

**Ministry of Environment, Forest and Climate Change
Impact Assessment Division
(Coal Mining sector)**

Date of zero draft MoM sent to Chairman: 16/08/2024

Approval by Chairman: 19/08/2024

Uploading on PARIVESH: 20/08/2024

SUMMARY RECORD OF THE FOURTEENTH (14TH) MEETING OF EXPERT APPRAISAL COMMITTEE (EAC) HELD ON 5-7TH AUGUST, 2024 FOR ENVIRONMENT APPRAISAL OF COAL MINING SECTOR PROJECTS THROUGH HYBRID MODE.

DAY-1: 5 AUGUST, 2024 [MONDAY]

At the outset, the Chairman welcomed the Expert members & other participants and requested to start the proceeding as per the agenda listed for this meeting. The list of Members who participated in the meeting is at **Annexure – V**. The Standard/Generic EC & ToR conditions shall be system generated through the PARIVESH Portal.

Confirmation of the Minutes of the 13th Meeting of the EAC (Coal): The minutes of the 13th Meeting of the EAC (Coal) held during 1-2nd July, 2024 have been confirmed by the EAC.

Agenda No 14.1

14.1: Proposal of Greenfield Project of Wet Type Coal Washery based on Heavy Media Cyclone having capacity 2.6 MTPA Coal Washery & 1.2 MTPA Iron Ore Beneficiation Plant over an area of 19.865 Ha by M/s. Vedanta Washery and Logistic Solutions Private Limited located at Villages – Chaple, Chhote Dumrapali, Kunkuni, District Raigarh, State Chhattisgarh – Environmental Clearance –regarding.

[Proposal No. IA/CG/CMIN/474297/2024; File No. J-11015/117/2014-IA-II(M); Consultant: M/s. GRC India Private Ltd; NABET/EIA/21-24/SA0211 valid up to 14/08/2024]

14.1.1: M/s. Vedanta Washery and Logistic Solutions Private Limited (VWLSPL) has made an online application vide proposal no. IA/CG/CMIN/474297/2024 dated 17/07/2024 along with copy of EIA/EMP report, Forms (Part A, B and C) seeking environmental clearance under the provisions of EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at item No. 2(a) – Coal Washeries under Category ‘A’ and item 2(b) – Mineral beneficiation under Category ‘B’ of the schedule of the EIA Notification, 2006. The proposed project does not attract general condition and appraised at the Central Level as the capacity of the coal washery project is 2.6 MTPA, which falls under Category ‘A’ of the schedule of the EIA Notification 2006.

14.1.2: Name of the EIA consultant: M/s. GRC India Private Ltd; NABET/EIA/21-24/SA0211 valid up to 14/08/2024.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

14.1.3: **The details of the ToR are furnished as below:**

| Proposal No/ Date of application | Consideration by the EAC | Details | Date of accord | ToR validity |
|---|--|-----------------------|---------------------------|-------------------------|
| IA/CG/CMIN/416623/2023 01.02.2023 | 40 th EAC meeting held on 16-17 th February, 2023 | Terms of Reference | 15/03/2023 | 14/03/2027 |

14.1.4: Environmental site settings

The project area is covered under Survey of India Toposheet No. 64N4, 64O1, 64N8 and 64O5 and is bounded by geographical co-ordinates ranging from latitude 21° 59'13.02"N to 21° 59'27.47"N and longitude 83°10'6.16"E to 83°10'58.62"E. Project does not fall in the Critically Polluted Area (CPA) and Severely Polluted Area (SPA) as per CEPI Assessment, 2018.

Forest Area: The project does not involve any forest land.

Protected Area: PP reported that the project is not located within 10 km of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. PP also submitted that no Schedule – I species are present within the study area.

Project Area: PP submitted that the total land available is 19.865 Ha. Out of which 15.63Ha has been given by Chhattisgarh State Industrial Development Corporation Limited, 4.118 Ha has taken on lease basis from private owners and 0.117 ha has been purchased by the company.

14.1.5: **Salient features of the proposed project**

- i. The proposed project is for Greenfield Project of Wet Type Coal Washery based on Heavy Media Cyclone of 2.6 MTPA & Iron Ore Beneficiation Plant of 1.2 MTPA located at Village-Kunkuni, Tehsil- Kharsia, District- Raigarh, and State – Chhattisgarh.
- ii. Coal will be sourced from Dipika and Kusmunda Mines. All the mines are within 50-70 km radius of project site.
- iii. Raw Materials for Iron Ore Beneficiation Plant will be Low Grade Iron Ore Fines which will be sourced from Odisha by own existing railway siding facility and road through covered trucks and Flocculants which will be sourced from Chhattisgarh by tankers.
- iv. Transportation of coal/Iron will be done through road & rail network.
- v. The project site is located adjacent to the Raigarh-Kharsia Road.
- vi. The nearest railway station is Robertson which is located at about 0.5 km in East direction and nearest Airport is Veer Surendra Sai Airport, Jharsuguda, which is situated at about 90.5 km in East direction.
- vii. Washed coal and beneficiated iron ore from the plant will be given to M/s Saar Steel and Power Pvt Ltd adjacent to the washery.

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- 14.1.6: **Legal Issues/ Violation:** PP submitted that there is no legal issue/ violation w.r.t i) Environment (Protection) Act, ii) Air(P&CP) Act, iii)Water (P&CP)Act. Further, there is no court case on the project.
- 14.1.7: **Water Requirement:** PP submitted that the water requirement at the stage of construction will be 100 KLD and it will be source from private tankers. Further, water requirement for the said project during operational stage submitted by the PP is 1473 KLD and the source of water will be groundwater for which the NoC has been obtained by the PP. The PP also submitted that there is no diversion of any river/ nallah.
- 14.1.8: **Power Requirement:** PP submitted that the total power requirement for the project is 5MW which will be sourced from Chhattisgarh State Electricity Board. Also, 500 kVA DG sets will be operated for emergency use.
- 14.1.9: **Baseline Data:** Environmental Baseline data has been collected during 1st December to 28th February (Winter Season):

| Period | Winter Season: 1st December 2022 to 28th February 2023 | | | | | | | | | | |
|--------------------------------------|--|-------------------------|-----------------------|-------------------------|--------------------|-----|-------|-----|------|------|---|
| AAQ parameters at 08 Locations | PM ₁₀ :- 49.4 – 85.1 µg/m ³ PM _{2.5} :- 23.1 – 52.1 µg/m ³ SO ₂ :- 4.8 - 18.7 µg/m ³ NO ₂ :- 10.5 – 51.6 µg/m ³ CO:- 310-980 µg/m ³ | | | | | | | | | | |
| AAQ modelling | Incremental GLCs due to the proposed proposal: PM ₁₀ :- 1.7 µg/m ³ at 1201 m in WSW PM _{2.5} :- 1.13 µg/m ³ at 1201m in WSW SO ₂ = 0.001 µg/m ³ at 2300 m in W NO ₂ :- 0.07 µg/m ³ at 2300 m in W CO :- 0.05 µg/m ³ at 2300 m in W | | | | | | | | | | |
| Ground water quality at 08 locations | pH: 7.28-7.65 Total Hardness: 175-220 mg/l. Chlorides: 123-160 mg/l, Fluoride: 0.2-0.4 mg/l | | | | | | | | | | |
| Surface water quality at 8 locations | pH: 7.22-7.88 DO: 3.2-6.5 mg/l. BOD: 2.8-12 mg/l COD : 10-52 mg/l | | | | | | | | | | |
| Noise levels | 45.2 to 73.4 dBA - Day time 33.8 to 65.4 dBA- Night time. | | | | | | | | | | |
| Traffic assessment study Findings | Traffic study has been conducted at NH#49 which is adjacent to the project site. Transportation of raw material, fuel & furnished product will be done maximum by road. Existing PCU is 431 PCU/hr on NH#49 and existing level of services (LOS) is: <table border="1" data-bbox="516 1682 1406 1793"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity In PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH#49</td> <td>431</td> <td>2400</td> <td>0.17</td> <td>A</td> </tr> </tbody> </table> PCU load after proposed Project will be 431 (Existing)+56 (Proposed) = 487 PCU/hr and level of Services (LOS) will be: | Road | V (Volume in PCU/hr.) | C (Capacity In PCU/hr.) | Existing V/C Ratio | LOS | NH#49 | 431 | 2400 | 0.17 | A |
| Road | V (Volume in PCU/hr.) | C (Capacity In PCU/hr.) | Existing V/C Ratio | LOS | | | | | | | |
| NH#49 | 431 | 2400 | 0.17 | A | | | | | | | |

| Period | Winter Season: 1st December 2022 to 28th February 2023 | | | | | |
|---|--|----------|-------|-------------------------|--------------------|-----|
| Road | V (Volume in PCU/hr.) | | | C (Capacity In PCU/hr.) | Proposed V/C Ratio | LOS |
| | Existing | Proposed | Total | | | |
| NH#49 | 431 | 56 | 487 | 2400 | 0.20 | B |
| Note: Capacity as per IRC 106:1990 guidelines for capacity for roads. Conclusion: The modified LOS on NH#49 will be remained "B", i.e. Very Good. Therefore there will be no change in LOS after completion of the project. | | | | | | |
| Flora and fauna | No schedule-I species present within study area. | | | | | |

PP submitted that the Laboratory involved in analysis of water, air, noise & soil quality data, etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation No :- TC-7501 and valid till 25.04.2025.

- 14.1.10: **Solid & Hazardous** waste: PP submitted the following details of solid and hazardous waste generation along with its mode of treatment/ disposal:

| Name of Waste generated | Qty (MTPA) | Proposed Disposal Plan |
|-----------------------------|---------------|---|
| Tailings from Beneficiation | 0.30 MTPA | Will be used partially for road formation, filling of low laying areas and balance will use in cement plants. |
| From Coal washery Plant | 0.50 MTPA | Washery reject coal will be sold to nearby FBC based thermal power plants and Brick kiln operators. There is a good demand for washery reject and as such, entire washery rejects will be sold out. |
| Waste Oil | 2.5 KL/ Annum | Used Oil will be collected and disposedof properly by selling it to registered recyclers. |

- 14.1.11: **EMP Cost:** The budget earmarked for EMP is Rs. 232 Lakhs (Capital) and 71.5 (Recurring).

| S. No. | Activity | Capital Cost (in Lakhs) | Recurring Cost proposed per annum (in Lakhs) |
|--------|------------------------------------|-------------------------|--|
| 1. | Air Pollution Control Measures | 84 | 16 |
| | DES and Bag House in crusher House | 34 | 5 |
| | Water sprinklers | 10 | 4 |
| | Enclosures to belt conveyors | 10 | 3 |
| | Asphalted internal roads | 15 | 3 |
| | Rain gun | 15 | 1 |

| S. No. | Activity | Capital Cost (in Lakhs) | Recurring Cost proposed per annum (in Lakhs) |
|--------------|---|-------------------------|--|
| 2. | Water Pollution Control Measures | 111 | 32.5 |
| | Closed water Circuit , Thickener | 75 | 20 |
| | Storm water drains | 14.5 | 2 |
| | Sewage Treatment Plant | 20 | 10 |
| | Piezometer to monitor ground water level | 1.5 | 0.5 |
| 3. | RWH reservoir | 25 | 5 |
| 4. | Solar power plant | 75 | 2 |
| 5. | Green belt development | 25 | 5 |
| 6. | Environment Management Cell | 15 | 5 |
| 7. | Budget for addressing environment related PH issues | 33 | 2 |
| Total | | 368 | 70.5 |

14.1.12: **Public Hearing Details:** PP submitted that the Public Hearing notice was published in Indian Express on 21.01.2024, in Patrika on 22.01.2024 and in Krantikari Sanket on 22.01.2024. The Public Consultation was conducted on 23.02.2024, at the project site in village – Kulkani, Raigarh district, Chhattisgarh under the chairmanship of Ms. Santan Devi Jagde, Additional District Magistrate. The PH was attended by 500 people out of which 101 people signed the attendance sheet. Total 6 representations were submitted in writing. The major issues raised during the PH were improvement in infrastructure, concern for drinking water, employment for the locals, air pollution control measures, road safety measures & concern about health of local people. PP earmarked an amount of 200 Lakh for addressing the issues raised during PH.

| S. No. | Issue Raised during PH | Physical activity and action plan | Total Budget | Year wise Breakup | | | | |
|--------|---|---|---|---|---|--|---|--|
| | | | | 2024-26 | 2026-28 | 2028-30 | 2030-32 | 2032-34 |
| 1. | Improve ment of Infrastru cture in nearby village | PP has proposed to adopt village Kunkuni for improve ment of infrastru cture. Village develop ment program under consultat ion with local | 87.50 Lakhs Develop ment and Mainten ance of Village Roads :- 35 Lakhs | 24.05 Lakhs Development ofVillage Roads :- 10 Lakhs Installing 40 street lights:- | 24.90Lakh s Developme nt Village Roads :- 10 Lakhs Installing 40 street lights :- Rs 1.2 lakhs ,Main | 20.75 Lakhs Maintenanc e ofVillage Roads :- 5 Lakhs Installing 40 street lights :- Rs | 8.85 Lakhs Maintenanc e ofVillage Roads :- 5 Lakhs Installing 40 street lights :- Rs 1.2 | 8.95 Lakhs Maintenanc e ofVillage Roads :- 5 Lakhs Installing 40 street lights:- |

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| S. No. | Issue Raised during PH | Physical activity and action plan | Total Budget | Year wise Breakup | | | | |
|--------|---------------------------|---|---|---|--|--|--|---|
| | | | | 2024-26 | 2026-28 | 2028-30 | 2030-32 | 2032-34 |
| | | panchayat and district administration for need-based community development activities which would be in addition to the development plans being undertaken by state and central government. | Providing 200 Street Lights and Maintenance :- 7.5 Lakhs Construction of 15 Nos of community toilets and maintenance :- 15 Lakhs Construction of 3 Community Halls and Maintenance :- 30 Lakhs | Rs 1.2 lakhs , Maintenance cost (40 lights) :- Rs 0.1 lakhs Construction of 5 community toilets:- Rs 4 Lakhs , Maintenance cost (5 toilets) :- Rs 0.25 Lakhs Construction of 1 community hall:- Rs 8 Lakhs , Maintenance cost (1 hall) :- Rs 0.50 Lakhs | tenance cost (80 lights) :- Rs 0.2 lakhs Construction of 5 community toilets:- Rs 4 Lakhs , Maintenance cost (10 toilets) :- Rs 0.50 Lakhs Construction of 1 community hall:- Rs 8 Lakhs , Maintenance cost (2 hall) :- Rs 1.00 Lakhs | 1.2 lakhs , Maintenance cost (120 lights) :- Rs 0.3 lakhs Construction of 5 community toilets:- Rs 4 Lakhs , Maintenance cost (15 toilets) :- Rs 0.75 Lakhs Construction of 1 community hall:- Rs 8 Lakhs , Maintenance cost (3 hall) :- Rs 1.50 Lakhs | 1.2 lakhs , Maintenance cost (160 lights) :- Rs 0.4 lakhs Maintenance of 15 toilets :- Rs 0.75 Lakhs Maintenance of 3 halls :- Rs 1.50 Lakhs | Rs 1.2 lakhs , Maintenance cost (200 lights) :- Rs 0.5 lakhs Maintenance cost (5 toilet) :- Rs 0.75 Lakhs Maintenance of 3 halls :- Rs 1.50 Lakhs |
| 2. | Employment for the locals | Willing and employable youths | 40 Lakhs Stipend – | 8 Lakhs | 8 Lakhs | 8 Lakhs | 8 Lakhs | 8 Lakhs |

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| S. No. | Issue Raised during PH | Physical activity and action plan | Total Budget | Year wise Breakup | | | | |
|--------|--------------------------------|---|--|---|------------------|------------------|------------------|------------------|
| | | | | 2024-26 | 2026-28 | 2028-30 | 2030-32 | 2032-34 |
| | | will be identified in consultation with gram panchayat of Kunkuni, Chaple and Dumrapali. They will be provided training for trades namely electrician, fitters, welders, painters, and civil construction work, etc. After successful completion of training, the youths will be offered employment in company in suitable grade. | 12.0 Lakh (Rs. 12000/- stipend per year to 200 persons for 1 year) ITI Fee – 8.0 Lakhs (Rs. 8000/- yearly fee for 200 persons for 1 year) | | | | | |
| 3. | Air Pollution Control Measures | Installation of CAAQMS in Kunkuni Villages, Tree | 33 Lakhs Installation of CAAQMS | 26.6 Lakhs Installation of CAAQMS in Village :- 25 | 1.6 Lakhs | 1.6 Lakhs | 1.6 Lakhs | 1.6 Lakhs |

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| S. No. | Issue Raised during PH | Physical activity and action plan | Total Budget | Year wise Breakup | | | | |
|--------|----------------------------|--|--|---|---|---|---|---|
| | | | | 2024-26 | 2026-28 | 2028-30 | 2030-32 | 2032-34 |
| | | plantation (1000 trees) will be done in nearby villages Kunkuni, Chaple and Dumrapali and providing Water sprinkling on road for dust dispersion control in nearby villages in consultation with the authority . | S in Kunkuni Village :- 25 Lakhs Plantation of 1000 trees:- 5 Lakhs Installati on of 300 water sprinkler s :- 3 Lakhs | Lakhs Plantation of 200 trees:- 1 Lakhs Installation of 60 water sprinklers :- 0.6 Lakhs | Plantation of 200 trees:- 1 Lakhs Installation of 60 water sprinklers :- 0.6 Lakhs | Plantation of 200 trees:- 1 Lakhs Installation of 60 water sprinklers :- 0.6 Lakhs | Plantation of 200 trees:- 1 Lakhs Installation of 60 water sprinklers :- 0.6 Lakhs | Plantation of 200 trees:- 1 Lakhs Installation of 60 water sprinklers :- 0.6 Lakhs |
| 4. | Concern for Drinking water | Providing two Water filteratio n (RO) plant in village Kunkuni, and Chaple | 12 Lakhs | 5.4 Lakhs Installation :- 5 Lakhs , Maintenance :- 0.4 Lakhs | 5.4 Lakhs Installation :- 5 Lakhs , Maintenance :- 0.4 Lakhs | 0.4 Lakhs Maintenance :- 0.4 Lakhs | 0.4 Lakhs Maintenance :- 0.4 Lakhs | 0.4 Lakhs Maintenance :- 0.4 Lakhs |

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| S. No. | Issue Raised during PH | Physical activity and action plan | Total Budget | Year wise Breakup | | | | |
|--------|--------------------------------------|--|---|--|--|--|---|---|
| | | | | 2024-26 | 2026-28 | 2028-30 | 2030-32 | 2032-34 |
| 5. | Road Safety Measures | Speed breakers and speed limit boards will be provided on approach road and training on Traffic awareness will be provided in nearby villages | 7.5 Lakhs Providing speed breakers and speed limit boards :- 4.5 Lakhs Providing Training on Traffic Awareness :- 3 Lakhs | 2.1 Lakhs Providing speed breakers and speed limit boards :- 1.5 Lakhs Providing Training on Traffic Awareness :- 0.6 Lakhs | 2.1 Lakhs Providing speed breakers and speed limit boards :- 1.5 Lakhs Providing Training on Traffic Awareness :- 0.6 Lakhs | 2.1 Lakhs Providing speed breakers and speed limit boards :- 1.5 Lakhs Providing Training on Traffic Awareness :- 0.6 Lakhs | 0.6 Lakhs Providing Training on Traffic Awareness :- 0.6 Lakhs | 0.6 Lakhs Providing Training on Traffic Awareness :- 0.6 Lakhs |
| 6. | Concern about health of local people | Arrangement of 1 Modern Ambulance with Life Support system with necessary Medical Staff and Health checkup and distribution of medicines in Villages Chaple, Kunkuni | 20 Lakhs Arrangement of Ambulance :- Rs 10 Lakhs Conducting Health checkup:- Rs. 1.5 Lakhs Providing Medicines and other health facilities :- Rs. 0.5 Lakhs Conducting Health checkup:- Rs. 7.5 Lakhs Providing Medicines and other health facilities | 12 Lakhs Arrangement of Ambulance :- Rs 10 Lakhs Conducting Health checkup:- Rs. 1.5 Lakhs Providing Medicines and other health facilities :- Rs. 0.5 Lakhs | 2 Lakhs Conducting Health checkup:- Rs. 1.5 Lakhs Providing Medicines and other health facilities :- Rs. 0.5 Lakhs | 2 Lakhs Conducting Health checkup:- Rs. 1.5 Lakhs Providing Medicines and other health facilities :- Rs. 0.5 Lakhs | 2 Lakhs Conducting Health checkup:- Rs. 1.5 Lakhs Providing Medicines and other health facilities :- Rs. 0.5 Lakhs | 2 Lakhs Conducting Health checkup:- Rs. 1.5 Lakhs Providing Medicines and other health facilities :- Rs. 0.5 Lakhs |

| S. No. | Issue Raised during PH | Physical activity and action plan | Total Budget | Year wise Breakup | | | | |
|--------------|------------------------|-----------------------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | | | 2024-26 | 2026-28 | 2028-30 | 2030-32 | 2032-34 |
| | | | :-Rs. 2.5 Lakh | | | | | |
| Total | | | 200 Lakhs | 78.15 Lakhs | 44.00 Lakhs | 34.85 Lakhs | 21.45 Lakhs | 21.55 Lakhs |

14.1.13: **Plantation:** PP submitted that 5.235 Ha area, i.e., 33% of the total project area will be developed as greenbelt. A 10m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species will be planted and nurtured in 5.235 Ha. Approximately total no. of 13200 saplings are proposed to be planted and nurtured in 5.235 Ha in 3 years.

14.1.14: **Project Cost:** The total project cost submitted by the PP is 96 Crores and cost earmarked towards public hearing is 2.00 Crores. The EMP cost submitted by the PP is 3.68 Cr (capital cost) and 0.70 Cr (annual recurring cost).

14.1.15: **Affidavit and Undertaking:** PP has submitted an undertaking stating that the proposed greenfield project is being submitted to MoEF&CC as it is 'A' Category Project as per item no 2(a) and 2(b) of EIA Notification 2006. Also, there is no construction done at the project site and there is no litigation on the project either at NGT or any other court of law. Out of the total land 19.86 Ha, 15.63 Ha land has been allotted by Chhattisgarh State Industrial Development Corporation Limited and the rest of the land has been taken on lease and there is no R&R issue. That there is no difference in the documents submitted and the presentation being made to the EAC. PP also submitted an undertaking that the information submitted on Parivesh and the PPT presentation made to the EAC members have no deviation in respect of the concerned proposal. There are no data entry errors in the information uploaded in Parivesh. In case any deviation in data is found in any of the documents, the authorised signatory shall be held responsible and furthermore, the said proposal shall be rejected for the grant of amendment in EC.

14.1.16: **Written submissions by the project proponent**

The written submission made by the proponent are summarized as below:

| S. No. | Points | Written submissions made |
|--------|---|---------------------------------|
| 1. | PP should submit an undertaking regarding the following points :- ➤ That, Use of ground water will be limited up to 70% of total ground water available within project site boundary as per CGWA. ➤ That, 10% of total power requirement will be met through solar power. | Undertaking has been submitted. |

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| S. No. | Points | Written submissions made |
|--------|---|--|
| | <ul style="list-style-type: none"> ➤ That, Transportation of ROM Coal, washed coal and rejects will be done 40% through road and 60% through railway. ➤ That, Capacity of RWH tank will be increased up to 60,000 KL. ➤ That, 3 tier greenbelt will be developed all along the boundary and will be completed within 3 years from grant of EC. ➤ That, 1,00,000 nos of saplings will be planted in nearby villages along roads and near to sensitive receptors. ➤ That, No tailing pond will be constructed in this project. | |
| 2. | PP should submit geo tagged photographs of the project site. | Geo-tagged photographs submitted. |
| 3. | PP should submit MoU w.r.t. use of clean coal and rejects from washery. | MoU has been executed between M/s Vedanta Washery and Logistic Solutions Pvt Ltd and M/s Saar Steel and Power Private Limited for supply of clean coal and rejects. Copy of MoU is submitted. |
| 4. | PP should submit name of companies for which existing railway siding is being used for loading and unloading of coal. | <p>The existing railway siding is currently being used for loading and unloading of coal for following companies :-</p> <ul style="list-style-type: none"> ➤ SKS Power Generation Chhattisgarh Limited ➤ DB Power Plant Limited |
| 5. | PP should submit summary of land involved in project. | <p>The total land involved in the project is 19.86 ha.</p> <p>Out of which 15.63 ha land has been allotted from Chhattisgarh State Industrial Development Corporation Limited, Raipur. Copy of allotment letter submitted.</p> <p>4.118 ha land has been taken on lease form private land owners. Copy of lease deed submitted.</p> <p>0.117 ha land has been purchased by company. Copy of sale document submitted.</p> |
| 6. | PP should submit Public hearing summary along with video. | Public hearing was conducted on 23.02.2024 at Project Site under the chairmanship of Ms Satan Devi Jagde, Additional District Magistrate, Raigarh. |

| S. No. | Points | Written submissions made |
|--------|---|--|
| | | Total 500 people attended the public hearing out of which 101 people signed the attendance sheet. 450 people raised their concerns verbally and total 6 representations were submitted in writing. Video of the public hearing has been submitted. |
| 7. | PP should increase the budget for addressing issues raised in Public hearing to INR 2 Cr. | As per point raised, budget for addressing PH issues has been increased from 1.5 Cr to 2.0 Cr. Revised Action plan for the same has been is furnished at para 14.1.12. |
| 8. | PP should submit revised list of trees to be planted. | Revised list of trees submitted. |
| 9. | PP should submit process details of Iron Ore beneficiation plant. | As per point raised, process technology for Iron Ore Beneficiation plant submitted. |
| 10. | PP should submit revised budget for Environment Management Plan including STP, RWH and solar plant. | As per point raised, budget for EMP has been revised from INR 2.52 Cr to INR 3.68 Cr as capital cost from INR 0.765 Cr to INR 0.83 Cr and the same is furnished at para 14.1.11. |

Committee after deliberations noted the following:

14.1.17: The Committee noted the following:

- i. The instant proposal is for Greenfield Project of Wet Type Coal Washery based on Heavy Media Cyclone of 2.6 MTPA & Iron Ore Beneficiation Plant of 1.2 MTPA located at Village-Kunkuni, Tehsil- Kharsia, District- Raigarh, and State – Chhattisgarh.
- ii. The EAC also took into consideration the drone survey of the project site and kml file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH.
- iii. Total land available is 19.865 Ha. Out of which 15.63 Ha has been given by Chhattisgarh State Industrial Development Corporation Limited, 4.118 Ha has taken on lease basis from private owners and 0.117 ha has been purchased by the company. The project does not involve any forest land. The project is not located within 10 km of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc.
- iv. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components.
- v. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project due to the proposed project within NAAQS.
- vi. Coal will be sourced from Dipka and Kushmunda mines and will be brought to washery through road and railway through its own railway siding. Iron ore will be sourced from mines in Odisha and will be brought to the site by road.
- vii. 0.5 MTPA rejects will be generated from the washery. It will be supplied to power plants. Washery rejects from the plant will be transported by road in covered trucks

- directly to the customer (or) by railway through using the facility of own railway siding.
- viii. Tailing (filter cake) from Iron ore beneficiation (0.3 MTPA) will be used partially for road formation, filling of low laying areas and balance will use in cement plants.
 - ix. Washed coal & Washery rejects from the plant will be transported by road in covered trucks directly to the customer (or) by railway through using the facility of own operational railway siding.
 - x. The Committee deliberated that there will be no tailing pond in the premises for the storage of tailings from the iron ore beneficiation plant.
 - xi. The Committee looked in to the videography of the public hearing proceedings, deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory. The committee advised the PP to implement the PH action plan in a time bound manner.
 - xii. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
 - xiii. The EAC also deliberated on the written submission of the project proponent and found it satisfactory.

Recommendations of the Committee:

14.1.18: In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading of written submission on PARIVESH portal** under the provisions of EIA Notification, 2006 subject to the stipulation of following specific conditions and general conditions based on project specific requirements:

A. Specific conditions

- i. Project proponent has to obtain the consent to operate (CTO) for 2.6 MTPA Coal Washery & 1.2 MTPA Iron Ore Beneficiation Plant after grant of Environmental clearance.
- ii. Only 70% of the total allocated Ground water shall be utilized as per CGWA. An annual water audit shall be done to optimize the groundwater requirement and the water audit report shall be submitted to RO, MoEF&CC every year.
- iii. Rain water harvesting/storage pond of 60,000 KL capacity shall be developed and the collected water will be used for industrial activities to minimize the Ground water consumption.
- iv. Solar power system shall be established and 10% of the total power requirement shall be utilize through Solar Power system. Project proponent has to install solar power generation facilities in Washery premises for >2MW.

- v. Transportation of run-of-mine (ROM) Coal, washed coal and rejects coal will be done 40% through road in covered trucks and 60% through Railway using the facility of own railway siding.
- vi. Regular water spraying shall be done on transportation route through Water tankers. A log of the water tanker needs to be maintained. The water tanker should be fitted with a GPS Tracker and a record of trips with GPS track needs to be maintained.
- vii. Water spraying shall be done on regular basis inside and around the project area (within 2 km of the plant site) on a regular interval and a log book should be maintained for the same. The fog cannon must be installed at periphery of the Coal washery/mineral beneficiation plant in order to suppress the dust.
- viii. All the roads proposed to be constructed inside and around the periphery of the plant shall be concrete road only. No village road shall be used for transportation of coal and no road transport route shall be adopted, which is passing through any sensitive location such as schools, hospitals etc.
- ix. Three tier greenbelt will be developed around the project boundary and complete plantation shall be done within 3 years from the grant of EC. Around 50000 saplings will be planted in the current monsoon season. PP shall implement concurrent plantation programme.
- x. Greenbelt of 30-50 m width, consisting of at least 3 tiers around plant boundary will be developed. Local and native species will be planted with a density of 2500 trees per hectares per CPCB guidelines. Total no. of 13200 plant saplings will be planted and nurtured in 5.235 hectares (33% of the total project area) area within vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads. Complete plantation shall be done within 3 years from the grant of EC with a budgetary provision of Rs 25 lakhs. Around 1 lakh saplings will be planted in the current monsoon season. A detailed action plan with budgetary provision should be submitted within 6 months to IRO.
- xi. The Plant will operate 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 project area.
- xii. Tailing management plan shall be implemented as included in EIA report.
- xiii. Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.
- xiv. Project proponent shall implement the protective measures as proposed in environment management plan (EMP) in a time-bound manner. The budget earmarked for the same is Rs 368 Lakhs (Capital) and Rs 70.5 Lakhs (recurring)/ annum 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 of the Ministry for the activities carried out during the previous year.
- xv. Project proponent shall install a continuous ambient air quality monitoring station (AQMS) at suitable locations preferably the village side with the consultation of SPCB before commissioning of Plant operations. The real time data so generated shall be uploaded on company's website and it will be linked with CPCB & SPCB web portal. In addition, data should also be displayed digitally at entry and exit gate of Plant for public display.
- xvi. Project proponent shall deploy trucks having Gross Capacity of 55 ton and carrying capacity of

- 40 tons for road transportation of raw coal, clean coal and middling, rejects to reduce the fleet size. Road transport allowed only for next 1 year from date of commissioning.
- xvii. The workers shall be provided all the essential facilities/Personal Protective Equipments (PPE) during operation and maintenance at workplace.
 - xviii. Project proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly. Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly.
 - xix. Project proponent shall use of Gas engine/ Cleaner fuel engine for use of machines or as power back up to reduce the pollution load on environment. Project proponent shall implement additional measures to control Air pollution.
 - xx. Project proponent shall implement the activities proposed to address the issues raised during the public hearing in a time bound manner as committed in EIA/EMP report. The budget earmarked for the same is Rs. 200 Lakhs (Capital) that should be kept in a separate accounts and audited annually. The implementation status/ action taken report along with the amount spent with documentary proof shall be submitted to the concerned Regional Office of the Ministry for the activities carried out during the previous year.
 - xxi. Project proponent shall monitor the heavy metal in the water samples at least twice/year, and install the piezometers for regular monitoring of groundwater level. Report shall be submitted along with six-monthly compliance reports to the concerned Regional Office of the Ministry.
 - xxii. Project proponent to undertake the recruitment of a full-fledged qualified manpower with Environmental Engineer/Env. Science degree background in Environment Management Cell etc., at coal washery plant for compliance of EC conditions.
 - xxiii. Solar Street light to be installed with its proper maintenance along the road of incoming raw coal to avoid accident in nearby villages and a record must be furnished to IRO with six monthly compliances.
 - xxiv. Raw coal, washed coal and rejects shall be stored in covered silos or in dome shaped storage facility. Fixed-type high-pressure sprinkler shall be installed in this storage yards.
 - xxv. Project proponent shall deploy at least 20% of overall fleet of dumpers/trucks/other vehicles as electrical or CNG/LNG based for transportation of coal/OB etc and use e-vehicles for transportation of manpower.
 - xxvi. NoC from Central Ground Water Authority (CGWA)/ concerned local authority, as the case may be, shall be obtained before drawing the ground water for the project activities. State pollution control board/pollution control committees shall not issue the consent to operate (CTO) under Air (prevention and control of Pollution) Act and Water (Air (prevention and control of Pollution) Act till the project proponent shall obtain such permission.
 - xxvii. Project proponent shall construct a 20 ft height wind barrier with galvanized/metal sheet all around the boundary of the washery and install fixed-type water sprinkler all along the boundary wall.
 - xxviii. Project proponent shall ensure that suitable parking area shall be provided for the parking of the trucks and necessary arrangements (drinking water facility/ rest room/ toilets etc.) shall be provided for the drivers & helpers.

- 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.

B. General conditions

I. Statutory compliance:

- (i) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- (ii) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (iii) Solid waste/hazardous waste generated in the washery needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016.
- (iv) Coal beneficiation practices shall be carried out under strict adherence to provisions of the Factories Act, 1957 and subordinate legislations made there under.

II. Air quality monitoring and preservation:

- i. 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. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months.
- ii. Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
- iii. Transportation of coal by road shall be carried out by covered trucks/conveyors. The transportation of clean coal and rejects shall be by rail with wagon loading through silo. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulates such as roads, belt conveyors, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled at source. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board
- iv. All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered trucks.
- v. Vehicular emissions shall be kept under control and regularly monitored. The vehicles having 'PUC' certificate from authorized pollution testing centres shall be deployed for washery operations.

- vi. Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.
- vii. The raw coal, washed coal and coal wastes (rejects) 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.
- viii. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.

III. Water quality monitoring and preservation:

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J- 20012/1/2006-1A.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for compliance.
- iii. Industrial waste 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 there under, and as amended from time to time.
- iv. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the washery. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the riverfront side stabilized with plantation so as to withstand the peak water pressure preventing any chance of inundation.
- v. Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.
- vi. The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate compaction and post closure arrangement to avoid water pollution due to leachate from rejects and surface run off from reject dumping sites.
- vii. An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake etc. with impact of coal washing activities on it, shall be prepared, submitted to MoEF&CC and implemented.
- viii. Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.
- ix. No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEF&CC. The make-up water requirement of washery should not exceed 1.5 m³/tonne of raw coal.

- x. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- xi. The project proponent shall take all precautionary measures to ensure riverine/ riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

IV. Noise and Vibration monitoring and prevention

- i. The noise level survey shall be carried out as per the prescribed guide lines to assess noise exposure of the workers at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.
- ii. 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.

V. Coal beneficiation

- i. Coal stacking plan shall be prepared separately for raw coal, clean coal, middling and rejects.
- ii. Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.

VI. Green Belt

- i. 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.

VII. Public hearing and Human health issues

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis. 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.

- ii. 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.
- iii. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
- iv. The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

VIII. 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 web site permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

- vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made.
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Agenda: 14.2

14.2: Proposal for grant of Terms of Reference (ToR) to Panandhro Extension Lignite Mine (area 879.3766 Ha having capacity 0.50 MTPA) by M/s Gujarat Mineral Development Corporation Ltd.(GMDC)located in villages –Baiyava, Dhedhdi, Fulra, Pranpar, Sub District – Lakhpat, District – Kachchh, State –Gujarat– Terms of Reference – reg.

[Proposal No.IA/GJ/CMIN/482728/2024; File No. IA-J-11011/304/2024-IAII(M)]

[Consultant: Vardan Environet LLP; NABET/EIA/2326/RA0284 valid up to 04/05/2026]

14.2.1: The present proposal is for grant of Terms of Reference (ToR) to Panandhro Extension Lignite Mine (area 879.3766 Ha having capacity 0.50 MTPA) located in villages –Baiyava,

Dhedhdi, Fulra, Pranpar, Sub District – Lakhpat, District – Kachchh, State –Gujarat. M/s. Gujarat Mineral Development Corporation Ltd (GMDC) has made an application online vide proposal no IA/GJ/CMIN/482728/2024 dated 26/06/2024 along with the application in prescribed format (Form-I) and pre-feasibility report for undertaking a detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 1(a) Under Category “A” (> 500 Ha) of the schedule of the EIA Notification, 2006 and do not attract general condition, being appraised at Central Level. The Project is a Green Field Project.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussion held during the meeting, are given as under:

14.2.2: **Environmental site settings**

The project area is covered under Survey of India Topo-sheet No. 41A/09, 41A/10, 41A/13 and 41A/14 and is bounded by the geographical coordinates ranging from latitudes 23°43'3.1630"N to 23°45'0.0494"N and longitudes 68°44'46.2893"E to 68°47'29.7895"E. Project does not fall in the Critically Polluted Area (CPA) and Severely Polluted Area (SPA) as per CEPI Assessment, 2018.

Forest Area: The project does not involve any forest land.

Protected Area: PP reported that the project is not located within 10 km of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. However, the PP submitted that 9 RF viz. Pranpar Rekhla RF (Adjacent, East), Akri RF(~3.1 km, SE), Mudhvay RF (~4.0 km, WSW), Ukher RF (~4.9 km, East) Khanot RF (~5.0 km, SSE), Gauduli RF (~7.3 km, East), Naredi RF (~7.8 km, SW), Kaniari RF (~7.1 km, SSE), Kaiyari RF (~9.3 km, WSW) are present. The PP further submitted that Site Specific Wildlife Conservation Plan will be prepared and get approved from CWLW, for Schedule – I species if found during survey.

14.2.3: **Mining Lease:** PP submitted the details of the mining lease as follows:

| S. No. | Govt. Order/Notifications as the case may be | Area (ha) |
|--------------------|--|----------------------------|
| 1 | Allotment order – 13016/26/2004-CA-I(Vol.VI)(Pt.)/CA-III, dated 10.08.2015 | 879.3766 (Project Area) |
| Grand Total | | 879.3766 |

14.2.4: **Mining Plan:** Approval of mine plan & mine closure plan for the project has been granted for (capacity 0.5 MTPA, Area 879.3766 ha area) vide letter no. Panandhro Extension Lignite Mine GJGU011/APP00286/2023 dated 23.07.2024

14.2.5: **Method of Mining:** The PP has submitted the following:

- i. Method of Mining to be adopted shall be Opencast. The Capacity of the mine applied for normative capacity of 0.5 MTPA. Excavation of Coal is through shovel dumper combination Limestone mined through surface miner and it will be removed by

Payloader-Dumper combination.

- ii. Gross geological reserve reported in the mine lease area is 33.01 MT and Net geological reserve is 29.71 MT with 13.91 MT mineable reserves. Out of total mineable reserve of 13.91 MT, 13.57 MT are available for extraction. Percent of extraction is 45.675%.
- iii. Four (04) seams with thickness ranging from 0.30 m – 16.79 m are workable. Grade of coal is 3695, stripping ratio 25.0811 (m³/ton) while gradient is 1⁰-4⁰ of the lignite seams.
- iv. Life of mine is 29 years.
- v. The project has 1 external OB dumps in an area of 45.88 ha with 100 m height and 16.08 M.cum of OB.
- vi. One (1) internal OB in an area of 447.08 ha with 209.85 Mm³ of OB is envisaged (till end of mine) in the project.
- vii. Total quarry area is 647.81 ha out of which backfilling will be done in 447.08 ha while final mine void will be created in an area of 200.73 ha with a depth of 40 m. Backfilled quarry area of 308.80 ha shall be reclaimed with plantation. Final mine void will be converted water body.
- viii. **Details of Land usage:**

i. Pre-mining

| S. No. | Land Use | Within ML Area (Ha) | Outside ML Area (Ha) | Total |
|--------|----------------------|---------------------|----------------------|----------------|
| 1. | Agricultural Land | 506.3304 | - | 506.3304 |
| 2. | Forest land | - | - | - |
| 3. | Waste land | 356.848 | - | 356.848 |
| 4. | Grazing land | - | - | - |
| 5. | Surface Water Bodies | 15.0484 | - | 15.0484 |
| 6. | Community | - | - | - |
| 7. | Roads | 1.1492 | - | 1.1492 |
| 8. | Township | - | - | - |
| | Total | 879.376 | | 879.376 |

ii. Post-Mining

| S. No. | Type | Total Area (Ha) | Reclaimed Area (Ha) | Un-reclaimed Area (Ha) |
|--------|----------------------------|-----------------|---------------------|------------------------|
| 1. | Excavation/Quarry Area: | 647.81 | - | - |
| | (a) Backfilled area | - | 447.0800 | - |
| | (b) Excavated Void | - | 200.73 | - |
| 2. | External Dump | 45.88 | 45.88 | - |
| 3. | Safety Zone | 16.52 | 16.52 | - |
| 4. | Haul Road between quarries | 28.84 | - | 28.84 |
| 5. | Settling Pond | 0.41 | 0.41 | - |

| S. No. | Type | Total Area (Ha) | Reclaimed Area (Ha) | Un-reclaimed Area (Ha) |
|--------|--------------------------|-----------------|---------------------|------------------------|
| 6. | Roads and Infrastructure | 64.53 | 57.90 | 6.63 |
| 7. | Garland Drains | 1.85 | 1.85 | - |
| 8. | Water Reservoir | 0.28 | 0.28 | - |
| 9. | Green Belt | 0.10 | 0.10 | - |
| 10. | Undisturbed | 73.1566 | - | 73.1566 |
| | Total | 879.3766 | 770.75 | 108.6266 |

ix. Details of transportation of Coal: PP submitted that the coal is proposed to be transported within the outside mining lease in the following manner:

a. In Pit: Rear discharge Dumpers

b. Surface to siding: Initially by covered truck.

c. Siding to loading: Initially by covered truck.

d. Quantity being transported by Road/Rail/conveyer/ropeway: 1516 t/day

x. PP reported that there are 02 no of villages within the mining lease area. Out of which, none of villages has been shifted and all the affected villages will be shifted after the Rehabilitation and Resettlement Award for affected families by Collector as per the LARR Act 2013

xi. **Reclamation:** PP reported that reclamation plan includes i) Afforestation shall be done progressively covering an area of: 429.20 ha at the end of mining. This will include the following:

1. Reclaimed external OB dump (in ha): 45.88

2. Internal dump (in ha) – 447.08 (total Backfilled area post closure)

3. Green belt (in ha): 0.10

4. Density of tree plantation (in no of plants) –2500 per Ha.

5. Void (in ha) at a depth of (in m) which is proposed to be converted into water body: 200.73 ha of void with maximum depth of 40 m

6. Others in ha (such as excavation area along ML boundary, along roads and infrastructure, embankment area and in township located outside the lease etc): Road & Infrastructure: 57.90 Ha, Safety zone: 16.52 Ha, Water Reservoir: 0.28 Ha, Garland Drain: 1.85 Ha & Settling Pond: 0.41 Ha inside lease.

7. Agriculture and horticulture: 138.28 Ha.

14.2.6: **Legal Issues/ Violation:** PP submitted that there is no legal issue/ violation w.r.t i) Environment (Protection) Act, ii) Air(P&CP) Act, iii)Water (P&CP) Act and iv)MMDR Act. Further, there is no court case on the project.

14.2.7: **Baseline Studies:** PP reported that baseline data has been collected during Pre Monsoon Season (March to May2024).

| Period | March to May 2024 |
|--|---|
| AAQ parameters at 10 Locations (min and max) | PM _{2.5} = 10.60 to 39.00 µg/m ³ PM ₁₀ = 45.40 to 81.20 µg /m ³ SO ₂ = 5.40 to 19.70 µg/m ³ NO _x = 9.50 to 39.80 µg/m ³ CO = 0.28 to 0.94 mg/m ³ |
| Ground water quality at 10 Locations | pH: 7.21 to 8.02, Total Hardness: 200 to 498 mg/l, Chlorides: 160.49 to 334.78 mg/l, Fluoride: 0.35 to 0.80 mg/l. Heavy metals Fe: 0.24 to 0.88 mg/l. |
| Surface water quality at 9 Locations | pH: 7.56 to 7.88, DO: 5.9 to 9.2 mg/l and BOD: 11.00 to 17.90 mg/l. COD from 22.00 to 54.00 mg/l. |
| Noise levels Leq (Day and Night) | 41.50 to 52.63 for the day time and 36.36 to 42.15 for the Night time. |

PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data, etc., has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation No. No – TC-6299 and valid till 27.08.2024.

- M/s Vardan EnviroLab, Gurgaon is accredited by NABL.
- NABL Certificate No – TC-6299, Valid up to – 27.08.2024

14.2.8: **Water Requirement:**

| | |
|--|---|
| Source of Water | Mine Dewatering & Ground Water from borewells |
| Ground Water Intersection | 2 m BGL |
| NOCs (Surface Water/Ground Water) | Application for obtaining the approval of the Central Ground Water Authority for NOC for water withdrawal will be submitted after the approval of ToR. |
| Water Requirement | Total water requirement for the project is 1216 m ³ /day. |
| Diversion of River/ Nallah | A tributary of Kali (Fulra river) flows within the block which is proposed to be diverted along the eastern block boundary, diversion length is about 3.715 km. |

14.2.9: **Waste:** PP reported that details of solid and hazardous waste generation along with its mode of treatment/ disposal will be furnished as below:

| S. No | Type of Waste | Source | Quantity (TPA) | Disposal | Remarks |
|-------|----------------|-------------|----------------|-----------------------|---------|
| 1. | Domestic Solid | Mine Office | 66 | Waste segregated, dry | Site |

| S. No | Type of Waste | Source | Quantity (TPA) | Disposal | Remarks |
|-------|---|------------------------------|----------------|---|--|
| | Waste | and Canteen | | recyclable waste sold to recycling vendors & organic waste shall be composted | Composting & dry waste will be recycled. |
| 2. | Plastic Waste | Admin building, canteen etc. | 2 | CPCB/SPCB guidelines for Authorized vendors | |
| 3. | Electrical and Electronics waste from mine office | Mine Office | 0.1 | Given to E waste Dealer | |
| 4. | Used Batteries | Vehicles, HEMM, UPS | 4 | Buy Back by Supplier | |
| 5. | Biomedical Waste | First Aid Center | 0.01 | To authorized BMW management agency | |
| 6. | Used Oil | DG set, Vehicle and HEMM | 2 | Handed over to SPCB authorized vendor | |

14.2.10: **R&R Plan:** PP submitted that Rehabilitation is proposed to be done as per state Government Policy or LARR 2013 whichever is more beneficial to Project Affected Family. Rehabilitation will be done as per existing laws. About 496 PAF of 2 villages (Bayavo – 52 PAF & Fulra – 444 PAF) exists within the ML area. A detailed demographic /Socio-economic survey for R&R will be carried out before the start of the mining activity.

14.2.11: **Diversion of Existing Structures/Water Body:** PP submitted that there will be diversion of 220 kv HT Line for a length of 1815m. A Road is passing through the block, however, it is not proposed to be diverted. A safety zone of 45 meter on either side of the Road has been considered before planning of pit. PP Further submitted that diversion of 3715m of a tributary of Fulra river is planned.

14.2.12: **Undertaking/ Affidavit:** PP has submitted an undertaking stating that his is a proposed mine and no construction is done at the site. There is no litigation pending on the project either at NGT or any other court of law. Further, PP has submitted the undertaking stating that there is no difference in the documents submitted to MoEF&CC and presentation being made to EAC.

14.2.13: **Written submission:**

The project proponent made following written submissions:

- i. Seasonal tributary of Kali river which is planned for diversion as per the approved mining plan will not be diverted for the initial few years and its diversion will be planned at later stage (around) tenth air after taking prior permission/NOC from the State Water Resource Department.
- ii. Out of the total project area of 879.3766 ha, 200.73 ha void is proposed in the mining plan. However, its optimal utilization will be planned.

- iii. Agriculture/cultivable land measuring 506.3304 ha is present in the pre-mining land use. As per the mining plan, restoration of 138.28 ha land as agriculture land has been proposed in the post mining lease. However, its optimally maximized to the extent possible.

Observation and deliberation of the EAC:

14.2.14: The committee noted the following:

- i. Proposal is for grant of Terms of Reference (ToR) to Panandhro Extension Lignite Mine (area 879.3766 Ha having capacity 0.50 MTPA) by M/s Gujarat Mineral Development Corporation Ltd.(GMDC) located in villages –Baiyava, Dhedhdi, Fulra, Pranpar, Sub District – Lakhpat, Dstrict – Kachchh, State –Gujarat
- ii. Proposal is for a green field project. Total mine lease area is 879.3766 ha. The project does not involve any forest land. Project is not located within 10 km of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc.
- iii. Approval of mine plan & mine closure plan for the project has been granted for (capacity 0.5 MTPA, Area 879.3766 ha area) vide letter no. Panandhro Extension Lignite MineGJGU011/APP00286/2023 dated 23.07.2024. Life of the mine is 29 years.
- iv. There will be diversion of 220 kv HT Line for a length of 1815m. A Road is passing through the block, however, it is not proposed to be diverted. A safety zone of 45 meter on either side of the Road has been considered before planning of pit.
- v. Seasonal tributary of Kali river which is planned for diversion as per the approved mining plan will not be diverted for the initial few years and its diversion will be planned at later stage (around) tenth year after taking prior permission/NOC from the State Water Resource Department.
- vi. Out of the total project area of 879.3766 ha, 200.73 ha void is proposed in the mining plan. However, its optimal utilization will be planned.
- vii. Agriculture/cultivable land measuring 506.3304 ha is present in the pre-mining land use. As per the mining plan, restoration of 138.28 ha land as agriculture land has been proposed in the post mining lease. However, its optimally maximized to the extent possible.
- viii. Project proponent will be also be carrying out lime stone mining in the above lease area for which mining plan is reported to be under preparation. Necessary applicable permissions shall be obtained for the limestone mining from the concerned competent authority.
- ix. PP submitted that there is no court case on the project.
- x. The Committee observed that baseline monitoring has already been done during post monsoon period March – May 2024 as per MoEF&CC OM dated 8.06.2022.
- xi. Method of Mining to be adopted shall be Opencast. The Capacity of the mine applied for normative capacity of 0.5 MTPA. Excavation of Coal is through shovel dumper combination.
- xii. Gross geological reserve reported in the mine lease area is 33.01 MT and Net geological

reserve is 29.71 MT with 13.91 MT mineable reserves. Out of total mineable reserve of 13.91 MT, 13.57 MT are available for extraction. Percent of extraction is 45.675%.

- xiii. Coal is proposed to be transported within the outside mining lease in the following manner:
 - a. In Pit: Rear discharge Dumpers
 - b. Surface to siding: Initially by covered truck.
 - c. Siding to loading: Initially by covered truck.
 - d. Quantity being transported by Road/Rail/conveyer/ropeway: 1516 t/day.
- xiv. PP reported that there are 02 no of villages within the mining lease area. Out of which, none of villages has been shifted and all the affected villages will be shifted after the Rehabilitation and Resettlement Award for affected families by Collector as per the LARR Act 2013
- xv. Reclamation plan includes Afforestation shall be done progressively covering an area of: 429.20 ha at the end of mining.
- xvi. The power requirement of the mines will be 3.15 MW. The mine will get directly power supply from the nearby substation 66/11 kV Siyot (operated by Gujarat Energy Transmission Corporation Limited, is situated at a distance of around 20 km from the project site).
- xvii. The project cost and man power requirement for the project is INR 415.26 crores and 370 persons respectively.
- xviii. Water requirement is 1216 cu.m/day which will be sourced from Borewell (60 m³/day), Dewatering (1067 m³/day) + Mine Pit Rain Water Collection (89m³/day).
- xix. The committee taken note of the written submission made by the project proponent.

14.2.15: **Recommendations of the Committee:**

EAC after detailed deliberations, under the provision of EIA Notification 2006 and as amended, **recommended** the proposal for grant of Terms of Reference (ToR), as applicable to the project, with Public Consultation (Public Hearing and Written submission) and following Specific ToR to M/s. Gujarat Mineral Development Corporation Ltd in addition to generic ToR given at Annexure-II for opencast mines for preparation of EIA/EMP report for Panandhro Extension Lignite Mine (ML 879.3766 Ha having capacity 0.50 MTPA) located in villages –Baiyava, Dhedhdi, Fulra, Pranpar, Sub District – Lakhpat, District – Kachchh, State –Gujarat:

Specific ToRs:

- i. PP has to prepare the EIA-EMP report based on the valid baseline data and thereafter conduct the Public Consultation (including public hearing), through concerned SPCB in the concerned districts as per the provisions/procedure contained in the EIA Notification, 2006 (as amended) and OM issued by MoEF&CC in this regard.
- ii. PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.
- iii. PP shall carry out cumulative impact assessment in the EIA/EMP report by incorporating the

anticipated environmental impacts arising out of limestone mining activity. Separate approval shall be taken for limestone use.

- iv. PP shall submit time bound action plan to reduce the post-mining void and rejuvenation of ponds in the surrounding area.
- v. PP shall submit action plan for installation of conveyor belt for transportation of lignite.
- vi. Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modelling.
- vii. PP shall prepare the mining plan in such a way that it should provide the details of diversion of canal/nallah/roads etc. involved in this project in the same. Further, no mining activities (except transportation) including OB dumping shall take place outside the lease area. Further, the total excavation (minerals, waste, top soil) to be excavated needs to bring out clearly in production and development plan. The mineable reserves, blocked reserves need to be mentioned along with life of mine. PP should add an annexure in the mining plan clearly showing the year-wise production and development plan (tabular format) till the end of life of mine. The location of mineral stacking, dumping sites, plantation and other infrastructures needs to bring out clearly in the mining plan. PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled.
- viii. Scientific study shall be conducted to ascertain impact of mining on the Kali River and precautions to be taken to ensure safety against the Kali River. The study should address the impact of mining on Kali River Detailed Precautions as per the findings of the study shall be implemented and made part of the EMP. Further, as the project lies in the vicinity of Kali river, the study shall be carried out by some Government Institute.
- ix. Diversion of Nalah/seasonal tributary of Kali Rive rat this stage is not permitted. PP shall carry out a detailed study and prepare a diversion plan (canal/nallha/road/HT line etc.), if any, including the impact of such diversion on environment and local community /HT line from a reputed government institute along with cost benefit analysis.
- x. As the project involve ground water intersection a Hydrological study shall be carried out by some Government Institute. Further, PP shall comply with Ministry's OM dated 23.05.2019 and provide necessary details/studies in EIA/EMP Report.
- xi. PP shall submit the drone video & photographs of mined area, fresh lease area to be mined and existing and proposed transportation route.
- xii. PP should submit the detailed plan in tabular format (year-wise for life of mine) for concurrent afforestation and green belt development in three-tiers by using native species in and around the mining lease area. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The

seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this, plantation in the safety zone at lease boundary the plantation should be planned in such a way that it should be completed within 2 years only.

- xiii. PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted. A plan should be submitted for revjvenation of ponds in the surrounding area.
- xiv. PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged under Environment Management Cell for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- xv. PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance, and activities proposed to address the issues raised during Public Hearing. The capital and recurring expenditure to be incurred needs to be submitted.
- xvi. PP should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility and submit strategy of using e-vehicles/LNG/CNG based mining machineries and trucks for mining operation and transportation of coal.
- xvii. All the certificates viz. Involvement of Forest land, distance from protected area, list of flora & fauna should be duly authenticated by Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.
- xviii. PP should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Achromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on the either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources. The Ground level concentration of various pollutants in worst case and control case scenario needs to be submitted. The cumulative impact of other activities needs to be considered in EIA/EMP Report.
- xix. To support the transportation road, PP shall carry out the traffic study for one month along with the mitigation measures to control air pollution.
- xx. PP shall submit the action plan to adhere the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.
- xxi. PP shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs.
- xxii. Project proponent shall also submit an action plan pursuant to MoEFCC OM dated 29.10.2014.

- xxiii. The PP should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that accreditation of consultant shall be valid during the collection of baseline data, preparation of EIA/EMP report and during the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and PP and consultant are fully accountable for the same.
- xxiv. The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- xxv. As per the Ministry's OM dated 30.09.2020, to address the concern raised during the Public consultation including the public hearing, the Project Proponent is required to submit the detailed activities proposed with year-wise budgetary provisions (Capital and recurring). Activities proposed shall be part of EMP.
- xxvi. Details on renewable energy/solar power facility proposed to be installed as energy conservation measures shall be submitted.
- xxvii. PP shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero by 2050. PP shall update the same to the EAC.
- xxviii. PP should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.
- xxix. The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
- xxx. PP shall obtain the list of Schedule-I species from the concerned forest department and prepare a detailed Wild Life Conservation plan for the same. PP shall ensure that a conservation plan shall be prepared and approved by the CWLW.
- xxxi. PP shall provide the GLC with control and without control scenario by considering all the activities/sources of air pollution including water tanker.
- xxxii. PP shall provide the necessary permission obtained by the service provider who will supply water.
- xxxiii. PP 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. An action plan in this regard shall be submitted with budget provisions.

AgendaNo.14.3

- 14.3: Expansion of Amalgamated Yekona I & II OC (Phase-I) from 2.75 MTPA to 3.30 MTPA within project area of 1679.39 ha by M/s Western Coalfields Limited located at Village Yekona, Tehsil – Warora, District Chandrapur, Maharashtra. - Environmental Clearance under para 7(ii) of EIA, 2006 as per MoEF&CC OM dated 11/04/2022 - reg.**

[Online Proposal No. IA/MH/CMIN/485659/2024; File No. J-11015/381/2015-IA-II(M)];
Consultant: CMPDIL; NABET/EIA/22-25/SA0223 valid till 08/04/2025]

- 14.3.1: M/s Western Coalfields Limited has made an online application vide proposal no. IA/MH/CMIN/485659/2024 dated 17/07/2024 along with copy of EIA/EMP report, Forms (Part A, B and C) seeking environmental clearance under the provisions of para 7(ii) of EIA Notification, 2006 for the project mentioned above. The project falls under item 1(a) – Coal mining of the schedule of the EIA Notification, 2006 and falls Category-“A” as the mining lease area is more than 500 Ha and appraised at the central level.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

- 14.3.2: **Environmental site settings:**

The project area is covered under Survey of India Topo Sheet No 55L/15 and 55L/16 and is bounded by the geographical coordinates ranging from 20°13'39" N to 21°16'15" N Longitude 78°55'25" E and 78°58'21" E. Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment, 2018.

Mining Lease: PP Submitted that the total project area is 1679.39 ha. Out of which within mine lease area is 1631.39 Ha and outside lease area is 48.0 Ha. Out of 1631.49 Ha of mine lease area, 1628.90 Ha has been acquired under CBA (A&D) Act, 1957 and 2.49 ha is yet to be acquired. The land acquisition details are provided below:

| S. No. | Govt. Order/ Notifications as the case may be | Total Area acquired in Notification (Ha) | Area involved in the project (Ha) | Remarks |
|--------|--|--|-----------------------------------|--|
| 1. | Publication under Section 9 of CBA dated 6 th October, 2004 (S. O. No – 2576 dated 06.10.2004) for Yekona II OC | 421.70 | 421.70 | - |
| 2. | Ministry of Coal Letter dated 22 nd September, 2008 for publication in Gazette under Section 9 of CBA Act (S. O. No - 2692 dated 22.09.2008) Yekona –I OC | 254.15 | 254.15 | - |
| 3 | Notification under Section 9 of CBA dated 27 th August, 2020 (Notification Number - S.O. – 719 of Ministry of Coal, Government of India dated 27.08.2020) | 974.98 | 953.05 | Out of acquired land of 974.98 ha, 953.05 ha land is required in Phase-I of the proposal |
| | Total Acquired Land | 1650.83 | 1628.90 | - |
| 4 | To be acquired within mine lease area | - | 2.49 | - |
| | Total Mine Lease Area | | 1631.49 | |

| | | | | |
|---|---|---|----------------|---|
| 5 | Land to be acquired outside Mine Lease Area | - | 48.0 | - |
| | Total | - | 1679.39 | - |

The mine plan is prepared and approved over an area of 1679.39 Ha.

Forest Area: PP submitted that no forest land is involved in the proposal.

Legal Issues/ Violation: PP submitted that there is no legal issue/ violation w.r.t i) Environment (Protection) Act, ii) Air(P&CP) Act, iii)Water (P&CP) Act and iv)MMDR Act.. However, 4 cases are pending against the project of the PP for the construction of road outside ML area.

Protected Area: PP submitted that the project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ tiger corridor. However, the PP reported that the project is located 25 km from an elephant corridor, i.e., the Tadoba Andhari Tiger Reserve.

PP submitted that earlier a wildlife conservation plan for Schedule-I species (Great Indian Bustard) has been approved by PCCF (Wildlife), Maharashtra and Rs 35 Lakh was earmarked for the wildlife conservation plan. The amount was deposited on 06.08.2020 in favour of “Divisional Forest Officer, Chandrapur” for implementation of conservation plan. As per the letter dated 11.10.2023 received from DFO, Chandrapur, and the expenditure of Rs.35 Lakhs has been made in accordance with wildlife conservation plan.

PP also submitted that there are 12 Schedule-I species reported in study area. Wildlife conservation has been prepared as proposed by the DFO, Chandrapur. The mitigation measures as proposed in the conservation plan will be implemented. The wildlife conservation plan has been forwarded by CCF (wildlife) to PCCF (wildlife) for approval. Provision of 163.50 Lakhs has been made in the wildlife conservation plan.

14.3.3: **Previous Approvals:** Details of previous approvals in chronological order are as under:

| S. No. | Project | Type | Details of Letter no. | Production Capacity | ML Area | Date of grant of EC |
|--------|--|---|--|---------------------|------------|---------------------|
| 1. | Yekona – I OC | New | vide ref no J-11015/175/2006-IA.II(M) | 0.40 MTPA | 265.50 ha | 17.10.2006 |
| 2. | Yekona-II OC | New | Vide ref no J-11015/182/2006-IA.II(M) | 0.60 MTPA | 414.56 ha | 17.10.2006 |
| 3. | Amalgamated Yekona I & II OC (Phase-I) | Amalgamation and Expansion (1.00 MTPA to 2.75 MTPA) | Vide ref no. J-11015/381/2015-IA-II(M) | 2.75 MTPA | 1679.39 ha | 01.01.2021 |
| 4. | Amalgamated Yekona I & II OC (Phase-I) | Amendment in EC | Vide ref no. J11015/381/2015-IA-II(M) | 2.75 MTPA | 1679.39 ha | 15.03.2024 |

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W.r.t the prior approvals, PP submitted that operations of mine started 2018 onwards and has submitted the following details regarding production. PP submitted that there has been no excess production in any of the years and the actual production of 2.749 MTPA has been achieved against the EC sanctioned capacity of 2.75 MTPA in the year 2023-24. Following details of actual coal production vis-à-vis sanctioned capacity since the inception of mine are as follows:

| Year | EC Sanctioned capacity (MTPA) | Actual Production (MTPA) | Excess production beyond the EC sanctioned capacity |
|--|-------------------------------|--------------------------|---|
| 2018-19 | 1.00 | 0.11 | NIL |
| 2019-20 | 1.00 | 0.35 | NIL |
| 2020-21 | 2.75 | 1.10 | NIL |
| 2021-22 | 2.75 | 2.417 | NIL |
| 2022-23 | 2.75 | 2.749 | NIL |
| 2023-24 | 2.75 | 2.749 | NIL |
| Remarks- 2018-19 to 2019-20, the mine has operated as Yekona-I (0.40 MTPA) & Yekona-II (0.6 MTPA). As per EC dt. 01.01.2021, Amalgamated Yekona I & II mine started with production capacity of 2.75 MTPA. | | | |

14.3.4: **Certified Compliance Report:** The Status of compliance of earlier EC was obtained from Regional Office, IRO, MoEF&CC, Nagpur vide letter no. EC-1016/RON/2019-NGP/12614 dated 11.12.2023 for the visit conducted on 28.11.2023 in the name of M/s. Western Coalfields Limited. The Action taken report regarding the partially complied/non-complied condition was submitted to Regional officer MoEF&CC, Nagpur vide letter no. vekoli/makshe/ksheempra/civil/YSA/1277 dated 28.01.2024. The details of the same are as follows:

| S. No. | Non- Compliance Details | Observation of RO (abridged) | Condition No | | | Re- assessment by RO/Response of PP |
|--------|---|---|--------------|----------|---------|---|
| | | | EC date | Specific | General | |
| 1) | Transportation of coal from coal handling plant shall be through mechanized covered trucks for 3 years. No transportation by trucks after 3 years and | The work of railway siding was supposed to be completed by Dec, 2023. As of now, PP has completed 10 % of railway siding work. The work of Railway Siding has been awarded to IPRCL and same is | 01.01.21 | (vi) | | Amendment of said condition is already applied at MoEF&CC and the 1st meeting for same was held on 25.08.2023 (48th EAC Meeting-Agenda item 3.2). Award of work of Railway Siding issued to M/s Indian Port, Rail & Ropeway Corporation Limited (IPRCL) |

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| S. No. | Non- Compliance Details | Observation of RO (abridged) | Condition No | | | Re- assessment by RO/Response of PP |
|--------|--|---|--------------|----------|---------|--|
| | | | EC date | Specific | General | |
| | proposed railway siding/pipe conveyor system.” | expected to be completed by Dec, 2025 | | | | vide Agreement no. 07/2022-23. Value of Work/ Agreement value is Rs 80.74 Crores. At present the earth work, alignment of railway Siding work is in progress on the portion of land which is under the possession of WCL. As per the current progress of Work, the work will be completed by December 2025 in all respect. |
| 2) | Toe wall of at-least 15-20 mtrs height should be constructed along the OB dump to protect Yekona Village | PP was supposed to construct Toe wall of atleast 15 mts to 20 mts height along the OB dump to protect Yekona village. Same has not been constructed, however, Protective measures such as Grass seeding on dump, Tree Plantation, Garland drain at the toe of dump has been provided. PP informed that a scientific study was conducted through VNIT Nagpur vide for determining the requirement of the toe wall. | 01.01.21 | (xviii) | | Amendment of said condition has been obtained from MoEF&CC. The work is being done as per the amended EC condition. Protective measures such as Grass seeding on dump, Tree Plantation, Garland drain at the toe of dump has been provided. VNIT Nagpur was appointed vide Work Award letter no. WCL/MA/AGM/ENV/2023/198 dated 02.09.2023. As per the report of VNIT Nagpur, various mitigative measures / preventive measures has been suggested in addition to existing measures taken. The scientific study mentioned that there is no requirement of Toe Wall as plantation between toe of the dump and village and plantation over the dump in addition to grass seeding helped in stabilising the dump. (Copy of report of VNIT Nagpur enclosed) In compliance of the recommendation made by VNIT in its report, WCL has awarded work (vide letter dated 01.04.2024) with value of Rs 57.99 Lakhs for stone |

| S. No. | Non- Compliance Details | Observation of RO (abridged) | Condition No | | | Re- assessment by RO/Response of PP |
|--------|--|--|--------------|----------|---------|--|
| | | | EC date | Specific | General | |
| | | | | | | pitching, garland drain, slope correction. Grass seeding work has been awarded on 23.07.2024 with cost of Rs 7.0 Lakhs. |
| 3) | Project proponent to plant 1,50,000 No. of native trees with broad leaves along the transportation route in three years to prevent air pollution. After completion of three plantation, number of trees shall be duly endorsed from District Forest Officer. | PP was supposed to plant 1,50,000 No. of trees in three years. However as on date Total 1,20,000 Nos. of tree saplings planted over an area of 48 Ha. About 50,000 nos. over an area of 20 Ha is planted on Plain and Top Soil dump along the Coal transportation route. | 01.01.21 | (xxx) | | Total 1,20,000 Nos. of trees over an area of 48 Ha is already planted in Amalg. Yekona I & II OC Mine. Next Year i.e. during Monsoon 2024, it is proposed to plant about 40,000 nos. of trees in 16 Ha of Land. |

EIA report submitted by the PP is for expansion capacity of 50% i.e., from 2.75 MTPA to 4.125 MTPA. However, the proposal placed before EAC is for 20% expansion, i.e., for 3.30 MTPA as per Ministry's OM dated 11.04.2022.

14.3.5: Method of Mining & Mining Plan:

- i. The mining plan & mine closure plan for the project was approved for 4.125 MTPA, 1679.39 ha by the WCL Board in 288th meeting held on 10.08.2023 and communicated vide board note letter no. WCL/Office of CS/BM-356/2023-24/736 dated 12.10.2023. Present proposal is for 20% capacity expansion i.e. 3.30 MTPA as per MoEF&CC OM dated 11.04.2022.
- ii. Total geological reserve reported in the mine lease area is 101.01 MT with 58.72 MT mineable reserve. Extractable reserves are 55.78 MT considering 5% of mining losses. 6.73 MT coal reserves has been extracted till 31.03.2023. 49.05 MT coal reserves are remaining for extraction as on 01.04.2023. Percent of extraction is 95%.
- iii. One (1) coal seam with thickness ranging from 4.82 m – 14.98 m is workable. Declared Grade of coal is G-8, stripping ratio is 1:7.82 m³/t, while gradient is 1 in 4.3 to 1 in 12.1.
- iv. Life of mine is 13 years as on 01.04.2023.
- v. Method of Mining to be adopted shall be Opencast. The Capacity of the mine applied for Normative capacity as per approved mining plan is 3.30 MTPA in first phase.
- vi. The project has 8 external OB dumps in an area of 377.96 ha with maximum 90 m height and 130.61 Mm³ of OB (2.42 Mm³ OB in Embankment). 2 internal OB in an

area of 385.26 ha having maximum height of 90 m with 286.67 Mm of OB is envisaged in the project.

- vii. Total quarry area is 640.26 ha out of which backfilling will be done in 385.26 ha while final mine void will be created in an area of 255 ha with a depth of 160 m. 308.21 ha of Backfilled quarry area of shall be reclaimed with plantation. Final mine void will be converted to water body.
- viii. The technology proposed to be used for top OB and parting OB removal and extraction of coal is shovel dumper system and surface miner technology.

14.3.6: **Land Use Details of Mine:** Thelandusagepatternof the project is as follows:

1. Pre-mining land use details:

Pre-Mining Land Use (within mine lease)

| S. No. | Type of Land | Land (ha) |
|--------|---------------------------------|----------------|
| 1 | Tenancy land | 1573.09 |
| 2 | Govt. land | 58.30 |
| 3 | Forest land | 0.00 |
| 4 | Outside the Mine leasehold area | 48.00 |
| | Total | 1679.39 |

2. Post Mining land use details:

| S. No. | Type | Total Area | Reclaimed Area | Un Reclaimed area |
|--------|---------------------------|------------|----------------|-------------------|
| 1. | Excavation /Quarry Area: | | | |
| a) | Backfilled areas | 385.26 | 308.21 | 77.05* |
| b) | Excavated Area (Void) | 255.00 | 0.00 | 255.0 |
| 2. | External OB Dump | 377.96 | 298.48 | 79.48* |
| 3. | Embankment | 44.37 | 5.00 | 39.37 |
| 4. | Road | 30.00 | 5.00 | 25.00 |
| 5. | Built up area | 148.0 | 70.00 | 78.00 |
| 6. | Nalla and canal Diversion | 58.35 | 0.00 | 58.35 |
| 7. | Undisturbed area | 380.45 | 142.50 | 237.95 |
| | Total | 1679.39 | 829.19 | 850.2 |

* The external dump and quarry area proposed to be technically reclaimed.

14.3.7: **Transportation of Coal:** The coal is proposed to transport within the outside mining lease in the following manner:

| | |
|---|--|
| <p>Details of transportation of coal:</p> <p>(i) In pit:</p> <p>(ii) Surface to siding:</p> <p>(iii) Siding to loading:</p> <p>(iv) Quantity being transported by Road/Rail/Conveyer/Rope way</p> <p>(v) Proposed change in transportation means if any, give details</p> | <p>Through dumpers Tippers</p> <p>The coal is transported to nearby thermal power plant located 1 km north east of the project. Remaining coal is lifted by miscellaneous consumers.</p> <p>2.75 MTPA (existing) 3.30 MTPA (proposed)</p> <p>In this project, coal transportation is proposed by constructing Railway siding by Dec'2025 within the Mine Lease area. The EC amendment has also been granted by MoEF&CC vide letter no:J-11015/381/2015-IA.II(M), Dt.15.03.2024 for construction of railway siding.</p> |
|---|--|

14.3.8: **PP submitted that the reclamation plan includes the following:**

| | |
|--|---|
| The reclamation plan includes i) Afforestation shall be done progressively covering an area of 829.19 ha at the end of mining. This will include : | |
| (i) Reclaimed external OB dump (in ha) | 298.48 Ha |
| (ii) Reclaimed backfilled area in the form of internal OB dumps (in Ha) | 308.21 ha |
| (iii) Green Belt (in Ha) | 25.0 Ha |
| (iv) Density of tree plantation (in no. of plants) | 2,500 no. of plants / Ha |
| (v) Void (in Ha) at a depth of (in m) which is proposed to be converted in to water body. | Details of water void are as follows: Area of void: 255.0 Ha (includes batter area) Depth : 160 m (Area of this water body is not included in the area of afforestation above) |
| (vi) Others in ha (such as excavation area long ML boundary, along roads and | 197.50 |

| | |
|---|--|
| infrastructure, embankment area and in township located outside the lease etc.) | |
|---|--|

14.3.9: Coal linkage of the project is proposed for transportation of coal to GMR TPS, Sai Wardha TPS located 1 km north east of the project and other miscellaneous consumers.

14.3.10: **Baseline data:** Base line data was generated in the post monsoon Season 2023 from 01.10.2023 to 31.12.2023 at 12 locations.

| Period | Parameters |
|--|---|
| AAQ Parameters at 12 Locations (min and max) | <p>Core Zone (All values found within permissible limit as per Coal Mine Standard, GSR 742(E), 2000)</p> <p>PM_{2.5} = 55 To 81 µg/m³</p> <p>PM₁₀ = 121 To 158 µg/m³</p> <p>SO₂ = 21 to 33 µg/m³</p> <p>No_x = 26 To 39 µg/m³</p> <p>Buffer Zone (All values found within permissible limit as per NAAQS, 2009)</p> <p>PM_{2.5} = 29 To 59 µg/m³</p> <p>PM₁₀ = 51 To 96 µg/m³</p> <p>SO₂ = 14 to 35 µg/m³</p> <p>No_x = 16 To 36 µg/m³</p> |
| Incremental GLC Level (Maximum) | <p>The incremental increase in values were projected in Buffer Zone with control measures is -</p> <p>PM₁₀ = 9.31 µg/m³ (Level at 0.50 km in West Direction)</p> <p>PM_{2.5} = 2.56 µg/m³ (Level at 0.50 km in West Direction)</p> <p>SO₂ = 0.18 µg/m³ (Level at 0.10 km in East Direction)</p> <p>NO_x = 2.89 µg/m³ (Level at 0.10 km in East Direction)</p> <p>The incremental increase in values were projected in core Zone with control measures is -</p> <p>PM₁₀ = 69.54 µg/m³ (Level in core zone)</p> <p>PM_{2.5} = 4.96 µg/m³ (Level in core zone)</p> <p>SO₂ = 0.82 µg/m³ (Level in core zone)</p> <p>NO_x = 12.96 µg/m³ (Level in core zone)</p> |

| Period | Parameters |
|--|---|
| Groundwater quality | pH: 7.27 to 8.24, TDS: 480 to 2160 mg/l, Chlorides: 22 to 480 mg/l, Fluoride: 0.21 to 0.99mg/l. |
| Surface water quality | pH:7.96 to 8.24; DO: 3.4 to 4.2 mg/l BOD: from 3.0 mg/l to 4.40 mg/l. COD from 32 mg/l to 56 mg/l |
| Noise levels Leq (Day and Night) | Core Zone 51.6 to 57.2 dB(A) forthe daytime and 43.1 to 55.9 dB(A) for theNighttime. Buffer Zone 41.2 to 47.8 dB(A) forthe daytime and 39.1 to 44.2 dB(A) for theNighttime. |
| Flora and fauna | During baseline data generation in February-March 2024, 12 nos of Schedule-I species were reported in the study area as listed in Wildlife Protection Act Amendment, 2022. Hence an wildlife conservation plan has been prepared in consultation with the Forest Department, Chandrapur. The Wildlife conservation plan finalized by the DFO, Chandrapur with provision of Rs 163.50 lakhs. The wildlife conservation plan has been forwarded by CCF to PCCF (wildlife) for further approval. |

- 14.3.11: **Water Requirement:** PP submitted that the water requirement for the said project will be 4624 KLD and it involves groundwater intersection. PP submitted that the NOC for abstraction of groundwater has been granted vide letter no CGWA/NOC/MIN/ORIG/20196689 dated 19.11.2019 with validity up to 18.11.2021. The renewal of NOC has been approved in 67th meeting as communicated by CGWA vide email dated 26.07.2023. The formal renewal letter is awaited. The application for 2nd renewal of NOC has been made on 18.11.2023. The application is under consideration CGWA.
- 14.3.12: **Diversion of Nallah/ Canal:** PP further submitted that the project involves the diversion of one seasonal Nallah and one canal. The study for nallah diversion is conducted by CDO Nashik. The canal diversion work has been taken up by the Minor Irrigation Department, Maharashtra Government. The survey work for diversion of canal has been completed by Minor Irrigation department, Chandrapur in 2022 and alignment of diverted route was fixed. The irrigation department has provided the estimate of Rs. 7.51 Crores for diversion of canal vide letter no. 1672/ Pra. Sha – 4/Valan Kalwa Mobadla/WCL//23 dated 20.7.2023. The payment as per demand note is under process.

MoM of 14th meeting of the EAC for Coal Mining sector held on 5-7th August, 2024

PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data, etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation with conformance of ISO 17025:2005 vide no. TC-7102 valid upto 28.06.2024.

14.3.13: **Status of implementation of action plan as per the PC held on 14/06/2019:** PP submitted that the advertisement for public hearing was given on 09.05.2019 in Loksatta, Hitavada and Deshonnati (3 newspapers) and public hearing held on 14.06.2019 at Amalgamated Yekona I & II OC Mine, Yekona Village, Tehsil Warora, Chandrapur District, Maharashtra under the chairmanship of additional district magistrate, Chandrapur. Total 198 nos of people attended the public hearing and no written representations were received from the district and outside the district. The major issues raised during the PH were R&R, employment, CSR, land acquisition, environment pollution etc. PP submitted the compliance of the minutes of the PH, as follows:

| S. No | Physical activity and action plan | | Year of implementation (Budget in INR) | | | | | | Total Expenditure (Rs. in Lakhs) |
|-------|-----------------------------------|---|---|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------------------|
| | Name of the Activity | Physical Targets | 1 st | 2 nd | 3 rd | 4 th | 5 th | 6 th | |
| | | | (2019-20) | (2020-21) | (2021-22) | (2022-23) | (2023-24) | (2024-25) | |
| | | | Completed Activities | | | | | Proposed | |
| 1 | Medical Camps | Conducting medical camps in | 0.80 | - | 0.10 | 0.30 | 0.20 | 2.0 | 3.4 |
| 2 | Drinking Water Supply | Providing Handpumps in Yekona and Marda Village, Borewell in Charurkhati Village, Water Purifier in Warora | 6.26 | - | - | 74.15 | - | - | 80.41 |
| 3 | School Infrastructure | Fencing of ZP School, Charurkhati, Library room in Yekona Village | 2.20 | - | - | - | 5.82 | - | 8.02 |
| 4 | Road and Drainage system | Cement road in Yekona, Wanoja and Marda Village Repair of Warora – Madheli Road | - | - | 10.46 | 249.15 | 4.89 | 8.00 | 272.5 |
| 5 | Infrastructure | Samaj Bhavan in Charurkhati Village Street Lightening in Yekona Village, construction of wall around Samaj Bhavan, | - | - | - | - | 13.46 | 18.10 | 31.56 |

| | | | | | | | | | |
|---|-------------------------------|---|---------------|---|---|---|--------------|---------------|------|
| | | Charurkhati Village | | | | | | | |
| 6 | Rainwater Harvesting Measures | Pond at Yekona Village for Rainwater Harvesting | - | - | - | - | 5.32 | - | 5.32 |
| | Total | | 373.11 | | | | 28.10 | 401.21 | |

14.3.14: **EMP Budget:** The capital cost of the proposed project is Rs 745.83 Crores and the capital cost for environmental protection measures is proposed as Rs 5.88 Crores. Recurring cost is ₹6/tonne of coal production. Permanent employment to 303 persons has been provided from the project. In addition, approximately 519 Nos. of employment are provided by contractual HEMM operators. The details of cost for environmental protection measures are as follows:

| S. No. | Description of Item | Existing (in Lakhs) | | Proposed in Lakhs | |
|--------|---|---------------------|----------------|-------------------|----------------|
| | | Capital Cost | Recurring Cost | Capital Cost | Recurring Cost |
| i | Air Pollution Control/ Noise Management | 70.00 | 88.32 | 313.50 | 70.50 |
| ii | Water Pollution Control | 58.28 | 25.07 | 35.00 | 9.60 |
| iii | Environmental Monitoring and Management | 102.80 | 221.19 | - | 135.89 |
| iv | Green Belt & Plantation Development | - | 182.60 | 240.00 | - |
| v | Other heads as proposed in EIA/committed during the EAC | - | 321.28 | - | 334.75 |

14.3.15: **Plantation:** PP submitted that plantation shall be done progressively covering an area of 829.19 Ha. In addition to this, an area of 142.5 ha, included in the safety zone/rationalization area has also been proposed for green belt development. Density of 2500 Plants per ha plantation will be maintained. PP also submitted that existing plantation has been developed in 48.0 ha area which is about 2.86 % of the total project area of 1679.39 ha with total sapling of 1,20,000 Trees. 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. Total no. of 2072975 saplings will be planted and nurtured in 829.19 hectares in 16 years (13 years of mine + 3 years of post-closure activities).

- 14.3.16: **Details of litigation pending:** PP submitted that there are 4 cases related to bypass road that are pending at High Court. However, this road falls outside the lease area.
- 14.3.17: **R&R:** PP submitted that, in this project R&R of Marda village located within the ML area is proposed to be rehabilitated. The project involves 208 project affected families. R&R of the PAPs will be done as per R&R policy of Coal India Limited and State Government of Maharashtra.
- 14.3.18: **Project Cost:** PP submitted that the project cost is 745.83 Crore.
- 14.3.19: Undertaking/ Affidavit: **PP has submitted an undertaking stating that mining is done at the site as per the provisions of the approved mine plan and the existing EC. And there is no litigation pending on the project either at NGT or any other court of law about environmental aspects within the project boundary. However, 4 cases are pending, regarding the construction of by-pass, i.e., outside the EC boundary is pending before Hon'ble High Court of Bombay, Nagpur Bench. PP has also submitted the undertaking stating that the land has been acquired as per the approved mine plan under CBA (A&D) Act, 1957 and R&R is being carried out as per CIL norms. Further, PP has submitted the undertaking stating that there is no difference in the documents submitted to MoEF&CC and presentation being made to EAC.**
- 14.3.20: **Compliance of OM dated 11.04.2022 in case of expansion (up to 50%):**

| S. No. | Criteria | Status |
|--------|--|--|
| 1. | The Project should have gone through the public hearing process, at least once, for its existing EC capacity on which the expansion is being sought, except those categories of projects which have been exempted as per para 7 III (i) EIA Notification, 2006 and its amendments. | The Project have gone through the public hearing process once for EC capacity. The public hearing was conducted on 14.06.2019. The expansion is being sought on production capacity of for which Public Hearing has been already conducted and EC was granted. The present proposal is expansion in production capacity from existing 2.75 MTPA to 4.125 MTPA in next 3 years. In first year the capacity is proposed to be increased to 3.30 MTPA (20% increase over 2.75 MTPA). |
| 2. | There should not be change in Category of the project from 'B2' to 'B1' or 'A' due to proposed modernization or expansion. | There is no change in the category of the project because of proposed expansion. This is category A project. |
| 3. | There is no additional land acquisition or forest land diversion involved in the proposed expansion or there is no increase in lease area with regard to mining vis-à-vis the area mentioned in the EC, based on which public hearing has | There is no additional land acquisition or forest land diversion involved in the proposed expansion or there is no increase in lease area with regard to mining vis-à-vis the area mentioned in the EC, based on which public hearing has been held earlier. Public Hearing of the project was conducted for 1701.32 ha. The present proposal |

| S. No. | Criteria | Status | | | | | | | | | | | | | | | | |
|--------|---|--|------------------------------|------------|---------------------|------------------------------|---|---|-----------|--------------|---|--|-----------|--------------|---|--|------------|--------------|
| | been held earlier. | involves only 1679.39 ha land in the Phase-I. | | | | | | | | | | | | | | | | |
| 4. | The proposed expansion shall not be more than 50 % of production capacity as mentioned in the prior EC, issued on the basis of public hearing held and the same shall be allowed in minimum three phases. | <p>The public hearing has been successfully completed for production capacity of 2.75 MTPA on 14.06.2019 and based on public hearing EC was issued on 01.01.2021 for 2.75 MTPA. The proposed expansion is in three phases as per OM. The proposed phase-wise expansion details are provided below:</p> <table border="1" data-bbox="818 594 1395 1041"> <thead> <tr> <th data-bbox="818 594 899 743">S. No.</th> <th data-bbox="899 594 1065 743">Particular</th> <th data-bbox="1065 594 1239 743">Proposed Production</th> <th data-bbox="1239 594 1395 743">% capacity increase proposed</th> </tr> </thead> <tbody> <tr> <td data-bbox="818 743 899 852">1</td> <td data-bbox="899 743 1065 852">Present Proposal – 1st Year</td> <td data-bbox="1065 743 1239 852">3.30 MTPA</td> <td data-bbox="1239 743 1395 852">20% increase</td> </tr> <tr> <td data-bbox="818 852 899 926">2</td> <td data-bbox="899 852 1065 926">2nd Phase – 2nd Year</td> <td data-bbox="1065 852 1239 926">3.85 MTPA</td> <td data-bbox="1239 852 1395 926">20% increase</td> </tr> <tr> <td data-bbox="818 926 899 1041">3</td> <td data-bbox="899 926 1065 1041">3rd Phase – 3rd Year</td> <td data-bbox="1065 926 1239 1041">4.125 MTPA</td> <td data-bbox="1239 926 1395 1041">10% increase</td> </tr> </tbody> </table> | S. No. | Particular | Proposed Production | % capacity increase proposed | 1 | Present Proposal – 1 st Year | 3.30 MTPA | 20% increase | 2 | 2 nd Phase – 2 nd Year | 3.85 MTPA | 20% increase | 3 | 3 rd Phase – 3 rd Year | 4.125 MTPA | 10% increase |
| S. No. | Particular | Proposed Production | % capacity increase proposed | | | | | | | | | | | | | | | |
| 1 | Present Proposal – 1 st Year | 3.30 MTPA | 20% increase | | | | | | | | | | | | | | | |
| 2 | 2 nd Phase – 2 nd Year | 3.85 MTPA | 20% increase | | | | | | | | | | | | | | | |
| 3 | 3 rd Phase – 3 rd Year | 4.125 MTPA | 10% increase | | | | | | | | | | | | | | | |
| 5. | Predicted environmental quality parameters arising out of proposed modernization/Expansion shall be within the prescribed norms and the same shall be maintained as per prescribed norms. | <p>Baseline data has been collected for the mine from October 2023 to December, 2023 for impact prediction. Environmental quality parameters arising out of proposed expansion are predicted to be within the prescribed norms with control measures. Control measures will continue to be operated and augmented to maintain environmental quality parameters as per prescribed norms.</p> <p>Prediction of PM₁₀, PM_{2.5}, SO₂ and NO₂ in the surrounding is carried out (for 24 hours' average) with the help of AERMOD Software (v16216r of USEPA), based on Gaussian Plume equation. The predicted value of total GLC with control measures was found to be following:</p> <p>Buffer Zone PM₁₀ = 98.64 µg/m³ PM_{2.5} = 59.36 µg/m³ SO₂ = 35.02 µg/m³ NO_x = 39.08 µg/m³</p> <p>Core Zone PM₁₀ = 191.77 µg/m³</p> | | | | | | | | | | | | | | | | |

| S. No. | Criteria | Status |
|--------|--|--|
| | | PM _{2.5} = 84.96 µg/m ³ SO ₂ = 33.82 µg/m ³ NO _x = 51.96 µg/m ³ |
| 6. | The proposed expansion shall not result in reduction in greenbelt area as stipulated in the earlier EC, or if the existing ratio of green belt is more than 33%, after expansion it should not reduce below 33%. | The proposed expansion will not result in reduction in greenbelt area below 33% due to expansion. Plantation in 829.19 ha land is proposed in Phase-I of the proposal. This is 49.37% of the project area of Phase-I. Thus plantation will not reduce below 33% due to expansion. |
| 7. | The project proponent should have satisfactorily complied the conditions stipulated in the existing EC(s) and satisfactorily fulfilled all the commitments made during the earlier public hearing / consultation proceedings and also commitments given while granting previous expansion, as may be applicable. This shall be duly recorded in the certified compliance report issued by the IRO, CPCB/SPCB, which should not be more than one year old at the time of submission of application. | The Certified Compliance Report (CCR) for existing Environmental Clearance dated 01.01.2021 has been obtained from Integrated Regional Office, MoEF&CC, Nagpur vide letter F. No. EC-1016/RON/2019-NGP/12614 dated dated 11.12.2023. Field visit for ascertaining status of compliance of EC conditions was made from IRO, MoEF&CC, Nagpur on 28.11.2023. Only three condition was observed partially complied and no non-compliance recorded for Amalgamated Yekona I & II OC Mine (Phase-I) out of the total 94 conditions by IRO, MoEF&CC. The ATR for the 3 nos of partially complied conditions was submitted to Regional Office, MoEF&CC, Nagpur vide WCL letter dated 28.01.2024. W.r.t commitment made during earlier public hearing, it is submitted that public hearing was completed on 14.06.2019 for 2.75 MTPA. |
| 8. | Public consultation shall be undertaken [if applicable as per table below] by obtaining response in writing as per para 7 III (ii) (b) of EIA notification 2006, except for those category of projects which have been exempted as per para 7 III (i) of EIA notification 2006 and its amendments. | The public hearing has been successfully completed for production capacity of 2.75 MTPA on 14.06.2019 and based on public hearing EC was issued on 01.01.2021 for 2.75 MTPA. As per the table given in the OM, 11.04.2022, the project is in scenario-II. In Scenario-II (upto 20% expansion), the fresh public consultation is not required. |
| 9. | Effluent monitoring including air quality monitoring systems | Continuous Ambient Air Quality Monitoring Station (CAAQMS) as specified in the |

| S. No. | Criteria | Status |
|--------|---|--|
| | as specified in the existing EC, if stipulated, should have been installed. | existing EC, have been installed within the core of the project. The effluent generated due to vehicle washing is reused in the process after treatment in ETP. No effluent is discharged outside. Only excess mine water is discharged outside the mine premises after passing through the sedimentation tank. Further as mentioned in Existing EC regular environmental monitoring is also being carried out for ambient air quality and effluent monitoring. |

Observation and deliberation of the EAC:

14.3.21: Committee after deliberations noted the following:

The Committee noted the following:

- i. M/s Western Coalfields Limited is running a coal mine namely Yekona I & II OC (Phase-I) with a capacity 2.75 MTPA over a lease area of 1679.39 ha at Village Yekona, Tehsil – Warora, District-, Chandrapur, Maharashtra.
- ii. Yekona – I OC was originally accorded EC on 17/10/2006 for coal production of 0.40 MTPA over an lease area of 265.50 ha. Yekona-II OC was accorded EC on 17/10/2006 for coal production of 0.60 MTPA over an lease area of 414.56 ha. Thereafter, EC for amalgamated Yekona – I OC& Yekona – II OC was accorded on 1/1/2021 for coal production of 2.75 MTPA over an lease area of 1679.3 ha.
- iii. The above ECs have been implemented by the proponent and they have achieved the production of 2.745 MTPA during 2022-23 and 2024-25.
- iv. MoEF&CC has issued an OM on 11/04/2022 to facilitate all applications seeking prior-EC for modernization/ expansion with increase in production capacity up to 50% within the existing premises/ mine lease area, without any additional land acquisition. Through this OM, Ministry has provided guidelines for availing expansion up to 50% of the original EC capacity without Public Hearing in two stages (0-20% & 20-40%). Public Consultation (written comments) shall be required for third stage i.e., 40-50% expansion.
- v. Instant proposal under consideration is Expansion of Amalgamated Yekona I & II OC (Phase-I) from 2.75 MTPA to 3.30 MTPA within project area of 1679.39 ha under para 7(ii) of EIA, 2006 as per MoEF&CC OM dated 11/04/2022 for 20% expansion.
- vi. As per the certified compliance report of the Regional Office on the existing EC dated 1/1/2021, partial compliance has been reported with respect to a) The work of railway siding was supposed to be completed by Dec, 2023. As of now, PP has completed only 10 % of railway siding work. b) Toe wall of atleast 15 mts to 20 mts height along the OB dump to protect Yekona village has not been constructed and c) PP has planted

only 1,20,000 tree saplings in place of 1,50,000. In this regard, PP informed that with respect to a) and b) they have already obtained amendment in EC from MoEF&CC on 15/03/2024. With respect to c), the compliance is under progress.

- vii. As per specific condition (vi) of the EC dated 1/1/2021, Rs. 45.35 crores is earmarked for CER activities shall be considered as part of EMP which shall be accomplished within a period of 5 years. With respect to the compliance of the same, Regional office has reported that PP has incurred Rs. 3.7 crores only towards CER. In view of this, it is noted that PP is yet to fully comply with this condition.
- viii. There are 12 Schedule-I species reported in study area. Wildlife conservation plan has been prepared now only and the same has been forwarded by CCF (wildlife) to PCCF (wildlife) for approval. Provision of 163.50 Lakhs has been made in the wildlife conservation plan. Although EC has been accorded way back in 2006, the wildlife conservation plan has not implemented even after the lapse of 18 years by the project proponent.
- ix. NOC renewal for abstraction of groundwater of 4624 KLD is yet to be obtained after 18/11/2021 and is reported to be under consideration with CGWA.
- x. Serious discrepancies with respect to action taken report on the partial compliances reported by Regional Office, utilization of 48 ha land located outside the lease area etc., have been observed on the presentation exhibited before the EAC during the meeting as the same was different from brief note/presentation sent to the EAC members and Ministry by email on 24/07/2024. CMPDIL consultant engaged by the proponent has been making such glaring mistakes many times in the past also in spite of repeated advise by EAC members. This leads to wastage of time and delays the project / appraisal approval process. The EAC is of the well-considered opinion that the consultant should be issued a show cause notice by Ministry as to why action should not be initiated against them.
- xi. As per the provisions contained under the Ministry's OM dated 11/04/2022, expansion under para 7(ii) can be accorded for the proposals only wherein the project proponent should have satisfactorily complied the conditions stipulated in the existing EC(s) and satisfactorily fulfilled all the commitments made during the earlier public hearing / consultation proceedings and also commitments given while granting previous expansion. In the instant proposal, PP is yet to implement the wild life conservation plan, not fully complied with the plantation programme as well as the implementation of CER activities as mentioned above.

Recommendations of the Committee

- 14.3.22: In view of the foregoing and after detailed deliberations, the EAC *deferred* the proposal cited above and sought for following additional information for further consideration of the proposal.
- i. Wildlife Conservation Plan duly approved by the Chief Wildlife Warden along with the action plan for implementation of the same.
 - ii. NOC Renewal status of ground water approval from CGWA along with the requisite supporting document.

- iii. Certified compliance status by Regional Office on the three partial compliances reported by them based on the ATR of the project proponent.
- iv. Time bound action plan for green belt development shall be submitted.
- v. As per specific condition (vi) of the EC dated 1/1/2021, Rs. 45.35 crores is earmarked for CER activities shall be considered as part of EMP which shall be accomplished within a period of 5 years whereas PP has incurred only Rs. 3.7 crores. Clarification in this regard shall be submitted by the project proponent.

In addition to the above, the EAC also recommended the Ministry to issue a show cause notice to CMPDIL as to why action should not be initiated against it for making such glaring mistakes in the proposals submitted before the EAC in spite of repeated advice by EAC members.

Agenda No 14.4

14.4: Proposal for grant of Terms of Reference (ToR) to Amrapali Opencast Coal Mining Project for increase in capacity from 24.19 MTPA to 28 MTPA and increase in lease area from 619.87 Ha to 1298.98 Ha by M/s. Central Coalfields Limited located at Villages – Binglal, Honhi, Kumarang, Khurd, Ursu, Sub district – Tandwa, District – Chatra, State – Jharkhand – Terms of Reference – reg.

[Proposal No. IA/CG/CMIN/486002/2024; File No. J-11015/109/2003-IA-II(M); Consultant: CMPDIL; NABET/EIA/22-25/SA0223 valid till 08/04/2025]

14.4.1: M/s. Central Coalfields Limited has made an online application for ToR vide proposal no. IA/JH/CMIN/486002/2024 dated 18.07.2024 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at item no 1(a) Under Category “A” (> 500 Ha) of the schedule of the EIA Notification, 2006 and appraised at the Central Level.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussion held during the meeting, are given as under:

14.4.2: Environmental site settings:

The core and buffer zone of project is covered by Survey of India Topo Sheet No. F45A13 and F45B1 and is bounded by co-ordinates 84° 58' 34.74’’ E to 85° 01' 59.16.36’’ E and 23° 51' 49.99’’ N to 23° 53' 53.12’’ N. Project does not fall in the Critically Polluted Area (CPA)/Severely Polluted Area (SPA) as per CEPI Assessment, 2018.

Forest Area: The project involves total 963.23 Ha of forest land the details of the approval already obtained are as follows:

| SN | Obtained via letter no and date | Area in Ha | Stage I/II | Validity |
|----|--|------------|------------|------------------------------|
| 01 | F.No 8-48/2008-FC dated 12/10/2010 | 531.64 | Stage-II | 30 Years |
| 02 | F.No 8-48/2008-FC-(Vol) dated 21/12/2023 | 431.59 | Stage-I | Stage-II FC is under process |

| | | | |
|--------------|---------------|--|--|
| Total | 963.23 | | |
|--------------|---------------|--|--|

Forest area in the existing mine lease area is 531.64 Ha, and in the proposed expansion, additional forest area proposed is 431.59 Ha. Hence, the total forest area after proposed expansion is 963.23 Ha.

Protected Area: PP submitted that the project is not located within 10 KM of any ESZ/ ESA national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. However, there are 2 ESZs at the distance of 23 Km and 20 KM namely Hazaribagh and Lawalong respectively. Detailed site-specific wildlife conservation plan has been prepared with an estimated cost of 5265.51 Lakhs which has been approved by PCCF/CWLW, Jharkhand vide office order no: 27 dated 22.03.2024.

14.4.3: **Mine lease:** Details of the mine lease submitted by the PP are as follows:

| S. No | Govt. Order/Notifications as the case may be | Area(ha) |
|-------|--|-------------|
| 1. | Publication under Section 9 of CBA vide SO no 1381 dt. 06.05.2003 | 1298.98 Ha. |
| 2 | Notification under Section 11 of CBA vide SO no. 2010 Dt. 12.08.2004 | 1298.98 Ha. |

14.4.4: **Previous approvals:** PP submitted the details of previous approvals in the chronological order as follows:

| S.No. | Details of Letter No. | EC/ Expansion EC/ Amendment in EC/ Validity extension/ Transfer of EC | Capacity (MTPA) | Area (MTPA) | Date of issuance |
|-------|---------------------------|--|-----------------|-------------|------------------|
| 1 | J-11015/109/2003-IA.II(M) | EC | 12 MTPA | 1426.08 Ha. | 03.01.2006 |
| 2 | J-11015/109/2003-IA (M) | EC Revalidation | 12 MTPA | 619.87 Ha. | 28.02.2020 |
| 3 | J-11015/109/2003-IA.II(M) | Expansion under 7(ii) | 14.40 MTPA | 619.87 Ha | 20.03.2020 |
| 4 | J-11015/109/2003-IA (M) | Expansion | 20.16 MTPA | 619.87 Ha. | 10.05.2021 |
| 5 | J-11015/109/2003-IA.II(M) | EC Amendment (Timeline extension for Pit head CHP/railway siding up to Jan 2025) | 20.16 MTPA | 619.87 Ha. | 12.05.2023 |
| 6 | J-11015/109/2003-IA.II(M) | Expansion under 7(ii) | 24.19 MTPA | 619.87 Ha. | 05.02.2024 |

W.r.t the previous approvals, PP submitted the actual production details of the concerned mine and submitted that the mine became operational from 2013 onwards. Details of the same are as follows:

| Year | Actual Coal Production in Mte | Planned Coal production in Mte. as per Environmental Clearance | Excess Production |
|---------|-------------------------------|--|-------------------|
| 2013-14 | 0.00 | 12.00 | Nil |
| 2014-15 | 2.55 | 12.00 | Nil |
| 2015-16 | 4.79 | 12.00 | Nil |
| 2016-17 | 6.23 | 12.00 | Nil |
| 2017-18 | 6.50 | 12.00 | Nil |
| 2018-19 | 10.2 | 12.00 | Nil |
| 2019-20 | 12.79 | 14.40 | Nil |
| 2020-21 | 14.40 | 14.40 | Nil |
| 2021-22 | 16.59 | 20.16 | Nil |
| 2022-23 | 18.00 | 20.16 | Nil |
| 2023-24 | 22.58 | 24.19 | Nil |

14.4.5: **Mining Plan:** PP submitted that Mining Plan along with mine closure plan for Expansion of Amrapali Opencast Project was approved by competent authority (i.e. CCL Board) for 28.00 MTPA within 1298.98 ha area in its 540th meeting held on 31.05.2024 and communicated vide resolution no. CS/ BM/540/2024/206 dated 20.06.2024.

- i. PP submitted that it is an opencast coal-mining project and it is not an integrated project.
- ii. Method of Mining to be adopted shall be Opencast. The Capacity of the mine applied for peak capacity as per approved mining plan is 28 MTPA.
- iii. Excavation of Coal is through Surface Miner – FE Loader-Dumper/ shovel-dumper combination. The waste/OB handling is with shovel/dumper combination.
- iv. Total geological reserve reported in the geological blocks is 689.91 MT. As on 01.04.2024 114.59 Mte of reserves have been extracted. The balance mineable reserves as on 01.04.2024 for the present proposal within the project area of 1298.98 Ha. as per the approved mine plan are 191.99 M.Te Percent of extraction is 100%.
- v. 8 no. of coal seams with thickness ranging from 1 m – 20 m are workable. Declared Grade of coal is G11 stripping ratio 1.97, while gradient is 50 to 100.
- vi. Balance life of mine is 07 years as per approved mining plan.
- vii. The project has 01 external OB dumps in an area of 89.16 ha with maximum 90 m

height (+560 R.L.) and internal OB in an area of 616.17 Ha having maximum height of 60-80 m (+560 R.L) with 377.89 Mm³ of OB is envisaged in the project.

viii. Total quarry area is 880.25 ha out of which backfilling will be done in 616.17 ha while final mine void will be created in an area of 264.08 ha with a depth of 150m. 616.17 ha of Backfilled quarry area of shall be reclaimed with plantation. Final mine void will be used for further dumping in the future expansion as per approved Expansion Project Report of Amrapali OCP.

ix. Details of Land usage:

a. Pre-mining

| S. No. | Parameter | Within ML Area in Ha. | Outside ML Area in Ha. |
|--------|-----------------------------|-----------------------|------------------------|
| 1 | Forest land | 963.23 | 0 |
| 2 | Waste Land | 83.27 | 0 |
| 3 | Water bodies | 27.05 | 0 |
| 4 | Others including settlement | 225.42 | 0 |
| | Total Area in Ha. | 1298.98 | 0 |

b. Post Mining Land Use

| S. No. | Particulars | Area in Ha. | Reclaimed Area | Un-Reclaimed Area |
|--------|--------------------------|----------------|----------------|-------------------|
| 1 | Quarry Area | 880.25 | 616.17 | 264.08 |
| 2 | External Dump | 89.16 | 89.16 | - |
| 3 | Green belt & Safety Zone | 122.33 | 122.33 | - |
| 4 | Infrastructure | 47.35 | - | 47.35 |
| 5 | Stream Diversion | 4.68 | - | 4.68 |
| 6 | Embankment | 20.22 | - | 20.22 |
| 7 | Roads | 28.47 | - | 28.47 |
| 8 | Undisturbed Land | 106.52 | - | 106.52 |
| | Total Area in Ha. | 1298.98 | 827.66 | 471.32 |

x. Details of transportation of Coal

| S.No | Parameter | Details of Existing Transportation |
|------|-------------------|--|
| 1. | In pit | Dumpers |
| 2. | Surface to siding | Tipping Trucks to multiple railway sidings |

| S.No | Parameter | Details of Existing Transportation |
|------|--|---|
| | | on Tori-shivpur line |
| 3. | Siding to loading | Mechanical loading (Pay loaders) |
| 4. | Quantity being transported by Road/Rail/conveyer/ropeway | 24.19 MTPA (as per the Existing EC) |
| 5. | Proposed change in transportation means if any, give details | <p>The work of construction of Amrapali Railway Siding was awarded to M/s RITES Ltd on 22.05.2017. The total land required for Railway Siding & Railway Line is 160.10 Ha, of which 120.61 Ha land is forest land (~75%). Stage-I Forest Clearance (FC) for this Forest Land was issued on 17.01.2024.</p> <p>Similarly, for the construction of CHP, the first work-order was awarded to M/s Larsen & Toubro Limited on 31.12.2020. The proposed land for construction of CHP falls within the Forest Land of 431.59 Ha. Due to delays in the obtaining Forest Clearance, the contract had to be cancelled.</p> <p>Stage-I FC of 431.59 Ha was granted on 21.12.2023, and a fresh Work-Order for construction of CHP has been awarded M/s S.K. Samanta & Co. Pvt. Ltd on 07.02.2024.</p> <p>However, since Stage-II FC for both Railway Siding and CHP is still under progress, construction work could only proceed over non-forest and railway land.</p> <p>As of now, the physical progress against the on-going contract of Railway Siding is 20% and it is accordingly it is expected to be completed by December-2026.</p> |

- xi. According to Progressive Mining Closure Plan the Status of implementation of progressive mine is that out of total excavated area is 277 Ha, the area backfilled after excavation is 170 Ha, the total area reclaimed is 17 Ha. PP submitted that there is no deviation from the approved PMCP.
- xii. There are 5 villages within the project area namely Honhe, Kumrang Khurd, Kumrang Kalan, Binglat, Ursu. Out of these, habitation of all villages will be shifted in due course of mining according to R&R Policy. Total no. of Project Affected Families is 1800.
- xiii. Afforestation shall be done progressively covering an area of 827.66 ha comprising of

89.16 ha of external dump and 616.17 Ha of backfilled area. In addition to this, an area of 122.33 ha, included in the safety zone/rationalization area, has also been proposed for green belt development. Density of 2500 Plants per hectare plantation will be maintained. Final void of 264.08 ha of depth 150 m will be further used for backfilling in the future expansion as per the EPR of Amrapali OCP.

- 14.4.6: **Baseline Studies:** Baseline data generated from **1st March to 31st May 2024**. PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data, etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation with conformance of ISO 17025:2005 vide no. TC-7470 valid upto 15.12.2025. Final reports of baseline data generation is under preparation.
- 14.4.7: **Water requirement:** PP submitted the estimated water requirement is 4470 m³/day. There will be sources of water used, namely, surface water, ground water and mine seepage water. PP has obtained NOC from CGWA for groundwater abstraction for the said mine vide letter no. CGWA/NOC/MIN /REN/1/2024 /9549 dated 24.05.2024 and valid up to 04.02.2025. PP also submitted that there is diversion of Dudhmatia stream flowing within the project boundary.
- 14.4.8: **Solid and hazardous Waste generation:** The details of solid and hazardous waste generation along with its mode of treatment/disposal submitted by the PP is furnished as below:

| Name of the Waste | Source | Qty (TPA) | Mode of Disposal | Mode of Transport |
|-------------------------------------|--|-----------|---|-------------------|
| Municipal Solid Waste | Colony, Office and R&R Site | 1140 | Bio-degradable wastes to be treated within the boundary. Inorganic wastes to be handed to authorized agencies/local body for recycle, re-use, recovery and disposal | Road |
| Used Oil & Lubricants | HEMM/ Machineries & ETP | 35 | Sold to the authorized recyclers through Registered Agencies | Road |
| IT equipment, electronic parts etc. | Laptops/Desktops/ Servers/Printers /Electronics equipment etc. | 1.5 | Through Registered Agencies | Road |
| Batteries waste | Weighbridge, Check post, DG Set, Pump, UPS etc | 3 | Returned to OEM/Supplier | Road |

Construction and Demolition Waste details submitted by the PP is furnished as below:

| Source | No | Built-up Area (Sq Meter) | Qty (TPA) | Mode of Disposal | Mode of Transport |
|--------------------|------|--------------------------|-----------|--|-------------------|
| Houses, Shelter of | 1260 | 1,16,000 | 6,857 | Will be utilized in road levelling, Land | Road |

| | | | | | |
|-------------------|--|--|--|-------------------------------|--|
| Village Habitants | | | | filling and construction work | |
|-------------------|--|--|--|-------------------------------|--|

- 14.4.9: **R&R Plan:** PP submitted that there are 5 villages within the project area namely Honhe, Kumrang Khurd, Kumrang Kalan, Binglat, Ursu. Out of these, habitation of all villages will be shifted in due course of mining according to R&R Policy. Total no. of Project Affected Families is 1800. Out of these 1800 PAFs, 400 PAFs are part of existing lease area and the rest 1400 PAFs are part of expansion.
- 14.4.10: **Project Cost:**PP submitted the estimated project cost to be Rs. 5136.15 Crores.
- 14.4.11: **Legal Issues/ Violation:** PP submitted that there are 2 litigations pending on the project at NGT (regarding expansion under Ministry’s OM dated 15.09.2017) and Jharkhand High Court (regarding excess transportation capacity, execution of contract and transportation by road beyond the timeline as mentioned in EC) respectively. However, another litigation, which was pending at NGT, has been disposed of.
- 14.4.12: **Undertaking/ Affidavit:** PP has submitted an undertaking that the proposal is being submitted to MoEF&CC as ‘A’ Category project for issuance of Fresh ToR for Expansion of Amrapali Opencast Coal Mine and the mining is being done at the site without any deviation as per previous EC obtained. The land was acquired under section 11 of CBA Act and there are 5 revenue villages within the lease area for which R&R is being carried out in due course of mining as per R&R Policy. That there is no difference in documents submitted and presentation being made to the EAC. The details of litigation on the project are as per Form – 1.
- 14.4.13: **Written submission:**
The project proponent made following written submissions:
- i. Carryout the plantation of about 1,00,000 saplings during 2024-25 exclusively for Amrapalli OCP.

Observations and deliberations of the EAC

- 14.4.14: The Committee noted the following:
- i. Proposal is for grant of Terms of Reference (ToR) to Amrapali Opencast Coal Mining Project for increase in capacity from 24.19 MTPA to 28 MTPA and increase in lease area from 619.87 Ha to 1298.98 Ha by M/s. Central Coalfields Limited located at Villages – Binglat, Honhi, Kumarang, Khurd, Ursu, Sub district – Tandwa, District – Chatra, State – Jharkhand.
 - ii. Proposal is a brown-field project. Existing project was accorded EC on 03.01.2006, 28.02.2020, 20.03.2020, 10.05.2021 and 05.02.2024. As per the said ECs, the total mine lease area is 619.87 ha with a capacity of 24.19 MTPA. Project has been implemented and is under operation.
 - iii. Total mine lease area is 1298.98 ha. Project does not fall in the Critically Polluted Area (CPA)/Severely Polluted Area (SPA) as per CEPI Assessment, 2018. Out of 1298.98 ha, total forest area involvement is 963.23 ha (Stage II FC already obtained for 531.64 ha and Stage I FC already obtained for 431.59 ha). Forest area in the existing mine lease area is

531.64 Ha, and in the proposed expansion, additional forest area proposed is 431.59 Ha. Hence, the total forest area after proposed expansion is 963.23 Ha.

- iv. Project is not located within 10 KM of any ESZ/ ESA national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc.
- v. Mining Plan along with mine closure plan for Expansion of Amrapali Opencast Project was approved by competent authority (i.e. CCL Board) for 28.00 MTPA within 1298.98 ha area in its 540th meeting held on 31.05.2024 and communicated vide resolution no. CS/BM/540/2024/206 dated 20.06.2024.
- vi. Method of mining shall be Opencast. The Capacity of the mine applied for peak capacity as per approved mining plan is 28 MTPA. Balance life of mine is 07 years as per approved mining plan.
- vii. Total geological reserve reported in the geological blocks is 689.91 MT. As on 01.04.2024 114.59 MT of reserves have been extracted. The balance mineable reserves as on 01.04.2024 for the present proposal within the project area of 1298.98 Ha. as per the approved mine plan are 191.99 MT. Percentage of extraction is 100%.
- viii. There are 5 villages within the project area namely Honhe, Kumrang Khurd, KumrangKalan, Binglat, Ursu. Out of these, habitation of all villages will be shifted in due course of mining according to R&R Policy. Total no. of Project Affected Families is 1800.
- ix. Afforestation shall be done progressively covering an area of 827.66 ha comprising of 89.16 ha of external dump and 616.17 Ha of backfilled area. In addition to this, an area of 122.33 ha, included in the safety zone/rationalization area, has also been proposed for green-belt development. Density of 2500 Plants per hectare plantation will be maintained. Final void of 264.08 ha of depth 150 m will be further used for backfilling in the future expansion as per the EPR of Amrapali OCP.
- x. There are 5 villages within the project area namely Honhe, Kumrang Khurd, Kumrang Kalan, Binglat, Ursu. Out of these, habitation of all villages will be shifted in due course of mining according to R&R Policy. Total no. of Project Affected Families is 1800.
- xi. Proposal involves diversion of Dudhmatia stream flowing within the project boundary.
- xii. Afforestation shall be done progressively covering an area of 827.66 ha comprising of 89.16 ha of external dump and 616.17 Ha of backfilled area. In addition to this, an area of 122.33 ha, included in the safety zone/rationalization area, has also been proposed for green belt development. Density of 2500 Plants per hectare plantation will be maintained. Final void of 264.08 ha of depth 150 m will be further used for backfilling in the future expansion as per the EPR of Amrapali OCP.
- xiii. Water requirement is 4470 m³/day and the same will be met from surface water, ground water and mine seepage water.
- xiv. Estimated project cost to be Rs. 5136.15 Crores.
- xv. 2 litigations pending on the project at NGT (regarding expansion under Ministry's OM dated 15.09.2017) and Jharkhand High Court (regarding excess transportation capacity, execution of contract and transportation by road beyond the timeline as mentioned in EC) respectively. However, another litigation, which was pending at NGT, has been disposed of.

14.4.15: **Recommendations of the Committee:**

EAC after detailed deliberations, under the provision of EIA Notification 2006 and as amended, **recommended** the proposal for grant of Terms of Reference (ToR), as applicable to the project, with Public Consultation (Public Hearing and Written submission) and following Specific ToR to M/s Central Coalfields Limited in addition to generic ToR given at Annexure –II for open case mines for preparation of EIA/EMP report for Amrapali Opencast Coal Mining Project for increase in capacity from 24.19 MTPA to 28 MTPA and increase in lease area from 619.87 Ha to 1298.98 Ha located at Villages – Binglal, Honhi, Kumarang, Khurd, Ursu, Sub district – Tandwa, District – Chatra, State – Jharkhand.

Specific ToRs:

- i. Project proponent has to prepare the EIA-EMP report based on the valid baseline data and thereafter conduct the Public Consultation (including public hearing), through concerned SPCB in the concerned Districts as per the provisions/procedure contained in the EIA Notification, 2006 (as amended) and OM issued by the MoEF&CC in this regard.
- ii. Project Proponent shall submit the detailed activities proposed with year-wise budgetary provisions (Capital and recurring) as per the Ministry's OM dated 30.09.2020, to address the concerns raised during the Public consultation including the public hearing. Activities proposed shall be part of the EMP.
- iii. Project proponent shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.
- iv. Project proponent shall submit complete compliance with EC conditions certified by Regional office of the Ministry.
- v. Project proponent has to Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modelling.
- vi. Impact of underground mining on the environment including underground mine air quality needs to be done by a reputed Government institute. The action plan on recommendation of study with budgetary provision needs to be submitted.
- vii. As the project involves groundwater intersection a Hydrological study shall be carried out by reputed Government Institute. Further, PP shall comply with the Ministry's OM dated 23.05.2019 and provide necessary details/studies in the EIA/EMP Report.
- viii. Project proponent shall submit the drone video & photographs of mined area, fresh lease area to be mined and existing and proposed transportation route. The height and speed of the drone shall be so maintained to give legible images/videos. Necessary titles should be included for better understanding.
- ix. Project proponent should submit the detailed plan in tabular format (year-wise for life of mine) for concurrent afforestation and green belt development in three tiers by using the native species in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for

survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided.

- x. Project proponent should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.
- xi. Pond rejuvenation plan and plan for water recharge in the surrounding areas needs to be prepared. The capital and recurring expenditure to be incurred needs to be submitted.
- xii. Project proponent should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged under Environment Management Cell for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- xiii. Project proponent should clearly bring out that what is the specific diesel consumption ~ (Litres/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. The year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility and submit strategy of using e-vehicles/cleaner fuel (LNG/CNG) based mining machinery and trucks for mining operations and transportation of men and material and submit a time bound action plan.
- xiv. Project proponent should clearly show the transport route of the mineral and protection and mitigative measures to be adopted while transporting of the mineral. The impact from the centre line of the road/conveyor on either side should be brought out clearly. Based on the above study the compensation to be paid in the event of damage to the crop and land on either side of the road/conveyor needs to be mentioned.
- xv. All the certificates viz. Involvement of Forest land, distance from the protected area, and list of flora & fauna should be duly authenticated by the Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.
- xvi. Analyse biodiversity of the surrounding area and prepare wildlife management plan for the surrounding area.
- xvii. Project proponent shall submit the action plan to adhere to the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.
- xviii. Project proponent shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of the Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs.
- xix. It should be ensured that only NABET-accredited consultants shall be engaged for the

preparation of EIA/EMP Reports. PP shall ensure that the accreditation of the consultant is valid during the collection of baseline data, preparation of EIA/EMP report and the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and the PP and consultant are fully accountable for the same.

- xx. Project proponent shall submit the photographs of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyse the samples.
- xxi. A Social Impact Assessment Study shall also be carried out and an action plan on its recommendations may also be submitted with budgetary provisions.
- xxii. Details of solar power facility proposed to be installed as energy conservation measures shall be submitted.
- xxiii. Project proponent shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero emission by 2050. PP shall update the same to the EAC.
- xxiv. Project proponent should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.
- xxv. The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
- xxvi. Project proponent shall submit the applications for obtaining NOC for the diversion of Road/River/Nallah/Electric lines passing through the block area to the concerned authority and details shall be provided in EIA Report. No diversion of River/nallah permitted at this stage.
- xxvii. Project proponent shall also submit an action plan pursuant to MoEF&CC OM dated 29.10.2014.
- xxviii. A detailed Wild Life Conservation/Management plan for Schedule 1 species shall be prepared for the conservation of the species. PP shall ensure that a conservation plan shall be prepared and approved by the CWLW. PP shall obtain the authenticated list of schedule-1 species from the concerned department.
- xxix. Project proponent shall provide the details of wastewater treatment facilities to be installed within its capacity, timeline and budget. The EIA report should also include details of STP and ETP to be provided for treatment of domestic and industrial waste water.
- xxx. Heavy metals including other parameters in surface water quality shall be analysed and provided in EIA Report.
- xxxi. Project proponent shall assess the environmental impact on the nearby by schools and explore possibility of relocation of the same. A mitigation measures shall be adopted against pollutions around the schools within the lease area in order to safeguard the interest and health of the students. A plan in this regard needs to be submitted.
- xxxii. Project proponent shall provide the action plan for the safety of the local people and their cattle from the mining activities by providing fencing and natural wind barrier between the mine infrastructure and settlements etc. shall be a part of such action plan. PP shall ensure to

MoM of 14th meeting of the EAC for Coal Mining sector held on 5-7th August, 2024

provide right of way to local people and EMP should have provision for the same.

- xxxiii. Project proponent shall submit time bound action plan to reduce the post-mining void and submit the rejuvenation plan for the ponds within/surrounding the lease area so that it can be used by local people.
- xxxiv. No dumping outside mining lease (ML) area.
- xxxv. Project proponent shall provide the details of the bore wells in the mine lease area and compensation to be paid in case bore wells fails in future due to mining activities.
- xxxvi. Project proponent shall provide the details of the facilities to be provided to mine workers.
- xxxvii. Project proponent shall submit a plan for skill development of the Project affected family (PAF) and nearby community so that they are capable enough to get employment/self-employed.
- xxxviii. Project proponent shall explore use of porta- magazine for explosives.
- xxxix. Project proponent shall prepare disaster management plan considering the risk involved in the proposed mines.
 - xl. 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.

Agenda No. 14.5

14.5: Proposal for amendment in Environment Clearance (EC) of Parsa East and Kanta Basan Pit Head Coal Washery (area 2682.856 Ha having capacity 18 MTPA) by M/s Rajasthan Rajya Vidyut Utpadan Nigam Limited located in villages – Ghatbarra, Salhi, Kedmaforest, Kete, Mahadevpara, Parsa, Hariharpur, district – Surguja, State – Chhattisgarh– Amendment in EC – reg.

[Online Proposal No. IA/CG/CMIN/470630/2024; File No. J-11015/03/2008-IA-II(M)]
[Consultant: Vardan Environet LLP;NABET/EIA/2326/RA0284 valid up to 04/05/2026]

14.5.1: The Proposal is for amendment in Environment Clearance granted to M/s. Rajasthan Rajya Vidyut Utpadan Nigam Limited vide letter no. J-11015/03/2008-IA.II (M) dated 12.07.2023 and 14.02.2022 granted to Integrated project of Parsa East and Kanta Basan Pit Head Coal Washery (area 2682.856 Ha having capacity 18 MTPA) located in villages – Ghatbarra, Salhi, Kedmaforest, Kete, Mahadevpara, Parsa, Hariharpur, district – Surguja, state – Chhattisgarh.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussion held during the meeting, are given as under:

14.5.2: The PP has now made an online application vide proposal no. IA/CG/CMIN/470630/2024 Dated 25.04.2024 for amendment of EC Specific condition no. xii of EC dated 12.07.2023

and Specific Condition no. vii of EC dated 14.02.2022. PP has submitted the following amendment along with justification:

| Specific/General Conditions | Details of Conditions | Amendment Sought | Justification |
|--|--|----------------------------|---|
| Specific condition (xii) of EC dated 12.07.2023 for Coal Washery | Raw coal washed coal and rejects shall be stored in covered silos or in dome shaped storage facility. Fixed type-high pressure sprinkle shall be installed in this storage yards." | Exemption of the condition | <ul style="list-style-type: none"> ➤ The Storage area of Washed Coal, and Reject area is spread in approx. 40 Ha. and 42 Ha. respectively. ➤ At present, handling of washed coal is done by 2 number of Stacker and Reclaimer in which the height of boom is 30 meters. ➤ In order to comply with the EC condition and store the coal in a covered silo or dome, a structure of height 30 meter will need to be constructed which is technically unfeasible and not recommended from safety point of view. ➤ The coal has a unique characteristic of Spontaneous Ignition, when it is stored in a closed atmosphere, hence covering the whole coal stock in a silo will lead to spontaneous heating, air pollution etc. hence from safety point of view, proposal of amendment is being sought. ➤ Additionally, the Storage area of Washed coal, and Reject area is spread in approx. 40 Ha. and 42 Ha. Creation of dome in such a large |

| Specific/General Conditions | Details of Conditions | Amendment Sought | Justification |
|-----------------------------|-----------------------|------------------|--|
| | | | <p>area would be very challenging from construction point of view, the structure would be in a large area and therefore would not be stable and hence risky.</p> <p>➤ At present following is the process being adopted at the PEKB mines & washery right from mining of coal & washery to dispatch to end users:</p> <ul style="list-style-type: none"> • ROM Coal of 55000 Tonne/Day from mine is transported to In-pit conveyor at a distance of 0.8 Km to 3.39 Km (average). • ROM Coal is crushed at CHP from 100 mm to size -50 mm. • From CHP the crushed coal is transported to coal washery of 62000Tonne/Day capacity through conveyor belt with different routes of processing plant which is located at a distance of 01 Km. • Washed coal of 42600 Tonne/day is sent to Silo of 4000 Tonne /Hour capacity with the help of 02 Nos. of Stacker - Reclaimer of 4000 TPH capacity and other belt conveyor. • The same quantity of wash coal is loaded in rail wagons. • Reject coal generated as |

| Specific/General Conditions | Details of Conditions | Amendment Sought | Justification |
|--|--|--|--|
| | | | <p>by-product of washery i.e. Jig washery & DMC washery which is 22.5 % (approx. 12400 Tonne/day) of ROM coal fed.</p> <p>The Reject Coal is stacked in Reject yard of 42 Ha. As per the quantity of demand in market, it is shifted to WHARF within mine site and loaded into wagons.</p> |
| <p>Specific condition no. (vii) of EC dated 14.02.2022 for Coal Mine</p> | <p>PP shall construct a multispecialty hospital of 100 beds for local people within 10 km buffer area of coal mine within 2 years of issue of this EC letter. Further, this hospital will accept Pradhan Mantri Jan Arogya Yojana for medical facilities to nearby villagers."</p> | <p>Exemption/amendment of the condition.</p> | <p>The Project Proponent is proposing to get exemption of the EC Condition for the following reasons.</p> <ul style="list-style-type: none"> • Cost of construction of hospital would be around Rs.130 Crores. In addition to this, recurring annual operation and maintenance cost of 100 bed around Rs. +20 Crores will create huge financial burden to RVUN which is beyond the capacity of RVUN. RVUN is currently facing a severe financial crisis which has impacted the ability to meet various financial obligations including pending payment against coal companies and railways. • RVUN is in a challenging position to undertake the construction of 100 bedded hospital. Additional financial burden would be onerous for RVUN. |

| Specific/General Conditions | Details of Conditions | Amendment Sought | Justification |
|-----------------------------|-----------------------|------------------|--|
| | | | <ul style="list-style-type: none"> • RUVN is already spending Rs. 7.48/- per MT of coal at present for CSR as per the EC condition and has already incurred Rs. 5.31 crores over and above the mandated CSR for the year 2022-23. |

Observations and deliberation of the Committee

14.5.3: The EAC noted the following:

- i. MoEF&CC has accorded Environment clearance for the Integrated project Coal mine and Coal Washery project vide letter no. J-11015/03/2008-IA.II (M) dated 21.12.2011 for capacity of 10 MTPA in an area of 2711.034 Ha and corrigendum/amendments were issued vide letters dated 22.06.2012, 04.03.2013, 25.06.2015 & 29.12.2015. Subsequently, EC dated 10.08.2018 was granted for expansion in capacity from 10 MTPA to 15 MTPA with reduction in area to 2682.856 Ha. EC dated 10.08.2018 superseded all earlier granted EC's and its amendments in terms of Condition no. 12 of the said EC. Two amendments dated 24.07.2019 and 23.12.2022 for road transportation.
- ii. Later the Environment clearance was granted for capacity expansion of Parsa East and Kanta Basan Opencast Coal Mine from 15 MTPA to 18 MTPA vide Ministry's letter no. J-11015/03/2008-IA.II (M) dated 14.02.2022 and other EC was granted to Integrated project of Parsa East and Kanta Basan Open Cast Coal Mine with expansion in Pit head Coal Washery from 15 MTPA to 18 MTPA in total mine lease area of 2682.856 ha vide letter dated 12.07.2023.
- iii. The above projects have been implemented and already under operation.
- iv. As per the available records, the EAC noted that in all the existing ECs accorded to the project proponent several conditions have been prescribed by the Ministry with respect to occupational health, epidemiological study and health assessment in the vicinity of the project site. However, now the justification provided by the PP for seeking exemption from construction of 100 bedded hospital prescribed as a specific condition (vii) of the EC dated 14/02/2022 due to financial constraints is not acceptable and the same shall not be agreed upon. Further, PP failed to demonstrate the compliance made by them with respect of prescribed conditions related to the health aspects in the previous ECs.
- v. With respect to amendment sought by the PP Specific condition (xii) of EC dated 12.07.2023 for Coal Washery, PP shall submit separate amendment application through PARIVESH as the instant amendment application for the EC dated 14/02/2022.

14.5.4: **Recommendations of the Committee**

In view of the foregoing and after detailed deliberations, the EAC recommended *not to agree* upon with the request of project proponent regarding exemption from construction of 100 bedded hospital prescribed as justification from environmental health has not been given and further recommended to **return** the proposal in its present form.

DAY-2: 6 AUGUST, 2024 [TUESDAY]

Agenda No. 14.6

14.6: **Datima Underground Coal Mining for production capacity of 0.36 MTPA/0.54 MTPA (Normative/Peak) in the ML area of 807.91 ha by M/s. Shree Cement Limited located at Village Rai in Taluka Bhatgaon, Villages Datima & Kharsura in Taluka Surajpur, Villages Kumda & Laxmanpur in Taluka Latori, District Surajpur, Chhattisgarh - Amendment in Terms of Reference- regarding.**

[Proposal No. IA/CG/CMIN/473097/2024; File No. IA-J-11015/44/2023-IA-II(M); Consultant: M/s. Min Mec Consultancy Pvt. Ltd.; NABET/EIA/2225/IA 0096 valid up to 29/03/2025]

14.6.1: M/s. Shree Cement Limited has made an online application vide proposal no. IA/CG/CMIN/473097/2024 dated 18.05.2024 along with the application in prescribed format - Form 3 (CAF, Form – I Part A & B) and revised PFR and sought for amendment in Terms of Reference accorded by the Ministry vide File No. IA-J-11015/44/2023-IA-II(M) dated 29/01/2024.

14.6.2: Name of the EIA consultant: M/s. Min Mec Consultancy Pvt. Ltd NABET/EIA/2225/IA 0096; valid up to 29.03.2025.

Details submitted by Project proponent

14.6.3: M/s. Shree Cement Limited had initially applied for Terms of Reference vide Proposal No. IA/CG/CMIN/454037/2023 dated 06/12/2023 for proposed Datima Underground Coal Mining for production capacity of 0.36 MTPA/0.54 MTPA (Normative/Peak) in the ML area of 807.91 ha of M/s Shree Cement Limited located at village Rai in Taluka Bhatgaon, villages Datima & Kharsura in Taluka Surajpur, villages Kumda & Laxmanpur in Taluka Latori, District Surajpur, Chhattisgarh. Accordingly, ToR was granted by the Ministry vide File No. IA-J-11015/44/2023-IA-II(M) dated 29/01/2024 for undertaking detailed EIA study as per the EIA Notification, 2006.

14.6.4: The instant proposal is for seeking amendment in Terms of Reference accorded by the Ministry vide File No. IA-J-11015/44/2023-IA-II(M) dated 29/01/2024 w.r.t. Sr. no.'s 4(iii) & 5 and Specific condition no.'s 1.1 & 1.4. PP has submitted the following amendment along with justification:

| Ref. in TOR letter dated 29.01.2024 | Description as per Approved ToR | Amendment Sought in ToR | Justification/Remark |
|--|--|---|--|
| <p>Sr. No. 4 Para (iii)</p> | <p>Total mining lease area as per block allotment is ha. 807 ha. The Mining Plan and Mine Closure Plan for Datima Coal Mine has been submitted for approval to Ministry of Coal as on 20.11.2023, same is under process. 245.5 ha of forest land has been reported to be involved in the project. Application for the Forest Clearance in under process.</p> | <p>Total mining lease area as per block allotment is 807.91 ha. The Mining Plan and Mine Closure Plan for Datima Coal Mine has been approved from Ministry of Coal vide letter no. Datima Coal Mine CT/ APP00267/ 2023 dated 08.04.2024. 245.83 ha. forest land is involved in the project. Application for the Forest Clearance in under process.</p> | <p>Typographical error in block allotment area. The mining plan has been approved by MoC.</p> <p>After DGPS survey, there is slight increase in the forest area from 245.5 ha to 245.83 ha.</p> |
| <p>Sr. No.5</p> | <p>“..... Further, the committee also took a note that the Stage-I Forest clearance will be required for 245.5 ha of forest land involved in the ML area. EAC emphasized that 245.5 ha of forest land</p> | <p>“..... Further, the committee also took a note that the Stage-I Forest clearance will be required for 245.83 ha of forest land involved in the ML area. EAC emphasized that 245.83 ha of forest land</p> | <p>After DGPS survey, there is slight increase in the forest area from 245.5 ha to 245.83 ha.</p> |
| <p>Specific Condition: Sl. No. 1.1</p> | <p>PP shall submit Stage-I FC for the Forest land 245.5 ha lying within the ML area of 807.91 ha for non-forestry activity.</p> | <p>PP shall submit Stage-I FC for the Forest land 245.83 ha lying within the ML area of 807.91 ha for non-forestry activity.</p> | <p>After DGPS survey, there is slight increase in the forest area from 245.5 ha to 245.83 ha.</p> |
| <p>Specific Conditions: Sl. No. 1.4</p> | <p>PP shall select the entry to the UG workings 1 Km away from the habitation (such as Forest & Village area) and conduct the site</p> | <p>Considering the situation on the ground, we request for removal of this condition from the ToR.</p> | <ul style="list-style-type: none"> • There is NO area within mine boundary, where mine entry can be located at a distance of 1 km from the habitation as well as from forest area. |

| Ref. in TOR letter dated 29.01.2024 | Description as per Approved ToR | Amendment Sought in ToR | Justification/Remark |
|-------------------------------------|---------------------------------|-------------------------|--|
| | analysis study for the same. | | <ul style="list-style-type: none"> • The location of mine entry point was reviewed and discussed in detail during process of approval of Mining Plan. • MoEF&CC's concern has been addressed by increasing the width of greenbelts (from earlier 5 m to 100 m) around the mine entrances and by relocating some facilities in the infrastructure area. |

14.6.5: It is reported that there is no violation under EIA, 2006/court case/show cause/direction related to the project under consideration.

Deliberation by the Committee

14.6.6: The Committee noted the following:

- i. M/s. Shree Cement Limited had initially applied for Terms of Reference vide Proposal No. IA/CG/CMIN/454037/2023 dated 06/12/2023 for proposed Datima Underground Coal Mining for production capacity of 0.36 MTPA/0.54 MTPA (Normative/Peak) in the ML area of 807.91 ha of M/s Shree Cement Ltd. Located at village Rai in Taluka Bhatgaon, villages Datima & Kharsura in Taluka Surajpur, villages Kumda & Laxmanpur in Taluka Latori, District Surajpur (Chhattisgarh). Accordingly, ToR was granted by the Ministry vide File No. IA-J-11015/44/2023-IA-II(M) dated 29/01/2024 for undertaking detailed EIA study as per the EIA Notification, 2006.
- ii. The instant proposal is for seeking amendment in Terms of Reference accorded by the Ministry vide File No. IA-J-11015/44/2023-IA-II(M) dated 29.01.2024 w.r.t. Sr. no.'s 4(iii) & 5 and Specific condition no.'s 1.1& 1.4 as detailed in para 14.6.4 above.
- iii. The project proponent has reported that the mining plan has been approved by MoC. After DGPS survey, there is slight increase in the forest area from 245.5 ha to 245.83 ha.
- iv. The project proponent has reported that there is no area within mine boundary, where mine entry can be located at a distance of 1 km from the habitation as well as from forest area. The location of mine entry point was reviewed and discussed in detail during process of approval of Mining Plan.
- v. Regarding the Location of mine incline to the UG workings 1 Km away from the habitation, EAC advised the PP to study various sites and expected to present the

environmental details of such sites at time of EC appraisal and to present detailed information at the stage of EC appraisal.

Recommendations of the Committee

14.6.7: After deliberations, the Committee **recommended** the proposal for amendment in ToR granted vide File No. IA-J-11015/44/2023-IA-II(M) dated 29.01.2024 as detailed below along with additional TOR conditions.

| Ref. in TOR letter dated 29.01.2024 | Description as per Approved ToR | Amendment Sought in ToR | Justification/ Remarks |
|---|---|---|--|
| Sr. No. 4 Para (iii) | Total mining lease area as per block allotment is ha. 807 . The Mining Plan and Mine Closure Plan for Datima Coal Mine has been submitted for approval to Ministry of Coal as on 20.11.2023, same is under process. 245.5 ha of forest land has been reported to be involved in the project. Application for the Forest Clearance in under process. | Total mining lease area as per block allotment is 807.91 ha. The Mining Plan and Mine Closure Plan for Datima Coal Mine has been approved from Ministry of Coal vide letter no. Datima Coal Mine CT/ APP00267/ 2023 dated 08.04.2024. 245.83 ha. forest land is involved in the project. Application for the Forest Clearance in under process. | Agreed |
| Sr. No.5 | “..... Further, the committee also took a note that the Stage-I Forest clearance will be required for 245.5 ha of forest land involved in the ML area. EAC emphasized that 245.5 ha of forest land” | “..... Further, the committee also took a note that the Stage-I Forest clearance will be required for 245.83 ha of forest land involved in the ML area. EAC emphasized that 245.83 ha of forest land” | Agreed |
| Specific Condition: Sl. No. 1.1 | PP shall submit Stage-I FC for the Forest land 245.5 ha lying within the ML area of 807.91 ha for non-forestry activity. | PP shall submit Stage-I FC for the Forest land 245.83 ha lying within the ML area of 807.91 ha for non-forestry activity. | Agreed |
| Specific Conditions: Sl. No. 1.4 | PP shall select the entry to the UG workings 1 Km away from the habitation (such as Forest & Village area) and conduct the site analysis study for the same. | Considering the situation on the ground, we request for removal of this condition from the ToR. | Not agreed. The PP was asked to study various sites and expected to present the environmental details of such sites at the |

| Ref. in TOR letter dated 29.01.2024 | Description as per Approved ToR | Amendment Sought in ToR | Justification/ Remarks |
|-------------------------------------|---------------------------------|-------------------------|------------------------|
| | | | stage of EC appraisal. |

Additional TOR conditions

- i. Project proponent shall study various sites and expected to present the environmental details of such sites at time of EC appraisal for change in location of mine incline. with plan for development of 150 mts safety belt along the proposed mine incline
- ii. Project proponent shall submit wildlife management plan after due approval of Chief Wildlife Warden.
- iii. Project proponent shall submit concurrent plantation plan by using native species and in three tiers.
- iv. Project proponent shall submit the action plan for installation of solar power facility.
- v. Project proponent shall submit the action plan for rejuvenation of ponds in surrounding area.
- vi. Project proponent shall submit the action plan for shifting from conventional dumpers/vehicles to e-vehicles/ CNG/LNG.

AgendaNo.14.7

14.7: Proposal for grant of Environment Clearance (EC) for expansion of Tawa – II UG Mine for increase in production capacity from 0.60 MTPA to 0.86 MTPA with ML area of 520.0 ha by M/s. Western Coalfields Limited located at Villages: Hirapalla, Panchayat: Bhogaikhapa,, sub district – Ghoradongri, district – Betul, state – Madhya Pradesh – Reconsideration for grant of Environmental Clearance under para 7(ii) of EIA, 2006 based on ADS reply - reg.

[Online Proposal No. IA/MP/CMIN/417657/2023; File No. J-11015/53/2006-IA.II(M)]
[Consultant: CMPDIL; NABET/EIA/22-25/SA 0223 valid till 08/04/2025]

14.7.1: The Project was granted ToR for expansion of production capacity from 0.6 MTPA to 0.86 MTPA and increase in project area from 520 ha to 523.75 ha. vide letter no. J-11015/53/2006-IA. II(M) dated 8/01/2021. M/s Western Coalfields Limited has made an online application vide proposal no. IA/MP/CMIN/417657/2023 dated 22/12/2023 along with copy of EIA/EMP report, Forms (Part A, B and C) seeking environmental clearance under the provisions of para 7(ii) of EIA Notification, 2006 for the project mentioned above. The project falls under item 1(a)– Coal mining of the schedule of the EIA Notification, 2006 and falls Category-“A” as the mining lease area is more than 500 Ha.

14.7.2: The proposal was considered in 6thEAC held on 17-18th January 2024 wherein the proposal was deferred for want of additional information. EAC during 6thmeeting also observed that the proposal is for expansion of mine for increase in production from 0.60 MTPA to 0.86

MTPA along with the increase in area from 520 Ha. to 523.75 Ha and the additional area of 3.75 ha lies outside the ML area of 520.0 ha. As per the provision of EIA notification, 2006 and MMDR Act, 1957, PP is not allowed to perform any mining activity outside the ML area. Therefore, committee asked the PP to review the proposed application for expansion of ML area upto 520 ha. PP uploaded the reply vide letter dated 25.06.2024 on PARIVESH portal and requested for grant of EC for an area of 520 Ha. Accordingly, the proposal is now placed in 14thEAC Meeting held on 5-7th August, 2024 for expansion of project for increase in production without increase in the same lease area.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

14.7.3: **Environmental site settings:**

The project area is covered under Survey of India Toposheet No. 55 J/4 and is bounded by the geographical coordinates ranging from latitude 22° 08' 44'' N and 22° 10' 18'' N and longitude 78° 09' 33'' E to 78° 11' 48'' E.

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

Mining Lease: PP Submitted that the total project area is 520 ha. The land acquisition details are provided below:

| S. No. | Govt Order/Notification as the case may be | Area(ha) |
|--------------|---|--------------|
| 1. | SO no. 2617 dated 21/08/1978 under CBA, Act 1957 with total lease area of 1430.009 ha for PKD-III Block. Out of above, 468.341 ha area is involved in Tawa-II Expansion UG Mine | 468.341 |
| 2. | SO no. 1355 dated 24/06/1998 under CBA, Act 1957 with total lease area of 588.253 ha for Tawa Block. Out of above, 51.659 ha area is involved in Tawa-II Expansion UG Mine | 51.659 |
| Total | | 520.0 |

Date of first Block allotment/ lease with its expiry date: 21.08.1978 with expiry by 21.08.2077. The total mine lease area of Tawa -II UG is 520 ha. Out of total 520.0 ha, 396.279 ha is forest land and 123.721 ha is non forest land.

| S. No. | Type of Land | Land in ha |
|------------------------|------------------------|---------------|
| 1 | Forest | 396.279 |
| 2 | Agriculture | 69.265 |
| 3 | Other (waste land etc) | 54.456 |
| Mine Lease Area | | 520.00 |

Details of Forestry Clearance for Tawa-II UG Mine-

| S. No. | Obtained vide letter No. | Area (ha) | Stage I/II |
|--------|---|-----------|------------|
| 1. | FC Obtained No F-5/29/97/10/3 dt 9/8/1999 | 195.200 | Stage-II |

| | | | |
|----|---|----------------|----------|
| 2. | FC of Stage-II Obtained No. 8-52/2017-FC dt. 02.11.2023 | 201.079 | Stage-II |
| | Total (Forest within ML area) | 396.279 | - |

The mining activities were started in 2003 and coal production started from 2007. Mining activities are confined to 318.921 ha only (including forest land of 195.20 ha for which FC has been granted on 09.08.1999 and 123.721 ha. of Non-forest land). The stage-II FC for 201.079 ha has been granted vide letter No. 8-52/2017-FC dated 02.11.2023. The mining activities in the 201.079 ha land area is yet to be commenced and project does not involve violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

Protected Area: PP submitted that the project is not located within 10 KM of ESZ/ ESA/ national park/ wildlife sanctuary/ tiger reserve/ elephant reserve. Details of the same is as under:

| Details of nearest PAs/ESZ/ESA/Corridor | Distance from the Mining Lease |
|---|--------------------------------|
| Tiger Corridor | 6 Kms |
| Pachmarhi Biosphere Reserve | 7 kms North |

PP submitted that the Tiger corridor is located within the buffer zone of the project. Also two Schedule-I species, viz., Tiger and Elephant has been noted within buffer zone. Accordingly, a wildlife conservation plan with Rs 155.0 Lakhs was prepared in consultation with forest department. As directed by DFO, Betul vide letter dated 09.05.2022, the amount of Rs 155.0 Lakhs was deposited in the CAMPA fund on 27.05.2022.

14.7.4: **Previous Approvals:** Details of previous approvals in chronological order are as under:

| S. No | Details of Letter No. | EC/Expansion EC/Amendment in EC/Validity extension/Transfer of EC | Capacity (MTPA) | Area (ha) | Remarks if any |
|-------|---|---|-----------------|-----------|--|
| 1 | EC letter no. J - 11015/36/96.IA.II(M) dated 14th Dec'98 | EXPANSION | 0.18 | 207.908 | - |
| 2 | EC Letter No:- J- 11015/53/2006/-IA. II(M) Date:- 02.08.2006 | EXPANSION | 0.60 | 520.00 | - |
| 3 | Revalidation of EC Letter No:- J- 11015/ 53/2006/-IA. II(M) Date:- 15.01.2021 | Revalidation of EC | 0.60 | 520.00 | Revalidation of EC in compliance of MoEF&CC OM dated |

| | | | | | |
|--|--|--|--|--|------------|
| | | | | | 06.04.2018 |
|--|--|--|--|--|------------|

W.r.t the prior approvals, PP submitted that production from the mine started 2007 onwards and has submitted the following details regarding production.

| Year | EC sanctioned capacity (MTPA) | Actual production (MT) | Excess production beyond the EC sanctioned capacity |
|-----------|-------------------------------|------------------------|---|
| 1998-2005 | 0.18 | Nil | Nil |
| 2006-07 | 0.60 | Nil | Nil |
| 2007-08 | 0.60 | 0.188 | Nil |
| 2008-09 | 0.60 | 0.234 | Nil |
| 2009-10 | 0.60 | 0.330 | Nil |
| 2010-11 | 0.60 | 0.361 | Nil |
| 2011-12 | 0.60 | 0.412 | Nil |
| 2012-13 | 0.60 | 0.435 | Nil |
| 2013-14 | 0.60 | 0.532 | Nil |
| 2014-15 | 0.60 | 0.522 | Nil |
| 2015-16 | 0.60 | 0.500 | Nil |
| 2016-17 | 0.60 | 0.480 | Nil |
| 2017-18 | 0.60 | 0.401 | Nil |
| 2018-19 | 0.60 | 0.374 | Nil |
| 2019-20 | 0.60 | 0.319 | Nil |
| 2020-21 | 0.60 | 0.308 | Nil |
| 2021-22 | 0.60 | 0.352 | Nil |
| 2022-23 | 0.60 | 0.464 | Nil |
| 2023-24 | 0.60 | 0.414 | Nil |

PP submitted that there has been no excess production in any of the years.

- 14.7.5: **Certified Compliance Report:** The Status of compliance of earlier EC was obtained from Regional Office IRO, MoEF&CC Bhopal 3-50/2006(Env)/R-59/P-6 dated 01.11.2023 in the name of M/s. Western Coalfield Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Bhopal

MoM of 14th meeting of the EAC for Coal Mining sector held on 5-7th August, 2024

vide letter no WCL/PKD/Tawa-II/2023/3898 dated 17.11.2023. The details of the observations made by RO in the report dated 01.11.2023 along with present status as furnished by the PP is given as below:

| S. No. | Non-Compliance/ Partial Compliance Details | Observation of RO (abridged) | Condition No and EC date | Re-assessment by RO/Response Of PP |
|--------|--|---|---|---|
| 1 | <p>Partially complied condition</p> <p><i>“Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from work force engaged in active mining operation shall be subjected to health checkup for occupational diseases and hearing impairment, if any through an agency such as NIOH, Ahmedabad within a period of 1 year and the result reported to this ministry and to DGMS”</i></p> | <p>During the site visit, it was observed that personnel working in dust areas have been provided with dust masks and ear plugs. As per records furnished during the site visit, it was noted that, vocational training is being accorded to all mine workers (both department and contractual staff) on an annual basis. Every departmental worker less than 50 years is subjected to periodical medical examination once in every three years and Above 50 Year worker is subjected to periodical medical examination once in every year. The records are being maintained and submitted to DGMS on yearly basis in prescribed format. Besides, contractual employees are subjected to Initial medical examination at the time of deployment and periodical medical examination through the contractor. A separate PME Department in Hospital has been in existence to regularly monitor the Occupational Health related issues of Mine Workers. It was informed that, Medical Examination of 10.69 % Man power of Tawa – II UG Mine has been carried out through Government District Hospital, Betul. However, No study was initiated to monitor the health status of 10% of the workers identified from work force engaged in active mining</p> | <p><i>Specific condition (xii) of EC dated 02.08.2006</i></p> | <p>Initial Medical Examination (IME) is carried out compulsorily for both the Departmental and contractual employees during initial deployment in the mine/project. Thereafter, Periodical Medical Examination (PME) is carried out for every employee. The frequency of PME for employee less than 50 years’ age is once in every three years and for employee above 50 Year age is once in every year. The above said IME & PME records are being maintained and submitted to DGMS on yearly basis in prescribed format. The IME & PME are being carried out in compliance of Mines Rules and DGMS statute. WCL has established Hospitals at Administrative Area level and dispensaries at Unit/Project levels for providing health care facilities to workers and to conduct periodic health check-up.</p> <p><i>During past 05 Years (2018-2022) PME of total 1288 No. of employees has been conducted by the Medical Services Department.</i></p> <p>Regarding occupational health status of the administrative Area, it may be mentioned here that, till date, no employee or person has been detected with occupational health issues viz.</p> |

| S. No. | Non-Compliance/ Partial Compliance Details | Observation of RO (abridged) | Condition No and EC date | Re-assessment by RO/Response Of PP |
|--------|---|---|--------------------------------|--|
| | | <p>operation for occupational diseases and hearing impairment through an institute of repute.</p> <p>In view of the information furnished by the Project Proponent and as per the site visit observations noted above, the stipulated condition is considered as partly complied w.r.t. said site visit.</p> <p>PARTLY COMPLIED</p> | | <p>coal miner's pneumoconiosis during the last 5 years. In 2024, the target for periodic medical examination is 223. <u>Beside the regular occupational health status monitoring, Occupational Health study of more than 10 % of Active manpower has been carried out through an institute of repute i.e. through Government District Hospital, Betul.</u> The above Medical Examination include Physical Examinations, Skin & Eye Examination, Ears Inspection, respiratory System Examination, Genito-Urinary system examination, ECG, BP, R&S & Audiological Evaluation, etc.</p> |

14.7.6: Method of Mining and Mining Plan & Mine Closure Plan:

- i. The mining plan & mine closure plan for the project was approved for 0.86 MTPA, by the WCL Board in 282nd meeting held on 25.10.2016 and communicated vide board note letter no. WCL/BD/SECTT/BM-282/2016/738 dated 05.11.2016.
- ii. Total geological reserve reported in the mine lease area is 26.507 MT with 19.727 MT mineable reserve. Extractable reserves are 11.123 MT. 6.317 MT coal reserves has been extracted till 01.04.2023. 4.806 MT coal reserves are remaining for extraction as on 01.04.2023. Percent of extraction is 56%.
- iii. Two coal seams with thickness ranging from 0.92 m – 3.34 m are workable. Declared Grade of coal is G-8, gradient is 1 in 6 to 1 in 8.6.
- iv. Life of mine is 8 years as on 01.04.2023.
- v. Method of mining operations envisages by Underground Board & pillar with Continuous Miner and LHDs Combination
- vi. Since it is an underground mine, there is no external OB dump and quarry / excavation area.

14.7.7: Land Use Details of Mine: The land usage pattern of the project is as follows:

1. **Pre-mining land use details:**

| Type of Land | Land Requirement (ha) |
|--------------|-----------------------|
| Forest | 396.279 |
| Agriculture | 69.265 |
| Other | 54.456 |
| Total | 520.0 |

2. **Post-Mining land use details:**

| S. No. | Particular | Land in ha |
|--------|--|--------------|
| 1 | Land are to be restored with plantation i.e. under Surface Rights for infrastructure including road | 11.108 |
| 2 | Undisturbed Land area i.e. under Mining Rights (land below which only mining activities are conducted) | 508.892 |
| | Sub total | 520.0 |

- 14.7.8: **Transportation:** The coal is transported to TPS, Sarni by road transportation of 15.75 kms. Total Length from Tawa- II UG mine pit office to MPEB Sarni TPS for coal transportation is black topped and asphalted at its entire length. Regular cleaning and maintenance of coal transportation route is carried out. The entire work of coal transportation from mine to Sarni power plant is awarded, supervised and regulated by MPEB Sarni.
- 14.7.9: **Reclamation:** Since it is a UG mine, the surface area is already covered under plantation, hence no reclamation is proposed.
- 14.7.10: Coal linkage of the project is proposed for transportation of coal to TPS, Sarni 15.7 km.
- 14.7.11: **Baseline data:** Base line data was generated in the pre monsoon Season 2023 from 15th March, 2023 to 15th June, 2023 at 6 locations.

| Period | Parameters |
|---|--|
| AAQ parameters at 6 Locations (min and max) | <p><i>Core Zone</i> (All values found within permissible limit as per Coal Mine Standard, GSR 742(E), 2000)</p> <p>PM₁₀ = 131 To 180 µg/m³ PM_{2.5} = 44 To 65 µg/m³ SO₂ = 10 to 15 µg/m³ NO_x = 14 To 24 µg/m³</p> <p><i>Buffer Zone</i> (All values found within permissible limit as per NAAQS, 2009)</p> <p>PM₁₀ = 51 To 85 µg/m³ PM_{2.5} = 20 To 40 µg/m³</p> |

| Period | Parameters |
|---|---|
| | <p>SO₂ = <10 to 12 µg/m³ No_x = 7 To 24 µg/m³</p> |
| <p>Incremental GLC Level (Maximum)</p> | <p>Core Zone PM₁₀ = 35.24 µg/m³ (Level in core zone) PM_{2.5} = 6.93 µg/m³ (Level in core zone) SO₂ = 0.32 µg/m³ (Level in core zone) No_x = 1.16 µg/m³ (Level in core zone) Buffer Zone PM₁₀ = 5.42 µg/m³ (Level at 3.3 km in South West Direction) PM_{2.5} = 1.31 µg/m³ (Level at 5.6 km in South West Direction) SO₂ = 0.06 µg/m³ (Level at 0.50 km in South West Direction) No_x = 0.22 µg/m³ (Level at 0.50 km in South West Direction) (with control measures)</p> |
| <p>Groundwater qualityat Locations 2</p> | <p>pH: 7.63 to 8.00, Total Hardness: 96 to 156 mg/l, Chlorides: 16 to 28 mg/l, Fluoride: 0.21 to 0.24 mg/l. The values of heavy metals are within permissible limit.</p> |
| <p>Surfacewater qualityat Locations 3</p> | <p>pH:7.69 to8.22; DO:4.4 to 5.8 mg/l BOD: from 3.6 mg/l to 4.8 mg/l CODfrom 16 mg/l to 28 mg/l</p> |
| <p>Noiselevels Leq (Day andNight)</p> | <p>Core Zone 55.7to 59.7 dB(A) forthe daytime and 49.7 to 52.3 dB(A) for theNighttime. Buffer Zone 47.2to 51.8 dB(A) forthe daytime and 40.5 to 43.1 dB(A) for theNighttime.</p> |
| <p>Flora and fauna</p> | <p>Flora and Fauna both are essential for humans. Flora and fauna are interdependent for source of oxygen and carbon dioxide on each other for survival. Conservation of flora and fauna is thus</p> |

| Period | Parameters |
|--------|--|
| | <p>necessary for maintaining ecological balance. Identification of species will help the restoration process to minimize environmental damage due to mining activities.</p> <p>Baseline data of flora and fauna of a project must be generated for the preparation of Environmental Impact Assessment (EIA) report. Hence, baseline study was conducted to identify the presence of floral and faunal species within the study area in January, 2022. Data of endangered / endemic species of Flora and Fauna, migratory species of Fauna, migratory corridors, breeding and spawning grounds if present, will help for preparation of conservation plan for the same.</p> <p>As per baseline flora & fauna report, 2 Schedule-I species (Tiger and Elephant) have been noted within the buffer zone of the project. Additionally, Indian Python has also been reported from secondary sources. Tiger corridor is 6 km in NE direction and 6.5 Km SE direction from Mine boundary. Wildlife conservation plan has been prepared by Project Proponent. The plan envisaged fund of 155.0 Lakhs outlay for wildlife conservation measures. The amount has been deposited in the CAMPA fund on 27.05.2022.</p> |

PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data, etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation with conformance of ISO 17025:2005 vide no. TC-7102 valid upto 28.06.2024.

- 14.7.12: **Water Requirement:** PP submitted that the water requirement for the said project will be 490.32 KLD, which will be sourced from surface water, ground water and mine water through pumping. PP submitted that the NOC for ground water abstraction for Tawa – II Expansion UG has been obtained via NOC no. CGWA/NOC/MIN/REN/1/2024/9413 dated 19/04/2024 with validity upto 16.12.2025. PP also submitted that in the core zone the ground water level has been reported to be varying between 14.20 m during pre-monsoon and between 5.80 m during post-monsoon and in buffer zone the ground water level has been reported to be varying between 3.80 m to 14.00 m during pre-monsoon and between 1.50 m to 6.90 m during post-monsoon. PP submitted that no additional water is required for expansion project and the requirement of water stated above is same as that in existing EC. Also, the project does not involve diversion of any Nallah/ Canal/ River.

- 14.7.13: **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) | Mode of Treatment/ Disposal |
|--------|-----------------------|---------------------------|----------------|---|
| 1. | Municipal Solid Waste | Office Building & Canteen | 3.6 TPA | Handed over to Sarni Municipal Council for disposal |
| 2. | Metal Scrap | Workshop | 50 TPA | Sell through Auction |

| | | | | |
|----|---|--------------------|----------|----------------------------------|
| 3. | Hazardous Waste (Burnt Oil) | Transformer | 80 Litre | Reuse in lubrication |
| 4. | Old & Un-serviceable Cap lamp Batteries | Cap Lamp batteries | 18 kg | Sent back to Authorized Recycler |

- 14.7.14: **Public Hearing Details:** PP submitted that the advertisement for public hearing was given on 22.07.2022 in in three newspapers namely Nav Bharat, Dainik Jagran and Divya Express and public Hearing was successfully conducted on 25.08.2022 at Project Office, Hirapalla Village, Tehsil Ghoradongri, district Betul, Madhya Pradesh under the chairmanship of Additional District Magistrate, Betul. Total 64 nos of people attended the public hearing and 34 no. of written representations were received from the district and outside the district. The major issues raised during the PH were Employment, CSR, Environment Pollution etc. PP submitted the compliance of the minutes of the PH, as follows:

| S. No. | Particulars | Year-1 (In Lakhs) (2023-24) | Year-2 (In Lakhs) (2024-25) | Year-3 (In Lakhs) (2025-26) | Year-4 (In Lakhs) (2026-27) | Total (In Lakhs) |
|--------|---|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------|
| 1 | Infrastructure creation for Drinking water supply | 6.00 | 3.00 | 3.00 | 3.00 | 15 |
| 2 | Skill Development & Education | 40.00 | 10.00 | 10.00 | 10.00 | 70 |
| 3 | Roads | 46.34 | 10.00 | 10.00 | 10.00 | 76.34 |
| 4 | Rainwater Harvesting | - | 10.00 | 10.00 | 10.00 | 30 |
| 5 | Medical Camp | 2.0 | 2.00 | 2.00 | 2.00 | 8 |
| 6 | Art, Culture & Sports | 0.50 | 0.50 | 0.50 | 1.00 | 2.5 |
| 7 | Others | - | 5.00 | 5.00 | 5.00 | 15 |
| | Total | 94.84 | 40.5 | 40.5 | 41 | 216.84 |

- 14.7.15: **EMP Budget:** Existing capital cost of project was 5182.13 Lakhs. The capital cost of the proposed expansion is Rs 1692.66 Lakhs and the capital cost for environmental protection measures is proposed as Capital: - ₹ 394.26 Lakhs Revenue @ Rs. 6.00 per tonne. The annual recurring cost towards the environmental protection measures is proposed as Rs 51.60 Lakhs. The employment generation from the proposed project / expansion is 832. The details of cost for environmental protection measures is as follows:

| S.No. | Particular | Budget | Timeline |
|-------|------------|--------|----------|
|-------|------------|--------|----------|

| S.No. | Particular | Budget | Timeline |
|-------|---|--|---------------------|
| 1. | 1 nos of Mist Fog Canon | 10 Lakhs | December, 2024 |
| 2. | Repair and maintenance of existing fixed sprinklers | 5 Lakhs | December, 2024 |
| 3. | Water Pollution Mitigation Measure (construction of check dams) | 19.30 Lakhs | Already Completed |
| 4. | Repair and maintenance of coal transportation Route (6 km) | 80.00 Lakhs | Already Completed |
| 5. | Piezometer installation | 3.90 Lakhs | Already Completed |
| 6. | Digital Flow meter | 0.70 Lakhs | Already Completed |
| 7. | Enhanced Air Pollution mitigation measures at CHP | 5 Lakhs | December, 2024 |
| 8. | 18 nos of fixed sprinklers | 9.47 Lakhs | Already Completed |
| 9. | Black topped road | 23.39 Lakhs | Already Completed |
| 10. | Use of high axle trucks of 40-50 tonnes capacity for transportation of coal | By thermal power plant | Already implemented |
| 11. | Rain water harvesting system | 7.50 Lakhs | Already Completed |
| 12. | Sewage Treatment Plant for residential Colony | 200 Lakhs | March 2025 |
| 13. | Implementation of Rain Water Harvesting Measures in nearby villages | 30 Lakhs | March 2025 |
| Total | | 394.26 Lakhs (Additional – 257.5 Lakhs) | |

14.7.16: **Plantation:** Existing natural plantation in the project area is 409 ha area which is about 78% of the total project area as per the satellite data. As the project area is already covered with dense forest, no further plantation is proposed within the mine lease area.

14.7.17: **Details of litigation pending:** 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) Adhinyam, 1980, Wildlife Protection Act, MMDR Act, Factories Act. Further, there is no court case on the project.

14.7.18: **R&R Plan:** Since it is an underground mine, there is no R&R involved.

14.7.19: **Project Cost:** PP submitted that the project cost is Rs. 6874.79 Lakhs.

14.7.20: **Undertaking/ Affidavit:** PP has submitted an undertaking stating that mining is done at the site as per the provisions of the approved mine plan and the existing EC. And there is no litigation pending on the project either at NGT or any other court of law about environmental aspects within the project boundary. PP has also submitted the undertaking stating that the land has been acquired as per the approved mine plan under CBA (A&D)

Act, 1957. Further, PP has submitted the undertaking stating that there is no difference in the documents submitted to MoEF&CC and presentation being made to EAC.

- 14.7.21: **ADS Information in chronology:** WCL made an online application vide proposal no. IA/MP/CMIN/417657/2023 dated 22.12.2023 The proposal was initially considered in 6th meeting of EAC (Coal) held on 17th - 18th January 2024 Proposal was deferred for want of additional information.

The proponent submitted the ADS reply vide letter dated 25.06.2024 uploaded on PARIVESH on 27.06.2024. Point-wise reply of ADS is given as below:

| S. No. | ADS | Reply of ADS |
|--------|--|--|
| 1 | PP should review the instant application submitted for the addition of 3.75 ha of additional area lying outside the ML area of 520.0 ha. | The ML area of the project is 520 ha. The additional land area of 3.75 ha is outside the mine lease. Hence as desired, the EC may be granted for the mine lease area of 520.0 ha. |
| 2 | PP shall submit the action plan for the non-complied EC conditions of issued EC dated 02.08.2006 and 15.01.2021. | The certified compliance report for the EC dated 02.08.2006 & 15.01.2021 was obtained from IRO, MoEF&CC, Bhopal vide ref letter 3-50/2006(Env)/R-59/P-6 dated 01.11.2023. In the CCR, non-complied conditions were found to be nil. Out of total 37 (34 + 3) EC conditions issued in EC dated 02.08.2006 and 15.01.2021, only one condition was found to be partially complied. The specific condition (xii) of EC letter dated 02.08.2006 was noted as partly complied. The action taken report against the partially complied condition was submitted to IRO, MoEF&CC Bhopal vide letter Ref no WCL/PKD/Tawa-II/2023/3898 dated 17.11.2023. Following condition was found to be partially complied: EC Specific condition (xii) - "Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from work force engaged in active mining operation shall be subjected to health checkup for occupational diseases and hearing impairment, if any through an agency such as NIOH, Ahmedabad within a period of 1 year and the result reported to this ministry and to DGMS" Action Plan proposed by Project Proponent Initial Medical Examination (IME) is carried out compulsorily for both the Departmental and contractual employees during initial deployment in the mine/project. Thereafter, Periodical Medical Examination (PME) is carried out for every employee. The frequency of PME for employee less than 50 years' age is once in every three |

| S. No. | ADS | Reply of ADS |
|--------|--|--|
| | | <p>years and for employee above 50 Year age is once in every year. The above said IME & PME records are being maintained and submitted to DGMS on yearly basis in prescribed format. The IME & PME are being carried out in compliance of Mines Rules and DGMS statute. WCL has established Hospitals at Administrative Area level and dispensaries at Unit/Project levels for providing health care facilities to workers and to conduct periodic health check-up.</p> <p>During past 05 Years (2018-2022) PME of total 1288 No. of employees has been conducted by the Medical Services Department.</p> <p>Regarding occupational health status of the administrative Area, it may be mentioned here that, till date, no employee or person has been detected with occupational health issues viz. coal miner's pneumoconiosis during the last 5 years. Beside the regular occupational health status monitoring, Occupational Health study of more than 10 % of Active manpower has been carried out through an institute of repute i.e. through Government District Hospital, Betul. The above Medical Examination include Physical Examinations, Skin & Eye Examination, Ears Inspection, respiratory System Examination, Genito-Urinary system examination, ECG, BP, R&S & Audiological Evaluation, etc.</p> |
| 3 | <p>PP shall submit the details of settling pond and sedimentation pond lying within the ML area with their storage capacity.</p> | <p>Sedimentation tanks of the following dimensions has been constructed in Tawa-II UG Expansion mine.</p> <p>11.75 m x 4.0m x 1. 89 m = 88.83 m³ 13.90 m x 7.3 m x 2.25 m = 228.30 m³</p> <p>In the mine where strata seepage water gets accumulated in the underground sump/storage tank. The strata seepage is being continuously pumped out to the surface settling tank for the safety of the man and machinery deployed in the underground working. Pressure filter of 5000 GPH capacity is installed in the mine premise for treatment of colloidal particles. The treatment process is followed by Alum dosing. The treated water is pumped into clear water tank. After treatment, the water is used for dust suppression and spraying on the UG coal face.</p> |
| 4 | <p>PP shall submit the health check-up plan for mine plan workers and project affected people living within the 5 km</p> | <p>The regular health check-up for mine workers and project affected people is carried out through dedicated 60 bed hospital established by WCL. The health facility to the project affected people is extended in two ways.</p> <p>Through the CSR clinic established in Area Hospital.</p> <p>Through medical health check-up organized regularly.</p> <p>There are 11 nos of doctors and 46 paramedical staff</p> |

| S. No. | ADS | Reply of ADS |
|--------|--|--|
| | radius of ML area. | <p>engaged in the Hospital. All the project affected people can utilize the CSR clinic for OPD consultation free of cost.</p> <p>Since 2018, WCL has organized 68 health camps in this region till December, 2023. This includes cancer detection camps, general health checkup camp, blood donation camps, awareness camps, female health checkup camps, HIV and AIDS awareness camps, Hepatitis B detection camp, radiotherapy diagnostic camp, diabetes detection camp, school health camps etc. These camps are organized in the villages and as well as through area hospital. Through these medical health check-up camps, 5167 beneficiaries were benefited. These included the mine workers and project affected people.</p> <p>Health Check Up Plan for Mine workers: As mentioned in the reply of ADS No 2, Initial Medical Examination (IME) is carried out compulsorily for both the Departmental and contractual employees during initial deployment in the mine/project. Thereafter, Periodical Medical Examination (PME) is carried out for every employee. The frequency of PME for employee less than 50 years age is carried out once in every three years and for employee above 50 Year age is subjected to examination once in every year. 413 workers have gone through the medical examination in year 2023. For the year, 2024 the target for periodical health examination is 223. Beside all the workers who will be deployed in the mine, will undergo initial medical health examination. 11 nos of doctors and 46 paramedical staff are engaged in the Hospital. The responsibility of medical examination is provided to the IME/PME in charge posted in the Area hospital.</p> <p>There are total 06 Villages and 1 census town located in the 5 km radius of the ML area of Tawa-II UG Mine. WCL has been organizing Medical Camps regularly in these Villages for the benefit of project affected people. In addition to the Medical Camps organized by Medical Department, Pathakhera Area, CSR clinic has been established at Pathakhera Area Hospital since 2019 and will continue to operate at Area Hospital, Pathakhera Area for the benefit of local people.</p> |
| 5. | PP shall revise the budget associated with the EMP and Public Hearing. | The revised budget of EMP is proposed to be Rs 394.26 Lakhs. For addressing the issues raised during public hearing, budget of Rs 216.84 Lakhs assessed. |
| 6. | PP shall also | The project is approx. 6 kms away from the Tiger |

| S. No. | ADS | Reply of ADS |
|--------|--|---|
| | <p>evaluate the impact of the mining upon the existing corridor of Tiger and their mitigation plan with the appropriate budget.</p> | <p>Corridor. The Stage-II forestry clearance for the project has been granted vide MoEF&CC letter 8-52-2017-FC dated 2nd November 2023. During the appraisal for grant of stage-II forestry clearance, the comments from NTCA was obtained with respect to the project by FC division of MoEF&CC. It is worthwhile to note the comments from NTCA as provided in minutes of meeting of Advisory Committee meeting dated 17.07.2023 for forestry clearance. The NTCA observed that the proposed coal mining site is located at an approximate distance of 23 km from core of Satpura Tiger Reserve, 17 km from buffer of Satpura Tiger Reserve and 6 km from the least cost pathway tiger dispersal corridor in between Satpura and Melghat Tiger Reserves delineated by NTCA and Wildlife Institute of India. The project site had no presence of tigers in its vicinity as per 2006, 2010, 2014 and 2018 cycles of all India tiger estimation. As per 2018 cycle of all India tiger estimation, the project site has low abundance of large mammals present in its vicinity. Moreover, the part of the project site is embedded within a multiple use landscape at the edge of a forest patch likely to be diverted.</p> <p>Considering the proximity to the least cost pathway tiger dispersal corridor, a wildlife conservation plan has been formulated to minimize any impact. Further wildlife conservation plan with budget of 155.0 Lakhs has been prepared. The amount of 155.0 Lakhs has been deposited in compliance of the Stage-I forestry clearance issued by MoEF&CC. The wildlife conservation plan focused on the construction of check dams in the nearby locations for wildlife conservation, maintenance of existing check dams. The demand under wildlife conservation plan for Rs 155.0 Lakhs was raised by Forest Department. In compliance of the condition, the amount was deposited in the CAMPA fund on 27.05.2022.</p> |
| 7 | <p>PP should conduct a scientific study for knowing the exact status of ground water including static & dynamic range of ground water.</p> | <p>A detailed scientific study has been carried out to know the exact status of ground water including static & dynamic range of ground water. Where both the Dynamic and Static Groundwater Resources have been estimated for buffer zone (10 km radius) as per GEC 2015 guidelines. After attempting the detailed Ground Water Resource Estimation both Dynamic as well as Static Ground Water Resource it is observed that: the Total Ground Water Availability in Unconfined Aquifer (TGWA) which is sum of 'Extractable Ground Water Resource' (EGR) and 'Static Ground Water Resource'(SGWR) is estimated as 3243.70 Mm³ (i.e. 34.71</p> |

| S. No. | ADS | Reply of ADS |
|--------|--|--|
| | | <p>Mm³ + 3208.98 Mm³, respectively). Out of this TGWA, ‘Gross Annual Extraction’ is estimated to the tune of 8.01 Mm³. Therefore, ‘Balance Total Annual Extractable Groundwater Resource’ or BTGWA available in Unconfined Aquifer is 3235.69 Mm³ (i.e. BTGWA = (TGWA – Gross Annual Extraction)).</p> <p>From, this it is inferred that, as the ‘Gross Annual Extraction (8.01 Mm³)’ is less than the Extractable Ground Water Resource (Dynamic Resource of 34.71 Mm³) and the Stage of Ground Water falls under ‘Safe’ Category so, the Static Ground Water Resource (SGWR) remains unaffected as per the estimation.</p> |
| 8 | <p>Committee observed that as per KML file there is a Satpura reservoir and dam just adjacent to mining lease area. The Committee is of the view that PP shall submit a study from the reputed institute that presence of the same will not affect the mine working and mine is safe for inundation point of view.</p> | <p>Tawa-II UG is an operating coal mine started production from FY 2006-07. It may be also mentioned that, though the mine is adjacent to Satpura reservoir, due to geo-mining conditions, the water seepage into the mine is very minimum i.e. 490.32 m³/ day (The quantum of seepage is normal in UG mines). For the same quantity, NOC renewal application has been submitted to CGWA.</p> <p>The lease hold area of the Tawa–II U/G Mine is generally a hilly terrain. Barakar sandstones are exposed in the southern and eastern part of the block. The likely exposures of the coal seams, to the south-east, are now submerged in Satpura Reservoir. In Tawa-II UG mine, two number of coal seams are extracted. The first workable seam is Lower Workable seam (LWS) and the next workable seam is called Bagdonga Seam (BS). Three number of panels of LWS coal seam located near to the Satpura reservoir have already been extracted successfully without facing any inundation issue. Because of the geological formation, aquifer parameters and hydraulic parameters, seepage/ingression of water from Satpura reservoir is minimal and in the history of the mine, there are no scenarios of safety issues due to inundation.</p> <p>Further all the safety norms as determined by the DGMS are being complied during mining operations in Tawa-II UG Mine. There is a robust mine safety framework exists at Tawa – II UG Mine. As per the Regulation 150 (Danger from underground inundation) of Coal Mine Regulation, 2017, “no working which has approached within a distance of <u>60 meters</u> of any other working (not being a working which has been physically examined and found to be free from accumulation of water or other liquid matter or any material that is likely to flow when wet), whether in the same mine or in an adjoining mine, shall be extended further except with the prior permission in</p> |

| S. No. | ADS | Reply of ADS |
|--------|--|---|
| | | <p>writing of the Chief Inspector and subject to such conditions as he may specify therein.” Accordingly, <u>the workings / panels / districts of the Tawa – II UG mine is at least 120 m away from the Satpura reservoir, which is twice the safe distance provisioned in the section 150 of CMR, 2017.</u></p> <p>The safe distance of 120m between Tawa reservoir and mine working is being strictly examined and implemented by mine management & regularly checked by officials of DGMS. Till date, no violation regarding Regulation 150 (Danger from underground inundation) of Coal Mine Regulation, 2017 has been received from DGMS.</p> |
| 9 | PP should submit efficient water recharge system to be planned within/outside the ML area. | There are two numbers of water recharge system already operating within the buffer zone of the project (outside of the ML Area). Recently, a water recharge system in the office building of Tawa-II UG Mine has been constructed. This is located within the ML area. It is likely to be started operation in 2024-25. Total cumulative recharge will be 11234 m ³ /day. Beside above, three locations are identified outside ML area for rain water harvesting works. Capital outlay of Rs 45.0 Lakhs on the ground water recharge system works. The Bhogaikhapa village, Heerapalla Village and Totidoh village are identified for construction of recharge water systems i.e. check dams, deepening of ponds, renovation of ponds. |
| 10 | Traffic density study and road plan for coal transportation to be submitted with proposed mitigation measures. | Traffic Density study has been conducted on the coal transportation route of approx. 15 kms. The route was found to be adequate for coal transportation. The coal is lifted by the thermal power plan from the coal stock of the mine. The total length of the coal transportation route was divided into three sections for the purpose of traffic density study. These sections are divided based on the nodes connecting the different roads. Traffic density study was conducted on from 28 th March till 30 th March, 2024. The traffic density was recorded from 8.00 AM on 28 th March till 8.00 AM on 30 th March. The study was conducted for 48 hours continuously and hourly traffic density was identified. PCU load after proposed expansion will be 657.45 (Existing) + 29.69 (Additional) at the State Highway 44 with level of service C. |
| 11 | PP shall conduct a drone video survey for 10 minutes for clear view of the project. | A drone video of the project showing the mine infrastructure, coal transportation, mine lease area, natural plantation and adjacent surface features has been made. |

| S. No. | ADS | Reply of ADS |
|--------|--|--|
| 12 | Issues raised during public hearing shall be addressed with reply based on fund allocated for issue & timeline for completing the issue. | The public Hearing for Tawa-II Expansion UG Mine was successfully conducted on 25.08.2022 at Project Office, Hirapalla Village, Tehsil Ghoradongri, district Betul, Madhya Pradesh. Based on the Public Hearing Proceedings, the points raised by Public are being complied along with commitments made by the proponent and the action proposed with budget and timeframe. The expenditure of Rs 94.84 Lakhs has been made to address the issues raised during Public Hearing. Further in next 3 years, expenditure of Rs 122.0 Lakhs will be made to address the issues raised during Public Hearing. Total expenditure on Public Hearing will be Rs 216.84 Lakhs. |
| 13 | PP shall bring out the transportation route to be followed and why belt conveyor cannot be installed. Further, possibility of using EV vehicle may also be explored. The PP shall also submit a cost analysis of setting up of belt conveyor vis-a vis EV/CNG based tippers. | As per the route plan, distance from Tawa-II mine to MPEB Siding, Sarni is approx 15 kms. The tentative cost of belt conveyor system (Considering 1000mm belt width, 300tph capacity, belt length of 700-800mtr, total nos of belts 20 nos) from Tawa-II mine to MPEB Siding, Sarni comes around 275.0 Crore (with GST and excluding land cost). However, the estimate may change during detailed design considering all the surface features (road, river, nala, Electrical OHL, Surface RL etc) also the nos of belts may increase further due to zig-zag nature of transportation route. Considering the high cost of Belt Conveyor and zig zag nature of coal transportation route, the belt conveyor is ruled out. The coal transportation is done by the MPPGCL, Sarni from coal stock of Tawa-II UG mine to Thermal Power Plant. Hence, in order to use the EV/CNG vehicle, a request has been made to the Sarni Thermal Power Plan, MPPGCL for exploring and utilizing the EV/CNG vehicles for coal transportation. A request letter in this regard has been sent by Project Proponent to MPPGCL, Sarni vide letter dated 06.04.2024. |

Observation and deliberation of the EAC:

14.7.22: Committee after deliberations noted the following:

The Committee noted the following:

- i. M/s. Western Coalfields Limited applied vide Proposal No. IA/MP/CMIN/417657/2023 along with Form – 1, to seek expansion in mining capacity. The proposal is for expansion of Tawa – II UG Mine for increase in production capacity from 0.60 MTPA to 0.86 MTPA with ML area of 520.0 ha under Clause 7(ii) of EIA Notification, 2006 located at Villages: Hirapalla, Panchayat: Bhogaikhapa,, sub district – Ghoradongri, district – Betul, state – Madhya Pradesh.

- ii. Tawa – II UG was originally accorded EC on 14th December 1998 for the production capacity of 0.18 MTPA over the lease area of 207.908 Ha. Further, Tawa – II UG was accorded EC on 2nd August 2006 for the production capacity of 0.60 MTPA over the lease area of 520 Ha. Later Tawa – II UG was granted revalidation of EC on 15th January 2021 for the production capacity of 0.60 MTPA over the lease area of 520 Ha.
- iii. The above mentioned ECs have been implemented by the proponent and they have achieved the production of 0.414 MTPA, in the year 2023-24.
- iv. The total mine lease area of Tawa -II UG is 520 ha. Out of total 520.0 ha, 396.279 ha is forest land and 123.721 ha is non forest land. The mining activities were started in 2003 and coal production started from 2007. Mining activities are confined to 318.921 ha only (including forest land of 195.20 ha for which FC has been granted on 09.08.1999 and 123.721 ha. of Non-forest land). The stage-II FC for 201.079 ha has been granted vide letter No. 8-52/2017-FC dated 02.11.2023. The mining activities in the 201.079 ha land area is yet to be commenced.
- v. It is clear from the CCR report that EC conditions have not been satisfactorily complied, plantations done by the PP are not of in adequate quality and need to be densified with native species.
- vi. The Committee deliberated on the ADS reply submitted by the PP and observed that several contradicting statements have been made which inter-alia includes the following:
 - As per baseline flora & fauna report, 2 Schedule-I species (Tiger and Elephant) have been noted within the buffer zone of the project. However, in the presentation made before the EAC it has been stated that no tiger presence in the vicinity was found in the previous all India Tiger Estimation as per 2006, 2010, 2014 and 2018 cycles. Further, in the wildlife conservation plan, no measures have been provided for the protection of tigers and elephant present in the buffer zone of project site. In view of this, the committee opined that wildlife conservation plan prepared by the PP needs to be revisited.
 - With respect to ADS point no.8, the EAC advised the PP to submit a study from the reputed institute as Satpura reservoir and dam just adjacent to mining lease area which may affect the mine working and to ascertain that mine is safe from inundation point of view. In response to this, PP has not conducted any study and substantiated the same without any scientific basis.
 - Reply given to other ADS points are found to be not specific and generic in nature.
- vii. Moreover, the CMPDIL consultant is not providing the correct information. The presentation exhibited during the meeting was found to be different from the presentation document circulated to the Ministry and EAC members. This makes it very difficult to correctly apprise the project proposal from an environmental angle. The EAC also observed that the consultant has been making such glaring mistakes many times in the past also in spite of repeated advise by EAC members . This leads to wastage of time and delays the project / appraisal approval process. The EAC is of the well-considered opinion that the consultant should be issued a show cause notice by Ministry as to why action should not be initiated against them.

Recommendations of the Committee

- 14.7.23: In view of the foregoing and after detailed deliberations, the EAC *deferred* the proposal cited above and sought for following additional information for further consideration of the proposal.
- i. Revised Wildlife Conservation plan duly approved by the Chief Wildlife Warden of the State Government.
 - ii. Specific reply to all the ADS points raised in the 6th meeting of EAC (Coal) held on 17th - 18th January 2024 along with the requisite supporting documents.
 - iii. Time bound action plan for green belt plantation as the plantations done by the PP are not of in adequate quality and need to be densified with native species.

In addition to the above, the EAC also recommended the Ministry to issue a show cause notice to CMPDIL as to why action should not be initiated against it for making such glaring mistakes in the proposals submitted before the EAC in spite of repeated advice by EAC members.

Agenda No 14.8

14.8: Manuguru Opencast Extension (MNG OC Extn) Project for production capacity of 2.10 MTPA (Peak – 3.15 MTPA) and increase in lease area from 668.42 Ha to 1115.91 Ha, by M/s. Singareni Collieries Company Limited located at Villages – Manugir, Ramanujavaram, Thirmalapuram, District – Bhadradi, State – Telangana– Terms of Reference- regarding..

[Proposal No. IA/TG/CMIN/479638/2024; File No. J-11015/905/2007-IA.II(M); Consultant: M/s. Environment Protection & Training Research Institute; NABET/EIA/1922/RA 0197; valid till 01/09/2025]

- 14.8.1: M/s. Singareni Collieries Company Limited has made an online application for the proposed Manuguru Opencast Extension (MNG OC Extn.) Project vide proposal no. IA/TG/CMIN/479638/2024 dated 12.06.2024 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed under Category “A” of the schedule 1(a) (mining of minerals) of the EIA Notification, 2006 and being appraised at Central Level.
- 14.8.2: Name and validity of the EIA consultant: M/s. Environment Protection & Training Research Institute; NABET/EIA/1922/RA 0197; valid till 01/09/2025
- Details of the proposal, as ascertained from the proposal documents and as revealed from the discussion held during the meeting, are given as under:
- 14.8.3: The instant proposal is located at Villages – Manugir, Ramanujavaram, Thirmalapuram, District – Bhadradi, State – Telangana and the proposal is for increase in lease area of 447.49 Ha (from 668.42 Ha to 1115.91 Ha) for the same production capacity of 2.10 MTPA (Peak – 3.15 MTPA).

14.8.4: Environmental site settings

The project area is covered under Survey of India Topo Sheet No. 65 C/13 and is bounded by the geographical coordinates ranging from Latitudes 17°57'53.11400" N to 17°59'43.72900" N & Longitudes 80°48'10.53385" E to 80°51'03.11735" 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 a total of 109.50 Ha of forest land and the details of the approval already obtained or applied for is as follows:

| S. No. | Obtained vide letter No. | Area (ha) | Stage I/II | Validity |
|--------------|--|--------------|--|--|
| i | FL diversion was obtained vide F.No.8-73/2005 FC, dt.09.05.2016. | 33.58 | Stage II | 22.07.2035 |
| ii | FL diversion was obtained vide F.No.8-73/2005-FC, dt 10.07.2008. | 17.41 | Stage II | 22.07.2035 |
| iii | 58.51 ha of forest land with UG rights vide F.No.8-73/2005-FC, dated 10.07.2008. | 58.51 | Application submitted for surface rights | Existing UG rights valid up to 22.07.2035. |
| Total | | 109.5 | | |

Forest land involved in the existing mine lease area is 34.95 Ha and the additional forest land proposed is 74.55 Ha in the proposed expansion. Hence, total forest land after the proposed expansion will be 109.5 Ha. PP submitted that the total broken forest area is 23.974 Ha and there is no violation of FC Act.

Protected Area: PP submitted that the project lies at a distance of 5.67 km away from the Kinnerasani wild life sanctuary Eco Sensitive Zone. A Wild Life Conservation plan for Schedule-I species was prepared and approved by the Principal Chief Conservator of Forests and Chief Wildlife Warden (PCCF & CWW), Telangana with a budgetary provision of Rs.1668.00 Lakhs and SCCL has deposited to “Forest Bio-diversity Conservation Society of Telangana” towards implementation of conservation plan. PP also submitted that there is no Violation of WLP Act.

14.8.5: Mine Lease: PP submitted the details of the mining covered under 2 mining lease as follows:

| S.No. | Govt. Order/Notifications as the case may be | Area (ha) |
|--------------------|--|----------------|
| i | 1 st Renewal of Manuguru Mining Lease granted vide G.O. Ms. No. 217, dated 12.08.2008 and valid up to 22.07.2035. | 742.01 |
| ii | 373.90 ha in Additional Mining Lease granted vide G.O. Ms. No. 06, dated: 06.02.2015 and valid up to 15.04.2035. | 373.90 |
| Grand Total | | 1115.91 |

14.8.6: Previous Approvals: PP submitted the details of previous approvals in the chronological order as follows:

| S. No. | Details of Letter No. | EC/ Expansion/ Amendment | Capacity (MTPA) | Area (Ha) | Remarks if any |
|--------|-----------------------|--------------------------|-----------------|-----------|----------------|
|--------|-----------------------|--------------------------|-----------------|-----------|----------------|

| | | in EC/Validity extension / Transfer of EC | | | |
|---|---|--|-------------------|--------|---------------------------------------|
| 1 | Manuguru Opencast Coal Mine Project- J-11015/905/2007-IA.II(M) dt:24.10.2008. | EC | 1.50 | 668.42 | |
| 2 | Manuguru Opencast Coal Mining Project - J-11015/905/2007-IA-II(M) dated 6/12/2019. | EC Expansion | From 1.50 to 1.80 | 668.42 | 20% (Ph-1) as per OM dated 15.09.2017 |
| 3 | Manuguru Opencast Coal Mining Project - J-11015/905/2007-IA-II(M) dated 18.02.2022. | EC Expansion | From 1.80 to 2.10 | 668.42 | 40% (Ph-2) as per OM dated 15.09.2017 |

W.r.t the previous approvals, PP submitted the actual production details of the concerned mine as follows:

| S. No. | Year | EC sanctioned capacity | Actual Production | Excess production beyond the EC sanctioned capacity |
|---------------|-------------------------------|-------------------------------|--------------------------|--|
| 1 | 2016-17 | 1.50 | 0.45 | - |
| 2 | 2017-18 | 1.50 | 1.50 | - |
| 3 | 2018-19 | 1.50 | 1.50 | - |
| 4 | 2019-20 | 1.80 | 1.80 | - |
| 5 | 2020-21 | 1.80 | 1.80 | - |
| 6 | 2021-22 | 2.10 | 2.10 | - |
| 7 | 2022-23 | 2.10 | 2.10 | - |
| 8 | 2023-24 | 2.10 | 2.10 | - |
| 9 | 2024-25 (As on 30.06.2024) | 2.10 | 0.56 | - |

14.8.7: Mining Plan: It is an opencast mine and it is not an integrated project. Mine Plan was approved by MoC on 28.03.2024 for capacity of 2.10 MTPA (Peak – 3.15 MTPA) over an area of 1115.91 Ha.

14.7.8: Method of Mining: The PP has submitted the following:

- i. The method of mining proposed to be used is opencast and excavation of coal will be done through shovel – dumper combination.
- ii. The total geological reserves reported in the mine lease area is 105.97 MT (net geological reserves 95.37 MTPA) with 64.17 MT mineable reserves. Out of the total mineable reserves only 58.35 MT is the extractable reserves. As on 31.03.2024 reserves already extracted are 17 MT. Hence, balance extractable reserves are 41.35 MT.
- iii. Total 8 working seams with thickness ranging from 0.30m to 7.54m are workable. Grade of coal is G-10; stripping ratio is 1:15.51 while gradient is 1 in 3.7 to 1 in 9.5.
- iv. Life of mine from 2023-24 is 21 years.

MoM of 14th meeting of the EAC for Coal Mining sector held on 5-7th August, 2024

- v. The project has one external OB dump in an area of 304.72 ha with 120 m height and 256.82 Mm³ of OB and one internal OB in an area of 256.78 ha with 120 m height and 517.55 Mm³ of OB is envisaged in the project.
- vi. Total quarry area is 565.58 ha out of which backfilling will be done in 256.78 ha while final mine void will be created in an area of 308.80 ha with a depth of 295m. Backfilled quarry area of 256.78 ha shall be reclaimed with plantation. Final mine void will be converted into water body.
- vii. Details of Land usage:

| A. Pre-mining | | |
|----------------------|-----------------|--------------------|
| Land Type | Land Use | Extent (ha) |
| Tenancy | Agricultural | 345.99 |
| | Water Bodies | 0.91 |
| | Road | 1.41 |
| | Village | 7.38 |
| | Sub-Total | 355.69 |
| Govt. Non Forest | Agricultural | 578.36 |
| | Village | 22.68 |
| | Water Bodies | 48.30 |
| | Road | 1.38 |
| | Sub-Total | 650.72 |
| NFL Total | | 1006.41 |
| Forest | Reserve | 109.50 |
| Total | | 1115.91 |

| B. Post-mining | | | | | | |
|--|--------------------------------|-------------------|----------------------------|-------------------------------|----------------------|----------------|
| Type | Land Use (Post Closure) | | | | | |
| | Plantation | Water Body | Public/ Company Use | Forest Land (Returned) | Undis- turbed | Total |
| Backfilled Area | 249.69 | | | 7.09 | | 256.78 |
| Excavated Void | | 209.90 | | 98.90 | | 308.80 |
| External Dump | 304.72 | | | | | 304.72 |
| Safety Zone (Including rationalization area) | 59.37 | | 15.21 | 3.16 | | 77.74 |
| Settling pond | | 1.61 | | | | 1.61 |
| Road & Infrastructure area | 11.79 | | | | | 11.79 |
| Garland drains | | 7.56 | | 0.35 | | 7.91 |
| Embankment | 41.25 | | 13.54 | | | 54.79 |
| Undisturbed | | | | | 91.77 | 91.77 |
| Total | 666.82 | 219.07 | 28.75 | 109.50 | 91.77 | 1115.91 |

- viii. Details of transportation of Coal:PP submitted that the coal is proposed to be transported within the outside mine lease area in the following manner:
 - a. In pit:by Trucks
 - b. Surface to siding: by Road
 - c. Siding to loading: by Rail
 - d. Quantity being transported by Road/Rail/conveyer/ropeway: 2.10 MTPA
- ix. Acquisition of land: PP submitted that out of the total lease area of 1115.91 Ha, 692.54 Ha has already been acquired and the remaining land will be acquired by 2025-26.
- x. Reclamation: Progressive afforestation covering an area of 677.07 Ha at the end of mining which will include reclaimed external OB dump, internal dump and greenbelt. Density of the tree plantation will be 2500 plants per Ha. Void of 308.8 Ha at a depth of 295m is proposed to be converted into water.

14.7.9: Legal Issues/ Violation: PP submitted that there are no legal issue/violation w.r.t Environment (Protection) Act; Air(P&CP) Act; Water (P&CP) Act;Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980; Wildlife Protection Act; MMDR Act and Factories Act. Further, there is no court case on the project.

14.7.10: Baseline Studies: PP submitted that the baseline data has been collected during summers (March 2023-May2023)

| Period | March 2023 to May 2023 | Additional Study (If any) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---------------------------|-----------|------|--------|--|-----|-----|-----|-----|------------------|-----|------|------|------|-------------------|------|------|------|------|-----------------|------|------|------|------|-----------------|------|------|------|------|----|
| AAQ parameters at 15 locations (min and max) | <table border="1"> <thead> <tr> <th rowspan="2">Parameters</th> <th colspan="2">Core zone</th> <th colspan="2">Buffer</th> </tr> <tr> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> </tr> </thead> <tbody> <tr> <td>PM₁₀</td> <td>202</td> <td>56.9</td> <td>86.0</td> <td>49.0</td> </tr> <tr> <td>PM_{2.5}</td> <td>55.6</td> <td>40.6</td> <td>37.0</td> <td>21.9</td> </tr> <tr> <td>SO₂</td> <td>12.9</td> <td>10.4</td> <td>12.0</td> <td>9.70</td> </tr> <tr> <td>NO₂</td> <td>21.2</td> <td>14.6</td> <td>18.2</td> <td>13.9</td> </tr> </tbody> </table> | Parameters | Core zone | | Buffer | | Max | Min | Max | Min | PM ₁₀ | 202 | 56.9 | 86.0 | 49.0 | PM _{2.5} | 55.6 | 40.6 | 37.0 | 21.9 | SO ₂ | 12.9 | 10.4 | 12.0 | 9.70 | NO ₂ | 21.2 | 14.6 | 18.2 | 13.9 | -- |
| | Parameters | | Core zone | | Buffer | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Max | Min | Max | Min | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PM ₁₀ | 202 | 56.9 | 86.0 | 49.0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PM _{2.5} | 55.6 | 40.6 | 37.0 | 21.9 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SO ₂ | 12.9 | 10.4 | 12.0 | 9.70 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO ₂ | 21.2 | 14.6 | 18.2 | 13.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Incremental GLC Level | Will be incorporated in the EIA/EMP | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ground water quality at 5 locations | pH: 7.3 to 7.8; Total Hardness: 130 to 427 mg/l; Chlorides: 63 to 137 mg/l; Fluoride: 0.43 to 1.03 mg/l; Heavy metals –Nil | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Surface water quality at 6 locations | pH: 6.8 to 7.9; DO: 5.2 to 6.4 mg/l ; BOD: within 3.0 mg/l | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Noise levels Leq (Day and Night) | <u>Core Zone: dB (A)</u> 43.1 to 65.2 for the day time and 25.9 to 50.2 for the Night time. <u>Buffer Zone: dB (A)</u> 42.3 to 50.7 for the day time and 30.8 to 39.8 for the Night time. | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Traffic assessment study | Will be incorporated in the EIA/EMP | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Period | March 2023 to May 2023 | Additional Study (If any) |
|-------------------|---|---------------------------|
| findings | | |
| Flora and fauna | A Wild life conservation plan for schedule-I species was prepared and approved by the Principal Chief Conservator of Forests and Chief Wildlife Warden (PCCF&CWW), Telangana with a budgetary provision of ₹ 1668.00 Lakhs and SCCL has deposited to “Forest Bio-diversity Conservation Society of Telangana towards implementation of conservation plan. | -- |
| Water Requirement | Source of Water: Mine seepage water Ground Water Intersection: Ground water level is intersecting at a depth of 25 m Water Requirement: 4000 KLD NOC (For surface water): Nil NOC (Ground Water): Available | -- |

PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data, etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation No. TC-7709, dated 25.08.2023 and valid up to 24.08.2025.

- 14.7.11: Water Requirement:PP submitted that the water requirement will be 1800 KLD and the source water will be groundwater and mine seepage water. Permission for groundwater has been obtained by the PP vide Lr. No. 2182/HgI/2018-I dated 05.05.2021. PP also submitted that there is no diversion of river/ nallah is proposed.
- 14.7.12: Waste generation and disposal:PP submitted 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 | Mode of Treatment | Disposal | Remarks |
|-------|--------------------------|-----------|--------------|---|----------------------------------|---|
| i. | Overburden (Solid waste) | Quarrying | 94100000 TPA | External & Internal Dumping with reclamation activity | External & Internal Dumping | Nil |
| ii. | Lead acid batteries | HEMM | 1 TPA | Disposed to authorised recyclers | Disposed to authorized recyclers | Disposed as per the provisions of Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016. |

- 14.7.13: R&R Plan: PP submitted that there is no R&R involved in the balance life of the mine. Therefore, there is no R&R involved. However, provision of 10.7 Crore is made for unforeseen requirements in this regard.

14.7.14: Undertaking/ Affidavit: The PP has submitted an Affidavit that the proposal is to obtain ToR for the proposed Manuguru Opencast Extension Project with a production capacity of 2.10 MTPA (peak – 3.15 MTPA) in the project area of 1115.91 Ha of SCCL. There is no construction/ mining done at the site without any deviation as per previous EC. There is no litigation on the project either at NGT or any other court of law pertaining to environment aspect. The land is being acquired as per the provisions of approved Project Report/ Mining Plan under RFCTLARR Act, 2013. There is no difference in the documents submitted to MoEF&CC and the presentation being made to the EAC.

Observation and deliberation of the EAC

14.7.15: The committee noted the following:

- i. Proposal is for grant of Terms of Reference (ToR) to Manuguru Opencast Extension (MNG OC Extn) Project for production capacity of 2.10 MTPA (Peak – 3.15 MTPA) and increase in lease area from 668.42 Ha to 1115.91 Ha, located at Villages – Manugir, Ramanujavaram, Thirmalapuram, District – Bhadradi, State – Telangana by M/s. Singareni Collieries Co Ltd.
- ii. Forest land involved in the existing mine lease area is 34.95 Ha and the additional forest land proposed is 74.55 Ha in the proposed expansion. Hence, total forest land after the proposed expansion will be 109.5 Ha. PP submitted that the total broken forest area is 23.974 Ha and there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.
- iii. Project lies at a distance of 5.67 km away from the Kinnerasani wild life sanctuary Eco Sensitive Zone. A Wild Life Conservation plan for Schedule-I species was prepared and approved by the Principal Chief Conservator of Forests and Chief Wildlife Warden (PCCF&CWW), Telangana with a budgetary provision of Rs.1668.00 Lakhs and SCCL has deposited to “Forest Bio-diversity Conservation Society of Telangana towards implementation of conservation plan. PP also submitted that there is no Violation of WLP Act.
- iv. Mining covered under 2 mining lease area. The 1st Renewal of Manuguru Mining Lease granted vide G.O. Ms. No. 217, dated 12.08.2008 and valid up to 22.07.2035 for 742.01 ha. Additional Mining Lease for 373.90 ha granted vide G.O. Ms. No. 06, dated: 06.02.2015 and valid up to 15.04.2035.
- v. The total geological reserves reported in the mine lease area is 105.97 MT (net geological reserves 95.37 MTPA) with 64.17 MT mineable reserves. Out of the total mineable reserves only 58.35 MT is the extractable reserves. As on 31.03.2024 reserves already extracted are 17 MT. Hence, balance extractable reserves are 41.35 MT.
- vi. Total 8 working seams with thickness ranging from 0.30m to 7.54m are workable. Grade of coal is G-10, stripping ratio is 1:15.51 while gradient is 1 in 3.7 to 1 in 9.5. Life of mine from 2023-24 is 21 years.
- vii. The project has one external OB dump in an area of 304.72 ha with 120 m height and 256.82 Mm³ of OB and one internal OB in an area of 256.78 ha with 120 m height and 517.55 Mm³ of OB is envisaged in the project.

- viii. Total quarry area is 565.58 ha out of which backfilling will be done in 256.78 ha while final mine void will be created in an area of 308.80 ha with a depth of 295 m. Backfilled quarry area of 256.78 ha shall be reclaimed with plantation. Final mine void will be converted into water body.
- ix. Out of the total lease area of 1115.91 Ha, 692.54 Ha has already been acquired and the remaining land will be acquired by 2025-26.
- x. Progressive afforestation covering an area of 677.07 Ha at the end of mining which will include reclaimed external OB dump, internal dump and greenbelt. Density of the tree plantation will be 2500 plants per Ha. Void of 308.8 Ha at a depth of 295m is proposed to be converted into water.
- xi. Baseline data has been collected during summers (March 2023-May2023).
- xii. Water requirement will be 1800 KLD and the source water will be groundwater and mine seepage water. Permission for groundwater has been obtained by the PP vide Lr. No. 2182/HgI/2018-I dated 05.05.2021. PP also submitted that there is no diversion of river/nallah is proposed.
- xiii. No R&R is involved in the balance life of the mine. However, provision of 10.7 Crore is made for unforeseen requirements in this regard.
- xiv. Coal is proposed to be transported within the outside mining lease in the following manner:
 - a. In pit:by Trucks
 - b. Surface to siding: by Road
 - c. Siding to loading: by Rail
 - d. Quantity being transported by Road/Rail/conveyer/ropeway: 2.10 MTPA
- xv. PP reported that there are no villages/habitation within the mining lease area.
- xvi. Reclamation plan includes Afforestation shall be done progressively covering an area of 677.07 Ha at the end of mining.
- xvii. The power requirement for this project is about 5.00 MVA, as most of the Heavy Earth Moving Machines (HEMM) for OB and coal are diesel operated.The source of power supply is from 132 /33kV substation, Manuguru.2 Nos. of 33 KV feeders are already feeding power to this project from 132/33KV sub-station.
- xviii. The project cost and man power requirement for the project is INR 437.93 Crores. Direct and contractual employment to be generated is 172 and 550 Persons, respectively.

Recommendations of the Committee

- 14.8.16: EAC after detailed deliberations, under the provision of EIA Notification 2006 and as amended, **recommended** the proposal for grant of Terms of Reference (ToR), as applicable to the project, with Public Consultation (Public Hearing and Written submission) and following Specific ToR to **M/s Singareni Collieries Co Ltd.** in addition to generic ToR given at Annexure II for opencast mines for preparation of EIA/EMP report for Manuguru Opencast Extension (MNG OC Extn) Project for production capacity of 2.10 MTPA (Peak – 3.15 MTPA) and increase in lease area from

668.42 Ha to 1115.91 Ha, located at Villages – Manugir, Ramanujavaram, Thirmalapuram, District – Bhadradi, State – Telangana:

Specific ToRs:

- i. Project proponent has to prepare the EIA-EMP report based on the valid baseline data and thereafter conduct the Public Consultation (including public hearing), through concerned SPCB in the concerned Districts as per the provisions/procedure contained in the EIA Notification, 2006 (as amended) and OM issued by the MoEF&CC in this regard.
- ii. Project Proponent shall submit the detailed activities proposed with year-wise budgetary provisions (Capital and recurring) as per the Ministry's OM dated 30.09.2020, to address the concerns raised during the Public consultation including the public hearing. Activities proposed shall be part of the EMP.
- iii. Project proponent shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.
- iv. Project proponent has to Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modelling. Increase the number of air pollution monitoring stations and incorporate this data in EIA report.
- v. Impact of underground mining on the environment including underground mine air quality needs to be done by a reputed Government institute. The action plan on recommendation of study with budgetary provision needs to be submitted.
- vi. As the project involves groundwater intersection a Hydrological study shall be carried out by reputed Government Institute. Further, PP shall comply with the Ministry's OM dated 23.05.2019 and provide necessary details/studies in the EIA/EMP Report.
- vii. Project proponent shall submit the drone video & photographs of mined area, fresh lease area to be mined and existing and proposed transportation route. The height and speed of the drone shall be so maintained to give legible images/videos. Necessary titles should be included for better understanding.
- viii. Project proponent should submit the detailed plan in tabular format (year-wise for life of mine) for concurrent afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided.
- ix. Project proponent should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should

submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.

- x. Pond rejuvenation plan and plan for water recharge in the surrounding areas needs to be prepared. The capital and recurring expenditure to be incurred needs to be submitted.
- xi. Project proponent should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged under Environment Management Cell for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- xii. Project proponent should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. The year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility and strategy for using electric/e-vehicles/cleaner fuel (LNG/CNG) based mining machinery and trucks for mining operations and transportation of men and material and submit a time bound action plan.
- xiii. Project proponent should clearly show the transport route of the mineral and protection and mitigative measures to be adopted while transporting of the mineral. The impact from the centre line of the road/conveyor on either side should be brought out clearly. Based on the above study the compensation to be paid in the event of damage to the crop and land on either side of the road/conveyor needs to be mentioned. PP shall also conduct traffic study.
- xiv. All the certificates viz. Involvement of Forest land, distance from the protected area, and list of flora & fauna should be duly authenticated by the Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.
- xv. Analyze biodiversity of the surrounding area and prepare wildlife management/ conservation and get it approved from PCCF wildlife.
- xvi. Project proponent shall submit the action plan to adhere to the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.
- xvii. Project proponent shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of the Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs.
- xviii. It should be ensured that only NABET-accredited consultants shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that the accreditation of the consultant is valid during the collection of baseline data, preparation of EIA/EMP report and the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and the PP and consultant are fully accountable for the same.
- xix. Project proponent shall submit the photographs of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs, which will analyze the samples.

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- xx. A Social Impact Assessment Study shall also be carried out and an action plan on its recommendations may also be submitted with budgetary provisions.
- xxi. Detailed of solar power facility proposed to be installed as energy conservation measures shall be submitted.
- xxii. Project proponent shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero emission by 2050. PPs shall update the same to the EAC.
- xxiii. Project proponent should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.
- xxiv. The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
- xxv. Project proponent shall submit the applications for obtaining NOC for the diversion of Road/River/Nallha/Electric lines, if any passing through the project/block area to the concerned authority and details shall be provided in EIA Report.
- xxvi. Project proponent shall also submit an action plan pursuant to MoEFCC OM dated 29.10.2014.
- xxvii. A detailed Wild Life Conservation/Management plan for Schedule 1 species shall be prepared for the conservation of the species. PP shall ensure that a conservation plan shall be prepared and approved by the CWLW. PP shall obtain the authenticated list of schedule-1 species from the concerned department.
- xxviii. Project proponent shall provide the details of wastewater treatment facilities to be installed within its capacity, timeline and budget. The EIA report should also include details of STP and ETP to be provided for treatment of domestic and industrial waste water.
- xxix. Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report.
- xxx. Project proponent shall assess the environmental impact on schools near the ML area and explore possibility of relocation of the same. A mitigation measures shall be adopted against pollutions around the schools within the lease area in order to safeguard the interest and health of the students. A plan in this regard needs to be submitted.
- xxxi. Project proponent shall provide the action plan for the safety of the local people and their cattle from the mining activities by providing fencing and natural wind barrier between the mine infrastructure and settlements etc. shall be a part of such action plan. PP shall ensure to provide right of way to local people and EMP should have provision for the same.
- xxxii. Project proponent shall reduce area of final void and submit the rejuvenation plan for the water bodies/ponds within/surrounding the lease area so that it can be used by local people.
- xxxiii. Project proponent shall submit a plan to reduce the overburden (OB) generated during opencast mining of coal and deposition outside mining lease (ML) area.
- xxxiv. Project proponent shall provide the details of the bore wells in the mine lease area and compensation to be paid in case bore wells fails in future due to mining activities.
- xxxv. Project proponent shall provide the details of the essential/basic facilities to be provided to the mine workers during mining operation and maintenance.

- xxxvi. Project proponent shall submit a plan for skill development of the Project affected family (PAF) and nearby community so that they are capable enough to get employment/self-employed.
- xxxvii. Project proponent shall explore use of porta- magazine for explosives, if required.
- xxxviii. Project proponent shall prepare a disaster management plan considering the risk involved in the proposed mines.
- xxxix. 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.

AgendaNo.14.9

14.9: Proposal for grant of Fresh Terms of Reference (ToR) to Marwatola VII Coal Mine (area 1200 Ha having capacity of 1.5 MTPA) by M/s. Rama Cement Industries Private Limited located in Villages – Malachua, Rangarh, Amgar, Aurher, Sub District – Pali, District – Umaria, State – Madhya Pradesh– Terms of Reference – reg.

[Proposal No. IA/MP/CMIN/481561/2024; File No. IA-J-11015/52/2014-IA.II(M)]
[Consultant: JM EnviroNet Pvt. Ltd.; NABET/EIA/2326/RA 0308 valid up to 07/08/2026]

- 14.9.1: M/s. Rama Cement Industries Private Limited has made an application online vide proposal no. IA/MP/CMIN/481561/2024 dated 27.06.2024 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking a detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 1(a) Under Category “A” (> 500 Ha) of the schedule of the EIA Notification, 2006 and do not attract general condition, being appraised at Central Level. The Project is a Green Field Project.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussion held during the meeting, are given as under:

14.9.2: **Environmental site settings:**

The project area is covered under Survey of India Toposheet No. F44D3 & F44D7 for core zone and F44D3, F44D7, F44D4 & F44D8 is bounded by the geographical coordinates ranging from Latitude: 23°16'2.371” N to 23°18'2.052” N and longitudes 81°12'39.649” E to 81°15'20.959” E.

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

Forest Area: PP submitted that the project involves total 1059.531 ha of forest land. Out of the total forest area; 992.64 ha is Reserved Forest, 40.888 ha is Protected Forest and 26.003 ha is Revenue Forest. Application for forest Clearance has been submitted vide proposal no. FP/MP/MIN/QRY/481237/2024 dated 19.06.2024. PP further submitted that 621.061 Ha area is proposed to be disturbed.

| | |
|--|--|
| <p>List of Reserved & Protected forests within 10km radius:</p> | <p>4 Reserved Forests</p> <ul style="list-style-type: none"> ➤ Sohagpur Reserved Forest (within mine block) ➤ Reserved Forest (within mine block) ➤ Reserved Forest (within mine block) ➤ Maikala RF (~8.0 km in SSE Direction) <p>8 Protected Forests</p> <ul style="list-style-type: none"> ➤ Protected Forest (~4.0 km in East Direction) ➤ Protected Forest (~5.0 km in ESE Direction) ➤ Protected Forest (~ 6.5 km in SE Direction) ➤ Protected Forest (~7.0 km in East Direction) ➤ Protected Forest (~7.5 km in ENE Direction) ➤ Protected Forest (~7.5 km in SE Direction) ➤ Senduri PF (~ 8.0 km in ESE Direction) ➤ Protected Forest (~8.5 km in SE Direction) |
|--|--|

Protected Area: The project is not located within 10 km of any ESZ/ ESA/ national park/ biosphere reserve/elephant reserve/ wildlife sanctuary/ elephant corridor etc. However, Tiger Corridor connecting Bandhavgar National Park and Achanakmar Wildlife Sanctuary is located ~0.053 km in West Direction. PP further submitted the following details regarding the presence of Reserve Forest:

As regards involvement of wildlife and presence of Schedule-I species PP submitted that the proposal is for ToR. Detailed study is under way and same will be incorporated in EIA/EMP Report.

14.9.3: **Mining Lease:** PP submitted that the block was allocated by Ministry of Coal, Government of India vide Allocation order No: NA-104/2/2023-NA dated 08.06.2023 for 1200 Ha.

14.9.4: **Mine Plan and Method of Mining:** PP submitted that Approval of mine plan & mine closure plan for the project has been done for (rated capacity of 1.5MTPA, Area 1200 ha) vide letter no. MARWATOLA VII COAL MINEMPMP043/APP00282/2023 dated 03.06.2024 by Ministry of Coal.

- i. PP submitted that the Coal reserves estimated are proposed to be extracted by opencast mining method by shovel dumper system with controlled blasting for OB removal and coal winning by Surface Miner and Continuous Mining technology for underground mining. The Capacity of the mine applied for Normative/Rated is 1.5 MTPA and proposed Peak Production capacity is 2.25 MTPA as per Approved Mining Plan.
- ii. OB removal is undertaken by deploying shovel-dumper and coal mining by surface miner & payloader. Opencast method is proposed by shovel dumper system for OB removal with drilling-blasting and for coal winning surface miner is proposed. As the area proposed for underground mining is overlain by dense forest, an "Empirical and

Numerical Modelling Study on Non-Effective Width Method of Planning for Underground Mining" was done, for estimating the mining parameters, so that there is no subsidence due to reduction of pillar size during depillaring. According to this report, development has been proposed with 34.5m x 34.5m solid pillar size, irrespective of depth.

- iii. Net geological reserve reported in the mine lease area are 188.701 Million Tonnes with 125.797 Million Tonnes mineable reserves. Out of total mineable reserves, 97.880 Million Tonne reserves are available for extraction. Percent of extraction is 51.87%.
- iv. About 10 coal seams viz. VIII, L2, VII Top, VII Bot, VII Comb, VI, V Top, V Bot, L1 and Lo with local bands occur in descending order within the block. All seams have been considered for mining. Seam thickness ranges from 0.05 m to 10.05 m. Grade of coals G5-G11.
- v. Life of mine is 69 years including Development Period. For Opencast: 69 Years & Underground: 38 Years
- vi. At conceptual stage, 948.09 Million CuM of OB including top soil will be removed. Top soil will be scrapped by dozer before the ground preparation for drilling and blasting. Total top soil likely to be separated is about 23.53 Mcum which shall be utilized in spreading over backfilled area before plantation and biological reclamation
- vii. Total block area is 1200 ha; out of which, 6.516 ha is Govt. Land, 133.953 ha is Pvt. Land and 1059.531 ha is Forest Land. At conceptual stage, as per Approved Mining Plan 652.52 ha will be excavated (133.42 Ha Excavated void and 519.1 Ha will be Backfilled), 47.47 ha for Safety zone and barriers, 32.88 ha for other use (Road diversion, Diversion of Nallah, Garland Drains and area under HT diversion), 33.5 ha for Road & Infrastructure and 433.63 will remain undisturbed. 133.42 ha of excavated void area has been proposed to be converted as water body after backfilling some quantity of waste material to reduce its depth during post closure period.
- viii. **Details of Land usage:**

i. Pre-mining (in Ha)

| S. No. | Land Use | Within ML Area (Ha) | Outside ML Area (Ha) | Total (Ha) |
|--------|----------------------|---------------------|----------------------|------------|
| 1. | Agricultural Land | 136.302 | - | 136.302 |
| 2. | Forest Land | 1059.531 | - | 1059.531 |
| 3. | Waste Land | - | - | - |
| 4. | Grazing Land | - | - | - |
| 5. | Surface Water Bodies | 0.113 | - | 0.113 |
| 6. | Settlements | 0.320 | - | 0.320 |

| S. No. | Land Use | Within ML Area (Ha) | Outside ML Area (Ha) | Total (Ha) |
|--------------|-----------------------------|---------------------|----------------------|-------------|
| 7. | Other (Barren/Others, Road) | 3.734 | - | 3.734 |
| Total | | 1200 | - | 1200 |

ii. Post-Mining (in Ha)

| S. No. | Type | Total Area | Reclaimed Area | Un-claimed Area |
|--------------|---|-------------|----------------|-----------------|
| 1. | Excavation/ Quarry Area: | - | - | - |
| | (a) Backfilled Areas | 519.10 | 519.10 | - |
| | (b) Excavated Void | 133.42 | 133.42 | - |
| 2. | External Dump | - | - | - |
| 3. | Safety Zone | - | - | - |
| 4. | Road & Infrastructure | 33.5 | 33.5 | - |
| 5. | Road Diversion | 5.52 | | 5.52 |
| 6. | Nallah Diversion | 6.69 | 6.69 | |
| 7. | Garland Drains | 7.72 | 7.72 | - |
| 8. | Embankment | - | - | - |
| 9. | Safety zone | 47.47 | 47.47 | |
| 10. | Undisturbed Area OR Mining Right For UG | 433.63 | - | 433.63 |
| 11. | Diversion of HT Line | 12.95 | - | 12.95 |
| Total | | 1200 | 747.9 | 452.1 |

- ix. Details of transportation of Coal:PP submitted that the coal is proposed to be transported within the outside mining lease in the following manner:
- a. Coal will be transported from underground mining by conveyor belt and from opencast mine by dumper and tippers to temporary storage/ ground stock pile. Further, excavated coal will be transported via road & rail directly to its end users.
 - b. OB and Top soil will be transported using dumpers via haul road to external and later internal dump within the project area. Later on, external dump will also be rehandled.
- x. A total of 6-7 areas/patches are populated with Villages & habitations as part of 4 Village areas such as Amgar, Audhera, Malachua and Rougarh within the mine. All the PAFs/PAPs and land holders need to be rehabilitated and compensated properly as per

R&R policy of the Government.

- xi. Reclamation:PP reported that reclamation plan includes Afforestation which shall be done progressively covering an area of: 47.47 ha at the end of mining. 47.47 Ha of Greenbelt will include 14.95 Ha along the mine periphery and safety barrier of 3.38 ha along the road, 8.28 Ha along the nallah and 20.86 ha along the HT line for protection of the same features after their diversion. This will further include reclamation of internal dump of 519.10 Ha, Total 14,16,425 nos. of saplings will be planted with the density of 2500 plants per Ha. A void of 133.42 Ha is proposed to be converted into water body.

14.9.5: **Baseline Studies:** Baseline data has been collected during Post Monsoon Season (Oct., to Dec., 2023).

| Environment Baseline Study | | | |
|---|--------------------------------|-------------------------|---|
| Post Monsoon Season (Oct., To Dec., 2023) | | | |
| S.No. | Parameter | Nos of Locations | Description |
| 1 | Ambient Air Quality Monitoring | 10 | PM ₁₀ - 39.2 to 80.7 µg/m ³ PM _{2.5} - 21.1 to 49.8 µg/m ³ SO ₂ - 4.3 to 12.1 µg/m ³ NO ₂ - 9.3 to 26.8 µg/m ³ |
| 2 | Noise Level Monitoring | 10 | ➤ During Day Time – 48.5 to 54.5 LeqdB (A) ➤ During Night Time – 40.4 to 44.4 LeqdB (A) |
| 3 | Surface Water Sampling | 6 | ➤ pH – 7.06 to 7.56 ➤ Total hardness – 150.1 to 270.27 mg/l ➤ Calcium – 38.12 to 80.19 mg/l ➤ Alkalinity – 120 to 210 mg/l ➤ Chloride – 57.49 to 97.48 mg/l ➤ Magnesium – 12.10 to 19.97 mg/l ➤ Sulphate – 19.76 to 38.57 mg/l ➤ Fluoride – 0.08 to 0.26 mg/l ➤ Nitrate – 2.65 to 4.86 mg/l ➤ Iron – 0.25 to 0.46 mg/l ➤ Total Dissolved Solid – 274 to 416 mg/l ➤ BOD – 3.9 to 9.0 mg/l ➤ COD – 12.0 to 32.5 mg/l ➤ DO – 6.7 to 7.0 mg/l ➤ Sodium – 10 to 16 mg/l ➤ Potassium – 1.0 to 2.0 mg/l ➤ Conductivity – 402.0 to 610 mg/l |
| 4 | Ground water Sampling | 10 | ➤ pH – 7.19 to 7.86 ➤ Total hardness – 180.14 to 415.32 mg/l ➤ Calcium – 45.10 to 124.27 mg/l |

| Environment Baseline Study | | | |
|---|------------------|-------------------------|---|
| Post Monsoon Season (Oct., To Dec., 2023) | | | |
| S.No. | Parameter | Nos of Locations | Description |
| | | | <ul style="list-style-type: none"> ➤ Alkalinity – 142 to 340 mg/l ➤ Chloride - 81.96 to 154.86 mg/l ➤ Magnesium – 13.38 to 27.23 mg/l ➤ Sulphate - 18.59 to 68.30 mg/l ➤ Fluoride - 0.24 to 0.75 mg/l ➤ Nitrate – 3.08 to 9.92 mg/l ➤ Iron – 0.34 to 0.96 mg/l ➤ Total Dissolved Solid- 314 to 660 mg/l ➤ Sodium – 15 to 26 mg/l ➤ Potassium – 2.0 to 5.0 mg/l ➤ Conductivity - 462 to 970 mg/l |
| 5 | Soil Sampling | 10 | <ul style="list-style-type: none"> ➤ pH – 6.08 to 7.31 ➤ Conductivity – 0.05 to 0.16 mS/cm ➤ Chloride - 889.42 to 1521.37 mg/kg ➤ Calcium - 597.36 to 1594.84 mg/kg ➤ Sodium - 29.54 to 74.69 mg/kg ➤ Organic Matter - 0.51 to 0.94 % ➤ Magnesium - 171.85 to 600.65 mg/kg ➤ Nitrogen - 265.30 to 348.06 mg/kg ➤ Zinc - 53.15 to 87.18 mg/kg ➤ Manganese - 222.78 to 321.66 mg/kg ➤ Lead – 11.11 to 34.32 mg/kg ➤ Copper - 7.16 to 14.62 mg/kg ➤ Organic Carbon – 0.31 to 0.55% ➤ Nitrogen –265.30 to 348.06 kg/ha ➤ Phosphorous–69.4to98.25 kg/ha ➤ Potassium –246.06 to 813.34 kg/ha ➤ Texture – Silty Clay Sandy Loam ➤ SAR Value – 0.27 to 0.50 |

PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation No. TC-6821 and valid from 24.05.2023 till 23.05.2025.

14.9.6: **Water Requirement:** PP submitted that the total water requirement is 510 KLD, (Fresh Water: 440 KLD + Recycled/Treated Water: 70 KLD). Initially, water requirement for drinking & industrial use shall be made through boreholes with due permission from Central Ground Water Authority. Later on, same will be sourced from the Arar Nallah with due permission of the State Govt. that is flowing West to East within mine block and which will be diverted along Southern boundary as well as Southern Part of Eastern block boundary after leaving a safe distance of 7.5m from block boundary. The sources of water

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reported by the PP is Surface water (which will be sourced from Arar Nallah with due permission of the State Govt.), Ground Water (potable water is proposed to be sourced through borewell) and further PP submitted that in development stage, the industrial requirement is proposed to be met through treated water pumped from the mine. Hydrogeological Study and preparation of Comprehensive Hydrogeological Report have been done. Application for obtaining permission from CGWA is submitted with application no. 21-4/2309/MP/MIN/2024 dated 11.07.2024.

14.9.7: **Solid and hazardous Waste generation:** PP reported that details of solid and hazardous waste generation along with its mode of treatment/ disposal will be furnished as below:

| S. No | Type of Waste | Source | Quantity (TPA) | Mode of Treatment | Disposal | Remarks |
|-------|--|--|----------------|---|---|--------------|
| 1. | Solid Waste (Domestic waste) | Mine Site | 45.63 | Organic Composter and Vermi-Compost Pits. | The same will be used as Manure in Greenbelt- By Road | --- |
| 2. | Plastic Waste (Packing material) | Equipment/components/spare parts packing | 0.63 | - | Through registered agencies - By Road | --- |
| 4. | E-waste IT equipment, electronic parts, cartridges of printer) | Laptops/Desktops/Servers/Printers/Electronics equipment. | 2.5 | - | Through registered vendors -By Road | --- |
| 5. | Dry Battery | Caplamp-350, UPS-40 Machineries-12, FSV-3 | 80 | - | Returned to OEM/Supplier - By Road | --- |
| 6. | Hazardous Waste (Used oil & Lubricants) | Machineries | 50 | - | Sold to the authorized CPCB recyclers through Registered Agencies - By Road | --- |
| 7. | C & D Waste (HEMM Workshop, CHP etc. | Mine Site over a period of 5 years post closure plan | 1442.4 | - | Backfilling of low lying areas (Generated due to dismantling of infrastructure during Post Closure) | By Haul Road |
| 8. | C & D Waste (Houses, Shelter of | within mine block area initial 3 years | 477.5 | - | Backfilling of low lying areas (Waste due to | By Haul Road |

| S. No | Type of Waste | Source | Quantity (TPA) | Mode of Treatment | Disposal | Remarks |
|-------|--------------------|--|----------------|-------------------|---|---------|
| | Village Habitants) | of mining operation (tentative period) | | | displacement of habitation within mine block) | |
| 9. | Overburden | Mine Site | 4416000 0 | - | Backfilling & for making M sand. backfilled area will be rehabilitated by plantation & regrassing | --- |

14.9.8: **R&R Plan:** PP submitted that more than 88% land of coal block area is falling into forest land category according to forest land records, local habitants are residing on the forest areas and most of them have acquired Pattas in their names. A total of 6-7 areas/patches are populated with Villages & habitations as part of 4 Village areas such as Amgar, Audhera, Malachua and Rougarh within the mine. About 191 kachha/ pakka houses with affected families of about 383 exist within the mine. About 396 number of land title holders exist in the coal block. All these PAFs/ PAPs and land holders need to be rehabilitated and compensated properly as per R&R policy of the Government. The nos. are tentative and it may be changed or updated during the preparation of R&R Action Plan.

14.9.9: **Diversion of Existing Structures/Water Body:** PP submitted that Panwadi to Malachua Road about 2.5 Km. proposed to be diverted along western and Southern block boundaries after leaving a 7.5 m safe barrier. Arar nallah along with its tributary Patparha and Bagaiha Nala is proposed to be diverted along southern and South-Eastern boundary. OHT Line (132KVA) - Diversion proposed along Western and Southern block boundaries.

14.9.10: **Project Cost:** Estimated cost of project submitted by the PP is Rs. 600 Crores.

14.9.11: **Legal Issues/ Violation:** PP reported that there is no legal issue/ violation w.r.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Van (Sanrakshan Evam Samvardhan) Adhinyam, 1980, Wildlife Protection Act, MMDR Act, Factories Act. Further, there is no court case on the project.

14.9.12: **Undertaking/ Affidavit:** PP has submitted an undertaking stating that his is a proposed mine and no construction is done at the site. There is no litigation pending on the project either at NGT or any other court of law. Further, PP has submitted the undertaking stating that there is no difference in the documents submitted to MoEF&CC and presentation being made to EAC.

Observations and deliberations of the EAC

14.9.13: **The Committee noted the following:**

- i. The instant proposal is for grant or Terms of Reference (ToR) to Marwatola VII Coal Mine (area 1200 Ha having capacity of 1.5 MTPA) by Rama Cement Industries Private

Limited, located in Villages – Malachua, Rangarh, Amgar, Aurher, Sub District – Pali, District – Umaria, State – Madhya Pradesh.

- ii. The proposal is a greenfield project. It is **opencast cum underground mine**. Total mine lease area is 1200 Ha, out of which 1059.531 Ha is the forest land and 621.061 Ha of forest land is proposed to be disturbed. The application for forest clearance has been submitted by the PP vide proposal no. FP/MP/MIN/QRY/481237/2024 dated 19.06.2024. The Committee is of the view that the opencast mining in the dense forest should be deferred and should be later started in a manner such that the dense forests remain undisturbed till the plantations raised in the mine lease area including the safety zone attain an age of more than 10 years and become dense.
- iii. Project is not located within 10 km of any ESZ/ ESA/ national park/ biosphere reserve/ tiger reserve/ wildlife sanctuary/ elephant reserve/ elephant corridor etc. However, a tiger corridor connecting Bandhavgarh National Park and Achanakmar Wildlife Sanctuary is located ~ 0.053 km in the west direction. Regarding the involvement of Schedule – I species, PP submitted that a detailed study is underway and the same shall be incorporated in EIA/ EMP Report. The Committee is of the opinion that, since there is a tiger corridor adjacent to the ML area, the PP is required to submit a NOC from PCCF wildlife and the PP is also required to take comments from NTCA pertaining to the tiger corridor adjacent to ML Area.
- iv. Approval of mine plan and mine closure plan for the project is granted for the rated capacity of 1.5 MTPA over an area of 1200 Ha vide letter no. MARWATOLA VII COAL MINEMPMP043/APP00282/2023 dated 03.06.2024 by the Coal Ministry. Life of mine is 69 years including Development Period. For Opencast: 69 Years & Underground: 38 Years
- v. Coal reserves estimated are proposed to be extracted by opencast mining method by shovel dumper system with controlled blasting for OB removal and coal winning by Surface Miner and Continuous Mining technology for underground mining. OB removal is undertaken by deploying shovel-dumper and coal winning by surface miner & payloader. Opencast method is proposed by shovel dumper system for OB removal with drilling-blasting and for coal winning surface miner is proposed. For underground mining is overlain by dense forest, an "Empirical and Numerical Modelling Study on Non-Effective Width Method of Planning for Underground Mining" was done, for estimating the mining parameters, so that there is no subsidence due to reduction of pillar size during depillaring. According to this report, development has been proposed with 34.5m x 34.5m solid pillar size, irrespective of depth.
- vi. Net geological reserve reported in the mine lease area are 188.701 Million Tonnes with 125.797 Million Tonnes mineable reserves. Out of total mineable reserves, 97.880 Million Tonne reserves are available for extraction. Percent of extraction is 51.87%.
- vii. The Committee observed that the Coal will be transported from underground mining by conveyor belt and from opencast mine by dumper and tippers to temporary storage/ground stock pile. Further, excavated coal will be transported via road & rail directly to its end users. The Committee asked the PP to submit the plan for establishing the conveyor belt.

- viii. Panwadi to Malachua Road of about 2.5 km is proposed to be diverted along western and Southern block boundaries after leaving a 7.5 m safe barrier. OHT Line (132KVA) - Diversion proposed along Western and Southern block boundaries.
- ix. The Water requirement is observed to be 510 KLD, which will be sourced from surface water, ground water and later on with he treated water. The permissions for each source will be obtained by the PP. Application for obtaining permission from CGWA is submitted with application no. 21-4/2309/MP/MIN/2024 dated 11.07.2024. It is also observed that Arar nallah along with its tributary Patparha and Bagaiha Nala is proposed to be diverted along southern and South-Eastern boundary. The Committee is of the opinion that Nallah diversion should not be done immediately and should be considered at the later stage.
- x. The Committee observed that baseline monitoring has already been done during post monsoon period October - December 2023 as per MoEF&CC OM dated 8.06.2022.
- xi. The Committee observed that more than 88% land of coal block area is falling into forest land category according to forest land records. A total of 6-7 areas/patches are populated with Villages & habitations as part of 4 Village areas such as Amgar, Audhera, Malachua and Rougarh within the mine. All these PAFs/ PAPs and land holders need to be rehabilitated and compensated properly as per R&R policy of the Government.
- xii. Estimated cost of project is Rs. 600 Crores.
- xiii. There is no legal issue or violation involved in the project.

14.9.14: **Recommendations of the Committee:**

EAC after detailed deliberations, under the provision of EIA Notification 2006 and as amended, **recommended** the proposal for grant of Terms of Reference (ToR), as applicable to the project, with Public Consultation (Public Hearing and Written submission) and following Specific ToR to M/s Rama Cement Industries Private Limited in addition to generic ToR given at Annexure (II to IV) for preparation of EIA/EMP report for Marwatola VII Coal Mine (area 1200 Ha having capacity of 1.5 MTPA) located in Villages – Malachua, Rangarh, Amgar, Aurher, Sub District – Pali, District – Umaria, State – Madhya Pradesh.

Specific ToRs:

- i. Project proponent has to prepare the EIA-EMP report based on the valid baseline data and thereafter conduct the Public Consultation (including public hearing), through concerned SPCB in the concerned Districts as per the provisions/procedure contained in the EIA Notification, 2006 (as amended) and OM issued by the MoEF&CC in this regard.
- ii. Project Proponent shall submit the detailed activities proposed with year-wise budgetary provisions (Capital and recurring) as per the Ministry's OM dated 30.09.2020, to address the concerns raised during the Public consultation including the public hearing. Activities proposed shall be part of the EMP.
- iii. Project proponent shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.
- iv. Project proponent should include specific studies and environmental mitigation measures for

opencast and underground mining in the EIA/ EMP report.

- v. Project proponent has to Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modelling. Project proponent should also increase the number of air pollution monitoring stations and incorporate the data in EIA report.
- vi. Impact of underground mining on the environment including underground mine air quality needs to be done by a reputed Government institute. The action plan on recommendation of study with budgetary provision needs to be submitted.
- vii. Project proponent should defer the Opencast mining in the dense forest for later stage. Opencast mining should start in a manner such that the dense forest remains undisturbed till the plantation raised in the mine lease area including in the safety zone attain an age of 10 years and become dense.
- viii. As the project involves groundwater intersection a Hydrological study shall be carried out by reputed Government Institute. Further, PP shall comply with the Ministry's OM dated 23.05.2019 and provide necessary details/studies in the EIA/EMP Report.
- ix. Project proponent shall submit the drone video & photographs of mined area, fresh lease area to be mined and existing and proposed transportation route. The height and speed of the drone shall be so maintained to give legible images/videos. Necessary titles should be included for better understanding.
- x. Project proponent should submit the detailed plan in tabular format to carry out (year-wise for life of mine) for concurrent afforestation and green belt development in and around the mining lease by using native species and in three tiers. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than **2 meters** to be selected and accordingly cost of plantation needs to be decided.
- xi. Project proponent should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.
- xii. Pond rejuvenation plan and plan for water recharge in the surrounding areas needs to be prepared and submitted. The capital and recurring expenditure to be incurred needs to be submitted.
- xiii. Project proponent should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the

number and designation of person to be engaged under Environment Management Cell for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.

- xiv. Project proponent should clearly bring out that what is the specific diesel consumption ~ (Litres/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. The year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility of using electric/**e-vehicles**/cleaner fuel (LNG/CNG) based mining machinery and trucks for mining operations and transportation of men and material and submit a time bound action plan for shifting on electric/**e-vehicles**/cleaner fuel (LNG/CNG).
- xv. Project proponent shall deploy heavy duty trucks with the highest payload/carrying capacity and shall deploy at least 15-20 % e-dumper for road transportation of coal to reduce the emissions and noise levels.
- xvi. Project proponent should clearly show the **transport route** of the mineral and protection and mitigative measures to be adopted while transporting of the mineral. The impact from the centre line of the road/conveyor on either side should be brought out clearly. Based on the above study the compensation to be paid in the event of damage to the crop and land on either side of the road/conveyor needs to be mentioned.
- xvii. Detailed traffic /transportation plan shall be prepared and may be submitted during EC proposals.
- xviii. Project proponent to submit the plan for installation of conveyor belt for transportation of coal.
- xix. All the certificates viz. Involvement of Forest land, distance from the protected area, and list of flora & fauna should be duly authenticated by the Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.
- xx. Analyze biodiversity of the surrounding area and prepare wildlife management plan for the surrounding area. Ecosystem services/biodiversity study including soil microflora of the surrounding area should be submitted along with budgetary details.
- xxi. There is a wild-life corridor/Tiger corridor in proposed project area, project proponent has to prepare wildlife conservation plan and get it approved from PCCF wildlife
- xxii. Project proponent should take comments of NTCA regarding the tiger corridor adjacent to the lease area. Also. PP should obtain NOC from PCCF Wildlife in this regard.
- xxiii. Project proponent shall submit the action plan to adhere to the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.
- xxiv. Project proponent shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of the Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs.
- xxv. It should be ensured that only NABET-accredited consultants shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that the accreditation of the consultant is valid during the collection of baseline data, preparation of EIA/EMP report and the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and the PP and consultant are fully accountable for the same.

- xxvi. Project proponent shall submit the photographs of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- xxvii. A Social Impact Assessment Study shall also be carried out and an action plan on its recommendations may also be submitted with budgetary provisions.
- xxviii. Details of solar power facility proposed to be installed as energy conservation measures shall be submitted.
- xxix. Project proponent shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero emission by 2050. PP shall update the same to the EAC.
- xxx. Project proponent should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.
- xxxi. The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.
- xxxii. Project proponent has to prepare the Nallah diversion study along with its aquatic biodiversity study. Project proponent should not immediately divert the Nallah and consider the diversion of the same at later stage.
- xxxiii. Project proponent shall submit the applications for obtaining NOC for the diversion of Road/River/Nallah/Electric lines, if any passing through the project/block area to the concerned authority and details shall be provided in EIA Report.
- xxxiv. Project proponent shall also submit an action plan pursuant to MoEFCC OM dated 29.10.2014.
- xxxv. A detailed Wild Life Conservation/Management plan for Schedule 1 species shall be prepared for the conservation of the species. PP shall ensure that a conservation plan shall be prepared and approved by the CWLW. PP shall obtain the authenticated list of schedule-1 species from the concerned department.
- xxxvi. Project proponent shall provide the details of wastewater treatment facilities to be installed within its capacity, timeline and budget. The EIA report should also include details of STP and ETP to be provided for treatment of domestic and industrial waste water.
- xxxvii. Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report.
- xxxviii. Project proponent shall assess the environmental impact on the nearby by schools and explore possibility of relocation of the same. A mitigation measures shall be adopted against pollutions around the schools within the lease area in order to safeguard the interest and health of the students. A plan in this regard needs to be submitted.
- xxxix. Project proponent shall sift the School at least 1 km away from the project boundary in consultation with the concerned District Collector/State education department.
- xl. Project proponent shall provide the action plan for the safety of the local people and their cattle from the mining activities by providing fencing and natural wind barrier between the mine infrastructure and settlements etc. shall be a part of such action plan. PP shall ensure to

provide right of way to local people and EMP should have provision for the same.

- xli. Project proponent to submit the rejuvenation plan for the water bodies/ponds within/surrounding the lease area so that it can be used by local people.
- xlii. Project proponent shall submit a plan to reduce the overburden (OB) generated during opencast/underground mining of coal and its deposition outside mining lease (ML) area.
- xlili. Project proponent shall provide the details of the bore wells in the mine lease area and compensation to be paid in case bore wells fails in future due to mining activities.
- xliv. Project proponent shall provide the details of the essential/basic facilities to be provided to the mine workers during mining operation and maintenance.
- xlv. Project proponent shall submit a plan for skill development of the Project affected family (PAF) and nearby community so that they are capable enough to get employment/self-employed.
- xlvi. Project proponent shall explore use of porta- magazine for explosives, if required.
- xlvii. Project proponent shall prepare a disaster management plan considering the risk involved in the proposed opencast/underground mining.
- xlviii. 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.

AgendaNo.14.10

14.10: Expansion of Amlohri Open Cast mines from 14 MTPA to 15 MTPA (increase of 10% with respect to 10 MT PA) within project area of 2175 ha by M/s Northern Coalfields Limited located in PO Amlohri, District- Singrauli, State - Madhya Pradesh - Environmental Clearance under para 7(ii) of EIA, 2006, as per MoEF&CC OM dated 11.04.2022 & 07.05.2022 – Reconsideration for grant of Environment Clearance based on ADS reply – reg.

[Online Proposal No. IA/MP/CMIN/415763/2023; File No. 11015/364/2005-IA-II(M)];
Consultant: CMPDIL; NABET/EIA/22-25/SA0223 valid till 08/04/2025]

14.10.1: M/s Northern Coalfields Limited applied vide Proposal No. IA/MP/CMIN/415763/2023 dated 25/01/2023 along with Form – 1, EIA/EMP report prepared based on standard ToRs seeking environment clearance for expansion of Amlohri Open Cast mines from 14 MTPA to 15 MTPA (increase of 10% with respect to 10 MTPA) within project area of 2175 ha located in PO Amlohri, District- Singrauli, State - Madhya Pradesh under Clause 7(ii) of EIA Notification, 2006, as per Ministry's OM dated 11.04.2022 & 07.05.2022 The project falls under Schedule1(a) of mining and is a Category-“A”project as per EIA notification 2006 (as amended), as the mining lease area is more than 500Ha and the project is appraised at central level.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

14.10.2: M/s Northern Coalfields Limited originally accorded EC for Amlohri OCP for the production capacity of 4 MTPA over the lease area of 2175 Ha on 28.06.1985. It was further granted EC for expansion of production capacity of 10 MTPA on the same lease area of 2175 Ha on 16.02.2006. PP also conducted Public Hearing for the same on 10.06.2005 as part of EC dated 16.02.2006.

It further accorded EC for production capacity of 14 MTPA on 02.09.2015 as per the Ministry's OM dated 30.05.2014, seeking expansion of 40% production capacity. PP further applied for EC for the production capacity of 15 MTPA as per Ministry's OM dated 07.05.2022.

| S. No. | Capacity | Date of Submission | Date of Consideration | Date of grant of EC | Remarks |
|--------|----------------------------------|--------------------|---|---------------------|---|
| | 0 - 40% (10 MTPA – 14 MTPA) | 17.08.2014 | 39 th EAC held on 16 th & 17 th July 2015 | 02.09.2015 | As per the Ministry's OM dated 30.05.2014, one time capacity expansion with additional production of up to 4 MTPA was accorded subject to condition that transportation of additional production of coal is through conveyor belt and/or rail transport. Further, the dispensation is subject to satisfactory compliance with EC issued in the passed as judged by the EAC. |
| 2. | 40% - 50% (14 MTPA – 15 MTPA) | 21.02.2023 | Special dispensation to the coal mining projects which have been granted expansion of EC up to 40% of original EC shall be granted expansion EC to increase their | 26.07.2022 | Applied as per the Ministry's OM dated 07.05.2022 and was granted EC on 26.07.2022, with the condition that CCR report for the EC granted for 40% expansion along with EIA/EMP report prepared based on |

| S. No. | Capacity | Date of Submission | Date of Consideration | Date of grant of EC | Remarks |
|--------|----------|--------------------|--|---------------------|--|
| | | | production capacity to 50% of original capacity within the same lease area without requiring revised EIA/EMP report for additional capacity and public consultation. | | standard ToRs for the additional capacity addition of 10 % shall be submitted on Parivesh portal within six 6 months of enhancement of production beyond 40 %. |

14.10.3: **Previous Approvals:** Details of previous approvals in chronological order are as under:

| S. No. | Project | Type | Details of Letter no. | Production Capacity | ML Area | Date of grant of EC |
|--------|-------------|------------|---|---|---------|---------------------|
| 1. | Amlohri OCP | Original | vide ref no J-11015(44)/82-EN.5 | 04 MTPA | 2175 ha | 28.06.1985 |
| 2. | | Expansion | Vide ref no J-11015/364/2005-IA-II(M) | 10 MTPA | 2175 ha | 16.02.2006 |
| 3. | | Expansion | Vide ref no. J-11015/364/2005-IA-II(M) | 14 MTPA | 2175 ha | 02.09.2015 |
| 4. | | Amendme nt | Vide ref no. J-11015/364/2005-IA-II(M) | 14 MTPA coal and 1000m ³ /d M-sand | 2175 ha | 24.12.2021 |
| 5 | | Expansion | Vide ref no. J-11015/364/2005-IA-II(M) under Ministry's OM dated 07.05.2022 | 15 MTPA | 2175 ha | 26.07.2022 |

W.r.t the prior approvals, PP submitted that operations of mine started 1985 onwards and has submitted the following details regarding production. PP submitted that there has been no excess production in any of the years and the actual production of 15 MTPA has been achieved against the EC sanctioned capacity of 15 MTPA in the year 2022-23. Following

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details of actual coal production vis-à-vis sanctioned capacity since the inception of mine are as follows:

| Year | EC Sanctioned capacity (MTPA) | Actual Production (MTPA) | Excess production beyond the EC sanctioned capacity |
|-------------|--------------------------------------|---------------------------------|--|
| 85-86 | 4.00 | 0.000 | Nil |
| 86-87 | 4.00 | 0.000 | Nil |
| 87-88 | 4.00 | 0.260 | Nil |
| 88-89 | 4.00 | 0.470 | Nil |
| 89-90 | 4.00 | 1.160 | Nil |
| 90-91 | 4.00 | 1.740 | Nil |
| 91-92 | 4.00 | 2.800 | Nil |
| 92-93 | 4.00 | 3.450 | Nil |
| 93-94 | 4.00 | 3.830 | Nil |
| 94-95 | 4.00 | 4.000 | Nil |
| 95-96 | 4.00 | 4.000 | Nil |
| 96-97 | 4.00 | 3.420 | Nil |
| 97-98 | 4.00 | 3.430 | Nil |
| 98-99 | 4.00 | 3.600 | Nil |
| 99-00 | 4.00 | 3.640 | Nil |
| 00-01 | 4.00 | 3.850 | Nil |
| 01-02 | 4.00 | 4.000 | Nil |
| 02-03 | 4.00 | 4.000 | Nil |
| 03-04 | 4.00 | 3.550 | Nil |
| 04-05 | 4.00 | 3.730 | Nil |
| 05-06 | 10.00 | 4.160 | Nil |
| 06-07 | 10.00 | 4.590 | Nil |
| 07-08 | 10.00 | 4.700 | Nil |
| 08-09 | 10.00 | 5.280 | Nil |
| 09-10 | 10.00 | 6.150 | Nil |
| 10-11 | 10.00 | 5.370 | Nil |
| 11-12 | 10.00 | 6.581 | Nil |
| 12-13 | 10.00 | 7.510 | Nil |
| 13-14 | 10.00 | 8.510 | Nil |
| 14-15 | 10.00 | 10.000 | Nil |

| Year | EC Sanctioned capacity (MTPA) | Actual Production (MTPA) | Excess production beyond the EC sanctioned capacity |
|-------|-------------------------------|--------------------------|---|
| 15-16 | 14.00 | 10.520 | Nil |
| 16-17 | 14.00 | 11.105 | Nil |
| 17-18 | 14.00 | 12.145 | Nil |
| 18-19 | 14.00 | 13.040 | Nil |
| 19-20 | 14.00 | 13.470 | Nil |
| 20-21 | 14.00 | 13.600 | Nil |
| 21-22 | 14.00 | 14.000 | Nil |
| 22-23 | 15.00 | 15.000 | Nil |
| 23-24 | 15.00 | 15.000 | Nil |

14.10.4: In pursuance to the OM dated 7/05/2022, Certified compliance report of the EC granted for 40% expansion, along with EIA/EMP report, for the additional capacity of 10% was submitted on PARIVESH portal on 25.01.2023 by the project proponent vide proposal no. IA/MP/CMIN/415763/2023. Based on these documents, Ministry has to ascertain the adequacy of the proposed environmental safeguards and stipulate necessary conditions, if required, which shall be monitored as a part of the EC compliance monitoring.

In this regard, the aforesaid proposal was considered by the EAC in its 41st meeting held on 14.03.2023. The proposal was deferred for want of additional information. PP submitted the ADS reply on 12/07/2024. The proposal was placed before the EAC for reconsideration in its meeting held on 5-7th August, 2024.

The salient features of the aforesaid expansion are furnished as below:

14.10.5: **Environmental site settings:**

The project area is covered under Survey of India Topo Sheet No 63L/2 and is bounded by the geographical coordinates ranging from Latitude: 24005'40" to 24009'41.6" North and longitudes 82034'1.46" to 82036'59.38" East. Project does not fall in the Critically Polluted Area (CPA), as per the CEPI Assessment, 2018. However, as per this CEPI score 2018, the project falls under SPA.

Mining Lease: PP Submitted that the total mine lease area is 2175 Ha. Total 2175 Ha has been acquired under CBA (A&D) Act, 1957, vide SO 660, dated 04.02.1982.

Forest Area: PP submitted that 1195 Ha of forest land is involved in the project. The PP acquired Stage – II FC on the 300 Ha of forest area vide letter no. F-8-194/84FRY dated 10.06.1985, No. 8-33/97-FC dated 25.11.1997, No. F-8-100/97-FC dated 13.01.1999, No. F-8-100/97-FC dated 12.08.99, No.F-8-100/97-FC dated 14/19.03.2002 &F No.-8-100/97-FC dated 18.10.2002 (wef 12.08.2001). Also, acquired Stage - II FC on 895 Ha of forest

land vide No. 8-194/84-FC dated 30.12.1987. The validity of the same expired and PP again applied for the same and acquired its Stage – I FC vide letter no. F. No. 8-194/1984-FC (Pt.), dated 12.12.2018 on 1195 Ha forest land PP further submitted that there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

Protected Area: PP submitted that the project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ tiger corridor. PP also submitted that there are no Schedule-I species reported in the study area.

14.10.6: **Certified Compliance Report:** The Status of compliance of earlier EC was obtained from Regional Office, IRO, MoEF&CC, Bhopal vide letter no. 3-45/2015 (Env) dated 02.11.2023 for the visit conducted on 22.05.2023 in the name of Amlohri OCP M/s. Northern Coalfields Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Bhopal vide letter no. NCL/AML/GM/23-24/5596 dated 25.02.2024. The details of the same are as follows:

| S. No. | Partly- Complied Details | Observation of RO (abridged) | Condition No | | | Re- assessment by RO/Response of PP |
|--------|---|--|--------------|----------|---------|--|
| | | | EC date | Specific | General | |
| 4) | Environmental quality parameters arising out of proposed expansion shall be within the prescribed norms and the same shall be maintained as per prescribed norms. | <p>Observation during the site visit:</p> <p>During the visit, the monitoring reports as monitored by M/s CMPDI has been furnished by the project proponent. It is noted that AAQ parameters like PM 10 & PM2.5 are exceeding the permissible limited in some samples at monitoring Stations in core zones as well as buffer zone. It is further noted that water quality parameters Turbidity is exceeding the Permissible Limit at sampling station hand pump – Nandgaon.</p> <p>The PP should ensure that the Environmental quality parameters be within the prescribed norms.</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied.</p> <p>Partly Complied.</p> | 26.07.2022 | (iv) | | <p>Following additional arrangements have been done to reduce AAQ parameters,</p> <ol style="list-style-type: none"> 1. 02 number truck mounted fog canons, 2. 02 number road sweeping machine 3. 04 number fixed fog canons <p>The turbidity and other water parameters at Nandgaon and other locations are within the limits (report enclosed).</p> |

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| S. No. | Partly- Complied Details | Observation of RO (abridged) | Condition No | | | Re- assessment by RO/Response of PP |
|--------|---|---|--------------|--|---------|---|
| | | | EC date | Specific | General | |
| 5) | Assessment of carrying capacity of mine & road transportation shall be done as per the state plan/instructions. | <p>The PP stated that 2.8% of coal is being dispatched to nearby coal based power plants and other industries following the pollution control directives/instructions/guidelines of state administration.</p> <p>However, the details regarding assessment of carrying capacity of mine is yet to be furnished.</p> <p>In view of the information furnished by the project proponent and as per the site observations noted above, the stipulated condition is considered as partly complied till the submission of the information.</p> <p>Partly Complied.</p> | 26.07.2022 | Additional Specific condition for SPAs (v) | | <p>Study for Carrying Capacity of mine being done by CMPDIL Ranchi for which work order has been issued vide letter no. NCL/CP/CMPDIL/24/69 dated 24.01.2024.</p> <p>Duration of the work is about 1 year.</p> <p>Work is likely to be completed by Dec.'24.</p> |
| 6) | PP to install Continuous monitoring station for ambient air quality monitoring and also continuous effluent quality in ETP shall be installed. Data so generated shall be linked with respective SPCB and CPCB website. | <p>Observation during the site visit:</p> <p>During the site visit, it was observed that Continuous Ambient Air Quality Monitoring Station (CAAQMS) has been established in Amlohri Township. It was informed that procurement of Continuous Effluent Monitoring System is under process through GeM. The relevant documents were furnished.</p> <p>In view of the information furnished by the PP and as per the site observations noted above, the stipulated condition is considered as partly complied.</p> <p>Partly Complied.</p> | 26.07.2022 | Additional Specific condition for SPAs (vii) | | <p>Work order for supply for Continuous Ambient Air Quality Monitoring Station (CAAQMS) and Continuous Effluent Monitoring System (CEQMS) has been awarded vide GeM order Number GEMC-511687739371125 dated 09.02.2024 and GEMC-511687783036776 dated 04.01.2024 and are installed.</p> |
| 7) | PP to install 1 more continuous ambient air quality monitoring stations as suitable locations preferably village side in consultation of SPCB. The real time data so generated shall be uploaded on company website and linked with CPCB/SPCB website. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display. | <p>Observation during the site visit:</p> <p>It was informed that additional continuous ambient air quality monitoring station is under procurement stage through GeM.</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied.</p> <p>Partly Complied.</p> | 24.12.2021 | iv | | <p>Work order for supply for Continuous Ambient Air Quality Monitoring Station (CAAQMS) and Continuous Effluent Monitoring System (CEQMS) has been awarded vide GeM order Number GEMC-511687739371125 dated 09.02.2024 and GEMC-511687783036776 dated 04.01.2024</p> |

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| S. No. | Partly- Complied Details | Observation of RO (abridged) | Condition No | | | Re- assessment by RO/Response of PP |
|--------|--|---|--------------|----------|---------|--|
| | | | EC date | Specific | General | |
| | | | | | | and are installed. |
| 8) | PP to develop an ECO park with separate area of 5 Ha for medicinal and herbal species within two years. | <p>Observation during the site visit:</p> <p>During the site visit, the PP showed the area for development of proposed ECO park. It was informed that the area near developed for plantation of medicinal and herbal plants.</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied. The PP should submit a time bound action plan for the development of ECO Park.</p> <p>Partly Complied.</p> | 24.12.2021 | (x) | | Eco park for medicinal and herbal species has been developed. |
| 9) | PP to install solar lights along the road used for transportation of coal to avoid the accidents at night and also seek its maintenance. PP is asked to also identify the rural areas for installation of solar light with its maintenance within the study area of 10 km radius buffer zone within one year and submit its report to IRO-Lucknow. | <p>Observation during the site visit:</p> <p>During the site visit, it was noted that lights in the mines have been provided along the road used for transportation of coal. The PP should initiate the installation of Solar lights along the road used for transportation of coal.</p> <p>The PP informed that solar lighting arrangements in local community centers have been done under CSR. However, the status report is yet to be furnished by the PP. In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied till the submission of the status report regarding installation of solar lights to R.O. Bhopal.</p> <p>Partly Complied.</p> | 24.12.2021 | (xi) | | <p>Solar lights in four Govt. schools at nearby community for continuous lights has already been installed. All the Mine roads have lights arrangement at night to avoid any accidents as per DGMS guidelines.</p> <p>MoU has been done with Singrauli and Sidhi Administration for solar lighting of the rural areas. The details of the MoU submitted to IRO-Bhopal and IRO Lucknow.</p> |
| 10) | Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. | <p>Observation during the site visit:</p> <p>During the site visit, it was observed that no river/nallah is passing through the lease area. However, there is a seasonal nallah flowing adjoining the lease area. The PP further needs to strengthen the embankment towards the nallah side.</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied.</p> <p>Partly Complied.</p> | 02.09.2015 | (ix) | | The embankment towards the nallah side has been further strengthened and more plantations has been done with 4500 plants. |

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| S. No. | Partly- Complied Details | Observation of RO (abridged) | Condition No | | | Re- assessment by RO/Response of PP | | | | | | | | |
|--------|---|---|--------------|-------------|----------|---|--|--|--|--|------------|-------|--|--|
| | | | EC date | Specific | General | | | | | | | | | |
| 11) | The embankment constructed along the river boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side and stabilized with plantation so as to withstand the peak water flow and prevent mine inundation. | <p>Observation during the site visit:</p> <p>During the site visit, it was observed that no river/nallah is passing through the lease area. However, there is a seasonal nallah flowing adjoining the lease area. The PP further needs to strengthen the embankment towards the nallah side. Plantation on the OB dumps has been done. Plantation on the OB dumps also needs to be enhanced towards the nallah side.</p> <p>In view of the information furnished by the Project Proponent and as the site observations noted above. The stipulated condition is considered as partly complied.</p> <p>Partly Complied.</p> | 02.09.2015 | (xviii) | | The embankment towards the nallah side has been further strengthened and more plantations has been done with 4500 plants. | | | | | | | | |
| 12) | There shall be no over flow of OB into the river and into the agricultural fields and massive plantation of native species shall be taken up in the area between the river and the project. | <p>Observation during the site visit:</p> <p>During the site visit, it was observed that no river/nallah is passing through the lease area. However, there is a seasonal nallah flowing adjoining the lease area. The PP further needs to strengthen the embankment towards the nallah side. Plantation on the OB dumps has been done. Plantation on the OB dumps also needs to be enhanced towards the nallah side.</p> <p>In view of the information furnished by the Project Proponent and as the site observations noted above. The stipulated condition is considered as partly complied.</p> <p>Partly Complied.</p> | 02.09.2015 | (xix) | | The embankment towards the nallah side has been further strengthened and more plantations has been done with 4500 plants. | | | | | | | | |
| 13) | Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data. | <p>Observation during the site visit:</p> <p>During the site visit, it was observed that retaining wall of 1200m was constructed along the of OB dumps to check run-off and siltation. Project proponent further needs to strengthen the embankment towards the nallah side.</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied.</p> <p>PARTLY COMPLIED</p> | 02.09.2015 | (xxii) | | The embankment towards the nallah side has been further strengthened and more plantations has been done with 4500 plants. | | | | | | | | |
| 14) | Compensatory Ecological & Restoration of waste land, other degraded land and OB dumps in lieu of breaking open the land be carried out. | <p>Observation during the site visit:</p> <p>As per relevant records, an amount of Rs. 3,52,08,591.00/- (includes CA payment of Rs. 3,20,97,700.00/- and other expenditures related to forest as demanded</p> <table border="1" data-bbox="430 1885 966 1923"> <thead> <tr> <th>S.</th> <th>Particulars</th> <th>Draft no</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | S. | Particulars | Draft no | Amount | | | | | 02.09.2015 | (xxx) | | Request to DFO Singrauli for the information has been made. But as the Forest division shifted from Sidhi to Singrauli old |
| S. | Particulars | Draft no | Amount | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

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| S. No. | Partly- Complied Details | Observation of RO (abridged) | | | | Condition No | | | Re- assessment by RO/Response of PP |
|--------|--------------------------|---|--|---------------------------------|--|--------------|----------|---------|--|
| | | | | | | EC date | Specific | General | |
| | | N. | | | | | | | records are not available with O/o DFO, Singrauli. |
| | | 1 | Compensation for forest growth | 0378261 dt.02.08.85 | | 36590 | | | |
| | | 2 | Forest growth | 090967 dt 28.03.85 | | 900000 | | | |
| | | 3 | Forest growth | 090968 dt 28.03.85 | | 900000 | | | |
| | | 4 | Forest growth | 090969 dt 28.03.85 | | 800000 | | | |
| | | 5 | Compensatory afforestation over 300 Ha | 036281 dt.31.08.85 | | 3000000 | | | |
| | | 6 | Compensatory afforestation | 11.04.88 | | 6350000 | | | |
| | | 7 | Compensatory afforestation | Yr.1987-88 | | 3038627 | | | |
| | | 8 | Renewal of 300 Hac Letter no. AML/34/99/208,21.06.99 | 699578 dt. 21.06.99 Addition al | | 20147700 | | | |
| | | 9 | Compensatory afforestation | 19.01.94 | | 33638 | | | |
| | | 10 | Compensatory afforestation | | | 2036 | | | |
| | | | Total | | | 35208591 | | | |
| | | <p>i.e. Rs 3110891.00/-) was deposited with DFO East Sidhi (M.P.) for the compensatory afforestation on account of 1195 ha diverted forest land. Details are as follows:</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, condition is considered as compliance in progress w.r.t. action at proponent. However, the status of utilization of funds under CAMPA needs to be ascertained from the State Forest Department w.r.t. funds deposited by NCL.</p> <p>The overall compliance of the condition is considered as partly complied till the receipt of undated status of implementation of CAMPA funds from the State Forest Department.</p> | | | | | | | |

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|--------|--|---|--------------|----------|---------|--|
| | | | EC date | Specific | General | |
| | | PARTLY COMPLIED. | | | | |
| 15) | Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done our times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons for the quality I May. Data thus collected shall be submitted to the Ministry of Environment, Forests & Climate Change and to the Central Pollution Control Board quarterly within one month of monitoring. | <p>Observation during the site visit:</p> <p>Regular monitoring of Ground water level and quality is carried out by CMPDI by establishing a network of existing wells and piezometers. The monitoring for water level is being done four times a year in pre-monsoon, monsoon, post-monsoon and winter seasons. Data thus collected is regularly submitted to the MoEF&CC through six-monthly compliance reports.</p> <p>Ground water monitoring test reports reveal that water quality parameter Turbidity is exceeding the Permissible Limit at sampling station Hand Pump- Nandgaon.</p> <p>The PP should ensure that the Environmental quality parameters be within the prescribed norms.</p> <p>Project Proponent shall review the ground water monitoring locations and there should be few more locations within the mine lease area to understand the impact of mining on the ground water. Project proponents also need to enhance the frequency of ground water quality monitoring quality in accordance with Environmental Monitoring programme proposed in the EIA report.</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied. Project Proponent also needs to enhance the frequency of ground water quality monitoring quality in accordance with the Environmental Monitoring programme proposed in the EIA report.</p> <p>PARTLY COMPLIED</p> | 02.09.2015 | (xxxiv) | | <p>Following additional arrangements have been done to reduce AAQ parameters,</p> <ol style="list-style-type: none"> 1. 02 number truck mounted fog canons, 2. 02 number road sweeping machine 3. 04 number fixed fog canons <p>The turbidity and other water parameters at Nandgaon and other locations are within the limits report enclosed.</p> |
| 16) | Besides carrying out regular periodic health check-up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, | <p>Observation during the site visit:</p> <p>As per records available IME and PME of the workforce engaged are regularly carried out. However, health study for 10% of the workers is yet to be done NIOH, Ahmadabad.</p> <p>In view of the information furnished by the Project Proponent and as per the records available, stipulated condition is considered as partly complied w.r.t. the said site visit.</p> <p>PARTLY COMPLIED</p> | 02.09.2015 | (xxxvii) | | <p>NIOH is not responding for taking up the work, a request letter has been submitted to IRO MoEF&CC Bhopal for guidance in this matter, so that the work may be conducted through any other recommended</p> |

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| S. No. | Partly- Complied Details | Observation of RO (abridged) | Condition No | | | Re- assessment by RO/Response of PP |
|--------|---|--|--------------|----------|---------|---|
| | | | EC date | Specific | General | |
| | through a specialized agency/institution within the District/State and the results reported to this Ministry and DGMS. | | | | | agency. |
| 17) | Data on ambient air quality (PM ₁₀ , PM _{2.5} , SO ₂ and NO _x) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its concerned Regional Office and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognized under the EPA rules, 1986 shall be furnished as part of compliance report. | <p>Observation during the site visit:</p> <p>As per CMPDI, RI-VI report four nos. of monitoring stations are established at core zone as well as buffer zone for monitoring of PM₁₀, PM_{2.5}, SO₂ and NO_x parameters in consultation with the SPCB.</p> <p>Monitoring of PM₁₀, PM_{2.5}, SO₂ and NO_x parameters are carried out along with heavy metals once in six months and data is submitted with half yearly compliance report to SPCB and Regional Office, MoEF on regular basis. As per the latest test reports of ambient air quality furnished by the Project Proponent, it is noted that PM₁₀ is exceeding the stipulated limits at the residential colony located in the buffer zone. Project Proponent needs to take adequate dust control measures in the area.</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied.</p> <p>PARTLY COMPLIED</p> | 02.09.2015 | | (iv) | <p>Following additional arrangements have been done to reduce AAQ parameters,</p> <ol style="list-style-type: none"> 02 number truck mounted fog canons, 02 number road sweeping machine 04 number fixed fog canons |
| 18) | Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analyzed through a laboratory recognized under EPA Rules, 1986. | <p>Observation during the site visit:</p> <p>During the visit, the monitoring reports as monitored by M/s CMPDI have been furnished by the project proponent. It is noted that AAQ parameters like PM₁₀ & PM_{2.5} are exceeding the permissible limited in some samples at monitoring Stations in core zone as well as buffer zone. It is further noted that water quality parameter Turbidity is exceeding the Permissible Limit at sampling station Hand Pump – Nandgaon.</p> <p>The PP should ensure that the Environmental quality parameters be within the prescribed norms.</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied.</p> <p>PARTLY COMPLIED</p> | 02.09.2015 | | (viii) | <p>Following additional arrangements have been done to reduce AAQ parameters,</p> <ol style="list-style-type: none"> 02 number truck mounted fog canons, 02 number road sweeping machine 04 number fixed fog canons <p>The turbidity and other water parameters at Nandgaon and other locations are within the limits report enclosed.</p> |

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| S. No. | Partly- Complied Details | Observation of RO (abridged) | Condition No | | | Re- assessment by RO/Response of PP |
|--------|--|--|--------------|----------|---------|---|
| | | | EC date | Specific | General | |
| 19) | Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data. | <p>Observation during the site visit:</p> <p>During the site visit, it was informed that retaining wall of 1200m was constructed along the of OB dumps to check run-off and siltation. Project proponent further needs to strengthen the embankment towards the nallah side.</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied.</p> <p>PARTLY COMPLIED</p> | 16.02.2006 | (iv) | | The embankment towards the nallah side has been further strengthened and more plantations has been done with 4500 plants. |
| 20) | Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of Environment & forests and the Central Ground Water Board, Regional Office quarterly within one month of monitoring. | <p>Observation during the site visit:</p> <p>As per available records regular monitoring of Ground water level and quality is carried out by CMPDI by establishing a network of existing wells and piezometers. The monitoring for water level is being done four times a year in pre-monsoon, monsoon, post-monsoon and winter seasons. Data this collected is regularly submitted to MoEF&CC through six-monthly compliance reports.</p> <p>Monitoring is being done and the ground water monitoring teat reports reveal that water quality parameter Turbidity is exceeing the Permissible imit at sampling stasjon Hand Pump – Nandgaon.</p> <p>The PP should ensure that the Environmental quality parameters be within the prescribed norms.</p> <p>Project Proponent shall review the ground water monitoring locations and there should be few more locations within the mine lease area to understand the impact of mining on the ground water. Project proponents also need to enhance the frequency of ground water quality monitoring quality in accordance with Environmental Monitoring programme proposed in the EIA report.</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied. Project Proponent also needs to enhance the frequency of ground water quality monitoring quality in accordance with the Environmental Monitoring programme proposed in the EIA report.</p> <p>PARTLY COMPLIED</p> | 16.02.2006 | (X) | | <p>Following additional arrangements have been done to reduce AAQ parameters,</p> <ol style="list-style-type: none"> 02 number truck mounted fog canons, 02 number road sweeping machine 04 number fixed fog canons <p>The turbidity and other water parameters at Nandgaon and other locations are within the limits report enclosed.</p> <p>(65 nos.) and piezometers (3 nos.).The monitoring for water level is being done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May.Data thus collected is</p> |

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| S. No. | Partly- Complied Details | Observation of RO (abridged) | Condition No | | | Re- assessment by RO/Response of PP |
|--------|--|---|--------------|----------|---------|--|
| | | | EC date | Specific | General | |
| | | | | | | regularly submitted to the MoEF&CC through six-monthly compliance reports. Monitoring is being done by CMPDI and the ground water monitoring test reports reveal that the parameters are well within the stipulated norms (i.e., Permissible limit in the absence of alternate source) |
| 21) | Data on ambient air quality (RPM, SPM, SO ₂ , NO _x) should be regularly submitted to the Ministry including its Regional Office at Bhopal and the State Pollution Control Board and the Central Pollution Control Board once in six months. | <p>Observation during the site visit:</p> <p>As per CMPDI, RI-VI report four nos. of monitoring stations are established at core zone as well as buffer zone for monitoring of PM₁₀, PM_{2.5}, SO₂ and NO_x parameters.</p> <p>Monitoring of PM₁₀, PM_{2.5}, SO₂ and NO_x parameters are carried out along with heavy metals once in six months and data is submitted with half yearly compliance report to SPCB and Regional Office, MoEF on regular basis. As per the latest test reports of ambient air quality furnished by the Project Proponent, it is noted that PM₁₀ is exceeding slightly, the stipulated limits at the residential colony located in the buffer zone. Project Proponent needs to take adequate dust control measures in the area.</p> <p>In view of the information furnished by the Project Proponent and as per the site observations noted above, the stipulated condition is considered as partly complied.</p> <p>PARTLY COMPLIED</p> | 16.02.2006 | | (iv) | <p>Following additional arrangements have been done to reduce AAQ parameters,</p> <ol style="list-style-type: none"> 1. 02 number truck mounted fog canons, 2. 02 number road sweeping machine 3. 04 number fixed fog canons |

14.10.7: **ADS Reply:** Reply to ADS raised in 41st EAC held on 14.03.2023:

| S. No. | Points | Compliance Status |
|--------|---|--|
| 1. | <i>The PP shall take immediate mitigation measures in order to reduce the air pollution in the mine lease area and the submit the measures taken for the mine employee in polluted environment.</i> | PP submitted the details of control measures adopted before & after March 2023 including the equipments added and coverage being extended. |
| 2. | <i>The PP shall install another</i> | PP submitted that CAAQMS unit with data display |

| S. No. | Points | Compliance Status |
|--------|--|--|
| | <i>CAAQMS towards village side within six month and the data to be displayed for local villagers.</i> | board has been installed on 03.04.2024. PP also displayed the pictures of the same. |
| 3. | <i>The PP should submit the Compliance report of the Amendment in EC dated 24.12.2021.</i> | PP submitted the details of the same herewith mentioned in point 14.10.5. |
| 4. | <i>PP shall submit the action plan of mechanized conveyor system for 100% transportation of coal till railway siding with silo loading facility.</i> | PP submitted that transportation of coal is being done with mechanized conveyor system. Details are as below: <ul style="list-style-type: none"> ➤ Extraction of coal is being done through dragline-dumper-shovel combination. ➤ The coal is transported from the face to Coal Handling Plant (CHP) through dumpers. ➤ From CHP to Silo through enclosed conveyor system. ➤ From SILO the coal is being loaded to railway wagons through Rapid Loading System. ➤ Thereafter by Merry Go Round system to Rihand Super Thermal Power Station (3000 MW Capacity) of M/s NTPC. |
| 5. | <i>PP shall submit plan to convert 100% haul road from unpaved to paved to reduce the emission of fugitive dust.</i> | PP submitted that all the mine approach road are black topped and paved, additionally the central haul road has been made of RCC in the F.Y. 2023-24. |
| 6. | <i>PP shall submit mitigation plan for dust emission from Coal Handling Plant and Coal storage yard.</i> | Measures for mitigation of dust emission from the Coal Handling Plant and Coal storage yard: <ul style="list-style-type: none"> ➤ Installation of Fixed Fog Canon at the CHP crusher and coal yard ➤ Improving efficiency of the mist spray system at crusher ➤ Increasing frequency of water spraying ➤ Improving the dumper loading capacity thereby reducing the nos. of trips of dumpers |
| 7. | <i>PP shall submit the compliance of earlier issues raised during Public Hearing and budget spent on the said issues.</i> | PP submitted that - <ul style="list-style-type: none"> ➤ Public Hearing for Amlohri OCP for 10.0 Mtpa Capacity in 2175.00 ha ML area was conducted by MPPCB on 10.06.2005. ➤ Issues raised during the Public Hearing have already been addressed. <p>Details of the same are herewith mentioned in point no. 14.10.9.</p> |
| 8. | <i>PP shall submit the effluent</i> | PP submitted that in the submitted report all the |

| S. No. | Points | Compliance Status |
|--------|---|---|
| | <i>characteristics of its ETP and STP</i> | parameters are within the prescribed limit. |

14.10.8: **Method of Mining and Mining Plan:**

- i. The mining plan & mine closure plan for the project was approved for 15 MTPA, 2175 ha by the NCL Board in 703rd meeting held on 12.05.2022 and communicated vide board note letter no. NCL/CP/Board/2525 dated 12.05.2022. Present proposal is for 10% capacity expansion i.e. for 15 MTPA as per MoEF&CC OM dated 07.05.2022.
- ii. Total geological reserve reported in the mine lease area is 364.08 MT (Net Geological Reserve – 349.41MT) with 314.46 MT mineable reserve. Extractable reserves are 314.46 MT. 206.11 MT coal reserves has been extracted till 31.03.2022. 108.35 MT coal reserves are remaining for extraction as on 01.04.2022.
- iii. Four number of seams namely Purewa Top, Purewa Bottom, Purewa Merged and Turra seams with thickness ranging from 0.5 m to 7.64 m, 10.33 m to 15.00 m, 20.87 m to 25.33 m and 11.50 m to 17.90m respectively are workable. The weighted average grade of coal seams is G9, stripping ratio is 4.71 cum/ te, while gradient is 2°-5°.
- iv. Life of mine is 11 years as on 01.04.2022.
- v. Method of Mining to be adopted shall be Opencast. The Capacity of the mine applied for as per approved mining plan is 15 MTPA.
- vi. The project has two external dumps having a total area of 402 ha and will accommodate 225.06 Mm³ OB. This external dump has already been fully reclaimed. Also, Project have two internal dumps of 780 ha and will accommodate 1070.01 Mm³ OB.
- vii. Total quarry area is 780 ha. Total quarry area will be backfilled and reclaimed with plantation. There will be no mine void left post closure of mine.
- viii. The technology of mining operations envisaged for OB removal is Dragline and Shovel-Dumper Combination. While excavation of Coal is by shovel/dumper combination & Surface Miner.
- ix. Land use details:

Pre-Mining Land Use (within mine lease)

| S. No. | Type of Land | Land (ha) |
|--------|--------------|-------------|
| 1 | Tenancy land | 898 |
| 2 | Govt. land | 82 |
| 3 | Forest land | 1195 |
| | Total | 2175 |

Post-Mining Land Use

| Sl. No. | Land use post mining | Land use (ha) | | | | Total |
|---------|------------------------|----------------|-------------|--------------------|---------------|----------------|
| | | Plantation | Water Body | Public/Company Use | Undisturbed | |
| 1 | External OB Dumps | 402.00 | | | | 402.00 |
| 2 | Excavation | 780.00 | | | | 780.00 |
| 3 | Roads & Infrastructure | 51.40 | | 164.00 | | 215.40 |
| 4 | Green Belt | 484.00 | | | | 484.00 |
| 5 | Safety Zone | | | | | |
| 6 | Undisturbed | | | | 290.60 | 290.60 |
| 7 | Sand Segregation Plant | | | 3.00 | | 3.00 |
| | Total | 1717.40 | 0.00 | 167.0 | 290.60 | 2175.00 |

x. Transportation of Coal: The coal is proposed to transport within the outside mining lease in the following manner:

- In pit – Through rear dumpers
- Surface to siding – Through enclosed conveyor belt
- Siding to loading – Through railway wagons

In addition to existing CHP, a rapid loading system of 2 MTPA will be operational from August 2024.

xi. Reclamation plan includes afforestation covering an area of 1717.40 Ha at the end of mining. This will include reclaimed external OB dumps of 402 Ha, reclaimed backfilled area in the form of internal OB dumps of 780 Ha, greenbelt in 484 Ha and infrastructure of 51.40 Ha. The density of plantation will be 2500 nos. of plants per Ha. As per the approved mine plan, at the end of the mine life no void will be left out.

xii. The project is reported to be beneficial in terms of supply planned quantity of Coal to Rihand Super Thermal Power Station of NTPC through MGR system, other thermal power stations of the nation and other consumers.

14.10.9: Baseline Data:

| Period | From Oct.'2022 to Dec.'2022 |
|---|--|
| AAQ parameters at location (min and max) at 8 locations | Suspended Particulate Matter In core zone under Industrial area varies from 188 to 534 µg/m ³ . |

| | | |
|---|---|--|
| | | <p>Respirable Particulate Matter (PM 10) In core zone (Industrial area) varies from 136 to 295 $\mu\text{g}/\text{m}^3$ & in buffer zone (Residential area) 38 to 262 $\mu\text{g}/\text{m}^3$.</p> <p>PM 2.5: In core zone under (Industrial area) varies from 22 to 73 $\mu\text{g}/\text{m}^3$ & under buffer zone (Residential area) PM 2.5 varies from 15 to 61 $\mu\text{g}/\text{m}^3$.</p> <p>Sulphur Dioxide: In core zone (Industrial area) varies from 26 to 58 $\mu\text{g}/\text{m}^3$ and buffer zone (Residential area) varies from 19 to 45 $\mu\text{g}/\text{m}^3$.</p> <p>Oxides of Nitrogen: In core zone (Industrial area) varies from 36 to 71 $\mu\text{g}/\text{m}^3$ and in buffer zone (residential area) 25 to 54 $\mu\text{g}/\text{m}^3$.</p> |
| Incremental GLC level (Maximum value of the 8 receptor locations monitored) | 8 | <p>Core Zone</p> <p>PM 10 -11 $\mu\text{g}/\text{m}^3$ (Level at 0 Km i.e. within mine)</p> <p>PM2.5-2 $\mu\text{g}/\text{m}^3$ (Level at 0 Km i.e. within mine)</p> <p>SO₂ – 0.35 $\mu\text{g}/\text{m}^3$ (Level at 0 Km i.e. within mine)</p> <p>NO_x – 7.3 $\mu\text{g}/\text{m}^3$ (Level at 0 Km i.e. within mine)</p> <p>Buffer Zone:</p> <p>PM 10 -1 $\mu\text{g}/\text{m}^3$ (Level at 4.09 Km in South East direction)</p> <p>PM2.5- 0 $\mu\text{g}/\text{m}^3$ (Level at 8.20 Km in North West direction)</p> <p>SO₂ – 0.19$\mu\text{g}/\text{m}^3$ (Level at 8.20 Km in North West direction)</p> <p>NO_x – 0.9 $\mu\text{g}/\text{m}^3$ (Level at 8.20 Km in North West direction)</p> |
| Ground water quality at 3 locations | 3 | pH: 7.4 to 7.9, Total Hardness:168 to 252 mg/l, Chlorides: 20 to 166 mg/l, Fluoride:0.07 to 0.56 mg/l, Zn-0.006 to 0.072 mg/l (All other heavy metals were below detection limit) |
| Surface water quality at 4 locations | 4 | pH: 7.8 to 8.1; DO: 6.8 to 7.2 mg/l and BOD: BDL to 2.2 mg/l. |
| Noise levels Leq (Day and Night) | | Core Zone 42.6 to 57.6 dB(A) for the day time and 50.8 to 65.7 dB(A) for the Night time. |

| | |
|-----------------------------------|--|
| | <p>Buffer Zone 37.2 to 55.6 dB(A) for the day time and 35.8 to 47.5 dB(A) for the Night time.</p> |
| Traffic assessment study findings | Not applicable (as per the relevant standard ToR) |
| Flora and fauna | No schedule I fauna and endangered Flora were reported during the study. |
| Water Requirement | <p>Source of Water: Mine Seepage Water & accumulated rain water (to meet industrial requirement) & Surface Water (to meet domestic requirement) Ground Water Intersection: Yes The premonsoon water level ranges from 4.50 m (2021) to 8.66 m (2015) with an average of 6.67 m.bgl. The post-monsoon water level ranges from 2.90 m (2021) to 7.50 m (2015) with an average of 4.87 m.bgl.</p> <p>Water Requirement: Industrial Water Demand: 4143 m³/day Domestic Water Demand: 1281 m³/day Fire Fighting-675 m³/day Total-6099 m³/day</p> <p>NOC (For surface water): From UP State government vide Letter No.649-CU-II/NTPC/79 dated 13.03.1979 NOC(GroundWater): CQWA/NOC/MIN/ORIG/2021/13516 dtd: 27.10.2021 valid up to 26.10.2023 Applied for renewal on: 14.12.2023</p> |

The Laboratory involved in analysis of water, air, noise & soil quality data, etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation No. TC-7470 and valid from 16.12.2022 till 15.12.2024.

14.10.10: **Public Consultation:** The advertisement for Public Consultation was published in Dainik Bhaskar & Aaj Newspapers on 10.05.2005 and Public Consultation was conducted on 10.06.2005 at community hall, Waidhan, Singrauli District. SDM of Singrauli presided the Public Consultation and 200 people attended it. Some of the major issues addressed during the public consultation were tree plantation, pollution control, Moher road and employment.

| S. No | Physical activity and action plan | Year of implementation | Total Expenditure (Rs. in Lakhs) |
|-------|-----------------------------------|------------------------|----------------------------------|
| | | (Budget in INR) | |

MoM of 14th meeting of the EAC for Coal Mining sector held on 5-7th August, 2024

| | Name of the Activity | Physical Targets | (2013-14) | (2014-15) | (2015-16) | (2016-17) | (2017-18) | (2018-19) | (2019-20) | (2020-21) | (2021-22) | (2022-23) | (2023-24) | (2024-25) | Proposed |
|---|--------------------------|--|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| | | | Completed Activities | | | | | | | | | | | | |
| 1 | Medical Camps | Organizing health camp, Organizing Nutritional camps, Distribution of medicines through Dispensaries in nearby villages, Covid-19 | | | | | | | 18.85 | 44.72 | | 5 | 19.82 | | 88.39 |
| 2 | Drinking Water Supply | RO Water Purifier, Installation of Handpumps in Singrauli & Sidhi district, Hand pump in near by villages. | | 30 | | 15 | 1.94 | 85 | | | 60 | 1.09 | 80.24 | | 273.27 |
| 3 | School Infrastructure | Solar system in 03 nos schools/colleges, creation of learning centre facility for underprivileged masses through police dept., Supply of Stationary items, Basic amenities to Govt. College waidhan, providing learning tools and furniture in Anganwadi and primary schools, Providing uniforms, school bags, Furniture in 295 schools Electrification of Village Bharuha | 55 | 9 | | 45 | 50 | 10 | 14.95 | 2.24 | 278.74 | 5 | 28.5 | | 498.43 |
| 4 | Road and Drainage system | 03 culvert at Bundhad and dam at deosar, construction of 11 kms road from khamariya, construction of 3.5km RCC road at village Jaraha | 85 | 110 | 227.78 | 10 | 350 | | 274.24 | | 565 | | 45 | 16 | 1667.02 |
| 5 | Infrastructure | Construction of 02 nos. Community halls in Bargawan pondi and Kachni, Community hall in Patulki & Khera, development works at Sidhi District, activities under transform Singrauli, Dasauti Aganwadi, Construction of Public Urinal in Deosar market, Waiting Platform at Dasauti village, District differently abled rehabilitation centre, construction of community hall at pachore village, Hiring of vehicle for transform Singrauli, meeting hall in police control room singrauli | 15 | 30 | | | | | 88.71 | 23 | | 154.8 | 440.7 | | 752.21 |

MoM of 14th meeting of the EAC for Coal Mining sector held on 5-7th August, 2024

| | | | | | | | | | | | | | | | |
|--------------|-------------------------------|-------------------------------|------------|------------|---------------|-----------|---------------|-----------|---------------|--------------|---------------|---------------|--------------|-----------|----------------|
| 6 | Rainwater Harvesting Measures | Construction of 03 nos. Ponds | 55 | | | | | | | | | 61.94 | | 116.94 | |
| Total | | | 210 | 179 | 227.78 | 70 | 401.94 | 95 | 396.75 | 69.96 | 903.74 | 165.89 | 676.2 | 16 | 3396.26 |

*Note: Data before 2013-14 is not available with the PP.

14.10.11: **EMP Budget:** The capital cost of the proposed project is the same as the existing project, i.e., Rs. 1943.99 Crores, and the capital cost for environment protection measures is Rs. 26.03 Crores. For the expansion, the additional capital cost for environmental protection measures proposed is Rs. 2.26 crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 5 crores. The total permanent employment that will be generated from the project is 1419.

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

| S. No. | Description of Item | Existing (in Rs. Lakhs) | | Proposed (in Rs. Lakhs) | |
|--------|--|-------------------------|----------------|-------------------------|----------------|
| | | Capital Cost | Recurring Cost | Capital Cost | Recurring Cost |
| 1. | Air Environment | Rs. 2602.9 lakhs | 50 | Rs. 226.0 lakhs | 50 |
| 2. | Water Environment | | 165 | | 165 |
| 3. | Technical & Biological reclamation including Greenbelt | | 150 | | 150 |
| 4. | Other Miscellaneous Measures | | 135 | | 135 |
| | Total | 2602.9 | 500 | 226.0 | 500 |

14.10.12: **Plantation:** PP submitted that the existing green cover is 799.655Ha which is 36.8% of the total leasehold area. Proposed green cover is 1717.40 Ha which is about 78.96 % of the total project area. A 7.5 m wide greenbelt, consisting of 3 tier plantations around mine boundary greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines exists in East, West and South of the Amlohri Mine lease hold area. Local and native species have been planted with a density of 2500 trees per hectare. Total no. of 42.93 lakhs saplings will be planted and nurtured in 1717.4 hectares in 10 years.

14.10.13: **Details of pending litigation:** PP submitted that there is no litigation pending against the project and the land on which the project is set up.

- 14.10.14: **R&R:** PP submitted that there were about 1298 project-affected persons and 645 PAFs, and they have been already provided the compensation as per R&R policy of CIL.
- 14.10.15: **Project Cost:** The total capital cost reported by the PP is 1943.99 crore, where the cost of production for coal is Rs. 971/ tonne and for M-sand is Rs. 295.288/ m3. The price at which the coal is sold exclusive of all taxes is Rs. 1172/ tonne and M-sand is sold exclusive of all taxes is for Rs. 500/ m3. As per CIL CSR policy w.e.f. 08.04.2021, the fund for the CSR should be allocated based on 2% of the average net profit of the company for the three immediately preceding financial years. The cost for implementing EMP (both capital and recurring) is Rs. 2602.90 Lakh.
- 14.10.16: **Undertaking/ Affidavit:** PP has submitted an undertaking stating that mining is done at the site as per the provisions of the approved mine plan and the existing EC. And there is no litigation pending on the project either at NGT or any other court of law about environmental aspects within the project boundary. PP has also submitted the undertaking stating that the land has been acquired as per the approved mine plan under CBA (A&D) Act, 1957 and R&R is being carried out as per CIL norms. Further, PP has submitted the undertaking stating that there is no difference in the documents submitted to MoEF&CC and the presentation being made to EAC.

Observation and deliberation of the Committee

14.10.17: Committee after deliberations noted the following:

The Committee noted the following:

- i. MoEF&CC accorded EC to M/s Northern Coalfields Limited on 26/07/2022 for Expansion of Amlohri Open Cast mines from 14 MTPA to 15 MTPA (increase of 10% with respect to 10 MTPA) within project area of 2175 ha located in PO Amlohri, District-Singrauli, State - Madhya Pradesh on 26/07/2022 as per the special dispensation accorded vide OM dated 7/05/2022 with a condition that CCR report for the EC granted for 40% expansion along with EIA/EMP report prepared based on standard ToRs for the additional capacity addition of 10 % shall be submitted on Parivesh portal within six 6 months of enhancement of production beyond 40 %.
- ii. PP already achieved the expansion production capacity of 50% during 2022-23 and 2023-24 itself.
- iii. Certified compliance report of the earlier EC, along with EIA/EMP report, for the additional capacity of 10% was submitted on PARIVESH portal on 25.01.2023 by the project proponent vide proposal no. IA/MP/CMIN/415763/2023.
- iv. As per the OM dated 7/05/2022, the application has to be submitted within six 6 months of enhancement of production beyond 40 %. In the instant case EC was accorded on 26/07/2022 and application was submitted on Parivesh on 25/01/2023 which is beyond the time frame of six months i.e., beyond 22/01/2023.
- v. Proposal was considered by the EAC in its meeting held on 14/03/2023 for ascertaining the adequacy of the proposed environmental safeguards and stipulate necessary conditions, if required, which shall be monitored as a part of the EC compliance

monitoring. The proposal was deferred for want of additional information. PP submitted the ADS reply on 12/07/2024 after a span of 1.5 years.

- vi. The proposal was reconsidered by the EAC and it is noted from the ATR of the PP against the CCR that several of the EC conditions are yet to be fully complied by the PP. It appears that no tangible effort has been taken by the PP to comply with the prescribed EC conditions although they achieved the enhance production capacity two years ago. The partial compliance inter-alia includes the following:
 - AAQ parameters like PM₁₀& PM_{2.5} are exceeding the permissible limited in some samples at monitoring Stations in core zones as well as buffer zone.
 - Assessment of carrying capacity of mine is yet to be furnished.
 - Additional continuous ambient air quality monitoring station is under procurement stage through GeM
 - Ground water monitoring test reports revel that water quality parameter Turbidity is exceeding the Permissible Limit at sampling station Hand Pump- Nandgaon.
- vii. The project proponent failed to exhibit/present the compliance to the additional mitigation measures prescribed in the EC dated 26/07/2022with respect to the location of mine in severely polluted area.
- viii. The reply given to other ADS points are found to be not specific and generic in nature.
- ix. CGWA renewal for ground water extraction is yet to be obtained by the project proponent.
- x. Moreover, the CMPDIL consultant is not providing the correct information and the presentation exhibited during the meeting was found to be different from the presentation document circulated to the Ministry and EAC members. This makes it very difficult to correctly apprise the project proposal from an environmental angle. The EAC also observed that the consultant has been making such glaring mistakes many times in the past also in spite of repeated advise by EAC members. This leads to wastage of time and delays the project / appraisal approval process. The EAC is of the well-considered opinion that the consultant should be issued a show cause notice by Ministry as to why action should not be initiated against them.

Recommendations of the Committee

14.10.18: In view of the foregoing and after detailed deliberations, the EAC *deferred* the proposal cited above and sought for following additional information for further consideration of the proposal.

- i. Project proponent shall submit factual report from the Regional Office on the partial non-compliances observed by them based on the action taken report of PP.
- ii. PP shall submit the compliance to the additional mitigation measures prescribed in the EC dated 26/07/2022with respect to the location of mine in severely polluted area.
- iii. Time bound action plan to address the issues raised during public hearing as per MoEF&CC OM dated 30/09/2020 shall be submitted.

- iv. DroneVideo of the compliance of the EC conditions pertaining to the plantation should be submitted by the PP.
- v. Renewed application or the status of the application for renewable submitted to CGWA should be submitted.

The above additional information shall be submitted by the proponent within two months from the date of uploading MoM failing which IA-Coal mining sector shall refer the matter to the Compliance & Monitoring Division as the project proponent is not complying with the prescribed EC conditions. In addition to the above, the EAC also recommended the Ministry to issue a show cause notice to CMPDIL as to why action should not be taken against them for making such glaring mistakes in the proposals submitted before the EAC in spite of repeated advice by EAC members.

DAY-3: 7 AUGUST, 2024 [WEDNESDAY]

Agenda No 14.11

14.11: Proposal for grant of Terms of Reference (ToR) for Block-B Expansion OCP, for enhancement of production capacity from 5.47 MTPA to 10 MTPA along with increase in lease area from 1339 Ha to 1500.688 Ha., by M/s. Northern Coalfields Limited located Village- Naudhiya Tehsil- Chitrangi, District- Singrauli, State- Madhya Pradesh - Terms of Reference (ToR)-regarding.

[Proposal No. IA/MP/CMIN/485551/2024; File No. J-11015/80/2013-IA-II(M); Consultant: CMPDIL; NABET/EIA/22-25/SA0223 valid till 08.04.2025]

14.11.1: The present proposal is for Terms of Reference for Block-B Expansion OCP, M/s. Northern Coalfields Limited for enhancement of production of Coal from 5.47 to 10 MTPA & increase in lease area from 1339 Ha to 1500.688 Ha., located in Naudhiya Village of Tehsil- Chitrangi, District- Singrauli in the State of Madhya Pradesh.

The project/ activity proposed by PP is an expansion project and covered under Category “(A)” of item 1(a) ‘Mining of Minerals Coal’ of the schedule to the EIA Notification, 2006 (as amended) as the mining lease area is >500 Ha and requires appraisal at the Central level by the sectoral EAC in the Ministry. PP applied online vide proposal No IA/MP/CMIN/485551/2024 dated 24/07/2024 along with PFR and Mining Plan for grant of TOR and the proposal was placed in the 14th EAC meeting held during 5th – 7th August, 2024.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussion held during the meeting, are given as under:

14.11.2: **Environmental site settings:**

The project area is covered under Survey of India Toposheet No. No 63/L/12 (RF: 1:50,000) and is bounded by geographical coordinates ranging from 24°9’33.638”N to 24°12’47.682” N latitudes and 82°32’39.415”E to 82°35’59.769”E longitudes. PP submitted

that the Project does not fall in the Critically Polluted Area (CPA), as per the CEPI Assessment, 2018. However, the project falls under SPA as per CEPI, 2018 Index.

Forest Area: The project involves a total of 492.86 Ha of forest land out of which stage-II FC has been granted for 447 ha area vide letter no. 8-59/2005-FC dated 14.09.2006. An application for the remaining 45.86 ha of forest land has been made to MoEF&CC vide proposal FP/MP/MIN/QRY/474561/2024, dated 22.05.2024. Forest land in the existing mine lease area is 447 Ha and the additional forest land proposed is 45.86 Ha after expansion. PP also submitted that there is a total broken forest area of 447 Ha and there is no violation of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

Protected Area: PP submitted that the project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. PP also submitted that the flora and fauna study shall be carried out during EIA. As of now, there are no wildlife issues involved and there is no violation of the WLP Act, 1972.

14.11.3: **Previous Approvals and past production details:**

| S. No. | Details of Letter No with date | EC/ Expansion in EC/ Validity Extension/ Transfer of EC | Capacity | Area |
|--------|---|---|----------|------|
| 1. | No. J-11015/39/2004-IA.II(M) dated 26/08/2003 | EC | 3.50 | 1339 |
| 2. | No.J-11015/40/2009-IA.II(M) dated 19/05/2009 | EC Expansion | 4.375 | 1339 |
| 3. | No.J-11015/80/2013-IA.II(M) dated 06/08/2014 | EC Expansion | 5.47 | 1339 |

PP submitted the past production details of the mine and previous EC-granted letters, which are as follows:

| Financial Year | EC Sanctioned Capacity (MTPA) | Actual Production (MTPA) | Excess Production beyond the EC sanctioned capacity |
|----------------|-------------------------------|--------------------------|---|
| 2006-07 | 3.5 | 0 | Nil |
| 2007-08 | 3.5 | 2.152 | |
| 2008-09 | 3.5 | 3.431 | |
| 2009-10 | 4.375 | 3.355 | |
| 2010-11 | 4.375 | 3.807 | |
| 2011-12 | 4.375 | 4.007 | |
| 2012-13 | 4.375 | 4.375 | |
| 2013-14 | 4.375 | 4.375 | |

| Financial Year | EC Sanctioned Capacity (MTPA) | Actual Production (MTPA) | Excess Production beyond the EC sanctioned capacity |
|----------------|-------------------------------|--------------------------|---|
| 2014-15 | 5.47 | 4.475 | |
| 2015-16 | 5.47 | 4.101 | |
| 2016-17 | 5.47 | 5.231 | |
| 2017-18 | 5.47 | 5.468 | |
| 2018-19 | 5.47 | 5.469 | |
| 2019-20 | 5.47 | 5.4695 | |
| 2020-21 | 5.47 | 5.47 | |
| 2021-22 | 5.47 | 5.47 | |
| 2022-23 | 5.47 | 5.47 | |
| 2023-24 | 5.47 | 5.47 | |

The Production of Block-B OCP is well within the capacity of EC.

14.11.4: **Mining Lease:** PP submitted the details of the mining lease as follows:

| S.O. No. | Land Acquired under the notification (Ha) | Land actually used in the proposed mine lease area (Ha) | Date of issue of SO no. | Validity of lease in years |
|--------------|---|---|-------------------------|----------------------------|
| 1037 | 1042.16 | 697.908 | 21.04.1989 | 99 |
| 1897 | 671.792 | 619.492 | 26.06.1992 | 99 |
| 3821 | 97.33 | 97.33 | 13.09.2006 | 99 |
| 0228 | 395.958 | 85.958 | 18.03.2021 | 99 |
| Total | 2207.24 | 1500.69 | | |

14.11.5: **Mining Plan:** PP submitted that the total Mining lease area as per block allotment is 1500.688 Ha. The mining plan & mine closure plan for the project was approved by the NCL Board in 296th meeting held on 15.05.2024 and communicated vide board note letter dated 19.06.2024.

14.11.6: **Method of Mining:** PP submitted the following details:

- i. PP submitted that the Method of mining operations is envisaged by an open cast mining method with OB removal by Shovel Dumper combination while coal mining will be by Surface Miner & Shovel-dumper combination.
- ii. The total geographical reserve reported in the mine lease area is 98.50 MT with 85.29 MT mineable reserve (as on 01.04.2024).
- iii. Two Nos. seams with thickness ranging from 8 m to 30.10 m are workable. The grade of coal is between G7 to G13 (Average Grade: G-9); stripping ratio 4.73 m³/t, while gradient is 4° to 22°.

- iv. The life of mine is 10 years.
- v. PP submitted that the total quarry area is 665.66 Ha out of which backfilling will be done in 464.45 ha while final mine void will be created in an area of 201.21 Ha with a depth of 285 m. Backfilled quarry area of 464.45 ha shall be reclaimed with plantation. Final mine void of 201.21 Ha will be filled up by regrading existing dumps in the post-closure period and biologically reclaimed.

a. Pre – mining land use:

| S No. | Land Use | Within ML Area (Ha) | Outside ML Area (Ha) | Total |
|-------|----------------------------------|---------------------|----------------------|-----------------|
| 1 | Agricultural land (Tenancy Land) | 527.70 | NIL | 527.70 |
| 2 | Forest Land | 492.86 | NIL | 492.86 |
| 3 | Wasteland | 0.00 | NIL | 0.00 |
| 4 | Grazing land | 0.00 | NIL | 0.00 |
| 5 | Surface Water bodies | 0.00 | NIL | 0.00 |
| 6 | Settlements | 0.00 | NIL | 0.00 |
| 7 | Others (Specify) Government land | 480.128 | NIL | 480.128 |
| | Total | 1500.688 | NIL | 1500.688 |

Total Leasehold Area (1500.688Ha) is excluding 24.186Ha Forest Land, which is not required for Mining Purpose.

b. Post – mining land use:

| S. No. | Type | Total Area | Reclaimed area | Un-reclaimed area |
|--------|--------------------------|-----------------|-----------------|-------------------|
| 1 | Excavation / Quarry Area | | | |
| 2 | Backfilled areas | 464.45 | 464.45 | - |
| | Excavated Void | 201.21 | 201.21 | - |
| 2 | External Dump | 429.10 | 429.10 | - |
| 3 | Safety Zone | 17.044 | 17.044 | - |
| 4 | Road and Infrastructure | 99.454 | 89.454 | 10 |
| 5 | Garland Drains | 4.00 | | 4.00 |
| 6 | Embankment | - | - | - |
| 7 | Others | 285.43 | 189 | 96.43 |
| | Total | 1500.688 | 1390.258 | 110.43 |

- vi. PP submitted that the Transportation of coal is proposed in the following manner:
 - a. **In pit:** Through rear Dumpers/Truck
 - i. Coal face to receiving pit of CHP (ROM coal).
 - ii. Coal face to interim CHP (Surface Miner coal)
 - b. **Surface to siding:** Coal extracted through Shovel-Dumper combination is crushed at receiving pit of CHP & Coal extracted through Surface Miner is received at interim CHP. From both these points the coal is send to SILO by enclosed conveyor belts for

rail rake loading.

- c. **Siding to loading:** By Rail to end consumer. There is also a provision of existing wharfwall for coal dispatch through railway wagons. Fraction of coal will be transported by road to small consumers.
- vii. PP submitted that there is no diversion of the river/nallah involved in the project.
- viii. Reclamation: The reclamation plan includes i) Afforestation shall be done progressively covering an area of: 1390.258 Ha at the end of mining. This will include:
 - a. Reclaimed external OB dump (in ha): 429.10 Ha
 - b. Internal Dumps (in ha): 464.45 Ha
 - c. Green belt (in ha): 185.00 Ha
 - d. Density of tree plantation (in no of plants): 2500
 - e. Void (in ha) at a depth of (in m) which is proposed to be converted into water body: 201.21 Ha will be filled up by regrading existing dumps and then biologically reclaimed.
 - f. Others in ha (such as excavation area along ML boundary, along roads and infrastructure, embankment area and in township located outside the lease etc): - 110.498 Ha

14.11.7: **Plantation:** PP submitted that afforestation shall be done covering an area of 1390.258 Ha at the end of mining. This will include greenbelt in 185 Ha, OB Dump of 429.10 Ha and Internal Dump of 464.45 Ha. Density of plantation will be 2500 plants per Ha. Till now the plantation has already been done in an area of 155.56 Ha with 4.33 Lakh nos of plants. Out of 155.56 Ha, plantation done on OB Dump is 111.88 Ha and 43.68 Ha on plain area.

14.11.8: **Legal Issues/ Violation:** PP submitted that Original Application No. 164/2018 (Ashwini Dubey vs Union of India & Ors.) still pending at Principal Bench of Hon'ble NGT for hearing on the objections/ compliances filed by respective respondents (incl. Block-B OCP) w.r.t. the report of Oversight Committee and next date of hearing in the case scheduled on 01.10.2024. The original application was in respect of pollution in Singrauli area due to various industries.

14.11.9: **Baseline Studies:** PP has submitted that Baseline data generation has been carried out in the summer season of 2024 in the period of 15.03.2024 to 15.06.2024. Summary of the same is as follows. However, the reports are under preparation.

| | |
|-------------------------------|--|
| Period | 15.03.2024 to 15.06.2024 |
| AAQ parameters at 8 Locations | <p>PM_{2.5} = 24.6 µg/m³ to 58.7 µg/m³ Residential PM₁₀ = 44.5 µg/m³ to 92.3 µg/m³ Residential</p> <p>PM_{2.5} = 77.1 µg/m³ to 150.3 µg/m³ Industrial PM₁₀ = 128.9 µg/m³ to 246.4 µg/m³ Industrial</p> <p>SO₂ = 12 µg/m³ to 41.7 µg/m³ NO_x = 15.6 µg/m³ to 46.9 µg/m³</p> |

| | | |
|--------------------------------------|------------|--|
| | | The heavy metals values are found to be very low and negligible. The heavy metals like Arsenic (As), Lead (Pb), Nickel (Ni), Mercury (Hg), Chromium (Cr) and Cadmium (Cd) were found to be Below Quantification Limit (BQL). |
| Incremental Level | GLC | Air Quality prediction modelling shall be carried out during EIA Study. |
| Ground water quality at 4 Locations | | pH: 6.98 to 7.43, Total Hardness: 38 to 260 mg/l, Chlorides: 20.99 to 86.97 mg/l, Fluoride: 0.18 to 0.46 mg/l. Heavy metals were generally found below detection limit |
| Surface water quality at 4 Locations | | pH: 7.19 to 7.68; TDS: 355 to 534 mg/l; Total Hardness: 146 to 284 mg/l; DO: 6.7 to 7.2 mg/l and BOD: 2.2 to 3.3 mg/l |
| Noise levels (Day and Night) | Leq | Core Zone: 71.6 dB(A) to 74.5 dB(A) for the day time and 61.1 dB(A) to 64.3 dB(A) for the Night time. Buffer Zone: 49.2 dB(A) to 61.9 dB(A) for the day time and 39.3 dB(A) to 52.0 dB(A) for the Night time. |
| Traffic study findings | assessment | Traffic study is being conducted. |
| Flora and fauna | | Flora & Fauna Study shall be carried out during EIA. |

PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data, etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation No TC – 7073 issued at 09.11.2022 and valid up to 08.11.2024.

14.11.10: **Water Requirement:** PP submitted that the water requirement will be 8360 KLD and the source of water will be mine seepage and accumulated rainwater and groundwater. NOC for groundwater intersection has been obtained by the PP earlier from CGWA vide no. CGWA/NOC/ MIN/ORIG/20 21/12797 dated 07.09.2021 and renewal of the same is under process. For water requirement to be fulfilled from surface water, PP has requisite permission to withdraw water from Rihand Reservoir

14.11.11: **Waste:** The details of solid and hazardous waste generation along with its mode of treatment/ disposal is furnished as follows:

| Sl. No. | Name of Waste | Source | Qty (TPA) | Mode of Disposal | Mode of Transport |
|---------|---|--------------------------------|-----------|---|-------------------|
| 1 | Solid waste (domestic wastes): Waste containing household waste from residential quarters and commercial complex in complex | Residential colony and offices | 781 | Door to door collection, segregation and further processing | Road |
| 2 | Plastic waste: Waste from residential | Colony & Office | 39 | Disposal through | Road |

| Sl. No. | Name of Waste | Source | Qty (TPA) | Mode of Disposal | Mode of Transport |
|---------|---|---|-----------|------------------------------|-------------------|
| | quarters and commercial complex in Bina colony | | | SLRM plant. | |
| 3 | E-waste: including cartridges, printers, computers | Office equipment, Lighting bulbs etc | 0.05 | Through authorized recyclers | Road |
| 4 | Batteries waste: It is used batteries from Heavy earth moving machinery and light vehicles from used in mining activity | Batteries of Heavy Earth Moving Machinery, Light Vehicles | 6.0 | Through authorized recyclers | Road |
| 5 | Bio-medical waste: Bina Project has 22 bedded hospital in its premises. The waste generated from hospital (blue, white, red, yellow category) | Dispensary | 0.069 | Through authorized CBWTF | Road |
| 6 | Hazardous Waste (Burnt Oil) | Workshop | 100 | Through authorized recyclers | Road |
| 7 | Hazardous Waste (Waste containing Oil) | Maintenance of HEMMs | 10 | Through authorized TSDF | Road |

14.11.12: **R&R Plan:** There is no R&R issue in the existing project land. The Project involves 207 PAFs and R&R cost is Rs. 159.91 crores. R&R and possession of land acquired vide notification No. 0228 dated: 18.03.2021 is under process by Project authorities.

14.11.13: **Undertaking/ Affidavit:** The PP has submitted an Affidavit that the proposal has been submitted as per EIA Notification 2006 for ToR for EC of the project expansion (from 5.47 MTPA to 10 MTPA). That there is no construction done at the site without any deviation as per EC obtained vide letter no. J-11015/80/2013-IA.II(M) dated 06.08.2014; J-110015/40/2009-IA.II(M) dated 19.05.2009 and J-11015/39/2003-IA.II(M) dated 13.05.2005. That a case is pending at Hon'ble NGT (Principal Bench). That the land has been acquired by GOI under Coal Bearing Areas (Acquisition & Development Act, 1957) and subsequently vested in NCL. The land acquired is in possession of Block – B Expansion OCP of NCL and there is no R&R issue on the existing project land. That there is no difference in the documents submitted and the presentation being made to the EAC.

The PP also submitted an undertaking that there are no data entry errors in the information uploaded on Parivesh and the supporting documents uploaded on Parivesh are correct and duly authenticated by the authorized signatory. And in case deviation in data is found in any

of the documents, the Authorised Signatory shall be held responsible and furthermore, the above-said project shall be rejected for grant of TOR as per EIA Notification 2006.

Observation and deliberation of the EAC:

14.11.14: The Committee noted the following:

- i. Proposal is for grant of Terms of Reference (ToR) for Block-B Expansion OCP, for enhancement of production capacity from 5.47 MTPA to 10 MTPA along with increase in lease area from 1339 Ha to 1500.688 Ha., by Northern Coalfields Limited located Village-Naudhiya Tehsil- Chitrangi, District- Singrauli, State- Madhya Pradesh.
- ii. The Proposal is for brown-field project. Total mine lease area is 1500.688 ha, out of which the forest land involved is 492.86 ha. The project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc.
- iii. Approval of mine plan & mine closure plan for the project has been granted for (capacity 10 MTPA, Area 1500.688 ha) vide board note letter dated 19.06.2024. Life of the mine is 10 years.
- iv. Out of the total area of 1500.688 Ha, void of 201.21 ha is proposed in the mining plan, which will be filled up regrading existing dumps in the post closure period and biologically reclaimed. Hence, there will be no void post closure of mine.
- v. The Committee observed that, till now the plantation has already been done in an area of 155.56 Ha with 4.33 Lakh nos of plants. Out of 155.56 Ha, plantation done on OB Dump is 111.88 Ha and 43.68 Ha is on the plain area. The PP submitted that afforestation shall be done covering an area of 1390.258 Ha at the end of mining. This will include greenbelt in an area of 185 Ha, OB Dump of 429.10 Ha and Internal Dump of 464.45 Ha. Density of plantation will be 2500 plants per Ha.
- vi. PP submitted that there is a pending case at the Principal Bench of Hon'ble NGT for hearing on the objections/ compliances filed by respective respondents (incl. Block-B OCP) w.r.t. the report of Oversight Committee and next date of hearing in the case is scheduled on 01.10.2024. The original application was in respect of pollution in Singrauli area due to various industries.
- vii. The Committee observed that the baseline monitoring has already been done during the summer season of 2024 in the period of 15.03.2024 to 15.06.2024 as per MoEF&CC OM dated 8.06.2022. However, the final reports are under the preparation.
- viii. The Method of mining operations is envisaged by an open cast mining method with OB removal by Shovel Dumper combination while coal mining will be by Surface Miner & Shovel-dumper combination for the capacity of 10 MTPA.
- ix. The total geographical reserve reported in the mine lease area is 98.50 MT with 85.29 MT mineable reserve (as on 01.04.2024). Percent of extraction is 95% of net geological reserve.
- x. Coal is proposed to be transported within the outside mining lease in the following manner:
 - a. **In pit:** Through rear Dumpers/Truck

- i. Coal face to receiving pit of CHP (ROM coal).
- ii. Coal face to interim CHP (Surface Miner coal)
- b. **Surface to siding:** Coal extracted through Shovel-Dumper combination is crushed at receiving pit of CHP & Coal extracted through Surface Miner is received at interim CHP. From both these points the coal is send to SILO by enclosed conveyor belts for rail rake loading.
- c. **Siding to loading:** By Rail to end consumer. There is also a provision of existing wharf wall for coal dispatch through railway wagons. Fraction of coal will be transported by road to small consumers.
- xi. PP submitted that there is no R&R issue in the existing project land. The Project involves 207 PAFs and R&R cost is Rs. 159.91 crores. R&R and possession of land acquired vide notification No. 0228 dated: 18.03.2021 is under process by Project authorities.
- xii. The reclamation plan includes afforestation which shall be done progressively covering an area of 1390.258 Ha at the end of mining. This will include Reclaimed external OB dump of 429.10 Ha, Internal Dumps of 464.45 Ha, Green belt of 185.00 Ha, Density of tree plantation shall be 2500 plants per Ha and Void (in ha) of 201.21 Ha will be filled up by regrading existing dumps and then biologically reclaimed. 110.498 Ha will be reclaimed as excavation area along ML boundary, along roads and infrastructure, embankment area and in township located outside the lease etc.
- xiii. The total capital cost is Rs. 1549.03 Crores and cost of implementing EMP is Rs. 186.19 crores (capital cost) & Rs. 451 Lakhs per annum (recurring cost).
- xiv. Water requirement for the project is 8360 KLD, which will be sourced from mine seepage and accumulated rain water and ground water. For water requirement to be fulfilled from surface water, PP has permission from UP State Electricity Board to withdraw water from Rihand Reservoir.
- xv. The project does not involve the diversion of any river/ nallah.
- xvi. Original Application No. 164/2018 (Ashwini Dubey vs Union of India & Ors.) still pending at Principal Bench of Hon'ble NGT for hearing on the objections/ compliances filed by respective respondents (incl. Block-B OCP) w.r.t. the report of Oversight Committee and next date of hearing in the case scheduled on 01.10.2024. The original application was in respect of pollution in Singrauli area due to various industries.

14.11.15: **Recommendation of the Committee:**

EAC after detailed deliberations, under the provision of EIA Notification 2006 and as amended, **recommended** the proposal for grant of Terms of Reference (ToR), as applicable to the project, with Public Consultation (Public Hearing and Written submission) and following Specific ToR to Northern Coalfields Ltd in addition to generic ToR given at Annexure – II for open cast mines for preparation of EIA/EMP report for Block – B Expansion OCP Project (ML area 1500.688 Ha having capacity 10 MTPA) located in villages – Mahdriyan, Parari, Sigahi, Sotong, Naudhiya, Gorbi, Sub District – Chitrangi & Singrauli, District – Singrauli, State – Madhya Pradesh:

Specific ToRs:

- i. Project proponent has to prepare the EIA-EMP report based on the valid baseline data and thereafter conduct the Public Consultation (including public hearing), through concerned SPCB in the concerned Districts as per the provisions/procedure contained in the EIA Notification, 2006 (as amended) and OM issued by the MoEF&CC in this regard.
- ii. Project Proponent shall submit the detailed activities proposed with year-wise budgetary provisions (Capital and recurring) as per the Ministry's OM dated 30.09.2020, to address the concerns raised during the Public consultation including the public hearing. Activities proposed shall be part of the EMP.
- iii. Project proponent shall submit a detailed action plan to the conditions prescribed in the MoEF&CC OM dated 31.10.2019 pertaining to consideration of proposals in CPA/SPA as the project is located within the Severely Polluted Area as per the CEPI assessment 2018.
- iv. Project proponent shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.
- v. Project proponent has to Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modelling.
- vi. The total excavation (minerals, waste, topsoil) to be excavated needs to be brought out clearly in the production and development plan. The mineable reserves and blocked reserves need to be mentioned along with the life of the mine. PP should add an annexure in the mining plan clearly showing the year-wise production and development plan (tabular format) till the end of the life of the mine. The location of mineral stacking, dumping sites, plantations and other infrastructures needs to be brought out clearly in the mining plan. PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled.
- vii. Project proponent shall optimise the requirement of forest land as far as possible and avoid its use for ancillary activities. PP is required to submit on a surface plan the coal seam vis-à-vis forest area. Further, the details of reserves under the forest land needs to be provided.
- viii. As the project involves groundwater intersection a Hydrological study shall be carried out by reputed Government Institute. Further, PP shall comply with the Ministry's OM dated 23.05.2019 and provide necessary details/studies in the EIA/EMP Report.
- ix. Project proponent shall submit the drone video & photographs of mined area, fresh lease area to be mined and existing and proposed transportation route. The height and speed of the drone shall be so maintained to give legible images/videos. Necessary titles should be included for better understanding.
- x. Project proponent should submit the detailed plan in tabular format (year-wise for life of mine) for concurrent afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation

plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than **2 meters** to be selected and accordingly cost of plantation needs to be decided.

- xi. Project proponent should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.
- xii. Pond rejuvenation plan and plan for water recharge in the surrounding areas needs to be prepared. The capital and recurring expenditure to be incurred needs to be submitted.
- xiii. Project proponent should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged under Environment Management Cell for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.
- xiv. Project proponent should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. The year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility of using electric/e-vehicles/cleaner fuel (LNG/CNG) based mining machinery and trucks for mining operations and transportation of men and material and submit a time bound action plan.
- xv. Project proponent should clearly show the transport route of the mineral and protection and mitigative measures to be adopted while transporting of the mineral. The impact from the centre line of the road/conveyor on either side should be brought out clearly. Based on the above study the compensation to be paid in the event of damage to the crop and land on either side of the road/conveyor needs to be mentioned.
- xvi. PP shall submit a feasibility report for the implementation of an in-pit conveyor belt with silo loading till railway siding for evacuation of coal with its target date of completion. In case this condition is not feasible then justification for the same needs to be provided along with alternative modes of transportation.
- xvii. To support the transportation via road, PP shall carry out the traffic study for one month along with the mitigation measures to control air pollution.
- xviii. All the certificates viz. Involvement of Forest land, distance from the protected area, and list of flora & fauna should be duly authenticated by the Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.
- xix. Project proponent shall submit the action plan to adhere to the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.
- xx. Project proponent shall submit a certified compliance report of EC conditions from the regional office of the Ministry.
- xxi. Project proponent shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of the Environment Management Plan vis-à-vis reduction in

concentration of emission for each APCEs.

- xxii. It should be ensured that only NABET-accredited consultants shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that the accreditation of the consultant is valid during the collection of baseline data, preparation of EIA/EMP report and the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and the PP and consultant are fully accountable for the same.
- xxiii. Project proponent shall setup more air quality monitoring station and shall submit the photographs of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- xxiv. A Social Impact Assessment Study shall also be carried out and an action plan on its recommendations may also be submitted with budgetary provisions.
- xxv. Detailed of solar power facility proposed to be installed as energy conservation measures shall be submitted.
- xxvi. Project proponent shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero emission by 2050. PPs shall update the same to the EAC.
- xxvii. Project proponent should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.
- xxviii. Project proponent shall submit the applications for obtaining NOC for the diversion of Road/River/Nallah/Electric lines, if any passing through the project/block area to the concerned authority and details shall be provided in EIA Report.
- xxix. A detailed Wild Life Conservation/Management plan for Schedule 1 species shall be prepared for the conservation of the species. PP shall ensure that a conservation plan shall be prepared and approved by the CWLW. PP shall obtain the authenticated list of schedule-1 species from the concerned department.
- xxx. Project proponent shall provide the details of wastewater treatment facilities to be installed within its capacity, timeline and budget. The EIA report should also include details of STP and ETP to be provided for treatment of domestic and industrial waste water.
- xxxi. Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report.
- xxxii. Project proponent shall assess the environmental impact on the nearby by schools, if any, and explore possibility of relocation of the same. A mitigation measures shall be adopted against pollutions around the schools within the lease area in order to safeguard the interest and health of the students. A plan in this regard needs to be submitted.
- xxxiii. Project proponent shall provide the action plan for the safety of the local people and their cattle from the mining activities by providing fencing and natural wind barrier between the mine infrastructure and settlements etc. shall be a part of such action plan. PP shall ensure to provide right of way to local people and EMP should have provision for the same.

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- xxxiv. Project proponent shall submit a plan to reduce the overburden (OB) generated during opencast mining of coal and deposition outside mining lease (ML) area.
- xxxv. PP shall submit the measures to be taken for the stability of dumps already existing and proposed to be developed during the mining operation. In case the height of any dump is more than 60 meters then PP shall get the study done from a reputed institute in this regard.
- xxxvi. Project proponent shall provide the details of the bore wells in the mine lease area and compensation to be paid in case bore wells fails in future due to mining activities.
- xxxvii. Project proponent shall provide the details of the essential/basic facilities to be provided to the mine workers during mining operation and maintenance.
- xxxviii. Project proponent shall submit a plan for skill development of the Project affected family (PAF) and nearby community so that they are capable enough to get employment/self-employed.
- xxxix. Project proponent shall explore use of porta- magazine for explosives, if required.
 - xl. Project proponent shall prepare a disaster management plan considering the risk involved in the proposed mines.
 - xli. 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.

Agenda No 14.12

14.12: Proposal for grant of Terms of Reference (ToR) for Bina Expansion Opencast Project, for enhancement of production capacity from 10.5 MTPA to 17.5 MTPA along with increase in lease area from 1790.377 Ha to 2079.221 Ha., by M/s. Northern Coalfields Limited located in Village – Jamshila, PO – Bina, Tehsil- Dudhi, District- Sonebhadra in the state of Uttar Pradesh; and Village – Churidah, Tehsil- Waidhan, District - Singrauli in the state of Madhya Pradesh – Terms of Reference (ToR) - regarding

[Online vide proposal no. IA/UP/CMIN/428886/2023; dated: 12.05.2023 Consultant: CMPDIL; NABET/EIA/22-25/SA0223 valid till 08/04/2025]

- 14.12.1: The proposal is for grant of Terms of Reference (ToR) for Bina Expansion Opencast Project, for enhancement of production capacity from 10.5 MTPA to 17.5 MTPA along with increase in lease area from 1790.377 Ha to 2079.221 Ha., by **M/s. Northern Coalfields Limited** located in Village – Jamshila, PO – Bina, Tehsil- Dudhi, District- Sonebhadra in the state of Uttar Pradesh; and Village – Churidah, Tehsil- Waidhan, District - Singrauli in the state of Madhya Pradesh.

Bina Extn. Project, Northern Coalfields Limited has made an application online vide proposal no. IA/UP/CMIN/428886/2023; dated: 12.05.2023 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project Bina Expansion OCP (17.5 MTPA). The proposed project activity is listed at S. No. 1. (a) under Category “A” of the schedule (all schedules pertaining to the project) of the EIA Notification, 2006 and being appraised at Central Level by the sectoral EAC in the

Ministry. The proposal was placed in the 14th EAC meeting held during 5-7th August 2024. It is located in Village – Jamshila, PO – Bina, Tehsil- Dudhi, District- Sonebhadra in the state of Uttar Pradesh; and Village – Churidah, Tehsil- Waidhan, District- Singrauli in the state of Madhya Pradesh is for Expansion of existing Bina Extn. Project with enhancement of production of Coal from 10.5 MTPA to 17.5 MTPA & increase in project area from 1790.377 ha to 2079.221 ha.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussion held during the meeting, are given as under:

14.12.2: **Environmental site settings:**

The project area is covered under Survey of India Topo-sheet No. 63/L/12 (G44W12) & 63/L/16 (G44W16) (RF 1: 50,000) and is bounded by the geographical coordinates ranging from 24°07'55.378" North to 24°11'10.597" North Latitudes and 82°42'53.211" East to 82°46'53.596" East longitudes.

Project does not fall in the Critically Polluted Area (CPA), as per CEPI Assessment, 2018. However, the project falls under Severely Polluted Area (SPA) as per CEPI, 2018 Index.

Forest Area: The project involved total 1369.046 of forest land. The details of the approval applied for is as follows:

| S. No | Obtained vide letter No. | Area (ha) | Stage I/II |
|-------|---|-----------|---------------------------------------|
| 1. | Land was acquired by the then Ministry of Steel vide S.O. No. 50 (E) dated 24.01.1975 under Coal Bearing Areas (Acquisition & Development) Act, 1957 & vested into NCL and broken up before enactment of Forest (Conservation) Act, 1980. | 687.280 | - |
| 2. | 8B/ UP/ 05/ 11/ 2004/ FC; dated: 01.06.2006. | 21.61 | Stage II FC accorded by MoEF&CC |
| 3. | 8-58/ 2005- FC dated: 13.08.2007 | 371.312 | Stage II FC accorded by MoEF&CC |
| 4. | 8-69/2018-FC dated: 16.04.2024 | 288.844 | Stage II FC accorded by MoEF&CC |
| Total | | 1369.046 | |

PP submitted that the total broken forest land is 687.280 Ha, way before FC Act, 1980 came into force. Hence, there is no requirement for forest clearance on this land. Therefore, there is no violation of the The 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/tiger corridor/elephant corridor etc. PP further submitted that the flora and fauna study shall be carried out during EIA.

14.12.3: **Previous approvals and past production details:**

| S. No | Details of Letter No. | EC/ Expansion EC/ Amendment in EC/ Validity extension/Transfer of EC | Capacity (MTPA) | Area (Ha) |
|-------|--|---|-----------------|-----------|
| 1. | No.J-11015/29/2004-IA.II(M) dated 02.08.2006 | Expansion EC from 4.5 MTPA to 6.0 MTPA | 6.0 | 1798 |
| 2. | No.J-11015/49/2011-IA.II(M) dated 06.08.2014 | Expansion EC from 6.0 MTPA to 7.5 MTPA | 7.5 | 1798 |
| 3. | No.J-11015/49/2011-IA.II(M) dated 12.02.2021 | Expansion EC from 7.5 MTPA to 9.0 MTPA | 9.0 | 1798 |
| 4. | No.J-11015/49/2011-IA.II(M) dated 29.07.2022 | Expansion EC from 9.0 MTPA to 10.5 MTPA | 10.5 | 1798 |
| 5. | No.J-11015/49/2011-IA.II(M) dated 06.03.2024 | Validity extension of EC and amendment in lease area from 1798 Ha to 1790.377 Ha. | 10.5 | 1790.377 |
| 6. | No.J-11015/49/2011-IA.II(M) dated 02.07.2024 | Amendment in EC | 10.5 | 1790.377 |

PP submitted the past production details of the mine and previous EC-granted letters, which are as follows:

| Year | EC Sanctioned Capacity (MTPA) | Actual Production (MTPA) | Excess production beyond the EC sanctioned capacity |
|-----------|-------------------------------|--------------------------|---|
| 2006-2007 | 6 | 4.65 | NIL |
| 2007-2008 | 6 | 4.89 | NIL |
| 2008-2009 | 6 | 5.44 | NIL |
| 2009-2010 | 6 | 6 | NIL |
| 2010-2011 | 6 | 6 | NIL |
| 2011-2012 | 6 | 6 | NIL |
| 2012-2013 | 6 | 6.5 | 0.5 |
| 2013-2014 | 6 | 6 | NIL |
| 2014-2015 | 7.5 | 6.64 | NIL |
| 2015-2016 | 7.5 | 7.01 | NIL |
| 2016-2017 | 7.5 | 7.5 | NIL |
| 2017-2018 | 7.5 | 7.5 | NIL |
| 2018-2019 | 7.5 | 7.5 | NIL |
| 2019-2020 | 7.5 | 7.5 | NIL |
| 2020-2021 | 9.0 | 8.41 | NIL |
| 2021-2022 | 9.00 | 9.00 | NIL |
| 2022-2023 | 10.5 | 10.5 | NIL |
| 2023-2024 | 10.5 | 10.5 | NIL |

The Production of Bina Extn. OC is well within the capacity of EC granted from 02.08.2006 onwards except for in the financial year 2012-13.

14.12.4: **Mining Lease:** PP submitted the details of the mining lease as follows:

| SO No. | Land Acquired under the notification (Ha) | Land actually used in the proposed mine lease area (Ha) | Date of issue of SO no. | Validity of lease in years |
|--------------|---|---|-------------------------|----------------------------|
| 50E | 1133.10 | 1133.10 | 24.01.1975 | 99 |
| 1599 | 21.61 | 21.61 | 13.04.1976 | 99 |
| 1692 | 39.28 | 39.28 | 06.05.1976 | 99 |
| 507 | 84.98 | 84.98 | 25.01.1979 | 99 |
| 101 | 511.407 | 511.407 | 23.12.1980 | 99 |
| 3235E | 180 | 180 | 17.12.2014 | 99 |
| 101 | 108.844 | 108.844 | 23.12.1980 | 99 |
| Total | 2079.221 | 2079.221 | - | - |

14.12.5: **Mining Plan:** PP submitted that the mining plan & mine closure plan for the project is under process for approval. However, the Pre-Feasibility Report has been approved by Director (Tech/P&P), NCL.

14.12.6: **Method of Mining:** The PP submitted the following:

- i. PP submitted that the Method of mining operations is envisaged by an open cast mining method. Excavation of Coal is through Shovel-dumper combination and Surface Miners. The waste/OB handling is with Shovel-dumper combination and dragline.
- ii. Total geological reserve reported in the mine lease area is 222.90 MT with 136.32 MT mineable reserve. Out of total mineable reserve of 136.32 MT, 129.50 MT are Extractable reserves. Balance Extractable reserves available for extraction as on 01.04.2024 is 129.50 MT. Three number of seams viz. Purewa Top, Purewa Bottom and Turra seams with thickness ranging from 3.42 m to 7.95 m (Avg. 5.57 m), 5.15 m to 13.50 m (Avg. 10.04 m), and 8.25 m to 21.12 m (Avg. 16.04 m) respectively are workable. Grade of coal is G-8 to G-12 (Average Grade: G-10); Stripping ratio 5.02 m³/t, while gradient is 2 to 3 degree.
- iii. The life of mine is 10 years.
- iv. PP submitted that Total quarry area is 1096 ha out of which backfilling will be done in 1060 ha. Total Backfilled quarry area of 1060 ha shall be reclaimed with plantation. Post closure the remaining 36 Ha will be filled with OB and will be biologically reclaimed with plantation. There will be no void left post closure of mine.
- v. Land – use details:

Pre-mining land use

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| Sr. No. | Land Use | Within ML Area (ha) | Outside ML Area (ha) | Total Area (ha) |
|--------------|------------------------------------|---------------------|----------------------|-----------------|
| 1. | Agricultural Land/ Tenancy Land | 513.000 | Nil | 513.000 |
| 2. | Forest land | 1369.046 | Nil | 1369.046 |
| 3. | Waste land/ Govt Land | 0 | Nil | |
| 4. | Grazing land | 0 | Nil | |
| 5. | Surface Water Bodies | 0 | Nil | |
| 6. | Settlements | 0 | Nil | |
| 7. | Other (Govt. Land) | 197.175 | Nil | 197.175 |
| Total | | 2079.221 | - | 2079.221 |

Post-mining land use

| Sl. No. | Land use post mining | Land use (Ha) | | | | Total |
|---------|-------------------------------------|---------------|------------|------------|-------------|--------|
| | | Plantation | Water Body | Public Use | Undisturbed | |
| A | Within ML | | | | | |
| 1 | External OB Dumps | 79.27 | | | | 79.27 |
| 2 | Excavation | 1060 | | | | 1060 |
| 3 | Roads & Infrastructure | 340 | | 110 | | 450 |
| 4 | Green Belt | 200 | | | | 200 |
| 5 | Safety Zone | 202.30 | | | 4.25 | 206.55 |
| 6 | Undisturbed | 30.901 | | | | 30.901 |
| 7 | Settling pond | | 4 | | | 4 |
| 8 | Garland drains | | 0.5 | | | 0.5 |
| 9 | Water Reservoir near pit (Eco-park) | | 10 | | | 10 |
| 10 | Excavated Void/ Mine | 36 | | | | 36 |

| Sl. No. | Land use post mining | Land use (Ha) | | | | Total |
|---------|----------------------|-----------------|---------------|----------------|--------------|------------------|
| | | Plantation | Water Body | Public Use | Undisturbed | |
| | Batter | | | | | |
| 11 | Embankment | | | 2 | | 2 |
| | Total | 1948.471 | 14.500 | 112.000 | 4.250 | 2,079.221 |

- vi. The coal is proposed to transport within the outside mining lease in the following manner:

In pit: Through rear dumpers

- a. coal face to receiving pit of CHP (ROM coal).
- b. Coal face to truck receiving hopper of CHP & Belt Pipe Conveyor (Surface Miner coal)

Surface to siding: Coal crushed at receiving pit of CHP & Surface Miner Coal received at truck receiving hopper is sent to SILO by Belt Conveyor for rail rake loading. Some part of Surface Miner Coal is sent to Wharfwall by haul road for rail rake loading.

Siding to loading: By Rail & Belt Pipe Conveyor to end consumer. Small fraction of coal will be transported by road to small consumers.

- vii. PP submitted that Tippa-Jharia Nallah flows along the western boundary of the proposed Bina expansion Project. No diversion of the same is proposed as per the approved PFR.
- viii. Reclamation: PP submitted that Afforestation shall be done covering an area of 1948.471 Ha at the end of mining. This will include reclaimed external OB dump of 79.27 Ha, Reclaimed backfilled area in the form of internal OB dumps of 1060.00 Ha, Green Belt of 200.00 Ha. Density of tree plantation will be 2,500 plants per Ha. No void will be left out at the end of mine life as per approved PR of 17.5 MTPA. The void area of 36.00 Ha left in the form of excavated batter will be reclaimed completely through plantation at the end of mine life. 573.201 Ha of land will be used for excavation area along ML boundary, along roads and infrastructure, embankment area and in township located outside the lease etc. Apart from this, PP submitted that Chandrasekhar Azad Eco Park with water reservoir will be developed.

14.12.7: **Plantation:** PP submitted that afforestation shall be done covering an area of 1948.471 Ha at the end of mining. This will include greenbelt in 200 Ha. Density of plantation will be 2500 plants per Ha. PP has carried out plantation in 432.3 ha (381.9 internal dump and 50.4 ha external dump) as on 31.03.2024.

14.12.8: **Legal Issues/ Violation:** PP submitted the following information regarding the pending litigations on the concerned project:

- i. A case vide no. 1798/2014 under section 15/16 of EPA Act 1986 (**for excess production beyond EC capacity**) is currently under consideration at court of CJM Sonebhadra. Application to obtain relief was filed at Hon'ble High Court of Allahabad to quash the proceedings of court of CJM Sonebhadra and order was passed by Hon'ble High Court on 26.08.2014 to apply the objection/ discharge petition in the District Court, Sonebhadra. Accordingly, a discharge petition was filed on 20.09.2014 at court of CJM Sonebhadra and which is currently under consideration.
- ii. Original Application No. 164/2018 (Ashwini Dubey vs Union of India & Ors.) still pending at Principal Bench of Hon'ble NGT for hearing on the objections/ compliances filed by respective respondents (incl. Block-B OCP) w.r.t. the report of Oversight Committee and next date of hearing in the case scheduled on 01.10.2024. The original application was in respect of **pollution in Singrauli area due to various industries**.
- iii. A case vide O.A. no. 817/2022 at Hon'ble NGT (PB) are currently under consideration regarding **illegal dumping of coal at railway siding at Krishnashila Railway Siding, sonbhadra** vs Union of India. Civil Appeal before Hon'ble Supreme Court against the order of the tribunal is still pending.

14.12.9: **Baseline Studies:** PP submitted that baseline data was collected during 15.03.2024 to 15.06.2024. Summary of the same is as follows. However, the reports are under preparation.

| Period | 15.03.2024 to 15.06.2024 |
|--|--|
| AAQ parameters at 8 Locations | PM _{2.5} = 27.9 µg/m ³ to 71.8 µg/m ³ PM ₁₀ = 47 µg/m ³ to 122.1 Mg/m ³ Residential PM _{2.5} = 102.8 µg/m ³ to 161.2 µg/m ³ PM ₁₀ = 177.4 µg/m ³ to 256.3 µg/m ³ Industrial SO ₂ = 11.8 µg/m ³ to 43.9 µg/m ³ NO _x = 17.4 µg/m ³ to 50.7 µg/m ³ |
| Incremental GLC Level | Air Quality prediction modelling shall be carried out during EIA Study. |
| Ground water quality at 4 Locations | pH: 7.22 to 7.63 mg/l., Total Hardness: 214 to 602 mg/l, Chlorides: 55.2 to 121.96 mg/l, Fluoride: 0.36 to 0.63 mg/l mg/l. Heavy metals were generally found below detection limit |
| Surface water quality at 4 Locations | pH: 7.03 to 7.89 ; DO: 7.5 to 7.8 mg/l and BOD: 2.4 to 2.8 mg/l |
| Noise levels Leq (Day and Night) at 8 locations. | Core Zone: 69.8 dB(A) to 74.5 dB(A) for the day time and 58.8 dB(A) to 65.9 dB(A) for the Night time. Buffer Zone: 49.0 dB(A) to 54.3 dB(A) for the day time and 39.8 dB(A) to 43.7 dB(A) for the Night time. |

| | |
|-----------------------------------|--|
| Traffic assessment study findings | Traffic study is being conducted. |
| Flora and fauna | Flora & Fauna Study shall be carried out during EIA. |

PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data, etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation No TC – 7073 issued at 09.11.2022 and valid up to 08.11.2024.

14.12.10: **Water Requirement:** PP submitted that the water requirement will be 4814 KLD and the source of water will be mine seepage, accumulated rainwater and groundwater. NOC for groundwater intersection has been obtained by the PP earlier from CGWA vide no. CGWA/ NOC/ MIN/ ORIG/ 2021/ 13979: dated 08.12.2021, valid from 08.12.2021 to 07.12.2023 and renewal of the same is under process. For water requirement to be fulfilled from surface water, PP has sought the permission from SE (Commercial), UPSEB vide 649-Cu-II/NTPC/79.

14.12.11: **Waste:** The details of solid and hazardous waste generation along with its mode of treatment/ disposal is furnished as follows:

| Sl. No. | Name of Waste | Source | Qty (TPA) | Mode of Disposal | Mode of Transport |
|---------|---|-------------------------------|-----------|---|-------------------|
| 1 | Solid waste (domestic wastes): Waste containing household waste from residential quarters and commercial complex in complex | Colony | 2044 | Door to door collection, segregation and further processing. | Road |
| 2 | Plastic waste: Waste from residential quarters and commercial complex in Bina colony | Colony | 100 | Disposal through SLRM plant. | Road |
| 3 | E-waste: including cartridges, printers, computers | Office | 0.05 | Through Surveying off to qualified parties as per e-Waste (Management Rules), 2016 | Road |
| 4 | Batteries waste: It is used batteries from Heavy earth moving machinery and light vehicles from used in mining activity | HEMM & Light Vehicle Workshop | 7.5 | The battery waste generated is auctioned to authorised recycler/ re-processor as per Battery Waste (Management Rules), 2016 | Road |
| 5 | Bio-medical waste: | Hospital | 0.275 | Through Common | Road |

| Sl. No. | Name of Waste | Source | Qty (TPA) | Mode of Disposal | Mode of Transport |
|---------|---|---------------|--|--|-------------------|
| | Bina Project has 22 22-bed hospital in its premises. The waste generated from hospital (blue, white, red, yellow category) | | | Biomedical waste treatment facility. | |
| 6 | Hazardous wastes (as per Hazardous Waste Management Rules) <ul style="list-style-type: none"> a. Residue containing oil b. Sludge from Wastewater Treatment c. Used Oil or spent Oil | HEMM Workshop | <ul style="list-style-type: none"> a. 30 Metric Tonnes b. Nil c. 250 KL | The Hazardous waste generated is auctioned to authorised recycler/re-processor as per Hazardous Waste (Management Rules), 2016 | Road |

14.12.12: R&R Plan: PP submitted that the expansion proposal does not involve any R&R. However, the existing project involved 273 no. of Project Affected Persons (PAPs) out of which 260 were given employment, remaining 13 PAPs were not given employment as they were not fulfilling eligibility criteria. Total tenancy land was acquired from 6 no. of villages. Total land compensation paid was Rs. 35.55 Lakhs while house compensation amounting to Rs. 3.57 Lakhs was paid.

14.12.13: Project Cost: The Total Capital cost of the project is 1361.58 Cr as per approved project report. CSR cost is as per CIL's CSR Policy w.e.f. 08.04.2021 and the fund for CSR should be allocated based on 2% of the average net profit of the company for 3 immediately preceding financial years. Environment Management Cost is Rs. 116.91 Crores (Capital) and the recurring cost is Rs. 5 crores/annum.

14.12.14: Undertaking/ Affidavit: The PP has submitted an affidavit that there has been no construction done at the site in deviation with the ECs granted earlier and the land has been acquired by the Govt. of India under Coal Bearing Areas (Acquisition & Development Act, 1957) and the land in possession has no R&R issues in the existing project land. The PP also mentioned that a case u/s 15 & 16 of EPA, 1986 is currently under consideration at the court of CJM Sonebhadra and 2 cases are currently under consideration at NGT(PB). PP also submitted that there is no difference in the documents submitted and the presentation being made to EAC.

Observation and deliberation of the EAC:

14.12.15: The committee noted the following:

- i. The proposal is for grant of Terms of Reference (ToR) to Bina Expansion Opencast Project for enhancement of production capacity from 10.5 MTPA to 17.5 MTPA and

- increase in lease area from 1790.377 Ha to 2079.221 Ha by Northern Coalfields Ltd., located in Village – Jamshila, PO – Bina, Tehsil- Dudhi, District- Sonebhadra in the state of Uttar Pradesh; and Village – Churidah, Tehsil- Waidhan, District - Singrauli in the state of Madhya Pradesh.
- ii. Proposal is a brown-field project. Existing project was accorded last EC on 02.07.2024 for the production capacity 10.5 MTPA over the lease area of 1790.377 ha. The project has been implemented and is under operation.
 - iii. Bina was accorded with the EC for the coal production of 10.5 MTPA over the lease area of 1798 ha on 29.07.2022. The said EC was further amended on 06.03.2024 for the validity extension of EC and amendment in the lease area from 1798 ha to 1790.377 ha. The 7.623 ha of the forest land was transferred from Bina OCP to Khadia OCP. The Committee deliberated on status of the amendment of EC of the Khadia OCP after the acquisition of 7.623 ha land through transfer from Bina OCP. The status of the same was not informed to the Committee. The Committee further deliberated on operational status of the Khadia OCP and asked the PP to submit the copy of EC of Khadia OCP.
 - iv. The Committee observed that the Project does not fall in the Critically Polluted Area (CPA), as per CEPI Assessment, 2018. However, the project falls under Severely Polluted Area (SPA), as per CEPI, 2018 Index. Out of total 2079.221 ha lease area, 1369.046 ha is the forest land. The complete proposed expansion of 288.844 ha area is of the forest land and Stage – II FC has been accorded on the entire 1369.046 ha of forest land involved in the project.
 - v. The Committee further deliberated on the broken forest land of 687.280 Ha. The PP submitted that it was broken way before The Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 came into existence and there is no requirement of the FC on the broken forest land before the Act came into existence. In this regard, Committee opined to seek the views of Forest Conservation Division in the matter.
 - vi. The Committee deliberated on the Mining Plan along with mine closure plan for Expansion of the Bina Expansion OCP and found that the same has not been approved by the competent authority. Hence, it was not presented before the EAC. The Committee further deliberated on the approval of updated mine plan after the amendment in EC for transfer of 7.623 ha land to Khadia OCP. The same was not presented before the Committee by the PP.
 - vii. Method of mining operations is envisaged by an open cast mining method. Excavation of Coal is through Shovel-dumper combination and Surface Miners. The waste/OB handling is with Shovel-dumper combination and dragline.
 - viii. Total geological reserve reported in the mine lease area is 222.90 MT with 136.32 MT mineable reserve. Out of total mineable reserve of 136.32 MT, 129.50 MT are Extractable reserves. Balance Extractable reserves available for extraction as on 01.04.2024 is 129.50 MT. Three number of seams viz. Purewa Top, Purewa Bottom and Turra seams with thickness ranging from 3.42 m to 7.95 m (Avg. 5.57 m), 5.15 m to 13.50 m (Avg. 10.04 m), and 8.25 m to 21.12 m (Avg. 16.04 m) respectively are workable. Grade of coal is G-8 to G-12 (Average Grade: G-10); Stripping ratio 5.02 m³/t, while gradient is 2 to 3 degree.
 - ix. The Committee deliberated on the R&R plan for the said mines. The PP submitted that the expansion proposal does not involve any R&R. Total tenancy land was acquired

from 6 no. of villages. Total land compensation paid was Rs. 35.55 Lakhs while house compensation amounting to Rs. 3.57 Lakhs was paid.

- x. PP submitted that Afforestation shall be done covering an area of 1948.471 Ha at the end of mining. This will include reclaimed external OB dump of 79.27 Ha, Reclaimed backfilled area in the form of internal OB dumps of 1060.00 Ha and Green Belt of 200.00 Ha. Density of tree plantation will be 2,500 plants per Ha. PP has carried out plantation in 432.3 ha (381.9 internal dump and 50.4 ha external dump) as on 31.03.2024.
- xi. The project involves Tippa-Jharia Nallah, which flows along the western boundary of the proposed Bina expansion Project. No diversion of the same is proposed as per the approved PFR.
- xii. The Committee deliberated on the water requirement for the project and observed that the water requirement will be 4814 KLD and the source of water will be mine seepage, accumulated rainwater and groundwater. NOC for groundwater intersection has been obtained by the PP earlier from CGWA vide no. CGWA/ NOC/ MIN/ ORIG/ 2021/ 13979: dated 08.12.2021, valid from 08.12.2021 to 07.12.2023 and renewal of the same is under process. For water requirement to be fulfilled from surface water, PP has sought permission from SE (Commercial), UPSEB vide649-Cu-II/NTPC/79.
- xiii. The estimated project cost is 1361.58 Cr as per the approved project report.
- xiv. Three (03) litigations are pending on the project, which involves 1 at the district court of CJM Sonbhadra and 2 at the Principal Bench of Hon'ble NGT, details of which have been discussed during the meeting.

14.12.16: **Recommendations of the Committee:**

In view of the foregoing and after detailed deliberations, the EAC recommended to ***return the proposal in the present form*** as the project proponent is unable to clarify the status of transfer of 7.623 ha of the forest land Khadia OCP and the Mining Plan along with mine closure plan for Expansion of the Bina Expansion OCP is yet to be approved by the Competent Authority.

Agenda No 14.13

14.13: Proposal for grant of Environment Clearance (EC) for Expansion of Coal Washery Plant from 0.96 MTPA to 5.2 MTPA in two phases (Phase I :- 0.96 to 1.8 MTPA and Phase II :- 1.8 MTPA to 5.2 MTPA) by M/s. Sarda Energy and Minerals Limited, located at Villages-Bajarmuda and Dholnara, Tehsil- Tamnar, District- Raigarh, State-Chhattisgarh - Environmental Clearance- Regarding.

[Online Proposal No. IA/CG/CMIN/473768/2024 File No. J-11015/37/2004-IA-II(M)]
[Consultant: GRC India Pvt Ltd; NABET/EIA/21-24/SA 0211 valid till 15/08/2024]

14.13.1: M/s. Sarda Energy and Minerals Limited has made an online application vide proposal No-IA/CG/CMIN/473768/2024, dated:- 22.05.2024 along with copy of EIA/EMP Report and Form-1 for seeking Environment Clearance (EC) under the provisions of EIA Notification,

2006 for the project. The proposed project activity is listed at schedule no. 2(a), Coal Washeries under Category “A” of the EIA Notification, 2006 & amendment thereof and as the capacity is more than 2 MTPA, is being appraised at Central Level.

The project was granted ToR for expansion of production capacity from 0.96 MTPA to 5.2 MTPA in two phases (Phase I :- 0.96 to 1.8 MTPA and Phase II :- 1.8 MTPA to 5.2 MTPA) vide letter no. J-11015/37/2004-IA-II (M) dated 25.07.2023. The TOR is valid till 24.07.2027.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

14.13.2: **Environmental site settings:**

The project area is covered under Survey of India Toposheet No. 64N8 and is bounded by geographical co-ordinates ranging from latitude 22°09'56.43"N to 22°10'10.01"N and longitude 83°28'09.92"E to 83°10'27.46"E.

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

Forest Area: PP submitted that the project does not involves any forest land.

Protected Area: PP submitted that the project is not located within 10 km of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. and there is no violation of WLP act.

7 Schedule-I species viz Elephas maximus (Elephant), Mellivora capensis (Honey badger), Melursus ursinus (Sloth bear), Panthera pardus (Panther), Striped hyaena (Hyena), Python molurus (Python), Pavo cristatus (Indian peafowl) has been sighted in the study area. Wildlife conservation plan has been prepared and submitted to CCF, Bilaspur (CG) through DFO.

Project Area: PP submitted that the existing plant is over 10.12 ha of land and for the expansion project no additional land is required. Thus, total land required will remain same i.e. 10.12 ha after expansion which has been provided to the proponent through vesting order.

14.13.3: Details of the ToR are furnished below:

| Date of Application | Details | Date of Accord | ToR Validity |
|---------------------|---------------------------|----------------|--------------|
| 10.07.2023 | J-11015/37/2004-IA-II (M) | 25.07.2023 | 24.07.2027 |

14.13.4: **Certified Compliance Report:** The Status of compliance of earlier EC was obtained from Regional Office, Raipur vide letter no. 18-D-25/2010 (Env)-46, dated 09.05.2024 in the name of M/s. Sarda Energy and Minerals Limited. The Action taken report regarding the partially complied/non-complied condition was submitted to Regional officer MoEF&CC, Raipur vide letter no. SEML/ENV/CWI2024-25/5758 dated 20.05.2024. The details of the

observations made by RO in the report dated 09.05.2024 along with its re-assessment/ present status as furnished by the PP is given as below: -

| S.No. | Non-Compliance Details | | Response of PP |
|-------|------------------------|--|---|
| | Condition No. | Observation of RO | |
| 1. | Condition XVII | <p>The proponent informed that details of safety measures including plant layout in the plan coal stock yard have already been submitted to CECB/SEIAA/or Regional Office of MoEF&CC.</p> <p>However, no document/evidence of such details have been received in this Sub-Office.</p> <p>PP shall submit Details of safety measures including approved plant layout in the plan coal stock yard.</p> | As per point raised, detailed safety measures have been submitted to IRO, Raipur. |
| 2. | Condition XVII | <p>At least 33% of project land area shall be developed all along the boundary of plant premises for greenbelt/plantation. As far as possible maximum area of open spaces shall be utilized for plantation purposes. Project proponent shall abide by the decisions taken by Ministry of Environment and Forests. Government of India/Central Government/Central Pollution Control Board from time to time in this regard.</p> | <p>Greenbelt has been already developed in 3.34 ha (33% of total area). Total no. of 7220 trees has been already present. In the current year, further 2000 more no. of saplings will be planted in coming years.</p> <p>Detailed greenbelt development plan along with photographs has been submitted to IRO, Raipur</p> |
| 3. | Condition XX | <p>The proponent informed that total expenditure incurred for implementation of EMP measure has been Rs.453.0 lakhs. However, no documents/ evidences of implementation of recommendations of EIA/EMP and socio-economic development activities in the surrounding villages. Further the proponent informed that the code of practice for coal washery issued by Central Pollution Control Board.</p> <p>PP shall submit documents/</p> | <p>Proponent has been actively participating in CSR activities. Some of recent CSR activities involve Development of Gare Village road, providing water purifier and air coolers in schools and providing mobile vehicle van for primary checkup</p> |

| S.No. | Non-Compliance Details | | Response of PP |
|-------|------------------------|---|--|
| | Condition No. | Observation of RO | |
| | | evidences of implementation of recommendations of EIA/EMP and socio-economic development activities in the surrounding villages. | of villagers. Details along with photographs has also been submitted to IRO, Raipur. |
| 4. | Condition XXI | <p>The proponent has constructed rainwater harvesting over 26900 m² area in the premise. However, no documents/evidence that detailed scheme for rainwater harvesting was prepared in consultation with CGWA/SGWB and same submitted to CECB/SEIAA/ or Regional Office of MoEF&CC. The proponent informed that no ground water has been used. However, NOC for abstraction of 3650 m³/year has already been obtained from CGWA.</p> <p>PP shall submit documents/evidence that detailed scheme for rainwater harvesting was prepared in consultation with CGWA/SGWB.</p> | <p>Rainwater harvesting tank over an area of 26900 m². Calculation of rainwater harvesting has been done considering average rainfall of region as per CGWB data.</p> <p>Detailed calculation for RWH tank has been submitted to IRO, Raipur.</p> |
| 5. | Condition XXXVII | <p>The proponent informed that coal washery was installed in October, 2010 and commissioned in May 2011 adjacent to our Karwahi open cast coal mine. Due to the unavailability of ROM coal, coal washery was temporarily discontinued from 31/03/2015 to 13/2/2021 and restarted on 14/2/2022. However, no relevant documents have been received in this Sub-Office.</p> <p>PP shall submit all CTOs obtained from CECB and the validity of environmental clearance dated 23/08/2010</p> | As per point raised all the CTOs have been submitted to IRO, Raipur. |

14.13.5: **Salient features of the project:**

MoM of 14th meeting of the EAC for Coal Mining sector held on 5-7th August, 2024

- i. The proposed project is for Expansion of Coal Washery Plant located at Village-Bajarmuda and Dholnara, Tehsil- Tamnar, District- Raigarh, Chhattisgarh from 0.96MTPA to 5.2 MTPA in two phases (Phase I :- 0.96 to 1.8 MTPA and Phase II :- 1.8 MTPA to 5.2 MTPA).
- ii. Total coal requirement after expansion will be 5.2 MTPA out of which 1.8 MTPA will be sourced from PP's own mine adjacent to washery and remaining 3.4 MTPA coal will be taken from Jindal Steel and Power Limited.
- iii. ROM Coal, Clean coal and midlings will be transported through road & rail network.
- iv. The project site is at the distance of about 12.5 km towards East from SH-1.
- v. The nearest railway station is Raigarh Railway Station which is located at about 31.7 km in South direction. Nearest airport is Veer Surendra Sai Airport, Jharsuguda at 64.5 km in SE.

14.13.6: Legal Issues/ Violation: PP submitted that There is no legal issue/violation wr.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, The Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, Wildlife Protection Act, MMDR Act, Factories Act. Further, there is no court case on the project.

14.13.7: Water Requirement: PP submitted that the water requirement at the stage of construction will be 10 KLD for which the NoC valid till 03.11.2025 has been obtained by the PP from CGWA vide NOC No. CGWA/NOC/MIN/ORIG/2022/17116. Further, water requirement for the said project during operational stage with expansion submitted by the PP is 851 KLD and the source of water is mine sump and groundwater. PP also submitted that there is no diversion of any river/ nallah.

14.13.8: Power Requirement: PP submitted that the total power requirement for the project is 3.2 MW which will be sourced from Chhattisgarh State Electricity Board. Also, 2x250 kVA DG sets will be operated for emergency use.

14.13.9: Baseline Data: Environmental Baseline data has been collected during 1st March 2023 to 31st May 2023 (Pre Monsoon Season):

| Period | Pre Monsoon Season: 1 st March 2023 to 31 st May 2023 |
|--------------------------------------|---|
| AAQ parameters at 08 Locations | PM ₁₀ :- 57.1-92.7 µg/m ³ PM _{2.5} :- 30.9 – 52.1 µg/m ³ SO ₂ :- 6.3-15.4 µg/m ³ NO ₂ :- 9.1-32.6 µg/m ³ CO :- 280-1430 µg/m ³ |
| AAQ modelling | Incremental GLCs due to the proposed proposal: PM ₁₀ :- 0.91µg/m ³ at 100 m in NNE PM _{2.5} :- 0.60 µg/m ³ at 100 m in NNE SO ₂ = 1.87 µg/m ³ at 100 m in NNE NO ₂ :- 2.63 µg/m ³ at 100 m in NNE CO :- 4.47 µg/m ³ at 100 m in NNE |
| Ground water quality at 08 locations | pH: 7.16-7.41 Total Hardness: 256-330 mg/l. Chlorides: 46-57 mg/l, |

| | Fluoride: 0.1-0.4 mg/l | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|-------------------------|-----------------------|-------------------------|--------------------|------|-------------|-----|-----|------|---|------|-----|------|------|---|------|-----------------------|--|--|-----------------------|--------------------|------|----------|----------|-------|-------------|-----|-----|-----|-----|------|---|------|-----|-----|-----|------|------|---|
| Surface water quality at 8 locations | pH: 7.36-7.56 DO: 5.6-6.3 mg/l. BOD: 2.5-4.2 mg/l COD : 12.7-32.3 mg/l | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Noise levels | 45.8 to 73.8 dBA - day time 34.6 to 65.7 dBA- Night time. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Traffic assessment study findings | <p>Traffic study has been conducted at Tamnar Road and SH-1 which is adjacent to the project site.</p> <p>Transportation of raw material, fuel & furnished product will be done maximum by road.</p> <p>Existing PCU is 142 PCU/hr on Tamnar road and 309 PCU/hr at SH-1 and existing level of services (LOS) is:</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity In PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>Tamnar Road</td> <td>142</td> <td>625</td> <td>0.23</td> <td>B</td> </tr> <tr> <td>SH-1</td> <td>309</td> <td>1500</td> <td>0.21</td> <td>B</td> </tr> </tbody> </table> <p>PCU load after proposed Project will be 345 PCU/hr (142 (Existing) + 203 (Increased)) at Tamnar road and 512 PCU/hr (309 (Existing) + 203 (Increased)) at SH-1 and level of Services (LOS) will be:</p> <table border="1"> <thead> <tr> <th rowspan="2">Road</th> <th colspan="3">V (Volume in PCU/hr.)</th> <th rowspan="2">C(Capacity InPCU/hr.)</th> <th rowspan="2">Proposed V/C Ratio</th> <th rowspan="2">L OS</th> </tr> <tr> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Tamnar Road</td> <td>142</td> <td>203</td> <td>345</td> <td>625</td> <td>0.55</td> <td>C</td> </tr> <tr> <td>SH-1</td> <td>309</td> <td>203</td> <td>512</td> <td>1500</td> <td>0.34</td> <td>B</td> </tr> </tbody> </table> <p>Note: Capacity as per IRC 106:1990 guidelines for capacity for roads.</p> <p>Conclusion:</p> <p>The modified LOS on Tamnar Road will be remained “C”, i.e. Good.</p> <p>The modified LOS on SH-1 will be remained “B”, i.e. Very Good.</p> <p>Therefore there will be no change in LOS after completion of the project.</p> | Road | V (Volume in PCU/hr.) | C (Capacity In PCU/hr.) | Existing V/C Ratio | LOS | Tamnar Road | 142 | 625 | 0.23 | B | SH-1 | 309 | 1500 | 0.21 | B | Road | V (Volume in PCU/hr.) | | | C(Capacity InPCU/hr.) | Proposed V/C Ratio | L OS | Existing | Proposed | Total | Tamnar Road | 142 | 203 | 345 | 625 | 0.55 | C | SH-1 | 309 | 203 | 512 | 1500 | 0.34 | B |
| Road | V (Volume in PCU/hr.) | C (Capacity In PCU/hr.) | Existing V/C Ratio | LOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tamnar Road | 142 | 625 | 0.23 | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SH-1 | 309 | 1500 | 0.21 | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Road | V (Volume in PCU/hr.) | | | C(Capacity InPCU/hr.) | Proposed V/C Ratio | L OS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Existing | Proposed | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tamnar Road | 142 | 203 | 345 | 625 | 0.55 | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SH-1 | 309 | 203 | 512 | 1500 | 0.34 | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flora and fauna | 7 Schedule-I species viz <i>Elephas maximus</i> (Elephant), <i>Mellivora</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|--|---|
| | <i>capensis</i> (Honey badger), <i>Melursus ursinus</i> (Sloth bear), <i>Panthera pardus</i> (Panther), <i>Striped hyaena</i> (Hyena), <i>Python molurus</i> (Python), <i>Pavo cristatus</i> (Indian peafowl) has been sighted in the study area. Wildlife conservation plan has been prepared and submitted to CCF, Bilaspur (CG) through DFO. |
|--|---|

PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data, etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation No :- TC-7501 and valid till 25.04.2025.

14.13.10: **Solid & Hazardous Waste:** PP submitted that currently about 0.451 MTPA of Middling's is being generated during coal washing. The middlings are being stored in an earmarked place for sale to power plants for steam generation. Middlings are transported by road in covered trucks directly to the customer. After expansion of the washery, total of 2.184 MTPA of middling's will be generated during coal washing following the same procedure. Middling's are currently supplied to PP's own unit at Siltara and after expansion remaining middling's will be given to Jindal Steel and Power Limited.

14.13.11: **EMP Cost:** The budget earmarked by the PP for EMP is Rs. 280.80 Lakhs (Capital) and 84.5 (Recurring).

| S. No. | Activity | Capital Cost (in Lakhs) | Recurring Cost proposed per annum (in Lakhs) |
|--------------|--|-------------------------|--|
| 1. | Air Pollution Control Measures | 110.8 | 28 |
| | DES and Bag House in crusher House | 38 | 5 |
| | Fixed Water sprinklers | 20 | 3 |
| | Mobile water sprinklers | 10 | 4 |
| | Enclosures to belt conveyors | 12.8 | 3 |
| | Asphalted internal roads | 15 | 3 |
| | Rain gun | 15 | 10 |
| 2. | Water Pollution Control Measures | 94 | 36 |
| | Closed water Circuit , Thickener | 60 | 20 |
| | Storm water drains | 10 | 2 |
| | Rainwater Harvesting Pond | 10 | 10 |
| | Septic Tank | 5 | 2.5 |
| | Piezometer to monitor ground water level | 9 | 1.5 |
| 3. | Green belt development | 40 | 10 |
| 4. | Environment Management Cell | 28 | 7 |
| 5. | Environmental Monitoring | --- | 3.5 |
| 5. | Budget for addressing PH issues | 8 | ---- |
| Total | | 280.80 | 84.5 |

14.13.12: **Public Hearing Details:** PP submitted that the Public hearing notice was published Nayi Duniya on 28.01.2024, in Kelo Pravah on 29.01.2024 and in The Times of India on 30.01.2024. The Public Consultation was conducted on 01.03.2024, at Middle School Ground, Vill - Bajarmuda, Tehsil – Tamnar, Dist – Raigarh, Chhattisgarh under the chairmanship of Ms. Santan Devi Jagde, Additional District Magistrate. The PH was attended by 900 people and 321 nos of written representations were received from and outside the district. The major issues raised during the PH were improvement in infrastructure, concern for drinking water, employment for the locals, air pollution control measures, road safety measures & concern about health of local people. PP earmarked an amount of 120 Lakh for addressing the issues raised during PH.

Following is the action plan along with the budget allocated for each activity by the PP for the issues raised during PH:

| S. No. | Issue Raised during PH | Physical activity and action plan | Total Budget |
|--------|---|---|--|
| 1. | Improvement of Infrastructure in nearby village | PP has proposed to adopt village Dholnara for improvement of infrastructure. Village development program under consultation with local panchayat and district administration for need-based community development activities which would be in addition to the development plans being undertaken by state and central government. | 55.00 Lakhs <ul style="list-style-type: none"> ➤ Development and Maintenance of Village Roads:-20 Lakhs ➤ Providing 200 Street Lights and maintenance :- 5 lakhs ➤ Construction of 15 Nos of community toilets and maintenance:-15 Lakhs ➤ Construction of 3 Community Halls and Maintenance :- 15 Lakhs |
| 2. | Employment for the locals | Willing and employable youths will be identified in consultation with gram panchayat of Bajarmuda, Dholnara and Khamariya. They will be provided training for trades namely electrician, fitters, welders, painters, and civil construction work, etc. After successful completion of training, the youths will be offered employment in company in suitable grade. | 20 Lakhs Stipend – 12.0 Lakh (Rs. 12000/- stipend per year to 100 persons for 1 year) ITI Fee – 8.0 Lakhs (Rs. 8000/- yearly fee for 100 persons for 1 year) |

| S. No. | Issue Raised during PH | Physical activity and action plan | Total Budget |
|--------------|--------------------------------------|--|--|
| 3. | Air Pollution Control Measures | Tree plantation (1000 trees) will be done in nearby villages Bajarmuda, Dholnara and Khamariya and providing Water sprinkling on road for dust dispersion control in nearby villages in consultation with the authority. | 8 Lakhs Plantation of 1000 trees:- 5 Lakhs Installation of 300 water sprinklers :- 3 Lakhs |
| 4. | Concern for Drinking water | Providing two Water filtration (RO) plant in village Bazarmuda and Dholnara | 12 Lakhs |
| 5. | Road Safety Measures | 3 Speed checking points will be provided at the road connecting SH-1 to washery and regular monitoring of speed of vehicles will be done and raining on Traffic awareness will be provided in nearby villages | 5 Lakhs Setting up 3 Speed Checking Points :- 3 Lakhs Providing Training on Traffic Awareness :- 2 Lakhs |
| 6. | Concern about health of local people | Arrangement of 1 Modern Ambulance with Life Support system with necessary Medical Staff to Sub Health Centre, Dholesera and Health checkup and distribution of medicines in Villages Bazarmuda and Dholnara | 20 Lakhs Arrangement of Ambulance :- Rs 10 Lakhs Conducting Health checkup:- Rs. 7.5 Lakhs Providing Medicines and other health facilities :- Rs. 2.5 Lakhs |
| Total | | | 120 Lakhs |

14.13.13: Plantation: PP submitted that Greenbelt has been already developed in 3.34 ha (33% of total area). Total no. of 8220 trees has been already present. Further 2000 no. of saplings will be planted.

14.13.14: Project Cost: The total project Capital cost submitted by the PP is 80.12 Cr (Existing Rs. 39.17 Cr + Expansion Rs. 40.95 Cr) and CER cost submitted by the PP is 1.20 Crores. The EMP cost submitted by the PP is 2.60 Cr (capital cost) and 0.84 Cr (annual recurring cost).

14.13.15: Affidavit and Undertaking: PP has submitted an undertaking stating that there is no construction done at the project site w.r.t. the expansion part and there is no litigation on the project either at NGT or any other court of law. Total land in under possession of proponent. That there is no difference in the documents submitted and the presentation being made to the EAC. There are no data entry errors in the information uploaded in Parivesh. In case any deviation in data is found in any of the documents, the authorized signatory shall be held responsible and furthermore, the said proposal shall be rejected for the grant of EC.

Observation and deliberation of EAC

14.13.16: Committee after deliberations noted the following:

- i. The instant proposal is for brown-field project for grant of Environmental Clearance (EC) for Expansion of Coal Washery Plant from 0.96 MTPA to 5.2 MTPA in two phases (Phase I :- 0.96 to 1.8 MTPA and Phase II :- 1.8 MTPA to 5.2 MTPA) by Sarda Energy and Minerals Limited, located at Villages-Bajarmuda and Dholnara, Tehsil- Tamnar, District- Raigarh, State-Chhattisgarh.
- ii. The EAC also 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 area is covered under Survey of India Toposheet No. 64N8 and is bounded by geographical co-ordinates ranging from latitude 22°09'56.43"N to 22°10'10.01"N and longitude 83°28'09.92"E to 83°10'27.46"E. Also, the project does not fall under CPA/ SPA as per CEPI Assessment, 2018.
- iii. The total project area is 10.12 ha and there is no additional land proposed in the instant proposal for expansion. Further, the project does not involve any forest land and the project is not located within 10 km of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. and there is no violation of WLP act. However, there is presence of Schedule – I species. The Committee deliberated on the Wildlife Conservation & Management Plan for the same. PP submitted the approved Wildlife Conservation & Management Plan and the distance map w.r.t. the concerned coal washery plant during the meeting.
- iv. Terms of Reference was granted on 25.07.2024. Committee deliberated on the compliance of the conditions of the existing EC. The PP submitted that the Certified Compliance Report of the existing EC was obtained from Regional Office, Raipur vide letter no. 18-D-25/2010 (Env)-46, dated 09.05.2024 in the name of M/s. Sarda Energy and Minerals Limited. It is observed that the compliances pertaining to the conditions of safety measures to be taken for storage of coal stock and plant layout, development of greenbelt and approved scheme of rainwater harvesting from the CGWA/SGWB have been either partially complied or not complied. The Committee observed that the CCR report has not been fully complied by the PP and opined that the PP must submit the ATR of CCR to concerned RO, MoEF&CC to obtain their comments on the same.
- v. The Public hearing was conducted on 01.03.2024 under the chairmanship of Ms Santan Devi Jagde, Additional District Magistrate. The advertisement for PH was publish in Nayi Duniya on 28.01.2024, in Kelo Pravah on 29.01.2024 and in The Times of India on 30.01.2024. The Public Hearing was attended by 900 no of persons and total 321 no of written comments were also received. The main issues raised during the PH involves Improvement of Infrastructure, Concern for Drinking Water, Employment for the locals, Air Pollution Control Measures, Road Safety Measures, Concern about health of local people. The budget earmarked to address the issues raised during PH is 1.20 Cr. The Committee deliberated on the action taken on the issues raised during the PH and asked the PP to submit the ATR of the same.
- vi. The total capital cost of the project after expansion is Rs 80.12 Crores (Existing-Rs. 39.17 Cr + Expansion-Rs. 40.95 Cr) and the capital cost for environmental protection measures is proposed as Rs 260.80 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 84.5 Lakhs. The Committee is of

- the view that the PP shall increase the EMP cost pertaining to that of mitigation measures for pollution. At the same time the recurring cost pertaining to that of plantation shall be increased. The Committee observed that the total employment generation from the project after expansion will be 239.
- vii. The Committee deliberated on the plantation activities in the project area. The PP submitted that Greenbelt has been already developed in 3.34 ha (33% of total area). Total no. of 8220 trees are already present. Further 2000 no. of saplings will be planted. The Committee is of the view that a concurrent plantation plan using native species shall be submitted by the PP. Also, the Committee is of the view that the budget earmarked for plantation and greenbelt development in the EMP shall be revisited and further increased.
 - viii. Total coal requirement after expansion will be 5.2 MTPA out of which 1.8 MTPA will be sourced from PP's own mine adjacent to washery and remaining 3.4 MTPA coal will be taken from Jindal Steel and Power Limited. The transportation of the same shall be done through road and rail networks.
 - ix. There is no court case pending on the project.
 - x. The Committee deliberated on the water requirement of the project and observed that total requirement of water during construction stage will be 10 KLD, necessary permissions for the same has been obtained by the PP and at the operational stage will be 851 KLD. At the same time the PP has constructed rainwater harvesting over 26900 m² area in the premises. However, no documents/evidence that detailed scheme for rainwater harvesting was prepared in consultation with CGWA/SGWB and same submitted to Regional Office of MoEF&CC as per the CCR obtained from RO, Raipur. The Committee is of the opinion that the PP must submit the compliance of the same to the concerned RO and at the same time shall increase the capacity of the rainwater harvesting and storage tank.
 - xi. The Committee deliberated on the generation of Solid and Hazardous waste and observed that solid waste being generated from the washery is of Midlings, which will be sold to power plants for steam generation. Other solid waste being generated is that of plastic, used computers, CPU, used batteries, etc., which shall be sold to the recyclers. Apart from this, the hazardous waste being generated is used oil which will be sold to authorized recycler/ vendors.
 - xii. The EAC deliberated on the mode of transportation and is of the view that the PP shall switch to e-vehicles and CNG/LNG operated vehicles and the strategy for shifting shall be submitted.
 - xiii. The EAC noted that the Project Proponent has given an undertaking stating that there is no construction done at the project site w.r.t. the expansion part and there is no litigation on the project either at NGT or any other court of law. Total land in under possession of proponent. That there is no difference in the documents submitted and the presentation being made to the EAC. There are no data entry errors in the information uploaded in Parivesh. In case any deviation in data is found in any of the documents, the authorised signatory shall be held responsible and furthermore, the said proposal shall be rejected for the grant of EC.

- xiv. There is a Government school namely Bazarmuda at a distance of 0.830km from the project boundary in northern direction. Action plan for relocation/mitigation measures to be adopted has not been furnished.

Recommendations of the Committee:

14.13.17: In view of the foregoing and after detailed deliberations, the committee *deferred* the proposal, and sought the following additional information for further consideration of the proposal.

- i. Approved Wildlife Conservation & Management Plan and the distance map w.r.t. the concerned coal washery plant and PCCF certificate to be submitted on Parivesh Portal.
- ii. Action taken report of the Certified compliance report obtained from RO, Raipurvide letter no. 18-D-25/2010 (Env)-46, dated 09.05.2024 must be submitted to the concerned RO, MoEF&CC, to obtain their comments and the same shall be further submitted to the EAC for further consideration.
- iii. Revised action plan to address the issues raised during public hearing as per the Ministry's O.M. dated 30/09/2020.
- iv. The EMP budget shall be revisited and the budget pertaining to mitigation measures and plantation must be increased. The revised EMP budget shall be submitted.
- v. Action plan for shifting to e-vehicles and CNG/ LNG operated vehicles in the coal washery shall be submitted.
- vi. Undertaking from the project proponent stating that no ground water will be utilized for the coal washery during its operation phase.
- vii. There is a Government school namely Bazarmuda at a distance of 0.830km from the project boundary in northern direction. Action plan for relocation/mitigation measures to be adopted for the same shall be furnished.

ANNEXURE-I

Generic ToR for coal washery

- i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washer preferably through closed conveyer belt to avoid air pollution.
- ii. The washery shall not be located in eco-sensitive zones areas.
- iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
- iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
- v. A brief description of the plant along with a layout, the specific technology used and the source of coal should be provided.
- vi. The EIA-EMP Report should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
- vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. along with the comments of the Chief Wildlife Warden of the State Govt.
- viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM10, PM2.5, SOx and NOx, noise, water (surface and groundwater), soil be submitted.
- ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
- x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.

- xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in EIA/EMP report.
- xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.
- xiii. Impacts of CHP, if any, on air and water quality should also be spelt out along with Action Plan.
- xiv. O.M. No. J-II0I3/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.
- xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.
- xvi. Analysis of samples indicating the following be submitted: Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc). Characteristics and quantum of coal after washing. Characteristics and quantum of coal rejects.
- xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.
- xviii. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.

Corporate Environment Responsibility:

- a) The Company must have a well laiddown Environment Policy approved by the Board of Directors.
- b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/ deviation/ violation of the environmental or forest norms/ conditions.

- c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
- d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- e) A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.
- f) Permission of drawl of water shall be pre-requisite for consideration of EC.
- g) Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986
- h) Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

ANNEXURE-II

GENERIC TOR FOR AN OPEN CAST COAL MINE PROJECT

- (i) An EIA-EMP Report shall be prepared for MTPA rated capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
- (ii) An EIA-EMP Report would be prepared for..... MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for MTPA of coal production based on approved project/Mining Plan for.....MTPA. Baseline data collection can be for any season (three months) except monsoon.
- (iii) A toposheet specifying locations of the State, District and Project site should be provided.
- (iv) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.
- (v) Land use map (1: 50,000 scale) based on a recent satellite imagery of the study area may also be provided with explanatory note on the land use.
- (vi) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.
- (vii) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.
- (viii) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction

of embankments/bunds, proposed diversion/re-channeling of the water courses, etc., approach roads, major haul roads, etc should be indicated.

- (ix) In case of any proposed diversion of nallah/canal/river, the proposed route of diversion/modification of drainage and their realignment, construction of embankment etc. should also be shown on the map as per the approval of Irrigation and flood control Department of the concerned state.
- (x) Similarly, if the project involves diversion of any road/railway line passing through the ML/project area, the proposed route of diversion and its realignment should be shown in the map along with the status of the approval of the competent authority.
- (xi) Break up of lease/project area as per different land uses and their stage of acquisition should be provided.

LAND USE DETAILS FOR OPEN CAST PROJECT should be given as per the following table:

| Sl. No. | Land use | Within MLarea (ha) | OutsideMLarea (ha) | Total |
|---------|--------------------|--------------------|--------------------|-------|
| 1. | Agriculturalland | | | |
| 2. | Forestland | | | |
| 3. | Wasteland | | | |
| 4. | Grazingland | | | |
| 5. | Surfacewaterbodies | | | |
| 6. | Settlements | | | |
| 7. | Others(specify) | | | |
| | TOTAL | | | |

- (xii) Break-up of lease/project area as per mining plan should be provided.
- (xiii) Impact of changes in the land use due to the project if the land is predominantly agricultural land/forest land/grazing land, should be provided.
- (xiv) One-season (other than monsoon) primary baseline data on environmental quality - air (PM10, PM2.5, SO_x, NO_x and heavy metals such as Hg, Pb, Cr,As,etc), noise, water (surface and groundwater), soil - along with one-seasonmet data coinciding with the same season for AAQ collection period should beprovided.
- (xv) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of

various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.

- (xvi) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.
- (xvii) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.
- (xviii) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xix) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xx) Detailed water balance should be provided. The break-up of water requirement for the various mine operations should be given separately.
- (xxi) Source of water for use in mine, sanction of the Competent Authority in the State

Govt..and impacts vis-à-vis the competing users in the upstream and downstream of the project site. should be given.

- (xxii) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xxiii) Impact of blasting, noise and vibrations should be given.
- (xxiv) Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.
- (xxv) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xxvi) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xxvii) Details of waste OB and topsoil generated as per the approved calendar programme, and their management shown in figures as well explanatory notes tables giving progressive development and mine closure plan, green belt development, backfilling programme and conceptual post mining land use should be given. OB dump heights and terracing based on slope stability studies with a max of 28o angle as the ultimate slope should be given. Sections of final dumps (both longitudinal and cross section) with relation to the adjacent area should be shown.
- (xxviii) Efforts be made for maximizing progressive internal dumping of O.B., sequential mining, external dump on coal bearing area and later rehandling into the mine void. --to reduce land degradation.
- (xxix) Impact of change in land use due to mining operations and plan for restoration of the mined area to its original land use should be provided.
- (xxx) Progressive Green belt and ecological restoration /afforestation plan (both in text, figures and in the tabular form as per the format of MOEFCC given below) and selection of species (native) based on original survey/land-use should be given.

Table1:Stage-wise Land use and Reclamation Area (ha)

| S.N. | LanduseCategory | Present (1 st Year) | 5 th Year | 10 th Year | 20 th Year | 24 th Year(end o fminelife)* |
|------|--|-----------------------------------|-------------------------|--------------------------|--------------------------|--|
| 1. | Backfilled Area Reclaimed with plantation) | | | | | |
| 2. | Excavated Area (not reclaimed)/void | | | | | |
| 3. | External OB dump Reclaimed with plantation) | | | | | |
| 4. | Reclaimed Top soil dump | | | | | |
| 5. | Green Built Area | | | | | |
| 6. | Undisturbed area (brought Under plantation) | | | | | |
| 7. | Roads (avenue plantation) | | | | | |
| 8. | Area around buildings and Infrastructure | | | | | |
| | TOTAL | | | | | |

*As a representative example

Table2: Stage Wise Cumulative Plantation

| S.No. | YEAR* | Green Belt | External Dump | Backfilled Area | Others (Undisturbed Area/etc) | TOTAL |
|-------|-----------------------|---------------|------------------|--------------------|-------------------------------------|-------|
| 1. | 1 st year | | | | | |
| 2. | 3 rd year | | | | | |
| 3. | 5 th year | | | | | |
| 4. | 10 th year | | | | | |
| 5. | 15 th year | | | | | |
| 6. | 20 th year | | | | | |
| 7. | 25 th year | | | | | |
| 8. | 30 th year | | | | | |

| | | | | | | | | | | | |
|-----|---|--|--|--|--|--|--|--|--|--|--|
| 9. | 34 th year (end of minelife) | | | | | | | | | | |
| 10. | 34- 37 th Year (Post- mining) | | | | | | | | | | |

*As a representative example

(xxx) Conceptual Final Mine Closure Plan and post-mining land use and restoration of land/habitat to the pre- mining status should be provided. A Plan for the ecological restoration of the mined out area and post mining land use should be prepared with detailed cost provisios. Impact and management of wastes and issues of re-handling (wherever applicable) and backfilling and progressive mine closure and reclamation should be furnished.

Table3:Post-Mining Land use Pattern of ML/Project Area (ha)

| S.N. | Land useduring Mining | LandUse(ha) | | | | |
|------|--------------------------|-------------|---------------|------------|-------------|-------|
| | | Plantation | Water Body | Public Use | Undisturbed | TOTAL |
| 1. | External OB Dump | | | | | |
| 2. | Topsoil Dump | | | | | |
| 3. | Excavation | | | | | |
| 4. | Roads | | | | | |
| 5. | Built up area | | | | | |
| 6. | Green Belt | | | | | |
| 7. | Undisturbed Area | | | | | |
| | TOTAL | | | | | |

(xxxii) Flow chart of water balance should be provided. Treatment of effluents from workshop, township, domestic waste water,mine water discharge, etc. should be

provided. Details of STP in colony and ETP in mine should be given. Recycling of water to the max. possible extent should be done.

- (xxxiii) Occupational health issues. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower in the mine should be given.
- (xxxiv) Risk Assessment and Disaster Preparedness and Management Plan should be provided.
- (xxxv) Integration of the Env. Management Plan with measures for minimizing use of natural resources-water, land, energy, etc. should be carried out.
- (xxxvi) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxxvii) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/ employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.
- (xxxviii) CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be given.
- (xxxix) Corporate Environment Responsibility:
 - a. The Company must have a well-laid down Environment Policy approved by the Board of Directors.
 - b. The Environment Policy must prescribe for standard operating process/ procedures to bring into focus any infringements/ deviation/violation of the environmental or forest norms/ conditions.
 - c. The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
 - d. To have proper checks and balances, the company should have a well laid-down system of reporting of non-compliances/ violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- (xl) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/ minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the

same should be provided.

- (xli) Inbuilt mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xlii) Status of any litigations/court cases filed/ pending on the project should be provided.
- (xliii) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, Sand heavy metals including levels of Hg, As, Pb, Cr etc.
- (xliv) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept.(if req.), etc. wherever applicable.

FOREST CLEARANCE: Details on the Forest Clearance should be given as per the format given:

| TOTAL M/L/P PROJECT AREA (ha) | TOTAL FORESTLAND (ha) | Date of FC | Extent of forest land | Balance area for which FC is yet to be obtained | Status of Appl for Diversion of forestland |
|-------------------------------|-----------------------|--|-----------------------|---|--|
| | | If more than, provide details of Each FC | | | |

ANNEXURE-III

GENERIC TORs FOR AN UNDER GROUND COAL MINE PROJECT

- (i) An EIA-EMP Report shall be prepared for MTPA rated capacity in an ML/project area ofha based on the generic structure specified in Appendix-III of the EIA Notification,2006.
- (ii) An EIA-EMP Report would be prepared for MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for MTPA of coal production based on approved project/Mining Plan for MTPA.
- (iii) Baseline data collection can be for any season (three months) except monsoon.
- (iv) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.
- (v) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.
- (vi) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.
- (vii) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.

- (viii) Original land use (agricultural land/forestland/grazing land/wasteland/water bodies) of the area should be provided as per the tables given below. Impacts of project, if any on the land use, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations should be analyzed. Extent of area under surface rights and under mining rights should be specified.

| S. N | ML/Project Land use | Area under Surface Rights (ha) | Area Under Mining Rights (ha) | Area under Both (ha) |
|------|---------------------|--------------------------------|-------------------------------|----------------------|
| 1. | Agricultural land | | | |
| 2. | Forest Land | | | |
| 3. | Grazing Land | | | |
| 4. | Settlements | | | |
| 5. | Others (specify) | | | |

Area under Surface Rights

| S.N. | Details | Area (ha) |
|------|------------------|-----------|
| 1. | Buildings | |
| 2. | Infrastructure | |
| 3. | Roads | |
| 4. | Others (specify) | |
| | TOTAL | |
| | | |

- (ix) Study on the existing flora and fauna in the study area (10 km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.
- (x) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the

end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and section should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.

- (xi) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xii) Impact of mining on hydrology, modification of natural drainage, diversion and channelling of the existing rivers/water courses flowing through the ML and adjoining the lease/ project and the impact on the existing users and impacts of mining operations there on.
- (xiii) One-season (other than monsoon) primary base line data on environmental quality-air (PM₁₀, PM_{2.5}, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xiv) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.
- (xv) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xvi) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.
- (xvii) Detailed water balance should be provided. The breakup of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be

provided.

- (xviii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.
- (xix) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xx) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xxi) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.
- (xxii) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.
- (xxiii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.
- (xxiv) Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the pre- mining status should be provided. A Plan for the ecological restoration of the mined out area and post mining land use should be prepared with detailed cost provisions. Impact and management of wastes and issues of re-handling (wherever applicable) and backfilling and progressive mine closure and reclamation should be furnished.
- (xxv) Greenbelt development should be undertaken particularly around the transport route and CHP. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be submitted.
- (xxvi) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxvii) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people,

civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.

(xxviii) CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be given.

(xxix) **Corporate Environment Responsibility:**

- a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
- b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
- c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
- d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

(xxx) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.

(xxxi) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.

(xxxii) Status of any litigations/ court cases filed/pending on the project should be provided.

(xxxiii) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.

(xxxiv) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

Details on the Forest Clearance should be given as per the format given:

| Total ML /Project Area (ha) | Total Forest Land(ha) | Date of FC | Extent ofForest Land | Balance area For which FC is yet to be obtained | Status of appl. For diversion of forest land |
|-----------------------------|-----------------------|---|----------------------|---|--|
| | | If more than one provide details of Each FC | | | |

ANNEXURE-IV

**GENERIC TORs FOR AN OPENCAST-CUM UNDERGROUND COAL MINE
PROJECT**

- (i) An EIA-EMP Report would be prepared for a combined peak capacity of.....MTPA for OC-cum-UG project which consists of....MTPA in an ML/project area of ha for OC and...MTPA for UG in an ML/project area of ha based on the generic structure specified in AppendixIII of the EIA Notification 2006.
- (ii) An EIA-EMP Report would be prepared for MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modelling for MTPA of coal production based on approved project/ Mining Plan for MTPA. Base line data collection can be for any season (three months) except monsoon.
- (iii) The ToRs prescribed for both open cast and under ground mining are applicable for opencast-cum underground mining.

ANNEXURE-V

LIST OF PARTICIPANTS OF EAC (COAL) IN 14th MEETING HELD ON 5th, 6th& 7th AUGUST 2024 THROUGH HYBRID MODE

| S. No. | Name & Address | Role | 05.08.2024 | 06.08.2024 | 07.08.2024 |
|---------|---|--|------------|------------|------------|
| 1. | Dr. Sharad Singh Negi (I.F.S. Retd.) | Chairman | Present | Present | Present |
| 3. | Shri Inder Pal Singh Matharu, IFS (Retd.) | Member | Present | Present | Present |
| 3. | Shri Lalit Kapur | Member | Present | Present | Present |
| 4. | Dr. Umesh Jagannathrao Kahalekar | Member | Present | Present | Present |
| 5. | Dr. Santosh Kumar Hampannavar | Member | Present | Present | Present |
| 6. | Shri Savalge Chandrasekhar | Member | Present | Present | Present |
| 7. | Shri K. B. Biswas | Member | Present | Present | Present |
| 8. | Prof. Shyam Shanker Singh | Member | Present | Present | Present |
| 9. | Dr. Vinod Agrawal | Member | Present | Present | Present |
| 10. | Dr Nazimuddin, Scientist - F | Representative of Central Pollution Control Board | Absent | Present | Absent |
| 11. | Shri Mahi Pal Singh, Chief Engineer | Representative of Central Electricity Authority (CEA) | Present | Present | Present |
| 13. | Shri Harmeet Sahaney | Representative of Indian Meteorological Department (IMD) | Absent | Absent | Absent |
| 13. | Prof. R M Bhattacharjee | Representative of IIT/ISM Dhanbad | Present | Present | Present |
| 14. | Shri Sundar Ramanathan | Member Secretary | Present | Present | Present |
| MOEF&CC | | | | | |
| 1. | Sh. Rajesh Prasad Rastogi | Scientist 'D' | Present | Present | Present |

APPROVAL OF CHAIRMAN EAC

8/20/24, 9:05 AM

Re: Final draft MoM of 14th EAC Coal

Re: Final draft MoM of 14th EAC Coal

SH sharadnegi1957@gmail.com
Mon, 19 Aug 2024 6:35:40 PM +0530 •
To "RAJESH PRASAD RASTOGI" <rp.rastogi@gov.in>
Cc "Sundar Ramanathan" <r.sundar@nic.in>
Tags

Approved final MoM of 14th EACCoal as proposed

Dr S S Negi

Vice Chairman, Rural Development and Migration Commission, Uttarakhand

former Director General Forest and Special Secretary Govt of India

Address: 178 Subhash Road Dehradun

Mob 09411173194

On Mon, Aug 19, 2024 at 6:21 PM RAJESH PRASAD RASTOGI <rp.rastogi@gov.in> wrote:

Respected Sir,
Please find enclosed herewith the final MoM of 14th EAC (Coal) meeting for perusal and approval please.

With Regards
Dr. R. P. Rastogi