



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The General Manager
BALRAM OC EXPANSION MAHANADI COALFIELDS LIMITED
Office of General Manager, Hingula Area, NS Nagar Post, Angul -
759148, Orissa-759148

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

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC)
in respect of project submitted to the Ministry vide proposal number
IA/OR/CMIN/411408/2022 dated 18 Jan 2023. The particulars of the environmental
clearance granted to the project are as below.

- | | |
|---|--|
| 1. EC Identification No. | EC25A001OR198573 |
| 2. File No. | J-11015/09/2013-IA-II(M) |
| 3. Project Type | Expansion |
| 4. Category | A |
| 5. Project/Activity including
Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Balram OC Expansion |
| 7. Name of Company/Organization | BALRAM OC EXPANSION MAHANADI
COALFIELDS LIMITED |
| 8. Location of Project | Orissa |
| 9. TOR Date | N/A |

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

Date: 24/02/2025

(e-signed)
Sundar Ramanathan
Scientist F
IA - (Coal Mining sector)

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

This is a computer generated cover page.



M/s. Mahanadi Coalfields Limited has made an online application vide proposal no. IA/OR/CMIN/411408/2022 dated 18/01/2023 along with copy of EIA/EMP report, Form 1 (Part A, B & C) and Certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 1(a) Under Category “A” of the schedule of the EIA Notification, 2006 and appraised at the central level.

2. The proposal was earlier considered in 40th EAC meeting held during 16-17 February 2023 and 44th EAC meeting held on 9th May 2023, wherein the project was deferred for additional information. PP submitted the reply of the ADS raised in 44th EAC meeting held on 9th May 2023 on 30th November 2024. The proposal was further considered in 20th EAC meeting held on 20th -23rd January, 2025. The written submissions was submitted on 10.02.2025. The MoM for the same may be seen using the web link: parivesh.nic.in.

Details submitted by the project proponent

3. The project of M/s Mahanadi Coalfields Limited located at villages Nakeipasi, Brahmanbahal, Damal, Prasananagar, Nathgaon, Majhika, Kalamachhuin, Danara, Natada, Banabaspur, Telipur, Solada, Satyabadipur, Gopalprasad Khamar, Khuringa, Birabarpur and Kochianali of Tehsil Talcher Sadar, District Angul, State- Odisha is for setting up for enhancement of production from 8.0 to 15.0 MTPA and increase in mining lease area from 1309.0 ha to 2574.0 Ha.

4. Details of Previous Approvals in chronological orders:

Sl. No.	Details of Letter No.	EC	Capacity (MTPA)	Area in ha	Date of issuance	Status of implementation
1.	F.No.J-11015/4/87-IA	EC	8.0	1309	24.10.1990	Being implemented

5. **Certified Compliance Report:** The project was inspected by the IRO, MoEF&CC, Bhubaneswar on 21.01.2022 and CCR was issued vide letter no. 101-31/EPE/228 dated 28.01.2022. Action taken report of the issued CCR dated 28.01.2022 was submitted by the project proponent on 19.02.2022. In compliance to the CCR dated 28.01.2022, the PP was to set up a field laboratory. After setting up of the field laboratory, a revised CCR compliance was submitted to IRO, Bhubaneswar vide letter dated 23.11.2024. The IRO visited Balram OCP again on 16.12.2024 for inspection of the EC conditions. IRO, Bhubaneswar issued CCR for Balram OCP vide letter no. 101-929/EPE dated 26-12-2024. The Action taken report was submitted to IRO, MoEF&CC, Bhubaneswar vide letter no. MCL/GM/HA/ENV/2024-25/523 Dated 05.01.2025.

6. Details of ToR:

Date of Application	Details	Date of Accord	ToR Validity
23.07.2021	17 th EAC 09.08.2021	20.09.2021	19.09.2025

7. **Environmental Site Settings:** The project area is covered under Survey of India Topo-sheet No: F45T1(73H/1) on RF 1:50000 and is bounded by the geographical coordinates ranging from Latitude: 20°55’53.60” to 20°59’7.11” North; Longitude:

85°2'36.37" to 85°6'21.71" East. Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA) as per CEPI Assessment 2018.

Mining Lease: PP submitted the following details of land acquired and the mine lease area.

S. No.	Govt. Order/Notifications as the case may be	Area (ha)
	As per CBA Act :	
1	9(1) SO No.1199 Dt 10.05.1989	755.920
2	9(1) vide SO No. 222; dt: 21.01.1997	1023.954
3	9(1) SO No.2259 dt 16.08.2008	1190.03
4	9(1) SO No.498(E) dtd.01.03.2013	17.220
5	9(1) SO No.1261(E) dt.29.3.2016	340.429
	Sub Total A (1 to 5)	3327.553
6	LA Act: 145 dt.11.1.83, 2137 dt.11.1.83, 35276 dt.30.5.83, 15616 dt.5.3.84, 43712 dt.5.7.88, 50482 dt.7.8.89, 6878 dt.24.11.89, 13285 dt.27.3.90, 12283 dt.23.3.90 9622 dt.25.2.94	401.070
7	No.37282 dt.7.6.1988	25.467
	Sub Total B (6 to7)	426.537
	Grand Total (A + B)	3754.00*

* ML area of 2574 ha is part of this land acquired area

Forest Area: The project involved total 278.855 Ha of forest land. The details of the approval already obtained or applied for is as follows:

Sl. No.	Obtained vide letter No.	Area (ha)	Stage I/II
1.	8-143/89-FC	85.01	28.09.1990 (one time clearance)
2.	8-143/89-FC (I/87973/2024)	193.845	22-11-2024 (Stage I)
	Total	278.855	

Protected Area: The project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor, etc. However the project is located at a distance of 8.04 km from Kahnejena – Anantapur Elephant Corridor. A site-specific wild life conservation plan considering Kanheijena-Anantapur Elephant corridor which is 8.04 km from the mine lease area is prepared by DFO Angul and approved by the PCCF Wildlife vide letter no 9783/CWLW-FDWC-FD-0150-2021, dated 17-08-2024. Schedule I species [Bilua (*Canis aureus*), saliapatani (*Viverricula indica*), ahiraj (*Naja hannah*), dhamana (*Ptyas mucosus*), monitor lizard (*Varanus bengalensis*), python (*Python molurus*), bajrakapta (*Manis crassicaudata*), bana biradi (*Felis chaus*), bhalu (*Melursus ursinus*), bilua (*Canis aureus*), common palm civet (*Paradoxurus hermaphroditus*), hati (*Elephas maximus*), Indian porcupine (*Hystrix*

indica), kokisiali (*Vulpes bengalensis*), neula (*Urva edwardsi*), pati hanu (*Macaca mulatta*), saliapatani (*Viverricula indica*), pea fowl (*Pavo cristatus*), vulture (*Gyps bengalensis*), sorisia godhi (*Varanus bengalensis*), water monitor (*Varanus salvator*), bahurupi endua (*Chameleo zeylanicus*), common cobra (*Naja naja*)] are present in the study area. Further PP submitted that there is no violation of WLP Act.

Other Sensitive Receptors: Bangaru Stream/nallah is flowing near the northeastern boundary (approx. 600 m away) in the SW to NE direction and Singada stream/nallah (approx. 200 m away) from the northwestern boundary of the mine lease area. PP submitted that no water body/ road/ rail is proposed to be diverted. No ASI protected archaeological site in close proximity to the ML area.

8. Method of Mining and Mine Plan:

- i. The Mining Plan and the Mine Closure Plan was approved by MCL Board vide letter no. MCL/SBP/CS/BD-226/Ext/2020/11151, date 29.08.2020 and subsequently corrigendum approved by MCL Board vide letter no. MCL/SBP/CS/BD-227/Ext/2020/11307, dated 17.11.2020.
- ii. Total geological reserve reported in the mine lease area is 1494.93 MT., out of which mineable reserves are 737.04 Mt (as on 01.04.2020) and extractable reserves are 712.134 Mt (as on 01.04.2020). Percentage of extraction is 96.62%.
- iii. There are total 19 nos of coal seams. Maximum thickness is 22 m and minimum thickness is 0.3 m.
- iv. Life of Mine is 49 years (as on 01.04.2020).
- v. Method of mining to be adopted will be opencast mining, with shovel-dumper in OB and Surface miner in coal.
- vi. Top soil & OB management

(i) Quantity of Top Soil to be generated	i. 4.187 Mm ³ is expected to be generated.																	
(ii) Storage of Top Soil	ii. Will be temporarily stored at top soil dump until next plantation programme.																	
(iii) Handling/ utilization of top soil	iii. Removed and stored separately at Top oil dump and is spread before taking up plantation. If storage exceeds 1 year, grassing is done over the dump.																	
(iv) No. of Top soil dumps	iv. One temporary top soil dump with approximately 0.035 Mm ³ .																	
(i) Dumps details:	<table border="1"> <thead> <tr> <th>Details</th> <th colspan="2">Internal Dumps (over backfilled area)</th> <th colspan="2">OB Dumps (Within Mine Lease)</th> <th>Remarks</th> </tr> <tr> <td></td> <th>No</th> <th>Quantity of Waste/OB (Mm³)</th> <th>Nos.</th> <th>Quantity of Waste/OB stored (Mm³)</th> <td rowspan="2">There is no dump outside mine</td> </tr> </thead> <tbody> <tr> <td>Existing</td> <td>1</td> <td>155.20*</td> <td>1</td> <td>11.28</td> </tr> </tbody> </table>	Details	Internal Dumps (over backfilled area)		OB Dumps (Within Mine Lease)		Remarks		No	Quantity of Waste/OB (Mm ³)	Nos.	Quantity of Waste/OB stored (Mm ³)	There is no dump outside mine	Existing	1	155.20*	1	11.28
	Details	Internal Dumps (over backfilled area)		OB Dumps (Within Mine Lease)		Remarks												
		No	Quantity of Waste/OB (Mm ³)	Nos.	Quantity of Waste/OB stored (Mm ³)	There is no dump outside mine												
Existing	1	155.20*	1	11.28														

	Proposed		1496.257			lease hold area
	Total	1	1651.457	1	11.28	
*As on 01-04-20						
(ii) specification of each dump	Dump No.	Area (ha)	Height (m)	Quantity (Mm³)	Type (Internal)	Remarks
	1	32.20	40	11.28	OB dump (within Mine lease)	This will be re-handled at the time of final closure
	2	1554.24		1651.457	Internal (over backfilled area)	---

- vii. There are 2 OB dumps, 1 internal and 1 external in an area of 1554.24 ha and 32.20 ha respectively. The maximum height of the external OB Dump shall be 40 m. No OB dump is proposed outside the ML area.

A. Pre-mining land use:

S. No.	Type of Land	Within ML
a)	Agricultural	1909.276
b)	Forest	278.855
c)	Barren/Waste land	76.264
d)	Grazing	49.526
e)	Surface water bodies	117.038
f)	Settlements	97.755
g)	Others (Road Township & Community)	45.288
Total		2574.00

B. Post-mining land use:

Post-mining land use (at the end of mining activity)							
Sl. No.	Category	Plantation	Water body	Dip side slope, Active dump & haul road	Undisturbed	Public/ Company use	Total
1	Quarry excavation	1554.24	39.36	270.10	0	0	1863.70

Post-mining land use (at the end of mining activity)							
Sl. No.	Category	Plantation	Water body	Dip side slope, Active dump & haul road	Undisturbed	Public/ Company use	Total
2	Safety Zone (7.5mt)	9.30	0	0	0	0	9.30
3.	OB dumps (within ML area)	32.20	0	0	0	0	32.20
4.	Infrastructure	22.44	0	0	5.984	46.376	74.80
5.	Blasting Danger Zone	244.20	0	0	25.75	100.05	370.00
6.	Other areas	134.40	0	0	17.92	71.68	224.00
	Mine Lease Area	1996.78	39.36	270.10	49.654	218.106	2574.00

viii. **Details of transportation of coal:**

In Pit to surface: Dumper/ Tipper

Surface to siding: CT road to washery* – 5 MTPA; Belt conveyor to Silo – 7.5 MTPA; through automatic truck loading system – 2.5 MTPA by road.

Siding to loading: Washery* – 5 MTPA and loading through silo – 7.5 MTPA by belt conveyor; through automatic truck loading system – 2.5 MTPA by road.

Quantity being transported by road/ rail/ conveyor: Existing (8.0 MTPA): Rail: 5.50 MTPA , Road : 2.50 MTPA; Proposed (15.0 MTPA): Rail – 12.50 MTPA, Road – 2.50 MTPA

**Note - A coal washery with a capacity of 7 MTPA has been established by APGENCO within the existing ML area of MCL for which CTE has been obtained by Odisha State Pollution Control Board has been obtained vide letter no. 4488/Ind-II-NOC-3273 dated 09.02.2005. The pit head washery is currently under operation based on the requisite consent from the Odisha SPCB vide no. 1468/IND-I-CON 5862 dtd 12.09.2024 which is valid up to 31.03.2025.*

ix. **Reclamation:** Afforestation shall be done covering an area of: 1996.78 ha at the post closure of mining. This will include reclaimed external OB dump of 32.20 ha, 1554.24 ha of internal OB dump will be reclaimed with plantation/ grass carpeting, 9.3 ha will be converted into greenbelt. Density of plantation will be 2500 nos of plants per ha. 39.36 ha void will be converted into water body with a maximum depth of 40 m.

9. **Baseline data:** Baseline data was generated during March 2021 to June 2021, as follows:

Period	March 2021-June 2021													
AAQ parameters at 10 Locations (min and max)	Air quality-10 Stations (Core zone-2, Buffer zone -8) Core Zone: PM ₁₀ = 95.50 to 188.00 µg/m ³ PM _{2.5} = 50.60 to 95.90 µg/m ³ SO ₂ = 15.70 to 30.30 µg/m ³ NO _x = 12.20 to 22.00 µg/m ³ CO = 0.78 to 1.10 mg/m ³ Buffer Zone: PM ₁₀ = 48.9 to 86.4 µg/m ³ PM _{2.5} = 25.2 to 45.5 µg/m ³ SO ₂ = 5.6 to 24.3 µg/m ³ NO _x = 5.0 to 23.7 µg/m ³ CO = 0.01 to 1.11 mg/m ³													
Incremental GLC Level	PM ₁₀ = 22.38 µg/m ³ (Level at 0.5 km in downwind Direction) PM _{2.5} = 3.42 µg/m ³ (Level at 0.5 km in downwind Direction) SO ₂ = 17.54 µg/m ³ (Level at 0.5 km in downwind Direction) NO _x = 26.53 µg/m ³ (Level at 0.5 km in downwind Direction)													
Ground water quality at 4 Locations	<table border="1" data-bbox="453 965 1185 1196"> <thead> <tr> <th data-bbox="453 965 963 1010">Parameters</th> <th data-bbox="963 965 1185 1010">Range</th> </tr> </thead> <tbody> <tr> <td data-bbox="453 1010 963 1043">pH</td> <td data-bbox="963 1010 1185 1043">6.90 to 7.45</td> </tr> <tr> <td data-bbox="453 1043 963 1077">Total Hardness as CaCO₃ (mg/l)</td> <td data-bbox="963 1043 1185 1077">54.0 to 372.0</td> </tr> <tr> <td data-bbox="453 1077 963 1111">Fluoride (mg/l)</td> <td data-bbox="963 1077 1185 1111">0.10 to 0.86</td> </tr> <tr> <td data-bbox="453 1111 963 1144">Chloride (mg/l)</td> <td data-bbox="963 1111 1185 1144">23.0 to 98.0</td> </tr> <tr> <td data-bbox="453 1144 963 1196">Zinc (mg/l)</td> <td data-bbox="963 1144 1185 1196">0.42 to 4.40</td> </tr> </tbody> </table>		Parameters	Range	pH	6.90 to 7.45	Total Hardness as CaCO ₃ (mg/l)	54.0 to 372.0	Fluoride (mg/l)	0.10 to 0.86	Chloride (mg/l)	23.0 to 98.0	Zinc (mg/l)	0.42 to 4.40
Parameters	Range													
pH	6.90 to 7.45													
Total Hardness as CaCO ₃ (mg/l)	54.0 to 372.0													
Fluoride (mg/l)	0.10 to 0.86													
Chloride (mg/l)	23.0 to 98.0													
Zinc (mg/l)	0.42 to 4.40													
Surface water quality at 4 Locations	<table border="1" data-bbox="453 1207 1185 1402"> <thead> <tr> <th data-bbox="453 1207 963 1252">Parameters</th> <th data-bbox="963 1207 1185 1252">Range</th> </tr> </thead> <tbody> <tr> <td data-bbox="453 1252 963 1285">pH</td> <td data-bbox="963 1252 1185 1285">6.58 to 7.04</td> </tr> <tr> <td data-bbox="453 1285 963 1319">DO (mg/l)</td> <td data-bbox="963 1285 1185 1319">6.4 to 7.5</td> </tr> <tr> <td data-bbox="453 1319 963 1352">BOD (mg/l)</td> <td data-bbox="963 1319 1185 1352">2.1 to 2.8</td> </tr> <tr> <td data-bbox="453 1352 963 1402">COD (mg/l)</td> <td data-bbox="963 1352 1185 1402">7.9 to 15.9</td> </tr> </tbody> </table>		Parameters	Range	pH	6.58 to 7.04	DO (mg/l)	6.4 to 7.5	BOD (mg/l)	2.1 to 2.8	COD (mg/l)	7.9 to 15.9		
Parameters	Range													
pH	6.58 to 7.04													
DO (mg/l)	6.4 to 7.5													
BOD (mg/l)	2.1 to 2.8													
COD (mg/l)	7.9 to 15.9													
Noise levels Leq (Day and Night) at 10 locations (Core zone-2, Buffer zone -8)	Core zone: 67.16 to 71.48 dB(A) for the day time and 56.99 to 60.40 dB(A) for the Night time. Buffer zone: 46.11 to 52.27 dB(A) for the day time and 36.15 to 44.65 dB(A) for the Night time.													
Flora and fauna	Presence of schedule I fauna and endangered Flora if any. If yes, status of site specific wildlife conservation plan. Schedule I species are present in the study area, a site-specific wild life conservation plan has been prepared by DFO Angul and approved by the PCCF (WL) & CWLW vide letter no 9783/CWLW-FDWC-FD-0150-2021, dt. 17-08-24.													
Water Requirement	Source of Water: Ground Water (mine seepage water) Water Requirement: Potable: 950 KLD Industrial: 4575 KLD													

Period	March 2021-June 2021
	NOC (Ground Water): As per minutes of 202 nd Internal EAC held on 21-11-2024, CGWA permission for with drawl of 5006 KLD has been approved.

10. Water Requirement: PP submitted that potable water requirement for the project shall be 950 KLD and for industrial purpose shall be 4575 KLD. Source of water is ground water (the entire requirement of water is proposed to be fulfilled by mine seepage water). PP also submitted that NoC for ground water from CGWA has been approved as per minutes of 202nd Internal EAC held on 21-11-2024, CGWA for withdrawal of 5006 KLD.

11. Power Requirement and details of diversion of Hi-Tension/ Transmission Line: Power requirement of the proposed project is 15 MW. There is no diversion of Hi-Tension/ Transmission Line proposed.

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

Sl. No.	Type of Waste	Source	Quantity per annum	Mode of Treatment	Disposal
1	Burnt Oil	HEMM	44.05 KL	Stored in MS Drums	Common landfill TSDf Jajpur
2	Waste residue containing oil (Filters)	HEMM	210 Nos.	Stored in concrete pit under shed	Common landfill TSDf Jajpur
3	Oil and grease skimming residues	ETP	1.31 KL	Stored in MS Drums	Recovery and Reuse Authorized recyclers
4	Chemical sludge from ETP	ETP	51 Tonne	Stored in concrete pit under shed	Common landfill TSDf Jajpur
5	Empty Barrels	HEMM	158 Nos.	Kept on concrete Floor under shed	Recovery and Reuse Authorized recyclers
6	Battery		10 Nos.	Stored in concrete pit under shed	Battery auctioned to recyclers

13. Public Consultation: PP submitted the following details of the public consultation held:

Details of advertisement given	SPCB, Odisha published the scheduled date of PH in The Times of India in English on 16.07.2022 and in The Prameya in Odia on 16.07.2022.
Date of public consultation	23.08.2022
Venue	Jagannath Kalakendra, At: Jagannath colony, South Balanda, Angul, Odisha.

Presiding Officer	Shri. Sri Santosh Kumar Pradhan, OAS(S), Additional District Magistrate (Revenue), Angul.
Number of Person Attended Hearing	<ul style="list-style-type: none"> The meeting was also attended by Dr. Anup Kumar Mallick, Regional Officer, SPCB, Angul, MCL officials and approximately 400 people of nearby villages. Total nos. of persons who attended the PH as per the signature record (attendance sheet) – 181 nos. Total nos. of persons who spoke during the PH as per the signature record – 24 nos.
Number of representations received in writing from the district and outside of district, please give details:	25 nos.
Major issues raised	The issues raised during Public Hearing were regarding R&R issues, Peripheral Development and Environment protection measures. (Drinking water, Air/Water Pollution, Infrastructure (construction of Road, Electricity, School etc.), R&R and local employment, Health and Hygiene, Plantation (Avenue & community Plantation))

Action plan as per MoEF&CC O.M. dated 30/09/2020

Points raised by the public	Issues raised/Actionable points	Expenditure in 2023-24	Proposed budget (tentative)	2024-25	2025-26	2026-27
Supply of clean hygienic drinking water in local villages.	1. Supply of Drinking water through Pipe arrangement & water tankers to the peripheral villages including villages falling in proposed expansion area namely Kalamchuin, Solada, Majhika, Telipur, Khuringa, Birbarpur, Gopalprasad Khamar, Banabaspur, Danara, Nathagaon, Nakeipasi, Natada..	261.41	165.99	55.33	55.33	55.33
Provision of water sprinkling arrangements in local village areas to control pollution and Dust	1. Deployment of Mobile Fog canon & Water sprinkler tankers for the dust suppression in the villages in Kalamchuin, Majhika Solada and Danara Villages. 2. Deployment of mechanical road sweeper for mine and surrounding	208.14	216.99	72.33	72.33	72.33

deposition over local water bodies	<p>villages Kalamchuin, Majhika Solada and Danara Villages.</p> <p>3. Pond Renovation with screen barrier and plantation around the local water bodies is proposed to arrest deposition of dust on these water bodies.</p>					
Development of Infrastructure (Construction of Road, Electricity, School etc.)	<p><u>LED streetlight that should be setup is the Danara, Brahmanbahal, Ambedkar Nagar and Nakeipasi villages of Danara GP.</u></p> <p>1. 207 Nos. of streetlights has been set up in nearby villages of Danara GP and Kalamchuin Panchayat.</p> <p>2. Estimate of Rs. 21,26,630 /- (Rupees Twenty-One Lakhs Twenty-Six Thousand Six Hundred Thirty only) is prepared for installation of 105 nos. streetlights in neighboring villages and the proposal is under approval stage. Installation expected to be completed by July 2025.</p> <p><u>Repair of existing village roads and construction of new roads in areas under MCL.</u></p> <p>1. 672 Mtr length of the village road is constructed with an Expenditure of 36.99 Lakhs in Village Ambedkar Nagar (Brahmanbahal) and Danara.</p> <p>2. Repairs/construction of village road is being carried out as per the applications received from the village committee members/Sarpanch. Roads under MCL areas are being</p>	160.52	281.01	93.67	93.67	93.67

	<p>maintained on the regular basis.</p> <p><u>Renovation of Kalyan Mandap and its ancillaries in local village (Danara).</u></p> <p>1. With an expenditure of Rs. 1, 17, 00,000/- (Rupees One Crore Seventeen Lakhs only) constructed Kalyan Mandap in June 2021.</p> <p>2. Renovation has been completed for the Kalyan Mandap.</p> <p>3. Estimate for Kitchen Shed and welcome gate of Kalyan Mandap, an estimate of Rs. 67, 67,000/- is prepared and it is in approval stage and work is expected to be completed by August 2025.</p> <p><u>Provision of cremation house in Kalamchuin village:</u></p> <p>Construction of 02 nos. cremation shed in Kalamchuin village and Majhika village is to be done.</p>					
<p>Health Care and vaccination, awareness camp, mobile medical camp, Immunization, medicine etc.</p>	<p><u>Free health check-up, treatment and medicine facility to local people (PDF and PAF).</u></p> <p>1. Conducting General Preventive Health camps, routine health camps, Hypertension and Diabetes camp and AIDS awareness camp are at regular intervals and along with provision of medicines and consultation free of cost to the villagers.</p> <p>2. Providing OPD facility at Central Hospital, Talcher.</p>	<p>2.80</p>	<p>128.01</p>	<p>42.67</p>	<p>42.67</p>	<p>42.67</p>

	<p>3. From the year 2020-21 to 2024-25 (till 15.01.2024) 21 camps have been conducted in nearby villages and 6840 people have benefitted.</p> <p><u>Deployment of ambulance in local areas and easy availability of existing ambulance to local people.</u></p> <p>4. Estimate of Rs. 30,00,000 /- (Rupees Thirty Lakhs only) is prepared for deployment of 02 nos. of ambulances in neighboring villages and the proposal is under approval stage. Expected to be handing over to District administration by June 2025.</p>					
<p>Plantation in OB, block, avenue in mine lease area as well as vacant areas and along roads in local villages</p>	<p>1. Till date, 4,93,045 nos. of plants were planted in and around Mine lease area of Balram OCP.</p> <p>2. Last 5 years, 30,000 no. of fruit bearing plants distributed to surrounding villagers.</p> <p>3. In 2024-25, 3700 nos. of plantation along the road from Salbani Chhak to Kumunda Bridge (Avenue plantation) has been done. (Outside Mine lease Area).</p> <p>4. Plantation will further include 84.43 lakhs of arboriculture, green belt development and creation of vertical green barrier within mine lease.</p> <p>5. Plantation in vacant areas will be taken up along with</p>	<p>21.97</p>	<p>140.01</p>	<p>46.67</p>	<p>46.67</p>	<p>46.67</p>

	plant distribution to local villagers with incentives.					
R&R, Local Employment and skill Development initiatives	<p><u>Strict pursuance of provisions under R & R Policy, 2006 and state policy for resettlement and employment of displaced and local villagers.</u></p> <p>1. Employment is being provided as per R&R policy of state govt. In addition, preference is given to PAFs in different contractual employment.</p> <p><u>Provision for training and skill development for ITI, Diploma and Degree holder and other youth.</u></p> <p>1. Contractual workers of Balram OCP underwent skill development training at Group Vocational Training centre, MCL, Talcher.</p> <p>2023 :133N os. 2024: 202Nos</p> <p>2. Details of the skill training projects undertaken in partnership with CIPET, Orioan Education Society and NITCON Social Foundation initiative of MCL in last five years.</p> <p>3. Till date skill training of 2729 nos. of candidates have been completed.</p> <p>4. Skill training of 919 nos. of candidates is ongoing. (80 nos. ITI and 369 nos. in plastic moulding courses</p>	61.40	345.00	115.00	115.00	115.00

	<p>and 470 nos. in mining domain courses).</p> <p>5. There is a provision of minimum 70% placement in each of our skill training projects. Overall, 2162 nos. of candidates have been placed so far through various skill training courses of MCL</p> <p><u>Awareness programme for employment issues:</u></p> <p>1. At start of process each individual is provided a list of documents needed for the employment.</p> <p>2. Facilitation in obtaining different certificates from the state Govt required for employment.</p> <p>3. Monthly Grievance redressal meeting regarding employment.</p> <p><u>Extension of cut-off date for the employment and Acquisition of 65 Acres of balance land of Danara village through RPDAC.</u></p> <p>1. Action will be taken after the decision of The Rehabilitation and Peripheral Development Advisory Committee (RPDAC).</p> <p><u>Rehabilitation and resettlement of PDF and PAF at a single place with all amenities.</u></p> <p>R&R site Kochianali were chosen in consultation with the state govt. on available land and all the amenities will be provided as per provisions.</p>					
--	--	--	--	--	--	--

	Timeline for Preparation and completion of the site is 31.03.2025.					
	Total	716.24	1277.01	425.67	425.67	425.67

14. EMP Budget: Existing capital cost of project for the project 8 MTPA was is Rs.516.74 Cr. The capital for proposed incremental production of 7.0 MTPA i.e. 8.0 MTPA to 15.0 MTPA is Rs. 843.32 Crores and the annual recurring cost towards the environmental protection measures is proposed as Rs 31.15 Crore. The employment generation from the proposed project / expansion is 1326 persons directly and about 15000 persons indirectly. The details of cost for environmental protection measures is as follows:

Sl. No.	Description of Item	Existing (Rs. in Lakh)		Description of the item	Proposed (Rs. in Lakh)	
		Capital Cost	Recurring Cost		Capital Cost	Recurring Cost
i.	Air Pollution Control/ Noise Management	1939.85	763.54	Garland drain & storm water drainage	57.82	2.90
ii.	Water Pollution Control	45.59	10.00	Rainwater harvesting	10	0.50
iii.	Environmental Monitoring and Management	114.34	414.81	Peripheral village community development	25	1.25
iv.	Green Belt Development	341.874	21.97	Arboriculture	25	1.25
v.	Other heads as proposed in EIA/committed during the EAC	993.75	3.00	Green belt development	15	0.75
vi.	Total	3435.404	1213.32	Effluent treatment plant & Settling pond	115	5.75
vii.				Air pollution abatement cost (Mist Sprinklers, Fog cannon, & mobile water tankers)	1611	64.44
viii.				Vertical green barrier	44.43	2.23
ix.				Development of Sal Nursery	95	4.75
x.				Installation of 1 CAAQMs	100	5.00

xi.				Set up of field Laboratory	80	4.00
xii.				Coal handling system including pipe conveyor & Silo loading system	82154	3022.68
xiii.	Total	3435.404	1213.32	Total	84332.25	3115.50

15. Plantation: Existing green belt has been developed in 232.57 Ha area which is about 17.77% of the total ML area of 1309 ha with total sapling of 4,93,045 nos. Proposed greenbelt will be developed in 1764.21 ha which is about 68.53% of the total project area. Thus, total of 1996.78. ha area (77.57% 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 49,91,950 saplings will be planted and nurtured in 1996.78 hectares in 52 (49 years and post closure 3years) years.

16. Rehabilitation and Resettlement: 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 budget allocated for R&R is Rs. **421.76 Crs**

For existing 8 Mty:

Sl. No.	Details on Rehabilitation (Employment or Cash compensation)	Numbers
1.	Total person eligible for employment (A)	1737
2.	Employment provided so far (B)	1694
3.	No. of persons opted for cash (C)	17
4.	Total rehabilitation completed (D=B+C)	1711
5.	No. of rehabilitation to be completed (E=A-D)	26

Sl. No	Details on Resettlement	Numbers
1.	Total displaced families (A)	791
2.	PAFs received cash Compensation in lieu of Plots / land (B)	566
3.	No. of families yet to be resettled (C=A-B)	225

From above table it is observed that out of 791 displaced families 566 have opted cash compensation in lieu of Plots. For remaining 225 families, a resettlement site having 343 plots at Kochianali village has been identified in consultation with District Administration in November'23. The site development work is under progress and 50% work has been completed. This R&R site will be

developed with all basic facilities i.e. electricity, water supply, sewerage, roads etc. The work is expected to be completed by March 2025. After completion of site rest of the families will be resettled in a phase wise manner.

For Proposed expansion 8 to 15 Mty:

S. No.	Details on Rehabilitation (Employment or Cash compensation)	Numbers
1.	Total person eligible for employment (A)	2195
2.	Employment provided so far (B)	1947
3.	No. of persons opted for cash (C)	59
4.	Total rehabilitation completed (D=B+C)	2006
5.	No. of rehabilitation to be completed (E=A-D)	189

S. No	Details on Resettlement	Numbers
1.	Total displaced families (A)	2813
2.	PAFs received cash Compensation in lieu of Plots I land (B)	120
3.	No. of families yet to be resettled (C=A-B)	2693

Time period for completion of balance rehabilitation & resettlement is by 31.03.2028.

Therefore, total PAFs are 3604, in 17 nos of villages, namely Nakeipasi, Brahmanbahal, Damal, Prasananagar, Nathgaon, Majhika, Kalamachhuin, Danara, Natada, Banabaspur, Telipur, Solada, Satyabadipur, Gopalprasad Khamar, Khuringa, Birabarpur and Kochianali

17. Project Cost: PP submitted that the total cost of the project is 4020.95 crores. Cost for implementing EMP (Capital and Recurring both) Rs. 878.47 Cr (capital- 843.32 Cr + recurring- 31.15 Cr).

18. Details of pending litigation: PP reported that there is no legal issue/violation wr.t i) Environment (Protection) Act, ii) Air (P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project.

19. Written Submission: PP has submitted the following during the meeting:

1. The coal from the Balram OCP is being sent to GMR Kamalanga Energy Ltd, TATA Steel, Navbharat industries, NALCO, JSPL and other local consumers which are within 25-30 Km from the Project.
2. PP has submitted the following existing air pollution Control Measures along with the additional control measures with timelines for CAAQMS, Plantation along garland drains, Wind Barrier & Mobile fog Cannon.

Existing air pollution Control Measures			
S. No.	Pollution Control Measures	Location	Nos./Capacity
1.	Truck mounted Fog cannon (40m throw)	Coal Corridor and Internal Coal Transportation Road	2 Nos.
2.	Trolley mounted Fog cannon (100 m throw)	Coal Stock and Railway Siding	8 Nos.

Existing air pollution Control Measures				
S. No.	Pollution Control Measures	Location	Nos./Capacity	
3.	Mobile Sprinklers (Mist - Contractual)	Water (Mist -)	Internal Coal Transportation roads and Mine Haul roads	07 Nos. (4 Nos. 24 KL, 01 No. 20 KL, 02 Nos. 18 KL)
4.	Mobile Sprinklers (Mist - Departmental)	Water (Mist -)	Internal coal transportation roads and Mine Haul roads	5 Nos. (28 KL)
5.	Fixed Sprinklers		15 Nos of Fixed sprinklers along Railway Siding of length 750 metres and 29 Nos. along Coal Transport Road for a length of 1450 metres have been installed	44 Nos. (750 m along Railway Siding and 1450 meter along Coal Transport road)
6.	Instant Shower System		Exit point of Coal stock yard/Entry Point of Concrete Coal Transport Road	1 No.
7.	Wheel Washing System	Washing	Exit point of coal stock yard/Entry Point of Concrete Coal Transport Road	1 No.
8.	Hiring of Mechanical Road Sweeper		01 No. in Balram Colony and 01 No. in Coal Corridor and Internal Coal Transportation Road	2 Nos.
9.	Internal CT Road (RCC)		Coal stock to Railway Siding and Coal Corridor	13.5 Km
10.	Coal Corridor (RCC)		Dedicated Coal Corridor for Talcher Coalfield of length 22.58 KM, out of which 7.06 Km falls in Balram OCP.	7.06 Km
11.	CAAQMS (Continuous Ambient Air Quality Monitoring system)		Near Contractual Working patch	1 No.

Additional control measures proposed to be implemented.

Proposed additional air pollution control measures		
S. No.	Particulars	Timelines
1.	3 nos. of CAAQMS	December'2025
2.	1 Mobile fog Cannon	September'2025
3.	Wind Barrier	December'2025*
4.	Plantation along the newly constructed Garland drains 1.5 Km stretch	Will be taken up in coming monsoon from June to Sept 2025.

*Work Order issued vide MCL/Samb/Civil/AOC/24-25/1388 dated 24.10.2024.

3. PP has submitted Latest Routine Environmental Monitoring (REM) data of air, water & noise for the period of Oct. 24 to Dec. 24 (Post- Monsoon) of Balram OCP. Apart from above, PP has submitted air quality data from the CAAQMS near Nandira Substation (2.5 Km from ML area of Balram OCP) for last three calendar years.

Comparison of Air & Water quality of previously done baseline data (Mar-May 2021) with past three months routine environment monitoring data (Oct-Dec 2024)

Air quality Comparison:

(unit in $\mu\text{g}/\text{m}^3$)

		Mar'21 to May'21		Oct'24 to Dec'24		Coal Mine standards 2000
		Min	Max	Min	Max	
Core Zone	PM ₁₀	95.5	188.0	102.0	158.0	250
	PM _{2.5}	50.6	95.9	54.0	69.0	---
	SO _x	15.7	30.3	9.2	22.5	120
	NO _x	12.2	22.2	13.8	39.4	120

(unit in $\mu\text{g}/\text{m}^3$)

		Mar'21 to May'21		Oct'24 to Dec'24		NAAQS 2009
		Min	Max	Min	Max	
Buffer Zone	PM ₁₀	49.1	86.4	65.0	95.0	100
	PM _{2.5}	25.2	45.5	28.0	52.5	60
	SO _x	5.6	24.3	8.2	29.2	80
	NO _x	5.0	23.7	5.8	39.3	80

Water quality Comparison:

Ground Water					
Sl. No.	Parameter	Range		Standard	
		Mar'21 to May'21	Oct'24 to Dec'24	Acceptable Limit	Permissible Limit
1.	pH	6.90 – 7.45	6.69 - 7.93	6.5 – 8.5	No relaxation
2.	TDS (mg/l)	112 – 620	196 - 492	500	2000
3.	Total Alkalinity (mg/l)	42 - 124	113-173	250	1000
4.	Hardness (mg/l)	54 – 372	130.96 - 341.28	250	1000

Surface Water				
Sl. No.	Parameter	Range		IS 2296:1982 (inland surface water), class C
		Mar'21 to May'21	Oct'24 to Dec'24	
1.	pH	6.58 – 7.04	7.26 – 8.04	6.5 – 8.5
2.	DO (mg/l)	6.4 – 7.5	6.2 – 6.8	4
3.	TDS (mg/l)	174 – 342	224 – 532	1500
4.	TSS (mg/l)	5 - 23	26 - 34	--

Observation and deliberation of the EAC:

20. The Committee noted the following:

1. The instant proposal is for expansion of Balram OCP (earlier known as Kalinga OCP) (with increase in mine lease area from 1309 Ha to 2574 Ha and increase in production capacity from 8 MTPA to 15 MTPA). It is a brownfield project of M/s Mahanadi Coalfields Limited, located at Villages: Nakeipasi, Brahmanbahali, Kochianali, Damal, Prasana Nagar, Nathagaon, Majhika, Kalachhuin, Danara, Natada, Banabaspur, Telipur, Solada, Satyabadipur, Gopalprasadhkamar, Khuringa and Birabarpur; District: Angul; State: Odisha.
2. The original EC was accorded for the said project vide letter no. F. No. J-11015/4/87-IA, dated 24.10.1990. The CTO for the same was obtained from SPCB for 7.74 MTPA and the actual production done by the proponent is within the prescribed limit.
3. The above ECs have been implemented by the proponent and they have achieved the production of 7.74 MTPA during 2022-23 and 2024-25.
4. PP accorded Terms of Reference for the said expansion in lease area and the production capacity on 20.09.2021 and ToR is valid up to 19.09.2025.
5. The mine lease area of 2574 ha is acquired vide different notifications of Coal Bearing Areas (Acquisition and Development) Act, 1957 and Land Acquisition Act, 1894. The Mining Plan and the Mine Closure Plan was approved by MCL Board for the proposed expansion vide letter no. MCL/SBP/CS/BD-226/Ext/2020/11151, date 29.08.2020 and subsequently corrigendum approved by MCL Board vide letter no. MCL/SBP/CS/BD-227/Ext/2020/11307, dated 17.11.2020.
6. Total geological reserve reported in the mine lease area is 1494.93 Mt with 737.04 Mt as mineable reserves. Out of total mineable reserve 712.134 Mt are available for extraction as on 01.04.2020. Percentage of extraction is 96.62%. Life of Mine is 49 years (as on 01.04.2020).
7. Total 19 seams with thickness ranging from 0.3 to 22 are workable. Overall Grade of Coal is G-10 to G-13, Stripping ratio is 2.10 while gradient is 2.750 - 80. Method of mining operations envisages by Opencast Method.

8. The project has 01 OB dump (within ML area) of 32.20 ha with 40 m height and 11.28 Mm³ of OB. One internal OB (proposed) in an area of 1554.24 ha with 1651.457 Mm³ of OB is envisaged in the project.
9. Total quarry area is 1863.7 ha out of which backfilling will be done in 1554.24 ha and final mine void will be created in an area of 39.36 ha which will be converted into a water body with a maximum depth of 40 m (The final depth of the mine will be 40m at the time of closure by filling OB from nearby mines and fly ash from neighboring thermal power plants). Remaining 270.10 ha shall comprise of the dip side slope which shall be grass carpeted. Backfilled quarry area of 1554.24 ha shall be reclaimed with plantation.
10. 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.
11. Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA) as per CEPI Assessment 2018.
12. The project involves 278.855 ha of forest land, out of which 85.01 ha has already been diverted (one time clearance) vide letter dtd. 28-09-1990. In proposed expansion stage I FC for additional forest land of 193.845 ha has been granted by MoEF&CC vide letter 8-143/89-FC (I/87973/2024) dtd. 22-11-2024.
13. The project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor, etc. However, the project is located at a distance of 8.04 km from Kahnejena – Anantapur Elephant Corridor.
14. A site-specific wild life conservation plan considering Kanheijena-Anantapur Elephant corridor which is 8.04 km from the mine lease area is prepared by DFO Angul and approved by the PCCF Wildlife vide letter no 9783/CWLW-FDWC-FD-0150-2021, dated 17-08-2024.
15. Bangaru Stream/nallah is flowing near the northeastern boundary (approx. 600 m away) in the SW to NE direction and Singada stream/nallah (approx. 200m away) from the northwestern boundary of the mine lease area. PP submitted that no water body/ road/ rail is proposed to be diverted. No ASI protected archaeological site in close proximity to the ML area.
16. Total water requirement for the proposed project is 5525 KLD. Potable water requirement for the project shall be 950 KLD and for industrial purpose shall be 4575 KLD. Source of water is ground water (the entire requirement of water is proposed to be fulfilled by mine seepage water). PP also submitted that NoC for ground water from CGWA has been approved as per minutes of 202nd Internal EAC held on 21-11-2024, CGWA for withdrawal of 5006 KLD. Remaining water requirement will be fulfilled by treated mine water.
17. PP submitted that emphasis is on more rainwater utilization compared to groundwater. Rainwater plays a predominant role in meeting water requirements at Balram OCP, significantly reducing the reliance on groundwater. Rainwater accumulation in the working quarry and abandoned quarries contributes 3,315 KLD, surpassing the calculated groundwater seepage water volume of 2,150 KLD. Sumps with cumulative

area 21.06 lakh sq m with a potential capacity of 123.75 lakh m³ is sufficient to store rainwater which can be used to cater operational needs. Dewatering and treatment strategies ensure that rainwater is maximized for operational and community use, with only minimal reliance on groundwater sources. The presence of six rooftop rainwater harvesting structures (5278 cum/year) further supplements recharge and storage, reinforcing Balram OCP's commitment to sustainable water management.

18. Committee opined that water audit shall be conducted and proponent shall abide by all the recommendations of the water audit conducted.
19. Committee also deliberated on the ADS raised for pollution being done in the existing sumps with the mine water, which were asked to be considered for rejuvenation with development of fish-culture. PP submitted that the existing sump of Balram OC has been rejuvenated by desilting and dredging. The sump water analysis is done at regular intervals (quarterly) for four parameters, namely, pH, TSS, COD and Oil & Grease. The existing sump water is supporting aquatic life and there are many fishes existing in the mine water sump.
20. PP collected the baseline data during March 2021 to June 2021. As the baseline data is older than 3 years, Committee sought data of routine environment monitoring and CAAQMS and its comparison along with the baseline data submitted. PP submitted the same and the air quality data is observed to be on the higher side. Committee opined that PP shall follow additional mitigation measures in order to mitigate the air pollution. PP submitted the time bound plan for additional air pollution control measures. Committee opined that the 3 nos of CAAQMS and wind barriers proposed shall be installed by December 2025. 1 nos of fog canon proposed shall be installed by September 2025 and plantation along with the newly constructed garland drains shall be completed in the monsoon of 2025.
21. Committee deliberated on the Public Hearing proceedings that took place on 23.08.2022. The major issues raised in the PH were related to R&R issues, Peripheral Development and Environment protection measures (Drinking water, Air/Water Pollution), Infrastructure (construction of Road, Electricity, School etc.), R&R and local employment, Health and Hygiene, Plantation (Avenue & community Plantation). Proponent submitted an action plan for the same.
22. Committee deliberated on the plantation done by the proponent. Existing green belt has been developed in 232.57 Ha area which is about 17.77% of the total ML area of 1309 ha with total sapling of 4,93,045 nos. Proposed greenbelt will be developed in 1764.21 ha which is about 68.53% of the total project area. Thus, total of 1996.78. ha area (77.57% 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 49,91,950 saplings will be planted and nurtured in 1996.78 hectares in 52 (49 years and post closure 3years) years.
23. Committee deliberated on the method of transportation of coal proposed by the proponent and observed that from pit to surface, coal is being transported through dumpers/ tippers. For current production capacity of 8 MTPA, it is observed that 5

MTPA is being transported through dumpers to the washery of APGENCO which is located within the ML area of the said project. Further, 5 MTPA washed coal from washery and 0.5 MTPA from surface is being transported through rail to the final consumers. And 2.5 MTPA from surface is being transported through dedicated coal transportation road to the consumers within 25-30 km from the project area.

For proposed expansion of 15 MTPA, till the belt conveyor is under construction, 12.5 MTPA (including coal to and from washery) will be transported through by road through trucks from pit to siding and 2.5 MTPA will continue to be transported through dedicated coal transportation road.

Post construction of belt conveyor, for which the PP has submitted that the same shall be completed by FY 2027-28.

Committee sought the maximum distance of transportation of coal to the consumers by Road. PP submitted that coal from the Balram OCP is being sent to GMR Kamalanga Energy Ltd, TATA Steel, Navbharat industries, NALCO, JSPL and other local consumers which are within 25-30 Km from the Project.

24. Existing capital cost of project was Rs. 516.74 Cr. The capital cost of the proposed project is Rs. 3504.21 crores with total cost of the project being Rs. 4020.95 Crores and the capital cost for environmental protection measures is proposed as Rs. 843.32 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 31.15 Crore. The employment generation from the proposed project / expansion is 1326: direct employment and about 15000: Indirect employment.
25. Committee deliberated on the closure report obtained by the proponent from the Ministry's RO vide letter no. 101-929/EPE dated 26-12-2024. The Action taken report regarding 3 points - partially complied (point no. 1) and being complied but further action needed (point no. 2 & 3) was submitted to IRO, Bhubaneswar by the proponent vide letter no. MCL/GM/HA/ENVT/2024-25/523 Dated 05.01.2025.
26. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components.
27. There is no legal issue/ violation w.r.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act.
28. The EAC also deliberated on the additional information submitted and written submissions made by the project proponent and found it satisfactory.

Recommendations of the Committee

21. Based on the discussions held and the documents submitted, the EAC **recommended** the proposal of Environment Clearance for Expansion of Balram OCP (earlier known as Kalinga OCP) (with increase in mine lease area from 1309 Ha to 2574 Ha and increase in production capacity from 8 MTPA to 15 MTPA) by M/s Mahanadi Coalfields Limited, located at Villages: Nakeipasi, Brahmanbahali, Kochianali, Damal, Prasana Nagar, Nathagaon, Majhika, Kalachhuin, Danara, Natada, Banabaspur, Telipur, Solada, Satyabadipur, Gopalprasadkhamar, Khuringa and Birabarpur; District: Angul; State: 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**).

22. 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 Balram OCP (earlier known as Kalinga OCP) (with increase in mine lease area from 1309 Ha to 2574 Ha and increase in production capacity from 8 MTPA to 15 MTPA), at Villages: Nakeipasi, Brahmanbahali, Kochianali, Damal, Prasana Nagar, Nathagaon, Majhika, Kalachhuin, Danara, Natada, Banabaspur, Telipur, Solada, Satyabadipur, Gopalprasadkhamar, Khuringa and Birabarpur; District: Angul; State: Odisha, subject to compliance of the Specific Environmental safeguard Conditions in addition to the standard EC conditions (**Annexure-I**)

23. 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.

24. 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.

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

26. 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.

27. 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.

28. 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, Bhubaneshwar - 751012 (Odisha).
6. District Collector, Angul, Government of Odisha.
7. PARIVESH Portal

A. Specific conditions

- i. No mining operations shall be undertaken in Forestland, until Stage – II forestry clearance for additional forest land of 193.845 Ha has been obtained under the provisions of Van (Sanrakshan Evam Samvardhan) Adhiniyam, Act 1980.
- ii. 3604 Project Affected Families (PAF) of the 17 villages namely Nakeipasi, Brahmanbahal, Damal, Prasananagar, Nathgaon, Majhika, Kalamachhuin, Danara, Natada, Banabaspur, Telipur, Solada, Satyabadipur, Gopalprasad Khamar, Khuringa, Birabarpur and Kochianali, will be affected due to the proposed project. The affected families should be rehabilitated as per R & R plan to be approved by the State Government. Compliance status in this regard shall be submitted to the concerned Regional Office of MoEF&CC along with the six-monthly compliance report.
- iii. Project proponent shall not divert water body/road/transmission lines within the lease area of 2574 Ha as committed.
- iv. Total water requirement for the proposed project is 5525 KLD (950 KLD potable water + 4575 KLD industrial purpose) and the same shall be met from groundwater and mine seepage water. PP shall obtain requisite NoC for withdrawal of Groundwater from CGWA prior to the commencement of mining operations.
- v. PP shall adopt the following additional air pollution control measures-

Proposed additional air pollution control measures		
No.	Particulars	Timelines
1.	3 nos. of CAAQMS in addition to the existing one CAAQMS	December'2025
2.	1 Mobile fog Cannon	September'2025
3.	Wind Barrier	December'2025
4.	Plantation along the newly constructed Garland drains 1.5 Km stretch	Will be taken up in coming monsoon from June to Sept 2025.

- vi. The proposed budget of Rs 12.77 Crores for PH action plan shall be kept in a separate account and audited annually. Project proponent shall implement the action plan to address the issues raised during public hearing within a time frame of next 03 years from the date of grant of EC. PP shall submit the progress report regarding the implementation of action plan to concerned RO along with the six monthly compliance report. In addition to this, PP shall strengthen the existing Primary Health Center (PHC) & Community Health Center (CHC) in the study area for better public health. As committed by the PP, PHCs & CHCs within the core and buffer zone will be supported with adequate budget over 5 years, for improving facilities for enhancing quality of public health service. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office of MoEF&CC.

- vii. Total of 1996.78 ha area (77.57% of total project area) shall 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 shall be planted with a density of 2500 trees per hectare. Total no. of 49,91,950 saplings shall be planted and nurtured in 1996.78 hectares in 52 (49 years and post closure 3 years) years.
- viii. A green belt shall be developed all along the nearby village boundaries to reduce impact of air pollution over nearby villages. Plantation must be done on both the sides of coal transportation road and fog canons must be installed for dust suppression before the commencement of the mining operation. In addition to this, PP shall provide 50,000 plant saplings with 4 feet tall fruit bearing plants to farmers for plantation in barren and agriculture lands in the study area every year for 5 years with incentive to improve the green cover in and around the mine lease area.
- ix. For proposed expansion of 15 MTPA, till the belt conveyor is under construction, 12.5 MTPA (including coal to and from washery) shall be transported by road (through trucks) from pit to siding and 2.5 MTPA shall be transported through dedicated coal transportation road. As committed, construction of belt conveyor shall be completed by the 31/03/2028. Road transportation of coal is not permitted beyond 31/03/2028.
- x. PP should continue the Carbon Sequestration Study including carbon emissions from coal mining. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office and also kept on the web portal of the company.
- xi. The proposed project shall be operated on closed water circuit with a concept of 'Zero Liquid Discharge' (ZLD). 100% water will be recycled and no treated & untreated wastewater shall be discharged outside the boundaries of mine lease area.
- xii. PP shall carry out a survey of the impact of blasting in the nearby area/villages by involving a reputed institute and take remedial measures as proposed by the respective institute. Further, provide compensation if any for any damage caused. PP must give crop compensation to the farmers in case there is decrease in the production due to the mining activities. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office
- xiii. Management of top soil and overburden shall be as per the approved mining plan. No OB dumping should be done outside the ML area.
- xiv. 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. 843.32 Cr (Capital) and Rs 31.15 Cr (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.
- xv. To control the production of dust at the source, the crusher and in-pit belt conveyors shall be provided with mist-type sprinklers. PP shall install fixed fog cannon (mist spayer) and fixed sprinkler all along the haul road/ CHP, and OB dump till Railway siding is completed. The sufficient number of fog cannons with 40 mts jet length shall

- be installed within 6 months. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB. Also PP shall install Mist Cannon Dust Suppression Systems (80-100 mtrs.) at Coal Stock Yard to suppress the dust particles.
- xvi. Garland drains of adequate size shall be provided at the toe of the benches to arrest discharge and runoff with silt and sediments surging into areas adjoining the periphery of Overburden dump, which will be regularly cleaned before the onset of monsoon every year.
 - xvii. Check dams shall be constructed at required locations within drains to arrest eroded materials and settling ponds shall be constructed to treat mine discharge water inside the mine block.
 - xviii. Water harvesting pond shall be created separately to recharging the ground water and usage of project affected families.
 - xix. Proper profiling of working benches of pits and dumps shall be done to channelize water in garland drains & sumps.
 - xx. Waste generated from the domestic use shall be treated in STP and the treated water will be utilized in plantation & greenbelt development. Wastewater from the HEMM washing/ workshop will be treated in ETP. After treatment, water will be reused in washing of HEMM, dust suppression and greenbelt development
 - xxi. PP shall make use of advanced computer simulation techniques for design and execution of blasting operation in the mine. PP shall make use of Electronic Delay Detonators for optimal blasting in coal and OB rock to minimize the environmental impacts of blasting such as ground vibration, fly rocks and excessive dust generation.
 - xxii. PP shall create a “Public Grievance Redressal and Monitoring System” for resolving any issues related to the pollution of mines and complaint has to resolve as soon as possible not beyond 30 days. In this regard, adequate awareness to be spread among the public to address their grievance to company with simple and easy manner and for which company needs to devise the mechanism. The same shall be reported to IRO within 3 months. A logbook to be maintained by PP on “Public Grievance Redressal and Monitoring System.
 - xxiii. The project proponent shall take all precautionary measures during mining operations for the conservation and protection of endangered fauna, if any, spotted in the study area. Wildlife conservation plan as approved by the competent authority shall be implemented. PP shall deposit the approved amount of Rs. 30.588 crores as proposed for wildlife conservation plan to the Govt. of Odisha, Forest & Environment Dept. and further consult with State Biodiversity Authority for its CSR activity.
 - xxiv. Third-party audit (by reputed Govt. institutions/organizations) 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.
 - xxv. The status of mine closure activities must be included in every six months compliance report submitted to the state pollution control board and RO of MoEF&CC.

- xxvi. 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.
- xxvii. PP 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.
- xxviii. PP 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.
- xxix. 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.
- xxx. PP shall pay to farmers of agricultural land if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms. Suitable measures for enrichment of nitrogen in the soil will be taken up for improving soil fertility and effective steps will be taken to support the farming community in enhancing the production.

B. Standard Conditions:

1. Statutory Conditions:

- i. 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.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

- iii. Solid/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.
- iv. The maximum production or peak production at any given time shall not exceed the limit as prescribed in the EC.
- v. 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.

2. Air Quality Monitoring and Mitigation Measures

- i. Project proponent shall obtain requisite consent from State Pollution Control Board for 15 MTPA mining.
- ii. 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, SO₂ 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.
- iii. 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.
- iv. 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.
- v. Major approach roads shall be black topped and properly maintained.
- vi. 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.
- vii. PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.
- viii. The raw coal shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.
- ix. PP shall submit an action plan for using and developing Renewable Energy for its consumption in its utilities/machinery/equipment instead of using electricity from Grid/generated from Thermal Power Plants. PP shall explore installation of solar power generation units.

3. Water Quality Monitoring and Mitigation Measures

- 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 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.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.
- iii. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah/streams flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.
- iv. 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
- v. 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.
- vi. 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.
- vii. An integrated 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/streams 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.
- viii. 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.
- ix. Industrial effluent and domestic wastewater shall be treated in the Effluent treatment Plant (ETP) and Sewage Treatment Plant (STP) as proposed. After treatment, treated water shall be reused for plantation.

4. Noise and Vibration Monitoring and Prevention

- i. Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
- ii. 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

- i. Project proponent shall obtain star rating as per the guidelines of Ministry of Coal.
- ii. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- iii. 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).
- iv. 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).
- v. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.
- vi. Environmental conditions of mining place shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.
- vii. No mining shall be carried out in forest land without obtaining the requisite Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.

6. 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 the Regional Office of MoEF&CC.
- (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 handed over to the respective State Government, 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) 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 stabilized 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.
- (v) 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.

7. Public Hearing and Human Health Issues:

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
- ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time
- iii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. 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.
- v. 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.
- vi. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z11013/5712014-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'.

- vii. PP should conduct epidemiology study for analysis of the distribution, patterns and determinants of health and disease conditions in defined populations.

8. Corporate Environment Responsibility:

- i. The company shall have a well laid down environmental policy duly approved 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
- ii. 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 report to the head of the organization.
- iii. 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.
- iv. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

9. 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 environmental clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. 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.
- v. 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.
- vi. The project authorities shall inform to the Regional Office of the MOEFCC regarding

commencement of mining operations.

- vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- viii. 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.
- ix. 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).
- x. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. 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
- xiv. 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.
