water distribution. · Mobile fog cannons are deployed						
The mine authority should follow the R&R policy of the State Govt. impartially and allocate separate fund for development of roads, health, education and drinking water supply.	The PAFs are being compensated as per the R&R policy of Odisha State Govt. which is higher than the R&R policy of CIL or the national R&R policy. All the PAFs have opted for self-relocation. The project affected families have been compensated with cash as per the R&R policy for those who have not opted for Employment and Plot at R&R site. The details of R&R status as on Oct'2024 is as follows: · Total affected families – 2273 Nos · Eligible for displacement	162.00	104.00	35.00	50.00	19.00	-

Issues Raised by the Public	Compliance Status	Expenditure till Oct'2024 (in Crore)	Proposed budget (tentative) (in Crore)	2024-25	2025-26	2026-27	2036-37
	benefit- 1584 Nos. · Cash compensation opted- 1219 Nos. · Total PAFs opted for plot at R&R site- 365 Nos. · Eligible for employment- 1287 Nos. · Provided employment/cash compensation- 1239 Nos · Balance employment/ cash compensation to be provided - 48 Nos.						
TOTAL		439.53	241.40	45.20	61.07	30.18	104.95

15. EMP Cost: The capital cost for environmental protection measures is proposed as Rs. 4475 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1787.49 Lakhs. The indirect employment generation from the proposed project/expansion is around 200.

The details of cost for environmental protection measures are as follows:

S. No.	Description of Item	Existing (Rs. In Lakh)		Proposed (Rs. In Lakh)	
		Capital Cost	Recurring Cost/annum	Capital Cost	Recurring Cost/annum
(i)	Air Pollution Control/ Noise Management	612	122	315	265
(ii)	Water Pollution Control	300	100	150	95.75
(iii)	Environmental Monitoring and Management	200	80	100	116.85
(iv)	Green Belt & Plantation Development	2995	580	3910	625.27
(v)	Other heads as proposed in EIA/committed during the EAC	--	300	--	684.62
	Total	4107	1182	4475	1787.49

16. Plantation: Existing green belt has been developed in 156.54 ha area which is about 12.88 % of the total mine lease area of 1214.49 ha with total sapling of 391350 Trees. Proposed greenbelt will be developed in 782.85 ha which is about 64.46 % of the total mine lease area. Thus total of 939.39 ha area (77.34% of total project area) will be developed as greenbelt. A 7.5 m wide greenbelt, consisting of at least 3 tiers around mine boundary will be developed as greenbelt and green cover as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 23,42,805 saplings will be planted and nurtured in 939.39 hectares in 13 years + 3 years of post-closure.

17. Project Cost: Total Capital Cost submitted by the proponent is Rs. 86015 Lakhs. 2% of the average net profit of the company shall be spent towards CSR activities. Cost of implementing EMP for the proposed expansion will be Rs. 4475 Lakhs and Rs. 1787.49 Lakhs as capital and recurring cost, respectively.

18. R&R Issues: The rehabilitation and resettlement of the project affected families/persons is being governed as per R&R policy (2006 and its subsequent amendment) of Govt. of Odisha. It comprises of two components:

- Rehabilitation: For rehabilitation of eligible persons either job or cash compensation in lieu of employment is provided
- Resettlement: For resettlement either plot or cash compensation in lieu of, plot is provided.

Total no. of Project Affected Families: 2273

Total no. of villages involved: 15, namely Hensamul, Dera, Purunia, Chandpur, Nakhtrapur, Ekdal, Hiloi, Rakas,

Brundabanpur, Ajatipur, Rangamatia, Kurihan, Dinabandhupur, Biraramachandrapur and Kantapalli.

Total fund allocated for R&R: Rs. 167.27 Crs

For Ananta OCP the current status of R&R is as follows:

Table: Current status of Rehabilitation

S. No.	Details on Rehabilitation (Employment or Cash compensation)	Numbers
1.	Total person eligible for employment (A)	1287
2.	Employment provided/ opted for cash compensation so far (B)	1239
3.	No. of rehabilitation to be completed (C=A-B)	48

From above table it can be observed that 96.27% rehabilitation has been completed for remaining 48 family/persons the reason for delay is mentioned below:

- Non submission of documents due to intra family disputes – 48 person

Resettlement: The current status of Resettlement is as follows:

S. No	Details on Resettlement	Numbers
1.	Total displaced families (A)	1584
2.	PAFs received cash Compensation in lieu of Plots / land (B)	1219
3.	PAF's opted for plot at R&R site (C)	365
4.	No. of families yet to be resettled (D=A-B-C)	0

From above table it can be observed that out that 100% resettlement has been completed.

19. Legal Issues/ Violation: PP reported that there is no legal issue/violation wr.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Van (Sanrakshan Evam Samvardhan) Adhiniyam, Wildlife Protection Act, MMDR Act, Factories Act.

Regional Office of the Ministry of Environment, Forests & Climate Change in Bhubaneswar has lodged a complaint with the court of SDJM in Talcher under Section 19 of the Environment (Protection) Act, 1986 (Case No. 2(C) C31/2014 dated 21st June 2014) against the collieries for exceeding production limits from 2006-2007 to 2009-2010. The project proponent has also submitted a Board Resolution, reference no. MCL/SBP/CS/Bd-150/Ext/2013/7364 dated 24th July 2013, committing to avoid future violations. Legal Credible Action has also been taken by the State Government for the violation and same been submitted to the MoEF&CC vide letter Env-I-37/2012(Pt)21098/F&E dated 14.10.2013. Accordingly, EC for 20 MTPA was considered by the MoEF&CC and EC was granted to the project vide dated 10.12.2014. PP submitted that since then, Ananta OCP has not repeated the violation. The production was within the EC capacity.

Apart from this, the project was earlier monitored by the Regional Officer on the Ministry on 18.10.2024 and submitted its report to MoEF&CC vide letter dated 19.11.2024. The inspection report was examined and the Action Taken Report was sought from the Ministry vide letter dated 28.11.2024. W.r.t ATR dated 28.12.2024 submitted by the PP, ATR review report was received from the RO vide letter dated 27.01.2025. The same was examined by the Ministry and improvements were noted in the compliance status of the EC conditions. Accordingly, the Action Closure Letter was issued by Ministry to the proponent vide letter dated 06.02.2025.

20. Written Submission: PP submitted the following written submission during the meeting:

Point No. 1: Details of Conflict between elephants and villagers in study may be provided.

Reply: The site-specific Wildlife Conservation Plan for Ananta OCP has been prepared and approved by the Principal Chief Conservator of Forests (Wildlife) & Chief Wildlife Warden of Odisha, Government of Odisha, vide letter no 6800 dated 29th July 2017, with a budget of 4.14 Crores. This amount has already been deposited into the CAMPA Account of the Forest Department. According to the approved Site-Specific Wildlife Conservation Plan (SSWLCP), the movement of mega wildlife has not been observed in the project area. Man-animal conflicts, particularly between humans and elephants, occur around the Bulajhar Reserved Forest (RF) and Chhendipada area, both of which are beyond the impact zone.

Relevant excerpts from the approved SSWLCP are submitted.

It is to submit that the Forest Department has developed management strategies for both the Forest Department and the User Agency in the SSWLCP, taking into account human-elephant conflicts, habitat conditions, etc., within the impact zone for the conservation of wildlife, and the plan was approved accordingly.

Point No. 2: PP to ensure that all the recommendations of the State Government and National Institute of Hydrology (NIH), Roorkee for diversion of Bangaru stream will be complied by the PP.

Reply: PP is committed that all the recommendations made by State Government, National Institute of Hydrology (NIH), Roorkee for diversion of Bangaru stream and bio-remediation studies will be complied to and necessary budget provision shall be kept accordingly.

Point No. 3: PP to expedite the avenue plantation area & budget as early as possible. PP to increase year-wise avenue plantation.

Reply: The revised avenue plantation programme is given below:

Year	Timeline as per CCR			Revised timeline & Budget		
	Running Km	No of Plants	Amount in Rs. Lakhs	Running Km	No of Plants	Amount in Rs. Lakhs
2025-26	2	3200	19.20	8.0	12800	140.80
2026-27	12	19200	115.20	10.0	16000	176.00
2027-28	7.37	11792	70.75	3.37	5392	59.31
Total	21.37	34192	205.15	21.37	34192	376.11

Point No. 4: PP to submit details of Plantation to be done through mission GREEN (Grow, Restore, Enrich & Empower Nature).

Reply: 50,000 (Fifty thousand) no. of plant saplings per annum will be distributed to villagers as part of the mission GREEN initiative of Ministry of Coal. The villagers shall be provided incentive for the upkeep and survival of the plants. This activity shall be taken up by Mar-25. Self-help group (SHG) and local villagers shall be involved under the mission GREEN initiative to take up the plantation drive and for long term sustainability and livelihood generation. Accordingly budget provision of Rs. 50.0 lakhs has been kept.

Point No. 5: PP shall identify the number of Primary health Centers (PHCs) and Community health Centers (CHCs) around the study area and shall strength the PHCs & CHCs around the study area by equipping them with medicines and medical equipment.

Reply: The Project authority will identify the number of PHCs and CHCs around the study area and shall equip them with medicine and equipment at regular intervals through the CSR initiatives. It shall also increase the regular health camps conducted for the people living around the study area. In addition to this, Central medical hospital has been built by MCL in the area where all the villagers and people around the study area are treated at nominal cost/free of cost.

Point No. 6: PP to get the Biodiversity Index studies of Flora and Fauna along the Bangaru Nallah along with preparation of Bio-atlas. A conservation plan and recommendation as provided by NIH and Sambalpur University shall be complied to.

Reply: Bangaru Nala has yet not been diverted. It will only be diverted after obtaining the necessary permission from the Department of Water Resources, Government of Odisha. A nallah diversion study is currently underway in collaboration with NIH Roorkee and Sambalpur University, and is expected to be completed by May 25. This study includes a detailed biodiversity assessment, along with Bio-atlas preparation and any decision regarding the diversion will be made based on its recommendations and shall be adhered to.

Point No. 7: Water quality of Bangaru Nallah may be provided with emphasis on the BOD.

Reply: The Bangaru Nallah diversion study is being conducted in collaboration with NIH Roorkee and Sambalpur University. Water samples will be collected from multiple locations along the nallah including upstream, downstream and confluence of the Brahmani River. The study will include a comprehensive analysis, including BOD values.

Point No. 8: PP had provided 1 CAAQMS in buffer zone. Based on ML area of Ananta OCP Expansion (1214.49 ha) two more CAAQMS is suggested and one must be in core-zone.

Reply: Ananta OCP has installed a Continuous Ambient Air Quality Monitoring Station (CAAQMS) in its buffer zone. Additionally, two more CAAQMS units will be installed by November 2025 (one in the core zone and one in the buffer zone) with a budget allocation of 1.9 crore.

Point No. 9: PP shall provide a plan for rejuvenation of the nearby waterbody within 2 km of ML area.

Reply: Ananta OCP has identified 10 traditional village ponds within 2 km of mine lease hold area for the rejuvenation. NoC has been sought from Sub collector Talcher to take up this rejuvenation work which includes the following:

- Desilting and dredging to clear sediments and pollutants using machines.
- Repairing and reinforcing embankments to prevent erosion and stabilize water bodies.
- Enlarging the size of existing water bodies by deepening, where it is feasible to increase its water holding capacity.
- Implementing water diversion channels and irrigation systems to support agriculture and livelihood activities.
- Integration of sustainable water management practices.
- Ecosystem restoration with native vegetation and aquatic life.

Point No. 10: PP shall provide timeline for bamboo plantation over the existing dump slopes.

Reply: Schedule of Bamboo plantation over OB dump slope along with budget is given below:

S. No.	Location	Area of dump slope (in Ha.)	Budget (in Lakhs)	Year
1	OB dumps	7.00	43.75	2025-26
2		9.00	56.25	2026-27
	Total	16.00	100.000	

Point No. 11: PP shall provide details of avenue plantation along the belt conveyor.

Reply:

Year	Timeline as per CCR		
	Running Km	No of Plants	Amount in Rs. Lakhs
2025-26	1.5	2400	26.40

Point No. 12: PP shall provide year wise plantation details along with budget and timeline.

Reply: A total Rs 107.38 Cr. has been kept for the plantation activity till the time of closure. This cost also includes incentive cost which will be paid to villagers who shall be involved for survival of plantation done. Till date, expenditure of Rs 3.25 Crs has been done for the plantation. A detailed action plan for the plantation is given in below:

S. No.	Year	Green belt and Safety Zone		OB Dump (Within ML Area)		Back filled area		Others (Avenue plantation)		Area around buildings & infrastructure		Total		Budget (Rs. in Crs.)
		Area	No of trees	Area	No of trees	Area	No of trees	Area	No of trees	Area	No of trees	Area	No of trees	
		(ha)		(ha)		(ha)		(ha)		(ha)		(ha)		
1	Till date	18.3	45750	23.2	58000	98.2	245500	0	0	16.84	42100	156.54	391350	3.25
2	1 st Year	2	5000	0	0	20.51	51275	0	0	3	7500	25.51	63775	3.51
3	5 th year	4.59	11475	0	0	120.57	301425	3.3	5280	5.16	12900	133.62	331080	18.22
4	10 th year	0	0	0	0	148.93	372325	3	4800	0	0	151.93	377125	20.75

5	13 th end of mine life	0	0	0	0	213.45	533625	0	0	0	0	213.45	533625	29.36
6	Post Mining	0	0	0	0	258.34	645850	0	0	0	0	258.34	645850	35.54
	TOTAL	24.89	62,225	23.2	58,000	860	21,50,000	6.3	10,080	25	62,500	939.39	23,42,805	110.63

Deliberations and Observation of the Committee:

21. The Committee noted the following:

i. Ananta OCP originally accorded EC vide letter no. J-11015/7/86-IA dated 13.06.1991 for area of 147 Ha having capacity of 4 MTPA. Further, it accorded EC for expansion vide letter no J-11015/4/94-IA.II(M) dated 02.05.2005 (area 691.091 Ha having capacity 8 MTPA), 14.07.2006 (area 691.091 Ha having capacity 12 MTPA) and 10.12.2014 (area 1181.968 Ha having capacity 20 MTPA). Later the EC was amended vide letter J-11015/397/2008-IA.II(M) dated 16.02.2018. The amendment was made mainly by adding forestland of 237.853 Ha to the project area of 1181.968 Ha, making the project area equal to 1419.821 Ha and by making certain corrections in the typographical errors.

ii. The instant proposal is for grant of Environment Clearance to Ananta OCP of M/s Mahanadi Coalfields Limited located at villages Hensmul, Dera, Purunia, Chandpur, Nakhtrapur, Ekdal, Hiloi, Rakas, Brundabanpur, Ajatipur, Rangamatia, Kurihan, Dinabandhupur, Biraramachandrapur and Kantapalli. Tehsil Talcher, District Angul of Odisha for expansion of production capacity from 20 MTPA to 24 MTPA (20%) and has applied under 7(ii)(a) of EIA Notification 2006 (as amended) Reducing the land area from 1419.821 Ha to 1214.490 Ha. The 205.331 Ha of area being reduced is the undisturbed area of blasting danger zone. Out of 205.331 Ha area being reduced, 80.776 Ha of forestland on which forest clearance is not accorded and 124.55 Ha of non-forest land.

iii. The EAC took into consideration the project site through kml file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH. The project does not fall in the Critically Polluted Area (CPA) and Severely Polluted Area (SPA) as per CEPI Assessment 2018.

iv. Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment 2018.

v. The project involved total 334.362 Ha of forest land for which PP has already accorded Stage – II forest clearance. PP accorded stage – II FC for 31.02 ha, 62.67 ha and 240.672 ha on 28.09.1990, 19.11.2004 and 18.05.2018, respectively. The total broken forestland as on 05.12.2024 is 217.77 Ha. A letter from DFO regarding the broken land is obtained vide memo no 75 dated 04.01.2025. The total forest land of 334.362 ha will be returned back to the forest department at time of closure.

vi. The project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. However, there is Kanehijena – Anantapur Elephant Corridor at a distance of 5.27 km from ML area and Satkosia – Simlipal Tiger Corridor at a distance of 9.01 km. Wildlife Management Plan has been prepared and approved by PCCF (WL) & CWLW vide m.no. 6800 dated 29.07.2017.

vii. Proponent submitted a letter from the Divisional Forest Officer (DFO) regarding habitat loss and proposed mitigation measures obtained vide Memo No. 71, dated 04.01.2025. Wherein, it is mentioned that no tigers are present in the said corridor, as on date. In the same letter it is also mentioned that the proponent is requested to complete the mitigation work as approved in site specific wildlife conservation plan. Committee also sought details of conflict between elephants and villagers. PP submitted that Man-animal conflicts, particularly between humans and elephants, occur around the Bulajhar Reserved Forest (RF) and Chhendipada area, both of which are beyond the impact zone. PP also submitted that the Forest Department has developed management strategies for both the Forest Department and the User Agency in the SSWLCP, taking into account human-elephant conflicts, habitat conditions, etc., within the impact zone for the conservation of wildlife, and the plan was approved accordingly.

viii. Committee deliberated on the Mine Plan and Mine Closure Plan submitted by the proponent and observed Mine Plan

and Mine Closure Plan of Ananta OCP for 30 MTPA (i.e., for 50% expansion) has been approved by the Board of Directors of M/s Mahanadi Coalfields Limited vide board resolution dated 11.11.2024.

ix. Method of Mining to be adopted shall be opencast mining by shovel dumper and surface miner.

x. Life of mine is 13 years (as on 01.04.2024).

xi. There are 2 nos of OB dumps for this mine. One is internal dump within an area of 932.54 ha, with the maximum height of 90 m and the other is external dump (within the ML area) in an area of 23.2 ha with the height of 20 m. No OB dumping shall be done outside the ML area.

xii. Committee deliberated on the transportation of coal proposed by the proponent for 24 MTPA and observed that, from pit to surface it will be transported through dumpers/ tippers to truck receiving hoppers. Further, from truck receiving hoppers to SILO at railway siding by belt conveyor of 1.47 km (belt conveyor will be operational from June 2025 onwards.). And further to ultimate consumer, 20 MTPA will be transported by rail and rest 4 MTPA will mostly be transported by rail only. But in case of unavailability of rail rakes, it'll be transported through road.

xiii. Committee deliberated on the baseline data submitted by the proponent and the mitigation measures being undertaken in this regard. Committee also observed that only 1 nos of CAAQMS is installed in the buffer zone. Committee opined that at least 2 more CAAQMS shall be installed. And one of them should be installed in the buffer zone and another shall be installed in the core zone. PP submitted that the same shall be installed by November 2025.

xiv. The water requirement for the said project, post expansion is 3823.09 KLD (1010.59 KLD for potable water and 2812.50 KLD for industrial use and firefighting). Out of the total water being used, 2470.09 KLD is being derived from surface water and the rest 1353 KLD is being derived from groundwater. Permission for surface water has been obtained from Angul Irrigation Division, Govt of Odisha and permission for ground water has been obtained from CGWA. The application for renewal of CGWA NOC along with Comprehensive Hydrogeological report including modelling (CHR) has been submitted on 25-10-23. A total Rs. 29.63 lakhs has been deposited on 25.10.2023 against the application. At present the proposal is under scrutiny at CGWA, New Delhi.

xv. The Committee deliberated on the proposed diversion of Bangaru stream which flows from west to east through the central part of the block. PP submitted that a request for permission to divert the stream was submitted to the Water Resources Department in March 2020. Subsequently, on 30.09.2020, an inspection was carried out by the Superintending Engineer of the Irrigation Division. Following the inspection, they recommended a detailed study to support the proposed diversion. The diversion plan has been prepared and submitted to the Water Resources Department. A request has again been made by GM (Env. & Forest), MCL vide letter no 1992 dated 30.11.2024 to EIC (ER), Govt. of Odisha for diversion of Bangaru stream for Ananta OCP. Further, a work order dated 14.10.2024 has been issued to National Institute of Hydrology, Roorkee for the Ecological and hydrological study of Bangaru Stream. The study for the same has initiated on 23-10-2024 by experts from NIH, Roorkee. PP submitted that the study shall be completed by May, 2025.

As per the recommendation of EAC to carry out bio-remediation plan, NIH Roorkee, has been collaborated with the Sambalpur University (Government University) for the study of Bio-remediation plan of Bangaru stream. The study will be completed by the May-2025. The PP committed that all the recommendations of the State Govt., NIH, Roorkee for diversion of Bangaru stream and bio-remediation studies will be complied to and necessary budget provision shall be kept accordingly.

xvi. Committee also opined that PP shall get the Biodiversity Index studies of Flora and Fauna along the Bangaru Nallah along with preparation of Bio-atlas. PP submitted that the study includes a detailed biodiversity assessment, along with Bio-atlas preparation and any decision regarding the diversion will be made based on its recommendations and shall be adhered to.

xvii. Committee also opined that the PP shall identify waterbodies in 2 km area for rejuvenation of the same. PP submitted that 10 traditional village ponds within 2 km of mine lease hold area for the rejuvenation. NoC has been sought from Sub collector Talcher to take up this rejuvenation work.

xviii. Committee deliberated on the compliance of public hearing action plan that took place on 27.07.2011. Till October

2024, the proponent has spent Rs. 439.53 crores. Budget proposed for the next 4 years is Rs. 241.40 crores. Committee opined that the PP shall strengthen the Public Healthcare Centers and Community Healthcare Centers in the Study area. PP submitted that number of PHCs and CHCs around the study area will be identified and shall equip them with medicine and equipment at regular intervals through the CSR initiatives. It shall also increase the regular health camps conducted for the people living around the study area. In addition to this, Central medical hospital has been built by MCL in the area where all the villagers and people around the study area are treated at nominal cost/free of cost.

xix. The capital cost of the proposed project (including existing) is Rs 86015 Lakhs and the capital cost for environmental protection measures is proposed as Rs. 4475 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1787.49 Lakhs. The indirect employment generation from the proposed project/expansion is around 200.

xx. Existing green belt has been developed in 156.54 ha area which is about 12.88 % of the total mine lease area of 1214.49 ha with total sapling of 391350 Trees. Proposed greenbelt will be developed in 782.85 ha which is about 64.46 % of the total mine lease area. Thus total of 939.39 ha area (77.34% of total project area) will be developed as greenbelt. A 7.5 m wide greenbelt, consisting of at least 3 tiers around mine boundary will be developed as greenbelt and green cover as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 23,42,805 saplings will be planted and nurtured in 939.39 hectares in 13 years + 3 years of post-closure.

On the suggestion of the Committee, PP also submitted a plan for Mission GREEN, in which PP will distribute, 50,000 (Fifty thousand) no. of plant saplings per annum will be distributed to villagers as part of the mission GREEN initiative of Ministry of Coal. The villagers shall be provided incentive for the upkeep and survival of the plants. This activity shall be taken up by Mar-25. Self-help group (SHG) and local villagers shall be involved under the mission GREEN initiative to take up the plantation drive and for long term sustainability and livelihood generation. Accordingly budget provision of Rs. 50.0 lakhs has been kept.

Apart from this, PP also submitted the year wise, time-bound action plan for completion of plantation in 939.39 ha.

xxi. Committee also sought the time bound action plan for proposed bamboo plantation over the existing OB dumps. PP submitted the same.

xxii. Committee observed that, 48 nos of families are yet to be compensated as part of rehabilitation and none of the PAFs are left for resettlement. 96.27% of the rehabilitation has been completed and 100% of resettlement has been completed.

xxiii. Committee observed that project was inspected by the Regional Office, MoEF&CC, Bhubaneswar on 18.10.2024 and CCR was issued vide letter no.101-958/EPE/2053 dated 19.11.2024. Action taken report of the issued CCR dated 19.11.2024 was submitted by the project proponent on 28.12.2024. The Compliance and Monitoring Division of the MoEF&CC, New Delhi also issued letter to the project vide letter no. IA. J-11014/294/2024-IA-I dated 13.01.2025 to the Regional Office, Bhubaneswar to verify the Action taken report/inputs submitted by the project proponents in reference to the partial compliances and observations reported by the Regional Office, Bhubaneswar and submit comments/ Review Report to the Ministry. In light of the above, the Regional Office, Bhubaneswar, carried out site visit of the Ananta project on 22.01.2025 to verify the Action taken report/inputs submitted by the project proponents and action taken by the project on the partial compliances to the environment safeguard measures observed during the last monitoring. Thereafter, the Compliance and Monitoring Division – IA Division of MoEF&CC, New Delhi issued the Action Closure Letter on non-compliances observed w.r.t. to the EC letters of Ananta OCP vide letter dated 06.02.2025.

xxiv. There are no pending court cases or legal issues on the project. Further, there show-cause pending on the project.

xxv. Committee deliberated on the additional information and the written submissions submitted by the PP and found it to be satisfactory.

Recommendations of the Committee:

22. Based on the discussions held and the documents submitted, the EAC **recommended** the proposal of Environment Clearance for Expansion of Ananta OCP project from 20 MTPA to 24 MTPA in lease area reducing from 1419.821 Ha to 1214.49 Ha by **M/s. Mahanadi Coalfields Limited** located at villages Hensmul, Dera, Purunia, Chandpur, Nakhtrapur, Ekdal, Hiloi, Rakas, Brundabanpur, Ajatipur, Rangamatia, Kurihan, Dinabandhupur, Biraramachandrapur and Kantapalli. Tehsil Talcher, District Angul, Odisha, under the provisions of EIA Notification, 2006 (as amended), subject to the compliance of the following specific conditions in addition to the general/Standard EC conditions (**Annexure-I**).

23. The MoEF&CC 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 EAC hereby accords Environmental Clearance to **M/s. Mahanadi Coalfields Limited** for Expansion of Ananta OCP project from 20 MTPA to 24 MTPA in lease area reducing from 1419.821 Ha to 1214.49 Ha, located at villages Hensmul, Dera, Purunia, Chandpur, Nakhtrapur, Ekdal, Hiloi, Rakas, Brundabanpur, Ajatipur, Rangamatia, Kurihan, Dinabandhupur, Biraramachandrapur and Kantapalli. Tehsil Talcher, District Angul, Odisha, subject to compliance of the Specific Environmental safeguard Conditions in addition to the standard EC conditions (**Annexure-I**).

24. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

25. 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.

26. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

27. 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.

28. General Instructions:

(i) 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 MoEF&CC website where it is displayed.

(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 must display the same for 30 days from the date of receipt.

(iii) 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.

(iv) 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.

(v) 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.

(vi) The Regional Office of this MoEF&CC 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.

(vii) Validity of EC is as per the provision of EIA Notification, 2006 and its subsequent amendment.

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

Yours faithfully,

(Sundar Ramanathan)
Scientist 'F'
Tel: 011- 20819378
Email- r.sundar@nic.in

Copy To

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. The Deputy Director General of Forests, Regional office (EZ), Ministry of Environment & Forests, A-31, Chandershekharpur, Bhubaneswar- 751023 (Odisha).
3. The Secretary, Department of Environment & Forests, Government of Orissa, Secretariat, Bhubaneswar (Odisha).
4. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32.
5. The Chairman, Orissa State Pollution Control Board, Parivesh Bhawan, A/118, Nilkanthanagar, Unit VIII, Bhubaneswar - 751012 (Odisha).
6. District Collector, Angul, Government of Odisha.
7. PARIVESH Portal

Annexure 1

Specific EC Conditions for (Mining Of Minerals)

1. Specific Conditions

S. No	EC Conditions
1.1	Mining shall be restricted to only 1214.49 ha, against the land of 1482.171 ha in possession of the project proponent.
1.2	The 48 nos of families/ persons, which are yet to be compensated or provided employment, as per the R&R plan, shall be completed. Compliance status in this regard shall be submitted to the concerned Regional Office of MoEF&CC along with the six monthly compliance report.
1.3	Project Proponent shall divert the Bangaru Stream only after obtaining the necessary permission from the State Irrigation Department. All the recommendations of the Ecological Study, Hydrological Study and the Bio-Remediation Study, being carried out by NIH Roorkee, shall be complied with and the compliance of the same shall be submitted along with the six-monthly report to Ministry's RO. Budgetary provisions for the compliance of the same shall be separately maintained.
1.4	Project Proponent shall install 2 additional CAAQMS by November 2025 in addition to already 1 existing CAAQMS in the buffer zone. One of the additional CAAQMS shall be installed in the Core

S. No	EC Conditions
	zone and another additional CAAQMS shall be installed in the buffer zone. Compliance of the same shall be submitted along with the six-monthly report to Ministry's RO.
1.5	Project proponent shall rejuvenate the identified 10 nos. of water bodies within 2 km of project area. Compliance of the same shall be submitted along with the six motnly compliance report to the Ministry's RO.
1.6	Total water requirement for the proposed project is 3823.09 KLD and the same shall be met from groundwater and surface water. PP shall obtain requisite NoC for withdrawal of 1353 KLD of Groundwater (as proposed) from CGWA prior to the commencement of expansion mining operations.
1.7	Plantation shall be carried out in total 939.39 ha, which shall include the safety zone and greenbelt, backfilled area, avenue plantation and area around buildings and infrastructure, as per the plan submitted by the PP. Along with this avenue plantation shall be carried out in the 1.5 km stretch of conveyor belt in the FY 2025-26 itself and the bamboo plantation as proposed by the PP shall be done in 16 ha of slopes of OB dump, during the two year period of 2025-2027. The overall budget proposed for the plantation Rs. 237.03 Lakhs shall be maintained in a separate account. 50,000 (Fifty thousand) no. of plant saplings per annum will be distributed to villagers as part of the mission GREEN initiative of Ministry of Coal. Compliance of the plantation activites shall be submitted along with the six monthly compliance report.
1.8	The budget proposed for PH (for next 4 years) is Rs 241.40 Lakhs. The budget proposed shall be kept in a separate account. Project proponent shall implement the action plan to address the issues raised during public hearing within the stipulated time frame. PP shall submit the progress report regarding the implementation of action plan to concerned RO along with the six monthly compliance report. PP shall strengthen the existing Primary Health Centre (PHC) & Community Health Centre (CHC) in the study area for better public health. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office of MoEF&CC.
1.9	Conveyor Belt under construction shall be commissioned by June 2025, as committed by the PP and thereafter, no road transportation of coal will be allowed.
1.10	Project proponent shall implement the protective measure proposed in Environment Management Plan (EMP) in a time-bound manner. The budget earmarked for the same is Rs 4475 lakhs (Capital) and Rs 1787.49 lakhs (recurring) and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year.
1.11	Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEF&CC.

S. No	EC Conditions
1.12	Project proponent should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non-compliance or infringement should be reported to the concerned authority.
1.13	Project proponent shall ensure that all types of plastic waste generated from the plant shall be stored separately in isolated area and disposed of strictly adhering to the Plastic Waste Management Rules 2016 (as amended). In pursuant to the Ministry's OM dated 18/07/2022. PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic (SUP) in order to ensure compliance of Ministry's Notification published by the Ministry on 12/08/2021. A report along with photograph on the measures taken shall also be included in the six monthly compliance report being submitted by PP.
1.14	Water shed/Natural drainage shall be carefully managed so that flow of water should go down side in the main streams/nallah.
1.15	Project proponent shall carry out Occupational Health study by the Central Institute of Mining and Fuel Research (CIMFR) to aware the employees, preventing injury, and reducing the health issues in the workplace. All the recommendations of the study shall be complied by the proponent and project for next phase of expansion shall be submitted only after the compliance of the same.
1.16	Third-party audit (by NEERI/CIMFR/IIT/NITs) for air & water quality shall be carried out annually to keep a check on the same. PP shall implement the recommendations of the audit and submit the outcome of the audit to the concerned RO of MoEF&CC.
1.17	Project proponent is advised to implement the 'Ek Ped Maa Ke Naam' Campaign which was launched on 5th June 2024 on the occasion of the World Environment Day to increase the forest cover across the Country. This plantation drive is other than Green belt development. The action in this regard shall be submitted concerned RO in six monthly report.

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 clearance from the National Board for Wildlife, if applicable.
1.3	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.
1.4	The maximum production at any given time shall not exceed the limit as prescribed in the EC.
1.5	Validity of Environment Clearance is as per life of the mine mentioned in EC letter or 30 years as

S. No	EC Conditions
	per EIA Notification, 2006 and its amendments therein

2. Air Quality Monitoring And Mitigation Measure

S. No	EC Conditions
2.1	Project proponent shall obtain requisite consent from State Pollution Control Board for 24 MTPA coal mining.
2.2	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO ₂ and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board.
2.3	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 25th September 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.
2.4	Effective control measures such as regular water sprinkling/rain gun/ Fog cannon /mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, 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.
2.5	Major approach roads shall be black topped and properly maintained.
2.6	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.
2.7	PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.

3. Water Quality Monitoring And Mitigation Measures

S. No	EC Conditions
3.1	PP shall take approval from the CGWA/ Competent Authority prior to commencement of mining operations.
3.2	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 25th September 2000 and as amended from time to time by the Central Pollution Control Board.
3.3	The monitoring data shall be uploaded on the company's website and displayed at the project site at

S. No	EC Conditions
	a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th May 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
3.4	Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff.
3.5	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.
3.6	Industrial wastewater from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic wastewater.
3.7	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done 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.
3.8	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 revarian /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.
3.9	Industrial effluent and domestic wastewater shall be treated in the Effluent treatment Plant (ETP) and Sewage Treatment Plant (STP). After treatment, treated water shall be reused for plantation.

4. Noise And Vibration Monitoring And Prevention

S. No	EC Conditions
4.1	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.
4.2	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.

5. Mining Plan

S. No	EC Conditions
5.1	Project proponent shall obtain star rating as per the guidelines of Ministry of Coal.
5.2	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
5.3	No change in mining method, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).
5.4	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).
5.5	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

6. Land Recalculation

S. No	EC Conditions
6.1	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(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
6.2	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.
6.3	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.
6.4	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.
6.5	The project proponent shall make necessary alternative arrangements, if grazing land is involved in

S. No	EC Conditions
	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.

7. Public Hearing And Human Health Issues

S. No	EC Conditions
7.1	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
7.2	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.
7.3	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.
7.4	Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.
7.5	Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
7.6	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z11013/5712014-IA.I1 (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'.

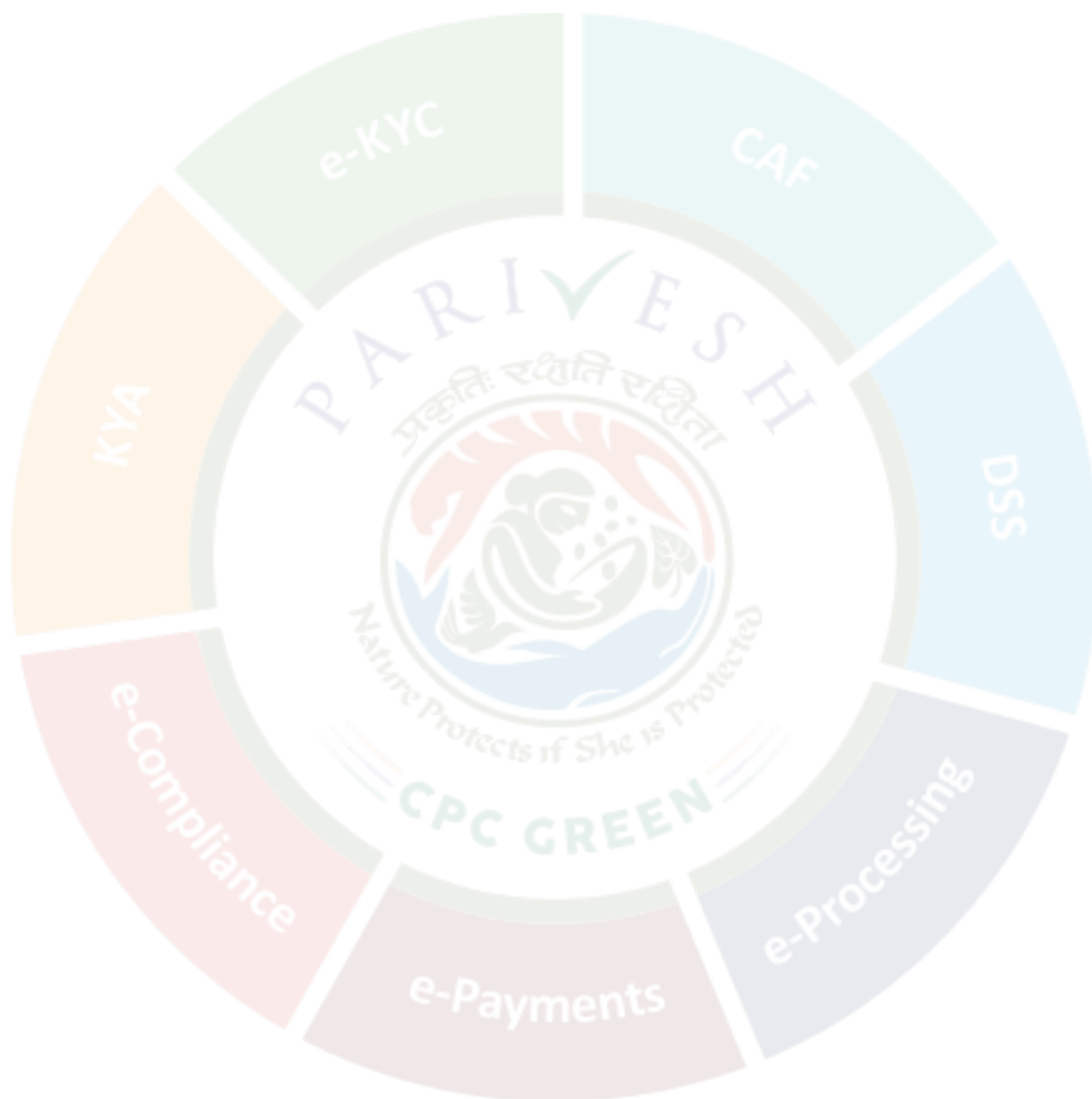
8. Corporate Environment Responsibility

S. No	EC Conditions
8.1	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.
8.2	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.

9. Miscellaneous

S. No	EC Conditions
9.1	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.
9.2	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 has to display the same for 30 days from the date of receipt.
9.3	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.
9.4	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.
9.5	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
9.6	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
9.7	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.
9.8	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
9.9	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.
9.10	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
9.11	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
9.12	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.
9.13	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 Trans-boundary 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 /

S. No	EC Conditions
	High Courts and any other Court of Law relating to the subject matter.
9.14	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.



Signature Not Verified

Digitally Signed by : Sundar Ramanathan
Member Secretary, MoEFCC (EC)

Date: 15/03/2025