



सत्यमेव जयते

Government of India  
Ministry of Environment, Forest and Climate Change  
IA Division  
(Coal Mining)

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Minutes of AGENDA FOR 18th MEETING OF EXPERT APPRAISAL COMMITTEE (COAL MINING SECTOR), SCHEDULED TO BE HELD ON 27th NOVEMBER 2024 meeting Coal Mining held from 27/11/2024 to 27/11/2024 Date: 09/12/2024

MoM ID: EC/MOM/EAC/871037/11/2024  
Agenda ID: EC/AGENDA/EAC/871037/11/2024  
Meeting Venue: N/A  
Meeting Mode: Virtual  
Date & Time:

27/11/2024	10:00 AM	05:30 PM
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1. Opening remarks

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 – II**. The Standard/Generic EC & ToR conditions shall be system generated through the PARIVESH Portal.

**[The main PDF of MoM is enclosed at Page no. 168 - 309]**

2. Confirmation of the minutes of previous meeting

Confirmation of the Minutes of the 17<sup>th</sup> Meeting of the EAC (Coal): The minutes of the 17<sup>th</sup> meeting of the EAC (Coal) held during 21<sup>st</sup>-22<sup>nd</sup> October, 2024 have been confirmed by the EAC as uploaded on Parivesh along with following corrections:

A. Agenda item no: 17.3

Minutes uploaded on PARIVESH	To be read as
Para No. 17.3.14; Point “v”  Project is not located within 10 KM of any ESZ/ ESA national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/elephant	Para No. 17.3.14; Point “v”  Project is not located within 10 KM of any ESZ/ ESA national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/elephant corridor etc. However, it is observed

<p>corridor etc. However, it is observed that the project is located near a tiger corridor and 2 national parks. Committee deliberated on the same and is of the opinion that recommendations of NTCA and PCCF shall be sought and NOC from State wildlife department must be submitted in this regard. Also, a Wildlife Conservation Plan must be made and submitted.</p>	<p>that the project is located near a tiger corridor. Committee deliberated on the same and is of the opinion that recommendations of NTCA and PCCF shall be sought and NOC from State wildlife department must be submitted in this regard. Also, a Wildlife Conservation Plan must be made and submitted.”</p>
<p>Para No. 17.3.15; Specific Condition No. “x”</p> <p>Hydrogeological study from reputed institute with appropriate mitigation measures to be conducted for the nallahs passing through the ML area, dam located at the distance of 1.5 km in the north direction from the ML area and effects of mining on the ground water.</p>	<p>Para No. 17.3.15; Specific Condition No. “x”</p> <p>Hydrological study from reputed institute with appropriate mitigation measures to be conducted for the nallahs passing through the ML area, dam located at the distance of 1.5 km in the north direction from the ML area and effects of mining on the ground water.</p>
<p>Para No. 17.3.15; Specific Condition No. “xi”</p> <p>As the project involves groundwater intersection a Hydrological study shall be carried out by reputed Institute. Further, PP shall comply with the Ministry’s OM dated 23.05.2019 and provide necessary details/studies in the EIA/EMP Report.</p>	<p>Para No. 17.3.15; Specific Condition No. “xi”</p> <p>As the project involves groundwater intersection a Hydrogeological study shall be carried out by reputed Institute. Further, PP shall comply with the Ministry’s OM dated 23.05.2019 and provide necessary details/studies in the EIA/EMP Report.</p>
<p>Standard Condition No.23</p> <p>Impact of proposed project/activity on hydrological regime of the area shall be assessed and report be submitted. Hydrological studies as per GEC 2015 guidelines to be prepared and submitted.</p>	<p>Standard Condition No.23</p> <p>Impact of proposed project/activity on hydrogeological regime of the area shall be assessed and report be submitted. Hydrogeological studies as per GEC 2015 guidelines to be prepared and submitted.</p>

B. Agenda item no: 17.4

Minutes uploaded on PARIVESH	To be read as
Para No. 17.4.2; B. Status of FCs obtained for Utkal D & E Block.  PP submitted that the total broken forest area is 312.6979 Ha and there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.	Para No. 17.4.2; B. Status of FCs obtained for Utkal D & E Block.  PP submitted that the total broken forest area is 60.238 Ha and there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

### 3. Details of proposals considered by the committee

Day 1 -27/11/2024

#### 3.1. Agenda Item No 1:

##### 3.1.1. Details of the proposal

<b>Bhivkund Coal Mine by SUNFLAG IRON &amp; STEEL COMPANY LIMITED located at CHANDRAPUR,MAHA RASHTRA</b>			
<b>Proposal For</b>		Fresh EC	
<b>Proposal No</b>	<b>File No</b>	<b>Submission Date</b>	<b>Activity (Schedule Item)</b>
<a href="#">IA/MH/CMIN/495397/2024</a>	J-11015/252/2010-IA-II(M)	06/09/2024	Mining of minerals (1(a))

##### 3.1.2. Project Salient Features

###### Agenda No. 18.1:

18.1 Bhivkund Coal Mine (Area 802 Ha having capacity of 0.72 MTPA Normative/1.08 MTPA Peak) by M/s Sunflag Iron & Steel Company Ltd, located at Villages: Ballarpur, Nandagaon Poda & Visapur; District: Chandrapur; State: Maharashtra – Environment Clearance – Regarding.

[Online proposal No. IA/MH/CMIN/495397/2024; Consultant: Min Mec Consultancy Private Limited; NABET/EIA/2225/IA 0096 valid up to 29.03.2025]

18.1.1: M/s Sunflag Iron & Steel Company Ltd has made an online application vide proposal no. IA/MH/CMIN/495397/2024 dated 06/09/2024 along with copy of EIA/EMP report, Form 1, Part A, B & C seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 1(a) “mining” Under Category “A” of the schedule of the EIA Notification, 2006 (as amended), as the mining lease area is

more than 500 Ha. Further, the project is attracting general conditions of the EIA Notification as the project site is located at a distance of 0.03km from the boundary of the critically polluted area namely MIDC Ballarpur area. Hence, the project is appraised at Central Level.

The Bhivkund Coal Mine of M/s Sunflag Iron & Steel Company Ltd is located at Visapur, Nandgaonpode and urban area of Ballarpur of Ballarpur Tehsil, District Chandrapur, Maharashtra is for setting up of a new Underground Coal Mine. The project ToR was granted for the production of 0.72 (targeted capacity), while 1.08 MTPA (Peak rated capacity) in the mine lease area of 802 Ha on 15.03.2023, valid up to 14.03.2027. The said ToR was further amended on 01.06.2023.

The said project has been earlier appraised in 16<sup>th</sup> EAC Meeting held on 8-9<sup>th</sup> October 2024 and was deferred for want of additional information. ADS was submitted by the proponent on 06.11.2021. Now proposal is again placed in 18<sup>th</sup> EAC Meeting being held on 27.11.2024 before the EAC for appraisal.

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

#### 18.1.2: Environmental Site Settings:

PP submitted that the project area is covered under Survey of India Topo sheet No. 56 M/5 and is bounded by the geographical coordinates ranging from 19° 51' 19.911"N to 19° 54' 04.133 "N and longitudes 79° 18' 08.744" E to 79° 20' 29.486"E.

The Project site is located within 10 km radius of CPA MIDC Chandrapur (10km, NW) and CPA MIDC Ballarpur area (0.03 km, E) as per CEPI Assessment 2018. However, the project site is not falling within the CPA & SPA as per CEPI assessment 2018 by CPCB. This aspect has also been verified and confirmed through DSS.

Forest Area: The project does not involve any forest land and there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 Act.

Protected Area: PP submitted that the project site is not located within 10 km of any ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ tiger corridor/elephant corridor etc. However, it is located within 6.48 km from the notified Eco Sensitive Zone of Tadoba Andhari Tiger Reserve. The said distance has been certified vide letter dated 18.04.2022 from DFO, Forest Department, Tadoba Andhari Tiger Reserve, Chandrapur. Apart from this, Reserved and protected forests present within 10 km radius of the project site are Balharshah PF (0.05 km, E), Junana RF (2.7 km, E), Rajura RF (6.3 km, S) and Morwa RF (10.0 km, NW).

PP submitted that the Wildlife Conservation Plan has also been prepared and approved by Principal Chief Conservator of Forest (Wildlife), Maharashtra State vide letter No. SEC-23(2)/ VAZI/ SURVEY/ PRO.NO.180/2049/2023-24 dated 03.10.2023, for Sloth bear (*Melursus ursinus*), Leopard (*Panthera pardus*), Tiger (*Panthera tigris*), Indian Bison (*Bos gaurus*), Shikra (*Accipiter badius*), Indian Peafowl (*Pavo Cristatus*), White eyed Buzzard (*Butastur teesa*), Black Kite (*Milvus migrans*), Black Winged kite (*elanus caeruleus*), Oriental Honey Buzzard (*Pernis apivorus*), Monitor Lizard (*Varanus bengalensis*). Further, it also stated that the proposed project does not require wildlife approval as there is no national park/ sanctuary within 10 km of the mine lease area. PP submitted a letter dated 18.04.2022 from DFO,

stating ESA of Tadoba Andhari Tiger Reserve is located at a distance of 6.48 km (aerially) from the project and core boundary of Tadoba Andhari Tiger Reserve is at the distance of 23.59 km.

Project Area/ Mine Lease: PP submitted that the instant proposal is proposed on 802 Ha land and does not involve any forest land. The said ML area is provided to the proponent through the vesting order no. NA-104/2/2021-NA dated 18.11.2021.

18.1.3: Details of ToR are furnished below:

Date of Application	Details	Date of Accord	ToR Validity
06.01.2023	File No. J-11015/252/2010-IA-I I(I)	15.03.2023	14.03.2027
28.04.2023	Proposal for amendment in ToR vide Proposal no. IA/MH/CMI N/425645/2023	01.06.2023	Nil

18.1.4: Method of Mining and Mine Plan:

1. The Mine Plan and Mine Closure Plan of Bhivkund Coal Mine is approved by the Ministry of Coal vide letter dated 02.08.2022 for rated capacity of 0.72 MTPA and peak rated capacity of 1.08 MTPA on the mine lease area of 802 Ha.
2. The total geographical reserves reported in the mine lease area of 802 Ha is 102.264 MT, out of which mineable reserves are 87.875 MT and extractable reserves are 50.5900 MT. Percentage of extraction is 49.470%.
3. There are total 4 nos of seams, out of which only 2 are workable, i.e., section II (having thickness 1.72-12.15) and section III (having thickness 1.0-4.95).
4. The method of mining to be adopted will be underground mining by mechanized method.
5. Only 9.09 ha shall be disturbed on the surface.
6. The life of underground mine is 64 years.
7. Since, it is an underground mine the waste generated from driving of inclines and shaft will be used for raising plinth of infrastructure area and internal roads development simultaneously. Thus, no waste dump/ OB dump is proposed.
8. Land use details:

a. Pre-Mining Land Use:

Land Use Pattern	Area (Ha)
Tenancy	
Agricultural	753.46
Township	5.23

Road	10.56
Government Non Forest	
Barren/ Other use (water bodies)	32.75
TOTAL	802

b. Post-Mining Land Use:

Land Use Pattern	Area (Ha)
Green Belt	3.64
Agriculture	5.45
Undisturbed	792.91
TOTAL	802

9. Transportation of Coal: When the coal production will start from UG mine, the coal will be coming out through a conveyor. The Coal Handling Plant (CHP) is proposed to be located at the top of Incline where the out coming conveyor will discharge the coal into the pit head bunkers. The coal will be dispatched from the bunkers of CHP into the consumer's trucks for onwards transportation to their destinations or to the nearest railway siding, as the case may be.

18.1.5: Baseline Data: Baseline Data was generated from 1<sup>st</sup> October 2022 to 31<sup>st</sup> December 2022 and 10<sup>th</sup> March 2023 to 9<sup>th</sup> June 2023.

Period	1st October 2022 to 31st December 2022 and 10th March 2023 to 9th June 2023	Additional Study (if any)
AAQ Parameters at 12 Locations (min and max)	PM <sub>2.5</sub> : 20 to 47 µg/m <sup>3</sup> PM <sub>10</sub> : 43.4 to 88.2 µg/m <sup>3</sup> SO <sub>2</sub> : 6 to 13.3 µg/m <sup>3</sup> NO <sub>x</sub> : 6 to 20.3 µg/m <sup>3</sup> CO: 0.115 to 0.802 mg/m <sup>3</sup>	
Incremental GLC Level 1	PM <sub>10</sub> : 0.39 µg/m <sup>3</sup> (Level at core zone near Visapur village, within ML boundary) SO <sub>2</sub> : 0.002 µg/m <sup>3</sup> (Level at core zone near Visapur village, within ML boundary) NO <sub>x</sub> : 0.010 µg/m <sup>3</sup> (Level at core zone near Visapur village, within ML boundary)	
Ground water quality at 9 Locations	pH: 6.65 to 7.32, Total Hardness: 152 to 576 mg/l, Chloride: 29 to 264 mg/l, Fluoride: 0.36 to 0.88 mg/l, Heavy metals (Mn): BDL to 0.057 mg/l.	
Surface water quality at 9 Locations	pH: 7.16 to 7.96; DO: 6.8 to 8.5 mg/l and BOD: 1.5 to 10.5	

t 9 Locations	mg/l, COD: 30.2 to 69.7 mg/l																															
Noise levels Leq (Day and Night)	45.80 to 53.93 dBA for the daytime and 36.15 to 42.83 dBA for the Night time.																															
Traffic Assessment Study findings	<p>Traffic study has been conducted at two locations namely road near Nandgaonpode village (0.2 km, N) on Nandgaonpode to Chandrapur Road and near Lalpet Mine Quarters (2.9 km, N) on Nandgaonpode to Nandgaonpode railway Siding -WCL Road.</p> <p>Transportation of mineral will be done 100% by road either to railway siding or direct to consumer. Existing PCU and existing level of service (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>Nandgaonpode to Chandrapur Road</td> <td>61</td> <td>500</td> <td>0.122</td> <td>A</td> </tr> <tr> <td>Nandgaonpode to Nandgaonpode railway Siding -WCL Road</td> <td>208</td> <td>500</td> <td>0.41</td> <td>A</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 61 &amp; 208 (Existing) + 3 (Additional) PCU/hr and level of service (LOS) will be:</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr)</th> <th>C (Capacity in PCU/hr)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>Nandgaonpode to Chandrapur Road</td> <td>64</td> <td>500</td> <td>0.128</td> <td>A</td> </tr> <tr> <td>Nandgaonpode to Nandgaonpode railway Siding -WCL Road</td> <td>211</td> <td>500</td> <td>0.422</td> <td>A</td> </tr> </tbody> </table>	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS	Nandgaonpode to Chandrapur Road	61	500	0.122	A	Nandgaonpode to Nandgaonpode railway Siding -WCL Road	208	500	0.41	A	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS	Nandgaonpode to Chandrapur Road	64	500	0.128	A	Nandgaonpode to Nandgaonpode railway Siding -WCL Road	211	500	0.422	A	
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	<table border="1"> <tr> <td>Iway Siding -WCL Road</td> <td></td> <td></td> <td></td> </tr> </table> <p>Note: Capacity as per IRC:64-1991 Guideline for capacity for roads Conclusion: The level of service will A after including additional traffic due to proposed project.</p>	Iway Siding -WCL Road				
Iway Siding -WCL Road						
Flora and fauna	<p>"Biodiversity Assessment and Conservation Plan with Mitigation Measures for Flora, Fauna and Wildlife with Budgetary Provision for Bhivkund Coal Block over an Area of 802 Hectares located at villages Visapur and Nandgaonpode and Urban Area of Ballarpur, Tehsil Ballarpur, District Chandrapur (Maharashtra)" has been prepared by Econsus Environmental Solutions LLP, Nagpur. It has been approved by Principal Chief Conservator of Forest (Wildlife), Maharashtra State vide letter No. SEC-23(2)/VAZI/SURVEY/PRO.NO.180/2049/2023-24 dated 03.10.2023 for Shedule- I species, namely, Sloth bear (<i>Melursus ursinus</i>), Leopard (<i>Panthera pardus</i>), Tiger (<i>Panthera tigris</i>), Indian Bison (<i>Bos gaurus</i>), Shikra (<i>Accipiter badius</i>), Indian Peafowl (<i>Pavo Cristatus</i>), White eyed Buzzard (<i>Butastur teesa</i>), Black Kite (<i>Milvus migrans</i>), Black Winged kite (<i>elanus caeruleus</i>), Oriental Honey Buzzard (<i>Pernis apivorus</i>), Monitor Lizard (<i>Varanus bengalensis</i>).</p>	Separate study as mentioned				
Water requirement	<p>Source of Water: Ground water (borewell &amp; mine seepage water) Ground Water Intersection: Yes Water Requirement: 106 KLD NOC (For surface water): Not applicable since no surface water will be used NOC (Ground Water): NOC No. CGWA/NOC/MIN/ORIG/2023/19456 valid till 19.10.2025</p>	Comprehensive Hydrogeological Report for Bhivkund underground Coal Mine has been prepared by Sujalam Consultants, Nagpur.				

18.1.6: Details of Water Requirement: Total water requirement submitted by the PP is 106 KLD, which will be sourced from ground water. 43 KLD will be sourced from borewell, 40.3 KLD will be met from Mine Sump Water and 22.7 KLD will be met from treated waste water. PP has obtained NOC from CGWA for 50 KLD vide NOC No. CGWA/NOC/MIN/ORIG/2023/19456, dated 20.10.2023, valid up to 19.10.2025. PP also submitted that, there is no diversion of River/ Nallah proposed.

18.1.7: Public Hearing: The Advertisement for the Public Hearing was given in Marathi daily newspaper "Lokmat" and in English newspaper "Times of India" dated 16.02.2024 for PH on 20.03.2024. Later a corrigendum was published on 20/03/2024 in the above mentioned newspapers for postponement of public hearing due to Lok Sabha election to 24.04.2024 on same venue.

The PH was conducted on 24.04.2024 at the project site under the presiding officer Shri Sanjay Pawar, Additional District Magistrate. PH was attended by 157 people. 1561 written representation were received from within the district, out of which 1012 representations were in favour of the project for employment, growth and development of the area while the others opposed the project.

Major concerns related raised during the PH were concerns related to depletion of water table, provision



of potable water, control of environmental pollution, discharge of acidified mine water containing heavy metals, land acquisition, presence of various wild animals like bear, tiger, deer, etc., employment to local and damage to crops due to transportation of coal.

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

Sl. No.	Physical activity and action plan		Year of Implementation (Budget in Rs. lakhs)			Total Expenditure (Rs. Lakhs)
			Year 1	Year 2	Year 3	
1	Depletion of ground water level	Construction of rain water harvesting structure in facility area as well as villages Nangaonpode and Visapur for recharge of ground water	3.93	1.00	1.00	5.93
		Installation of piezometers to monitor the water level at 6 locations (including villages Nangaonpode and Visapur)	-	12.0	12.0	24.0
		Construction of deep tubewell at Nangaonpode and Visapur village	4.0	4.0	-	8.0
2	Provision of potable water	Potable Water supply to nearby villages such as Visapur and Nandgaon Poda as per requirement	0.50	0.50	0.50	1.50
3	Environmental Pollution	Various measures as suggested in Chapter 4 & 10 of EIA report for controlling air, water, noise, environmental monitoring, reclamation, green belt etc. Refer Table 10.2 and 10.3 for activities as well as capital cost & recurring cost.	583.90	-	-	583.90 (part of EMP cost)
4	Discharge of acidified mine water containing heavy metals	Sulphur content of the coal varies from 0.5 to 1.4 % in workable seams. Hence the possibility of acid mine drainage is not there. However, monitoring of the sump water quality shall be carried out by installing an online pH monitoring device after commencement of operation	-	-	0.50	0.50
5	Land acquisition	Land is being purchased by direct negotiation	Payment shall be made as per mutual agreement			

	tion	with consent and mutual agreement with land seller	ed rates			
6	Presence of various wild animals like bear, tiger, deer, etc.	Recommendations as suggested in Biodiversity Assessment and Conservation Plan for nursery management for raising key floral species, green fencing management, avenue plantation, Exotic/Invasive species management and watch tower management.	25.0	25.0	29.5	79.5
7	Employment to local	Preference to land losers and local people as per their capability and qualification	Wages as per Company's rules and regulations			
8	Damage to crops due to transportation of coal	Coal transportation shall be done through existing routes which are predominantly through non-agricultural land to railway siding & other directions. Precautions such as PUC, tarpaulin cover, optimum weight shall be followed, which are part of recurring cost and EMP measures. Industrial mechanised sweeper shall be purchased	-	-	10.0	10.0
		Total	617.33	42.5	53.5	713.33*

\*Rs. 49.93 lakh direct and Rs. 663.4 lakh indirect

18.1.8: EMP Cost: The capital cost of the proposed project is Rs 125 crores and the capital cost for environmental protection measures is proposed as Rs. 5.839 crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 4.72 crores. The details of cost for environmental protection measures are as follows:

Sl No.	Description of Item	Proposed	
		Capital Cost (In Lakh Rs)	Recurring Cost (In Lakh Rs/ year)
(i)	Air Pollution Control & Management	55.00	103.11
(ii)	Water Pollution Control	140.70	124.63
(iii)	Noise pollution control	114.00	2.78
(iv)	Environment Monitoring	66.85	26.85

(v)	Reclamation	0.00	3.63
(vi)	Occupational health	56.00	37.75
(vii)	Greenbelt (3.63 Ha)	113.90	38.64
(viii)	Others (Expert advice, other studies, etc)	37.45	16.72
(ix)	Interest on Capital cost	-	66.21
(viii)	Overheads (3% of dep., energy, R&M and Interest)	-	7.08
	TOTAL	583.90	427.42

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

Sl. No.	Type of Waste	Source	Quantity ( TPA)	Mode of Treatment	Disposal
1	Plastic	Packaging waste	2.34	Stored at mine store, shall be sent to authorised Recycler	Truck
2	Used Batteries	Vehicles, UPS, machines & others	0.225	Buy back by supplier	Truck
3	Sludge	from STP & ETP	3.20	Used as manure in green belt	Trolley/ Truck
4	MSW	Canteen	23.48	Waste segregated, dry recyclable waste will be sold to recycling vendors and wet organic waste shall be composted and used as manure.	Truck
5	Bulbs, tubes, electrical fitting, old laptops, PCs, mobiles, screens, TVs, etc	Administration building	0.01	Given to e-waste dealer	Truck
6	Contaminated Waste (Recyclable) Tubing, bottles, Intravenous tubes syringes	First aid centre	0.03	To authorised BMW Management agency	Truck
7	Used oil/ spent oil	Used oil will be generated from	82 KL	will be handed over to authorized CPCB/ SPCB Authorized recycling vehicle	Truck

		m the HEMM and other machines & vehicles		ndors	
8	Empty barrels/Containers/ liners Contaminated with hazardous chemicals/ wastes	Mine area	40 nos.	will be sold to Authorized recycler	Truck

18.1.10: Power Requirement and details of diversion of Hi-Tension/ Transmission Line: Power requirement for the said project submitted by the proponent is 12.6 MVA. PP also submitted that no Hi-Tension Line/ Transmission Line is proposed for diversion.

18.1.11: Plantation: Proposed greenbelt will be developed in 3.64 ha which is about 0.45% of the total project area but 40% of the UG facility area. A 5 to 25 m wide greenbelt, consisting of at least 3 tiers around mine boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 9000 saplings will be planted and nurtured in 3.64 hectares in first year.

18.1.12: Project Cost: The capital cost of the project is Rs. 125 crore. Cost of production submitted by the PP is Rs. 2200-2400 per tonne of coal. CSR cost proposed by the PP is 2% of the average annual profit of last three years of operation as per Companies Act 2013 and cost of implementing EMP is Rs 583.9 Lakhs (capital cost) and Rs. 424.12 Lakhs (recurring cost per year).

18.1.13: R&R Issues: PP submitted that no R&R plan is applicable, as only land losers shall be there in 9.09 Ha area and no human settlement is present in this area. Direct purchase at the mutually agreed rates shall be carried out by the company for which the estimated purchase cost will be Rs. 772.65 Lakhs for this land.

18.1.15: Undertaking/ Affidavit: PP submitted an affidavit, stating that, there is no construction/ mining done at the site and the same will be carried out on receipt of environmental clearance from MoEF&CC, that there is no litigation on the project either at NGT or any other court of law related to environment and pollution matters, that there will be no rehabilitation of inhabited villages envisaged although there are habitation of two villages namely Visapur and Nandgaonpode and urban area of Ballarpur located within the Bhivkund Coal Mine. Only 9.09 Ha of land shall be required for infrastructure development for mining activities, which will be directly purchased from private party, that there is no difference in the documents submitted i.e., CAF, Form – 2, EIA/ EMP Report and the presentation being made to the EAC, that the reason for submitting the project at MoEF&CC is that the proposed project falls under the Category A as per the EIA Notification 2006 and amendments made there under till date.

Apart from this, the PP has submitted an undertaking stating that information provided in CAF, Form 1 (Part A, B and C), EIA & updated as per ADS reply dt. 06.11.2024 in .pdf format in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 27th November 2024 have no deviation in respect of the proposal no.: IA/MH/CMIN/495397/2024 for EC for coal mining having 802.00 ha of ML area/Project area and capacity 0.72 MTPA (Peak 1.08 MTPA) for Coal Mine Project located at villages Visapur and Nandgaonpode and urban area of Ballarpur, Teshil Ballarpur, District Chandrapur, State Maharashtra by M/s Sunflag Iron & Steel Company Ltd. And further submitted that there are no data entry errors in the information uploaded in PARIVESH system including names/email-id/mobile numbers/address of the project proponent, authorized person, etc. It is

also certified that the supporting documents uploaded on PARIVESH portal are correct and duly authenticated by the Authorized Signatory and in case of any deviation in data found in any of the documents, the Authorized Signatory shall be held responsible and furthermore, the above said project shall be rejected for grant of amendment in EC.

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

18.1.17: ADS Information in chronology: The proposal was initially considered in 16th Meeting of EAC (Coal) held on 08.10.2024. Proposal was deferred for want of additional information. The observations and recommendation is given as below:

The proponent submitted the ADS reply vide letter dated 06.11.2024 uploaded on PARIVESH on 06.11.2024 Point-wise reply of ADS is given as below:

S. No.	ADS Point	Reply/Response of PP												
1	Distance certificate from DFO, certifying that the Eco Sensitive Zone of Tadoba Andhari Tiger Reserve is not located within 10 KM from the project area	Eco Sensitive Zone of Tadoba Andhari Tiger Reserve is located at a distance of 6.48 km (aerially) from project. Distance certificate from Forest Department, Conservator of Forest, Tadoba Andhari Tiger Reserve, Chandrapur dated 18.04.2022 along with English Translation is also uploaded along with the ADS reply.												
2	The budget earmarked for Wildlife Conservation Plan shall be enhanced by including conservation of the aquatic biodiversity of flora and fauna species present in the flood plains of Wardha River.	<p>Budget earmarked for Wildlife Conservation Plan has been enhanced by including conservation of the aquatic biodiversity of flora and fauna species present in the flood plains of Wardha River. Wildlife Conservation Plan budget has been revised from Rs. 25 lakhs to Rs. 79.5 lakhs as follows:</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Description</th> <th>Amount in Lakhs Rs.</th> </tr> </thead> <tbody> <tr> <td>(i)</td> <td>Nursery Management for Raising Key Floral Species (10,000 saplings initially)</td> <td>5</td> </tr> <tr> <td>(ii)</td> <td>Green Belt in Safety Zone (25% cost, balance 75% included in EMP)</td> <td>4.55</td> </tr> <tr> <td>(iii)</td> <td>Avenue Plantation Management (2.3 km from north of Nandgaonpode to UG facility area)</td> <td>5.75</td> </tr> </tbody> </table>	S. No.	Description	Amount in Lakhs Rs.	(i)	Nursery Management for Raising Key Floral Species (10,000 saplings initially)	5	(ii)	Green Belt in Safety Zone (25% cost, balance 75% included in EMP)	4.55	(iii)	Avenue Plantation Management (2.3 km from north of Nandgaonpode to UG facility area)	5.75
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TOTAL		79.5																		
3	Videography of Public Hearing proceedings shall be presented before the EAC.	Videography of Public Hearing proceedings shall be presented before the EAC.																		
4	Environmental Management Plan (EMP) shall be revised by incorporating the mitigation measures	Environmental Management Plan (EMP) has been revised by incorporating the mitigation measures to be adopted due to presence of critically polluted area namely MIDC Ballarpur area at a distance of 0.03 km from project site by inclusion of following, in line with the Action Plan for the CPA by Maharashtra Pollution Control Board:																		

asures to be adopted by the project proponent in accordance with the Ministry's O.M. dated 31/10/2019 as the project site is only 0.03 km from the critically polluted area namely MIDC Ballarpur area. Further, EMP shall also address the measures to be adopted for protection of Wardha River. The budget earmarked towards EMP shall be enhanced including the budget earmarked for concurrent plantation.

- (i) 40% green belt in the disturbed area of 9.09 Ha.
- (ii) Avenue plantation (6.1 km) from UG facility area to Colliery road intersection near Golpuliya, Ballarshah
- (iii) Additional plantation in government land (10 ha)
- (iv) Low height noise absorption barriers along peripheral road of Nandgaonpode & Visapur
- (v) Regular monitoring and testing of ambient air and water quality
- (vi) Installation of 01 no. of Continuous ambient air quality monitoring station
- (vii) Segregation of solid waste at source by keeping coloured dustbins in accordance with norms
- (viii) Awareness camps for use of recycled/ reuseable products and avoid using plastic especially single use.
- (ix) Awareness on avoiding use of domestic coal as a fuel to avoid smoke generation and deterioration of air quality
- (x) Training of mine staff on importance of clean environment
- (xi) Use of treated mine sump water for mine activities and plantation.
- (xii) Use of Tarpaulin covered and optimally loaded trucks/dumpers of coal transport
- (xiii) Working with Pollution Control Board in decreasing pollution
- (xiv) Submitting monthly report about operation and maintenance of pollution control system and report about compliance done.
- (xv) Periodic health checkup of employees and organizing health camps in nearby areas of Viaspur and Nanadgaonpode villages and Ballarpur area (under CSR)

The measures to be adopted for protection of ecology of Wardha River have already been included in the revised Wildlife Conservation Budget, addressed in the previous question. In addition, the above, EMP has also been revised for the additional provisions as follows:

- (i) Settling pond (0.2 ha)
- (ii) Mine Sump Water treatment system
- (iii) State of the art online multi-parameter mine sump water quality analyser
- (iv) Ground water monitoring piezometers (6 nos.)
- (v) River water level monitoring station upside and downside of mine lease

The budget earmarked towards EMP has been further enhanced by including the costs of :

- (i) Underground sanitation system
- (ii) Solar panels

(iii) Personal samplers for employees

(iv) Plantation along river and its tributaries

(v) Plantation of fruit trees on field boundaries, subject to acceptance/ agreement by land owners.

The revised EMP budget, thus, is as follows:

Sl. No.	Description	Capital cost, Rs. Lakhs	Recurring cost per annum, Rs. Lakhs
(i)	Air pollution control	55.00	103.11
(ii)	Water pollution control	140.70	124.63
(iii)	Noise pollution control	114.00	2.78
(iv)	Environment monitoring	66.85	26.85
(v)	Reclamation	0.00	3.63
(vi)	Occupational health	56.00	37.75
(vii)	Green belt (3.63 Ha)	113.90	38.64
(viii)	Others (Expert advice, other studies, etc.)	37.45	16.72
(ix)	Interest on capital cost		66.21
(x)	Overheads (3% of Dep., Energy, R&M & Interest)		7.08
	Total	583.90	427.42

The details of the components of the various headings in the above table are uploaded in the ADS reply. Thus, the EMP capital cost has been revised from Rs. 245.35 lakhs to Rs. 583.9 lakhs and the recurring cost has been revised from Rs. 272.27 lakhs to Rs. 427.42 lakhs.



5	Time bound action plan to reduce the transportation of coal by road shall be submitted.	<p>Coal mine is not linked to any end user plant. Sale of coal will be through e-auction or directly by consumers through mutually agreed rates. The company's Steel Plant at Eklari in Bhandara district (200 km) will also be a potential end user.</p> <p>Thus, in order to minimise the road distances, following action plan will be implemented:</p> <ul style="list-style-type: none"> <li>(i) Nearest railway sidings, namely, Hindustan Lalpeth Colliery siding at Babupeth (~7 km), Ballarpur Colliery siding at Ballarshah (~16 km) and Rayatwari Colliery siding at Chandrapur (~9 km) will be used, to the extent possible.</li> <li>(ii) Any transportation of coal to Company's steel plant at Eklari in Bhandara district shall be through road-cum-rail combination to minimise the road transportation.</li> <li>(iii) While signing the agreement with long term consumers, one clause related to transportation of coal shall be added to encourage transportation to nearest railway siding (as per capacity of siding) by road and from there by rail. Additional clause related to minimum size of truck to be used shall also be included.</li> <li>(iv) The capacity of truck shall be increased to 25 T as compared to 20 T presently proposed. Furthermore, the number of days of transportation will be increased from 330 days to 350 days. Thereby reducing the number of truck trips (to &amp; fro) from 220 trucks/ day to 164 trucks/day, which is a reduction by 25.5%.</li> <li>(v) Fleet size will be of 6-8 trucks approximately.</li> </ul> <p>No separate time period will be required for implementation of the above since they will be implemented right from the beginning of coal production.</p>
6	Action plan for safe passage/ right to pass of the villagers in midst of the mine infrastructure facilities shall be submitted.	<p>Underground facility area and associated infrastructures/ utility facility limited and restricted within 9.09 Ha only on the surface. 792.91 ha shall remain undisturbed. The paddy fields adjoining to the proposed underground facility area shall remain approachable from three directions as per the ADS reply via existing metalled road &amp; kuccha path between fields. However, an action plan has been made for providing safe passage/ right to pass to villagers as follows:</p> <ul style="list-style-type: none"> <li>(i) To ensure free movement along boundary of proposed underground facility area, pucca road will be constructed on the western side as well as eastern side, as seen in Fig 1. This will ensure that no right of passage is affected of any villager.</li> <li>(ii) Signboards, lights and markings will be there on roads for safe movement of villagers</li> <li>(iii) The roads will be constructed in the first month of commencement of infrastructure construction activities and complete</li> <li>(iv) Total length of road to be constructed will be approximately 930 m of 7 m width</li> </ul>

(v) Budget for land purchase and construction will be Rs. 1 crore approximately

Based on the approved mine plan and the proposed mine working during the underground life of mine i.e. 64 years, the year wise and depth wise anticipated mine seepage is estimated below:

TABLE : YEAR WISE PEAK DAILY ANTICIPATED MINE SEEPAGE (MONSOON)

S. No.	Year	Year wise	Depth (m)	Anticipated monsoon seepage	Annual Seepage
				KLD	Ha.m.
1	1	2025-26	0	Construction Phase	
2	2	2026-27	70	284	10
3	3	2027-28	72	500	18
4	4	2028-29	75	1077	39
5	5	2029-30	78	1491	54
6	6	2030-31	80	1491	54
7	7	2031-32	83	1491	54
8	8	2032-33	86	1491	54
9	9	2033-34	89	1598	58
10	10	2034-35	92	1598	58
11	11	2035-36	98	1704	62
12	12	2036-37	102	1704	62

A comparative study of the volume of ground water in mine seepage and the dynamic groundwater available in that area, monitoring of the ground water quality to assess the effect of mine seepage water on Wardha river and mitigation plan as per the observation no. xii shall be submitted.

7

13	13	203 7-38	105	1832	67
14	14	203 8-39	109	1832	67
15	15	203 9-40	115	1917	70
16	16	204 0-41	122	1917	70
17	17	204 1-42	129	2024	74
18	18	204 2-43	136	2024	74
19	19	204 3-44	146	2130	78
20	20	204 4-45	152	2130	78
21	21	204 5-46	160	2130	78
22	22	204 6-47	164	2343	86
23	23	204 7-48	170	2343	86
24	24	204 8-49	225	2983	109
25	25	204 9-50	235	3622	132
26	26	205 0-51	245	3622	132
27	27	205 1-52	255	3622	132
28	28	205 2-53	265	3622	132
29	29	205 3-54	200	2663	97
30	30	205	210	2770	101

		4-55			
31	31	205 5-56	214	2770	101
32	32	205 6-57	219	2876	105
33	33	205 7-58	225	2876	105
34	34	205 8-59	230	2983	109
35	35	205 9-60	239	2983	109
36	36	206 0-61	190	2663	97
37	37	206 1-62	193	2663	97
38	38	206 2-63	196	2663	97
39	39	206 3-64	198	2663	97
40	40	206 4-65	200	2663	97
41	41	206 5-66	195	2663	97
42	42	206 6-67	196	2663	97
43	43	206 7-68	199	2663	97
44	44	206 8-69	203	2663	97
45	45	206 9-70	203	2663	97
46	46	207 0-71-	205	2663	97
47	47	207 1-72	206	2663	97

48	48	207 2-73	207	2663	97
49	49	207 3-74	207	2663	97
50	50	207 4-75	208	2663	97
51	51	207 5-76	208	2663	97
52	52	707 6-77	210	2663	97
53	53	207 7-78	211	2663	97
54	54	207 8-79	212	2663	97
55	55	207 9-80	213	2663	97
56	56	208 0-81	213	2663	97
57	57	208 1-82	214	2663	97
58	58	208 2-83	215	2663	97
59	59	208 3-84	215	2663	97
60	60	208 4-85	216	2663	97
61	61	208 5-86	217	2663	97
62	62	208 6-87	217	2663	97
63	63	208 6-88	217	2663	97
64	64	208 6-89	217	2663	97
		Mini	70	284	10

		mum			
		Maximum	265	3622	132
		Average	178	2407	88

The maximum mine seepage during the monsoon for Bhivkund U/G Coal Mine is anticipated to be 3622 KLD during the 25<sup>th</sup> to 28<sup>th</sup> year of operation. The average seepage during the entire life of the mine is projected to be around 2407 KLD (88 Ha.m.). Seepage during the dry season will be significantly lower.

Groundwater Resources Analysis: The ground water resources for Ballarpur block for the year 2023 are sourced from the INGRES portal. The following table provides a summary of the groundwater availability and usage in the region:

Ground Water Resources of Ballarpur Block, District: Chandrapur, (Maharashtra)	Year 2023 Value (Ha.m)
Annual Domestic and Industrial Draft	532.78
Annual Irrigation Draft	492.79
Annual Groundwater Draft (Total)	1025.57
Annual Replenishable Groundwater Resources (Total)	6064.32
Net Groundwater Availability	5761.11
Stage of Groundwater Development (%)	17.80
Categorization	Safe

As on date Ballarpur block shows ground water development of just 17.80% and hence is categorized as SAFE for further development. The net ground water availability for same is found to be @5761 Ha.m. Hence, Considering the mine seepage on higher side @5000m<sup>3</sup>/day (during 25<sup>th</sup> to 28<sup>th</sup> year) due to nearness of Wardha river; the mine seepage @182.5 Ha.m. per annum will not have significant effect on this situation. This mine seepage is just 3.16% of the ground water resources of Ballarpur block. The annual mine seepage is anticipated to be 88 Ha.m. (~1.53%) which will not affect these statistics significantly. Hence, the ground water resources of Ballarpur block are not envisaged to be disturbed significantly owing to the mine seepage.

Mitigation measures for the effect of mine seepage water on Wardha river

To ensure that groundwater seepage and discharge from the Bhivkund U/G Coal Mine does not negatively affect the local environment, the following mitigation measures will be implemented:

- (i) The quantum of mine seepage or mine discharge will be monitored by installing the flow meters with telemetry on the dewatering pumps and the bore wells. It will be done immediately. The daily data will be maintained and seasonal data will be shared with the Regional office (CGWB).
- (ii) Any abnormal mine seepage/ dewatering will be reported to them and NOC regarding same will be obtained.
- (iii) The water from the underground working will be evacuated through inclines or boreholes drilled for the purpose. The main sump of the mine will be near the landing of the inclines at Section-III, but subsidiary sumps at other locations will be created as needed. The pumps will be as follows:

Sl. No.	Location	Numbers	Capacity (GPM)	Voltage (KV)	Head (m)	KW
i	Main pump (Sector II)	3	1000	3.3	150	200
ii	Stage pump (Sector I)	2	1000	550	100	90-130
iii	Stage pump (Sector III)	2	1000	550	100	90-130
iv	Stage pump (Sector IV)	3	1000	550	100	90-130
v	Stage pump (Sector VI)	2	1000	550	100	90-130

Source: Table given in section 5.3 of approved Mine plan and Mine Closure Plan (first Modification dated 23/08/2022).

Face pumps of 10 kw, capacity for each panel, during drifting works etc, will be additionally provided wherever required.

- (iv) The entire UG mine seepage will be pumped to the surface into the sedimentation tank. It will be 100% reutilized within mine for sprinkling & greenbelt irrigation, for first 5 years. Thereafter, with increase in seepage, excess can be given to:

- Nearby farmers for irrigation,
- Villagers for non-potable other use

		<ul style="list-style-type: none"> <li>· Nearby industries or</li> <li>· Discharged into nearby stream as being practiced by other operational mines in the surrounding area, ensuring compliance to MPCB norms.</li> <li>· The mine seepage shall be released in the Wardha river after proper treatment according to the MPCB/CPCB norms.</li> </ul> <p>(v) The quality of Wardha river at the upstream and downstream portions of the mine will be monitored quarterly every year.</p> <p>(vi) Four groundwater level monitoring stations will be installed on the downstream side of the mining area, and one station will be placed on each of the remaining two sides. These stations will constantly monitor the static water level (SWL). The SWL in ML area will be monitored by constructing piezometers (200 mm dia and 250 m depth) with telemetry- 4 on the downstream side and 1 each on the other two sides. This will be implemented in the first year of development of mine, prior to commencement of production. The water level will be monitored for all piezometers and the record will be shared with the Regional Office (CGWB).</p> <p>(vii) Map showing the proposed location of the ground water monitoring stations is given in <i>Annexure- 3 of uploaded letter</i>. (Actual location of monitoring stations will be constructed after consultation with the concern authority (CGWB), Nagpur)</p> <p>(viii) The quality of mine seepage, ground water from bore wells and Dug wells will be monitored quarterly and the result to be shared with Concerned Authority</p> <p>(ix) The management and the working team of Bhivkund underground mine to monitor constantly the mine seepage. Any abnormal seepage to be immediately brought to the notice of concerned authority.</p> <p>(x) Monitoring systems will be installed at strategic points upstream and downstream of the mine. This will allow for real-time observation of water flow and quality changes in the river. In the event of any adverse impacts from mine seepage, mitigation measures, including water treatment, will be implemented promptly.</p>								
8	Levels of mercury and arsenic present in the ground water samples in the ML area.	<p>Mercury and Arsenic in two ground water samples from ML area, namely, Visapur and Nandgaon Pode villages is as follows:</p> <table border="1"> <thead> <tr> <th>Location</th> <th>Visapur village</th> <th>Nandgaon Pode villages</th> <th>Acceptable Limits (IS 10500:2012)</th> </tr> </thead> <tbody> <tr> <td>As,</td> <td>BD</td> <td>BDL</td> <td>0.01</td> </tr> </tbody> </table>	Location	Visapur village	Nandgaon Pode villages	Acceptable Limits (IS 10500:2012)	As,	BD	BDL	0.01
Location	Visapur village	Nandgaon Pode villages	Acceptable Limits (IS 10500:2012)							
As,	BD	BDL	0.01							



		<table border="1"> <tr> <td>mg/l</td> <td>L</td> <td></td> <td></td> </tr> <tr> <td>Hg, m</td> <td>BD</td> <td>BDL</td> <td>0.001</td> </tr> <tr> <td>g/l</td> <td>L</td> <td></td> <td></td> </tr> </table> <p><i>Note: BDL for As is 0.01 mg/l &amp; Hg is 0.001mg/l</i></p> <p><i>Source: Report no. MMW/11-22/11 dt. 22.11.2022 and MMW/10-24/37 dt. 16.10.2024</i></p>	mg/l	L			Hg, m	BD	BDL	0.001	g/l	L		
mg/l	L													
Hg, m	BD	BDL	0.001											
g/l	L													
9	Action plan for installation of solar power in the ML area shall be submitted	<p>Rooftop installation of solar panels in infrastructure area shall be carried within 1 year of completion of construction. The solar power generation shall be as follows:</p> <p>(i) Capacity : 1000 KWp</p> <p>(ii) Area requirement: 10,000 sq. mtr</p> <p>(iii) Installation at UG facility area on roof tops of Administrative Buildings, MVTC, Canteen, Security, Crèche, Workers Rest Room, Driver's Rest room, Sampling Lab, Repair shop, Pit Head Store, Clay Pill Shed, Control room, First aid Room, Officers rooms, Main stores and closed sheds</p> <p>(iv) Budget : Rs. 5 Crore</p> <p>Power generated will be used within mine. As far as rest of ML area is concerned, land and homestead owners in Nandgaonpode and Visapur shall be given awareness training to install solar panels for their own use or to give to the grid. Provision for annual awareness program and interaction meets with solar expert shall be organised in the aforementioned two villages at a cost of Rs. 20,000 per annum, as a part of the CSR activities.</p>												

#### 18.1.18: Written Submissions:

Project Proponent has given the undertaking stating the following:

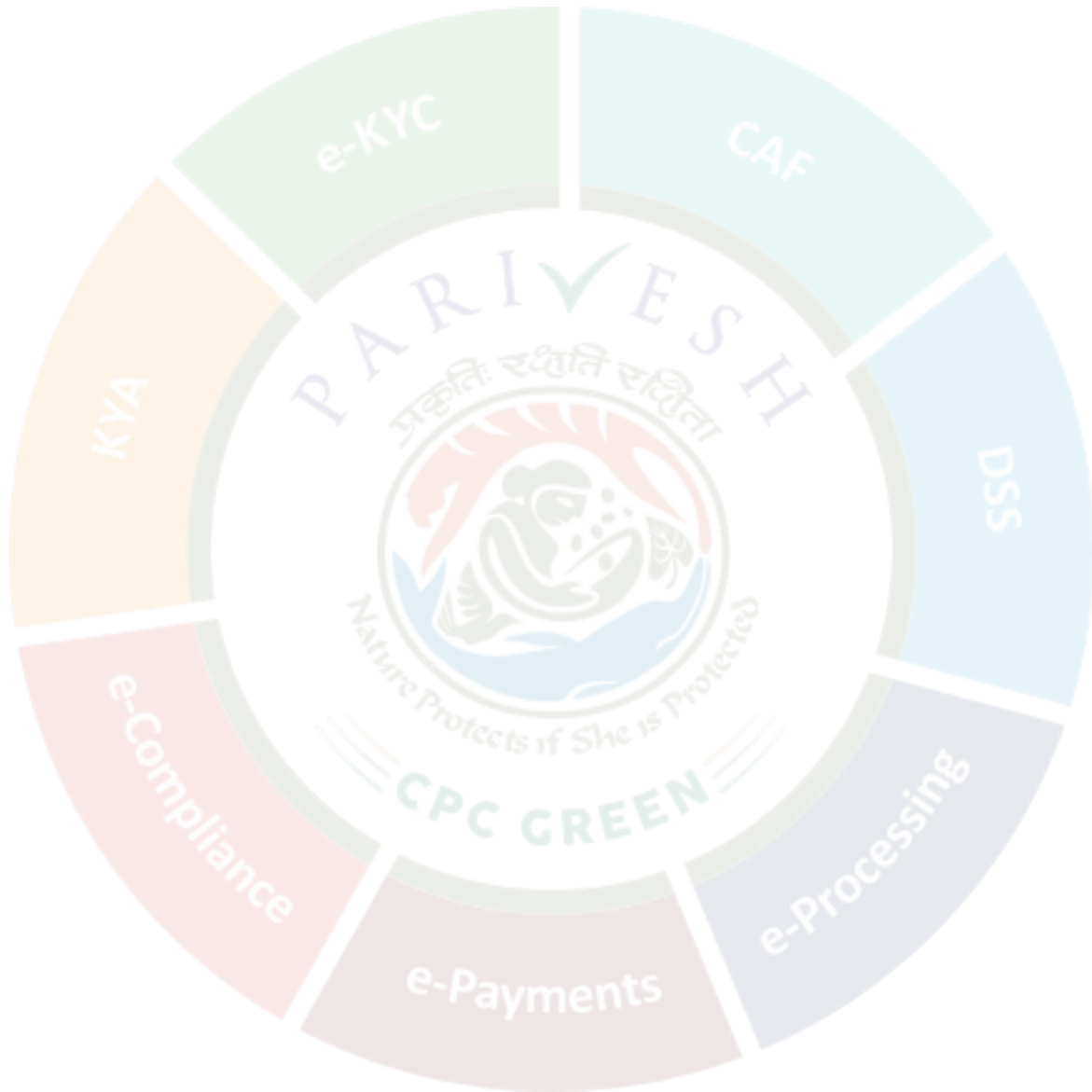
1. To utilise CNG/LNG/E-trucks as part of the coal transportation fleet. Company will target to deploy 15-20% of overall fleet of dumpers/trucks as electrical or CNG/LNG based dumpers/trucks for transportation of coal.
2. The capacity of truck used for transportation of coal shall be increased, as possible according to road conditions, thereby reducing the number of trucks trips (to & fro) trucks/day.
3. To provide a rain water harvesting pond in government land at a budget of Rs. 10 lakhs.
4. To increase tree plantation by additional 5,000 saplings along field boundary, subject to acceptance/ agreement by land owners. Additional budgetary provision of Rs. 25 lakhs shall be kept for the same.
5. To complete the "Comprehensive aquatic ecology study" by engaging specialized agency covering all seasons from upstream, middle stream and downstream of Wardha river & the major tributaries within the study area, prior to the commencement of production of the mine.
6. To fulfill the additional budgetary requirement that will emerge from the findings & recommendations of the "Comprehensive aquatic ecology study" by specialised agency as mentioned above.
7. To increase the Budgetary Plan for wildlife conservation by adding the cost incurred for implementation of point no. 6 above.
8. Track roads of approximately 930 m length, existing along the boundary of utility area, will be made pucca

road in the first month of commencement of infrastructure development, to enable villagers to approach their fields without hindrance.

9. PP uploaded pointwise response to the concerns raised in the public representation pertaining to the instant proposal under consideration

### 3.1.3. Deliberations by the committee in previous meetings

Date of EAC 1 :08/10/2024



**Deliberations of EAC 1 :**

**Deliberations and Observation of the Committee:**

**16.1.16: The Committee noted the following:**

- i. The instant proposal is for greenfield project for grant of Environment Clearance (EC) for Bhivkund Coal Mine of M/s Sunflag Iron & Steel Company Ltd, located at Villages: Ballarpur, Nandagaon Poda & Visapur; District: Chandrapur; State: Maharashtra.
- ii. The EAC took into consideration the project site through kml file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH. The Project site is located within 10 km radius of CPA MIDC Chandrapur (10km, NW) and CPA MIDC Ballarpur area (0.03 km, E) as per CEPI Assessment 2018. However, the project site is not falling within the CPA & SPA as per CEPI assessment 2018. Mitigation measures to be adopted in this regard have not been presented before the EAC.
- iii. The total project area is 802 Ha and it doesn't involve any forestland. Further, the project is not located within 10 km of any ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ tiger corridor/elephant corridor etc. However, it is located within 6.48 km from the notified Eco Sensitive Zone of Tadoba Andhari Tiger Reserve. PP submitted that the said distance has been certified vide letter dated 18.09.2023 from Forest Department, Conservator of Forest, Tadoba Andhari Tiger Reserve, Chandrapur. However, the said certificate wasn't presented to EAC by the PP. The Committee sought clarification for the same.
- iv. Wildlife Conservation Plan has also been prepared and approved by Principal Chief Conservator of Forest (Wildlife), Maharashtra State vide letter No. SEC-23(2)/ VAZI/ SURVEY/ PRO.NO.180/2049/2023-24 dated 03.10.2023. Further, it also stated that the proposed project does not require wildlife approval as there is no national park/ sanctuary/ wildlife trekking route within 10 km of the mine lease area. The Committee is of the opinion that the PP shall enhance the Wildlife Conservation Plan budget and it must include the aquatic biodiversity including the flora and fauna species present in the flood plain of Wardha River.
- v. Terms of Reference was granted on 15.03.2023, vide letter no. J-11015/252/2010-IA-II(I). It was further amended vide letter dated 01.06.2023. The amendment sought was regarding the condition to modify the mine plan for UG and EIA/EMP shall be prepared for UG mining operations only. The amendment sought was "EIA/ EMP shall be prepared for UG mining operations as per the existing mine plan, which shall be modified at a later stage as per the guidelines of MOC." The ToR is valid till 14.03.2026.
- vi. The Committee deliberated on the Public Hearing and observed that the PH was conducted on 24.04.2024 at the project site under the presiding officer Shri Sanjay Pawar, Additional District Magistrate. PH was attended by 1561 people. 1561 written representation were received from within the district, out of which 1012 representations were in favour of the project for employment, growth and development of the area while the others opposed the project. Major concerns related raised during the PH were related to depletion of water table, provision of potable water, control of environmental pollution, discharge of acidified mine water containing heavy metals, land acquisition, presence of various wild animals like bear, tiger, deer, etc., employment to local and damage to crops due to transportation of coal. The Committee asked the PP to present the video of Public Hearing in the next meeting.
- vii. The total capital cost for the project is Rs. 125 crore (capital cost) and cost of implementing EMP is Rs 245.35 Lakhs (capital cost) and Rs. 272.27 Lakhs (recurring cost per year). The Committee is of the opinion that the EMP cost is required to be re-worked and budget pertaining to greenbelt development and other heads shall be revised and enhanced.
- viii. The Committee deliberated on the plantation activities proposed by the PP. Committee observed that initially the plantation will be carried out in 3.64 Ha area. Plantation is also proposed as peripheral greenbelt (including 7.5 m safety zone), along the sides of haul roads (outside quarry area) and other vacant areas. It has been observed that the area proposed for plantation is only 0.45% of the total project

area but 40% of the UG facility area. The Committee is of the opinion that the area proposed for plantation and budget for the same should be enhanced and a concurrent plan for plantation should be submitted.

ix. The Committee deliberated on the method of transportation of coal proposed for the instant proposal. The Committee observed that the transportation of coal will majorly take place through roads. The Committee is of the opinion that coal transportation shall be done only through tarpaulin covered trucks and at the same time asked PP to submit a plan to minimize the coal transportation by road.

x. The Committee also deliberated on the location of the mine incline and deliberated on the safe passage/ right of way to villagers. The Committee has sought clarity in this regard from the PP.

xi. The Committee observed that, there is no diversion of River/ Nallah proposed.

xii. The Committee deliberated on the quality of ground water available in the mine area. Committee sought a relative comparison of the volume of ground water of mine seepage to that of available dynamic ground water resources in that area. Committee is of the opinion, that 4 nos of ground water monitoring stations should be installed on the down side and one each on other two sides, to constantly monitor the level of water to evaluate the effect of mine seepage on ground water. PP should also submit the details of mercury and arsenic present in the ground water. Committee is of the view that effect of mine seepage on water flow of Wardha River should be monitored and action plan should be proposed for any adverse effect of the same.

xiii. There is no court case pending on the project.

xiv. The Committee observed that the power requirement for the said project is 12.6 MVA and no Hi-Tension Line/ Transmission Line is proposed for diversion.

xv. Committee deliberated on the measures proposed by the PP for green energy and asked the PP submit a plan for installation of solar power plant.

#### **Recommendations of the Committee:**

**16.1.17:** In view of the foregoing and after detailed deliberations, the committee decided to *defer* the proposal, for want of the following additional information:

i. Distance certificate from DFO, certifying that the Eco Sensitive Zone of Tadoba Andhari Tiger Reserve is not located within 10 KM from the project area

ii. The budget earmarked for Wildlife Conservation Plan shall be enhanced by including conservation of the aquatic biodiversity of flora and fauna species present in the flood plains of Wardha River.

iii. Videography of Public Hearing proceedings shall be presented before the EAC.

iv. Environmental Management Plan (EMP) shall be revised by incorporating the mitigation measures to be adopted by the project proponent in accordance with the Ministry's O.M. dated 31/10/2019 as the project site is only 0.03 km from the critically polluted area namely MIDC Ballarpur area. Further, EMP shall also address the measures to be adopted for protection of Wardha River. The budget earmarked towards EMP shall be enhanced including the budget earmarked for concurrent plantation.

v. Time bound action plan to reduce the transportation of coal by road shall be submitted.

vi. Action plan for safe passage/ right to pass of the villagers in midst of the mine infrastructure facilities shall be submitted.

vii. A comparative study of the volume of ground water in mine seepage and the dynamic groundwater available in that area, monitoring of the ground water quality to assess the effect of mine seepage water on wardha river and mitigation plan as per the observation no. xii shall be submitted.

viii. Levels of mercury and arsenic present in the ground water samples in the ML area.

ix. Action plan for installation of solar power in the ML area shall be submitted.

#### 3.1.4. Deliberations by the EAC in current meetings

##### **Deliberations and Observation of the Committee:**

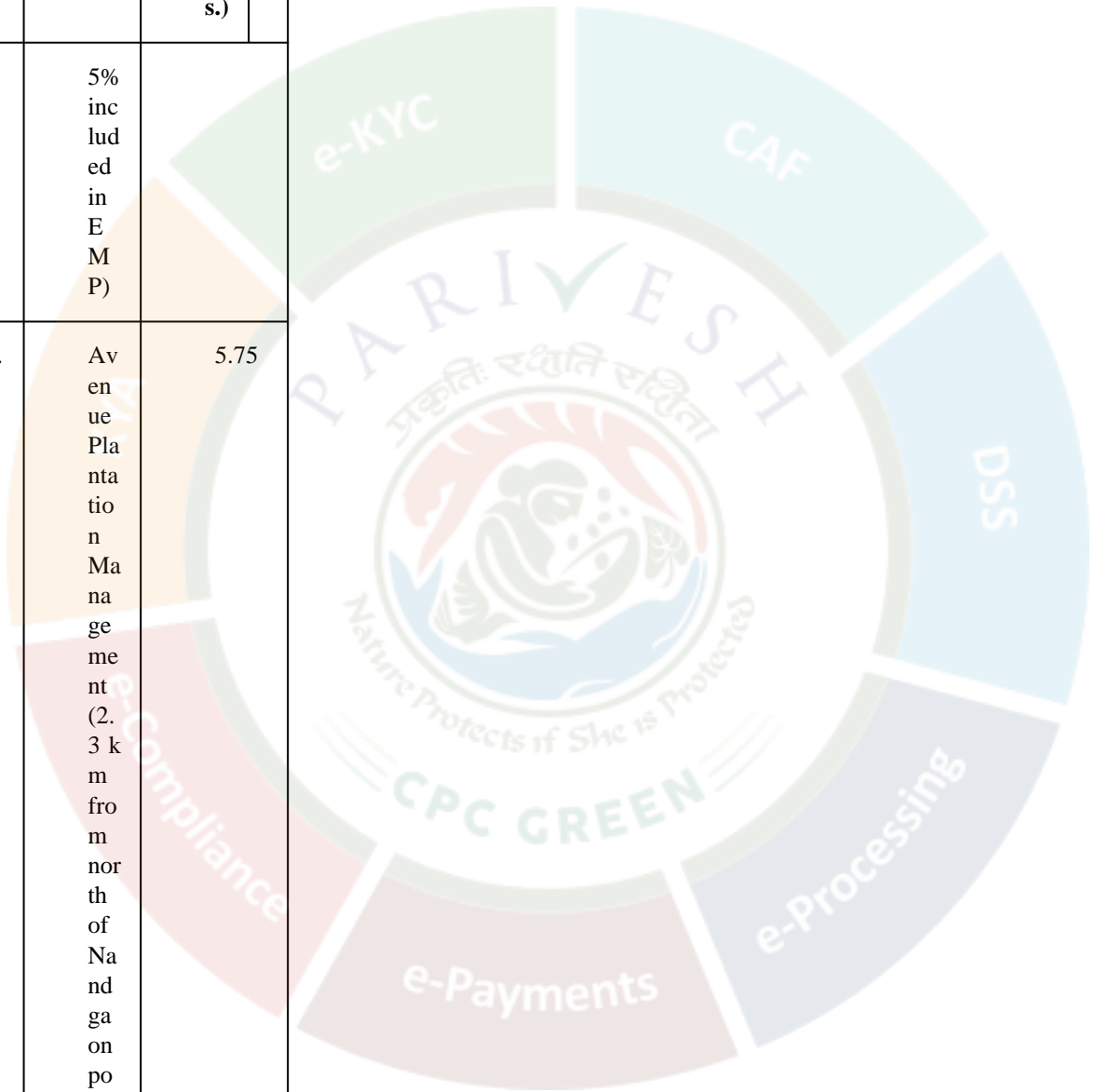
##### **18.1.19: The Committee noted the following:**

1. The instant proposal is for greenfield project for grant of Environment Clearance (EC) for Bhivkund Coal Mine of M/s Sunflag Iron & Steel Company Ltd, located at Villages: Ballarpur, Nandagaon Poda & Visapur; District: Chandrapur; State: Maharashtra. The said project has been earlier appraised in 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup> October 2024 and was deferred for want of additional information. ADS was submitted by the proponent on 06.11.2021. Now proposal is again placed in 18<sup>th</sup> EAC Meeting being held on 27.11.2024 before the EAC for appraisal.
2. The EAC took into consideration the project site through kml file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH. The Project site is located within 10 km radius of CPA MIDC Chandrapur (10km, NW) and CPA MIDC Ballarpur area (0.03 km, E) as per CEPI Assessment 2018. However, the project site is not falling within the CPA & SPA as per CEPI assessment 2018. PP submitted the details of mitigation measures to be undertaken in this regard at para no. 18.1.17.
3. The total project area is 802 Ha and it doesn't involve any forestland. Further, the project is not located within 10 km of any ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ tiger corridor/elephant corridor etc. However, it is located within 6.48 km from the notified Eco Sensitive Zone of Tadoba Andhari Tiger Reserve. PP submitted a letter dated 18.04.2022 from DFO, stating that ESA of Tadoba Andhari Tiger Reserve is located at a distance of 6.48 km (aerially) from the project and core boundary of Tadoba Andhari Tiger Reserve is at the distance of 23.59 km.
4. The Wildlife Conservation Plan has also been prepared and approved by the Principal Chief Conservator of Forest (Wildlife), Maharashtra State vide letter No. SEC-23(2)/ VAZI/ SURVEY/ PRO.NO.180/2049/2023-24 dated 03.10.2023. Further, it also stated that the proposed project does not require wildlife approval as there is no national park/ sanctuary/ wildlife trekking route within 10 km of the mine lease area. As per the suggestions of the 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup> October 2024 the PP has enhanced the Wildlife Conservation Plan budget which includes the aquatic biodiversity including the flora and fauna species present in the flood plain of Wardha River. The Wildlife Conservation Plan Budget has been enhanced from Rs. 25 Lakhs to Rs. 79.5 Lakhs. The revised plan is as follows:

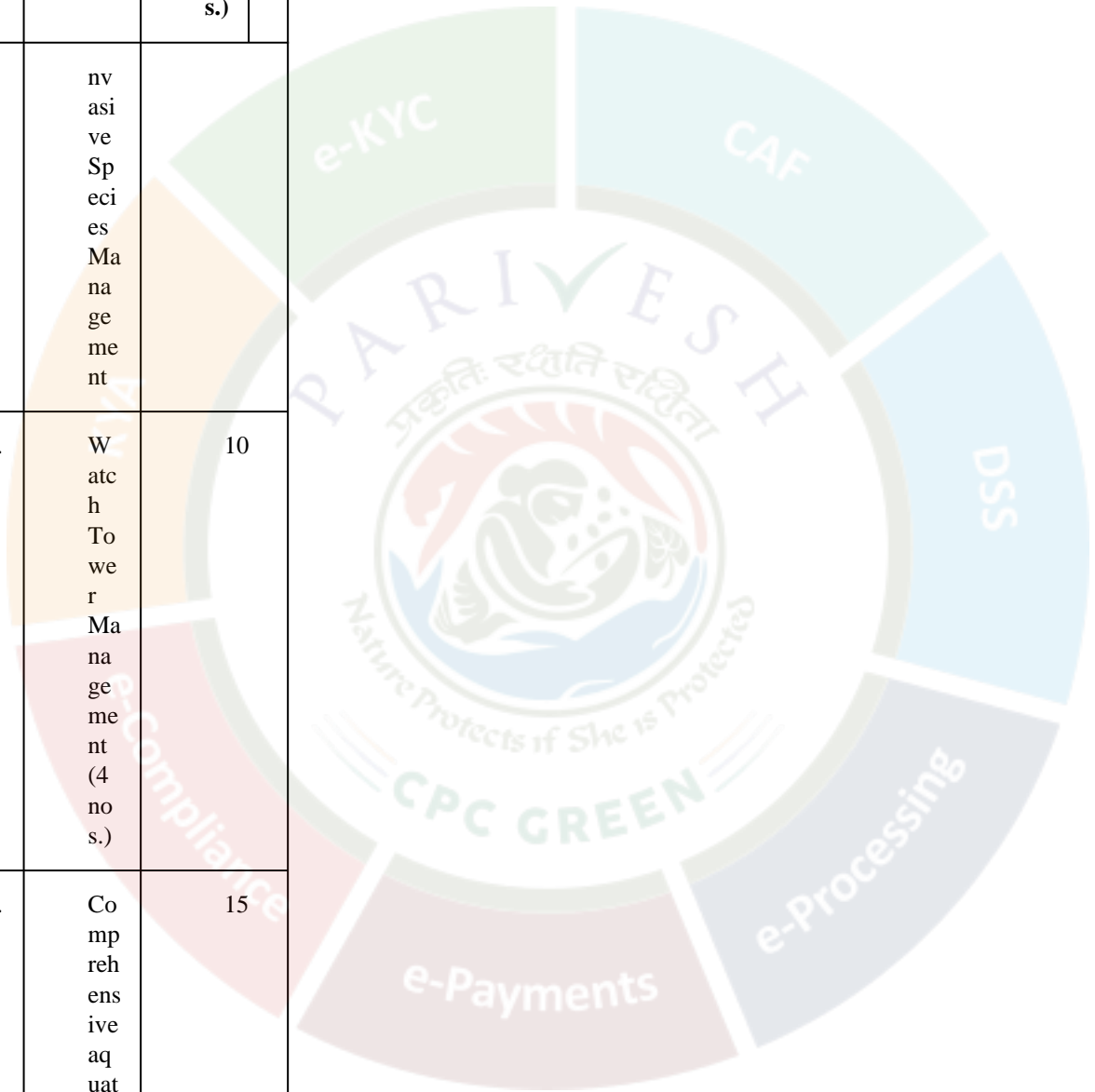
S. N o.	De scr iption	A m o u nt in L a k hs ( R s.)
1.	Nu rse ry Ma na ge ment for Ra isi ng Ke y F lor al Sp eci es (1 0,0 00 sap lin gs init ially)	5
2.	Gr ee n Be lt i n S afe ty Zo ne (2 5% cos t, b ala nce 7	4.55



S. N o.	De scr iption	A m o u nt in L a k hs ( R s.)
	5% included in E M P)	
3.	Avenue Plantation Management (2.3 km from north of Nandgaon po de to U G facility are a)	5.75
4.	Exotic/I	7.2

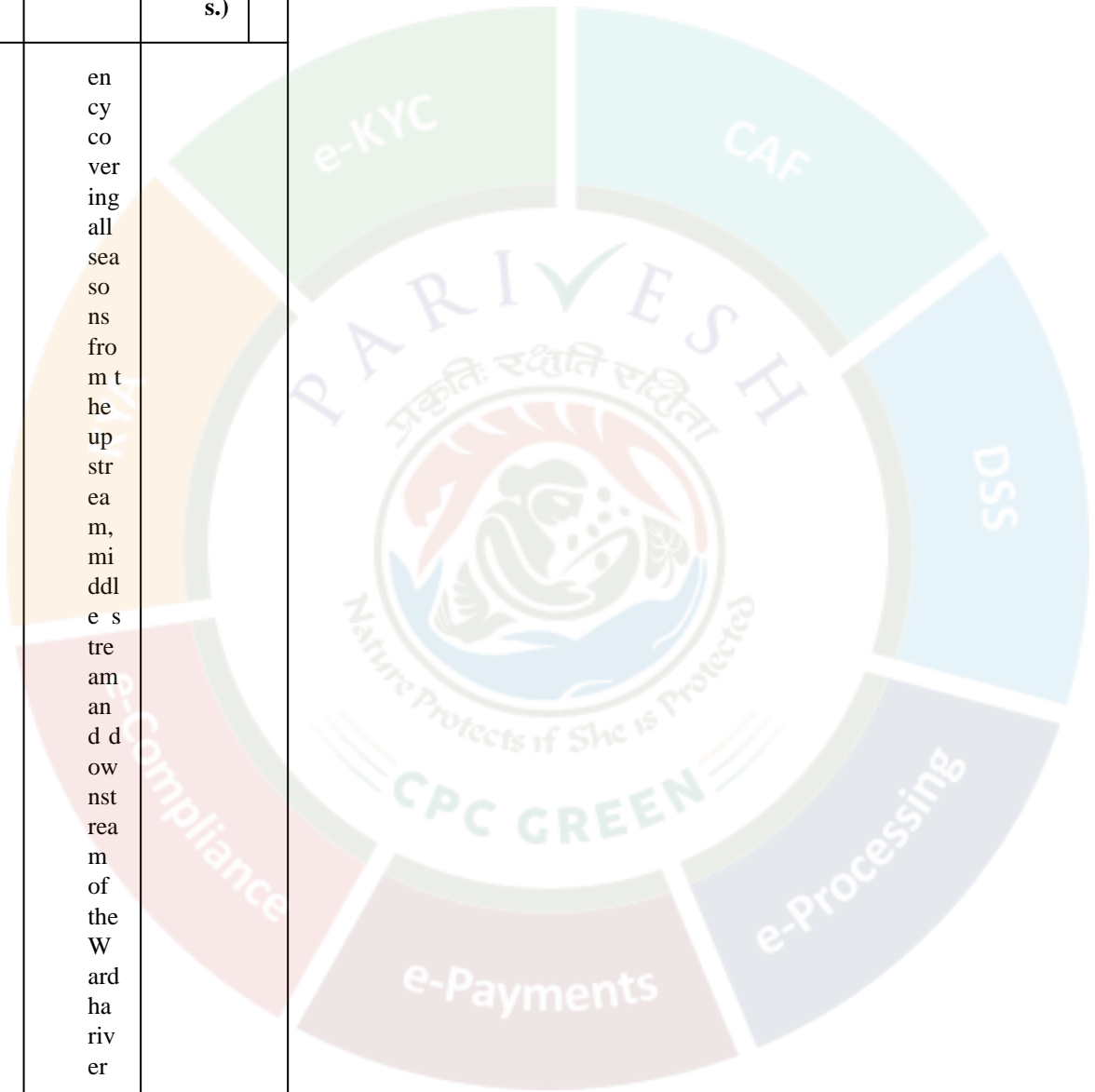


S. No.	Description	Amount in Lakhs (Rs.)
	Invasive Species Management	
5.	Watch Tower Management (4 nos.)	10
6.	Comprehensive aquatic ecology study by specialised ag	15

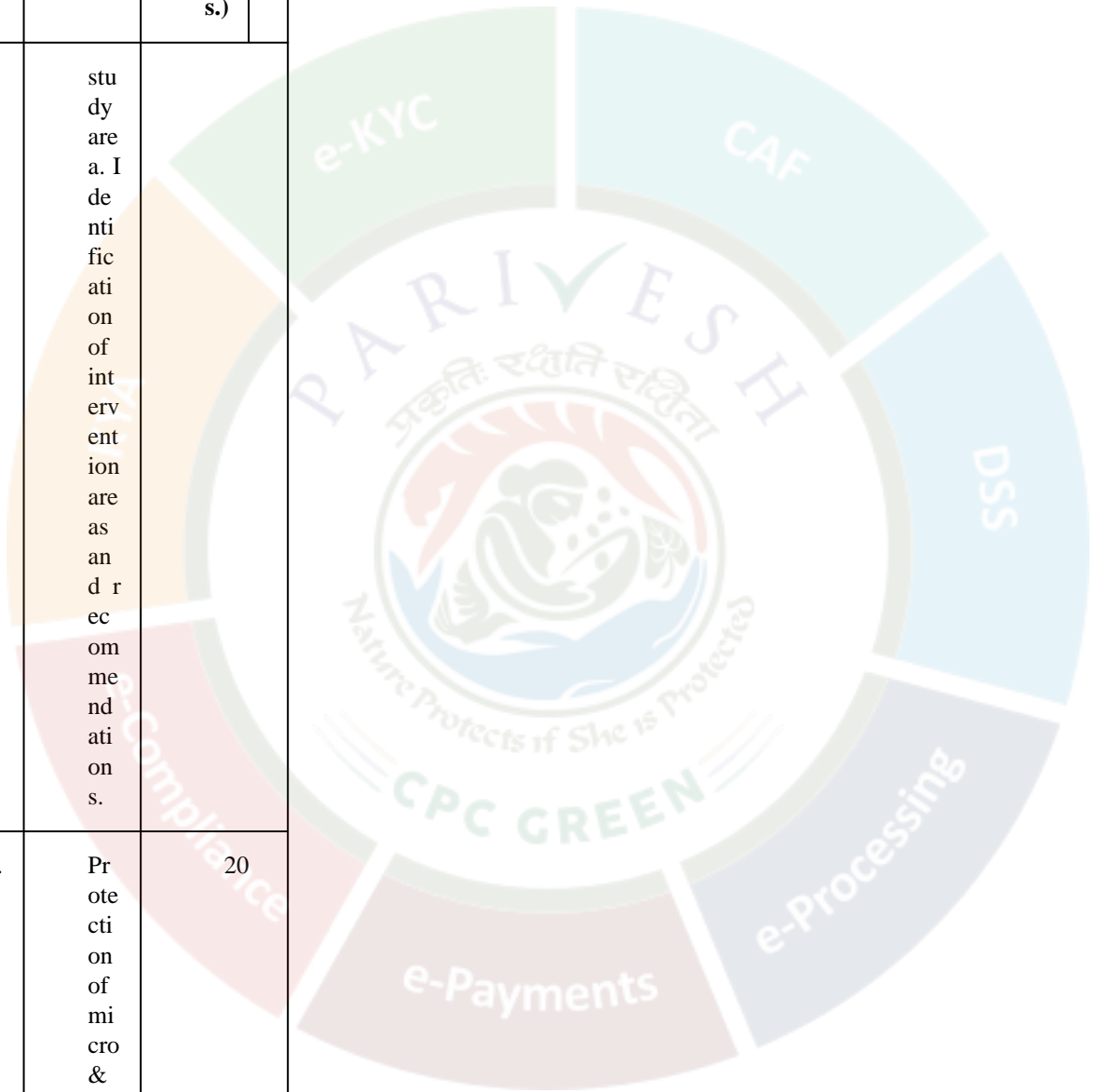




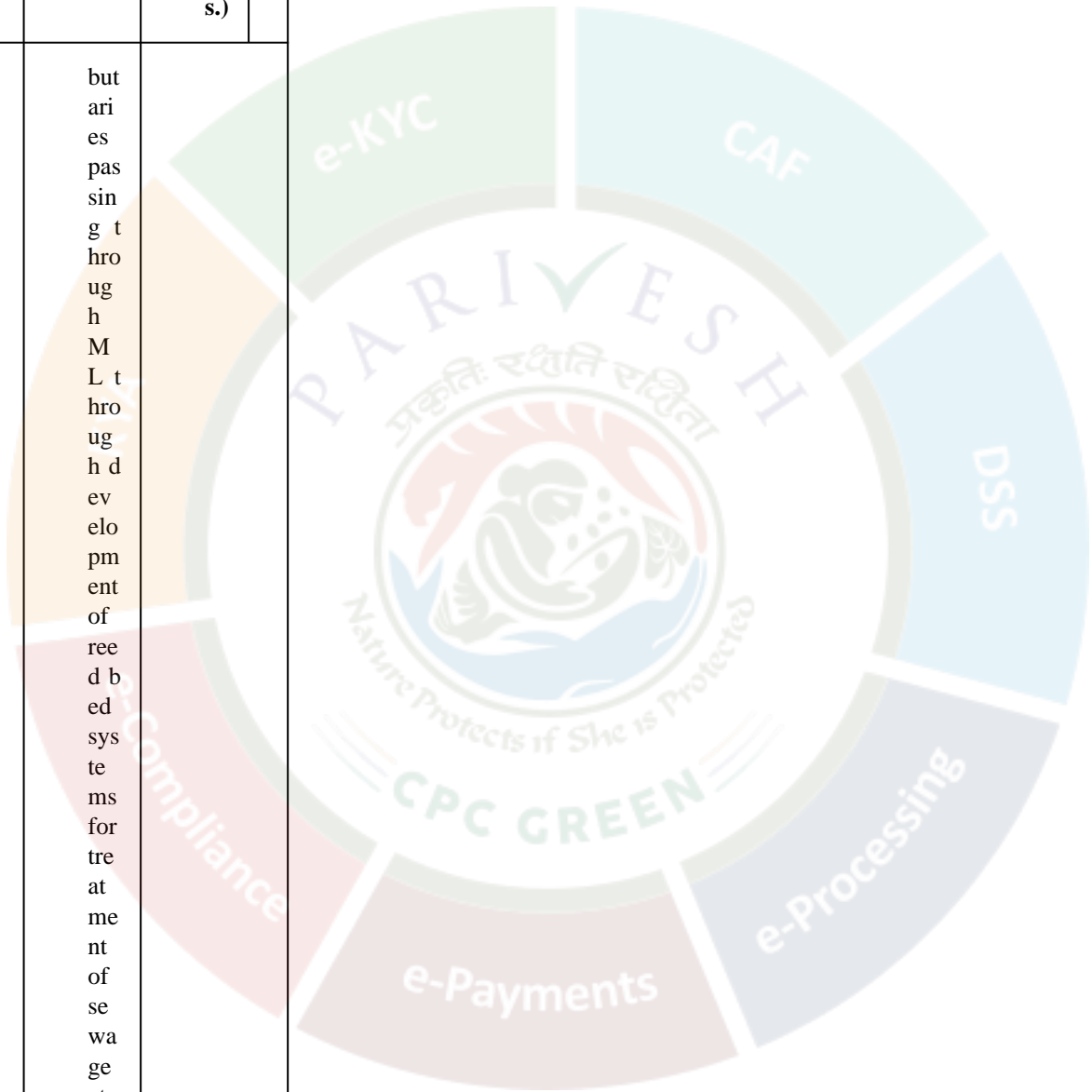
S. No.	Description	Amount in Lakhs (Rs.)
	<p>ency covering all seasons from the upstream, middle stream and downstream of the Wardhariver and the major tributaries within the</p>	



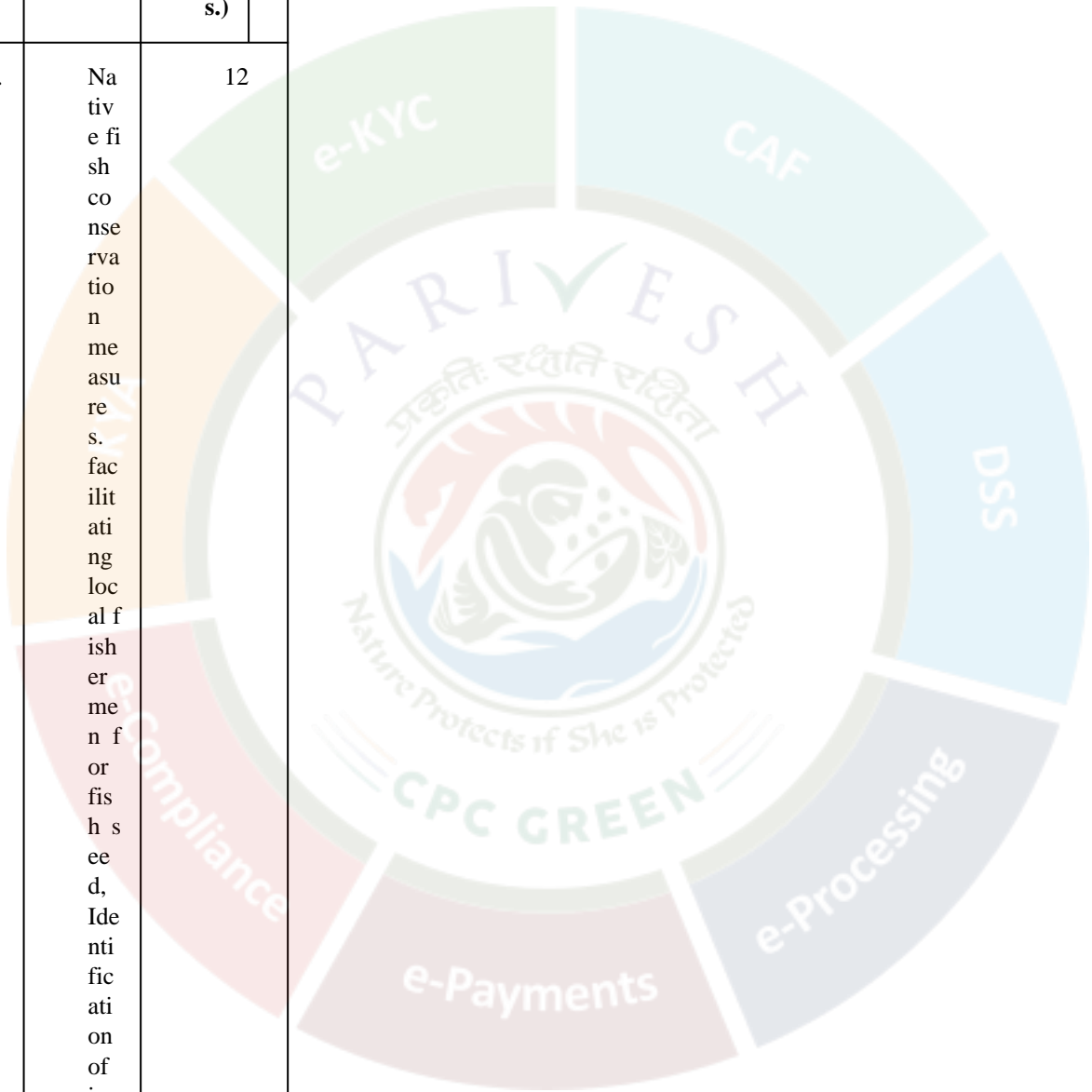
S. No.	Description	Amount in Lakhs (Rs.)
	study area. Identification of intervention areas and recommendations.	
7.	Protection of micro & macro flora & fauna in seasonal tri	20

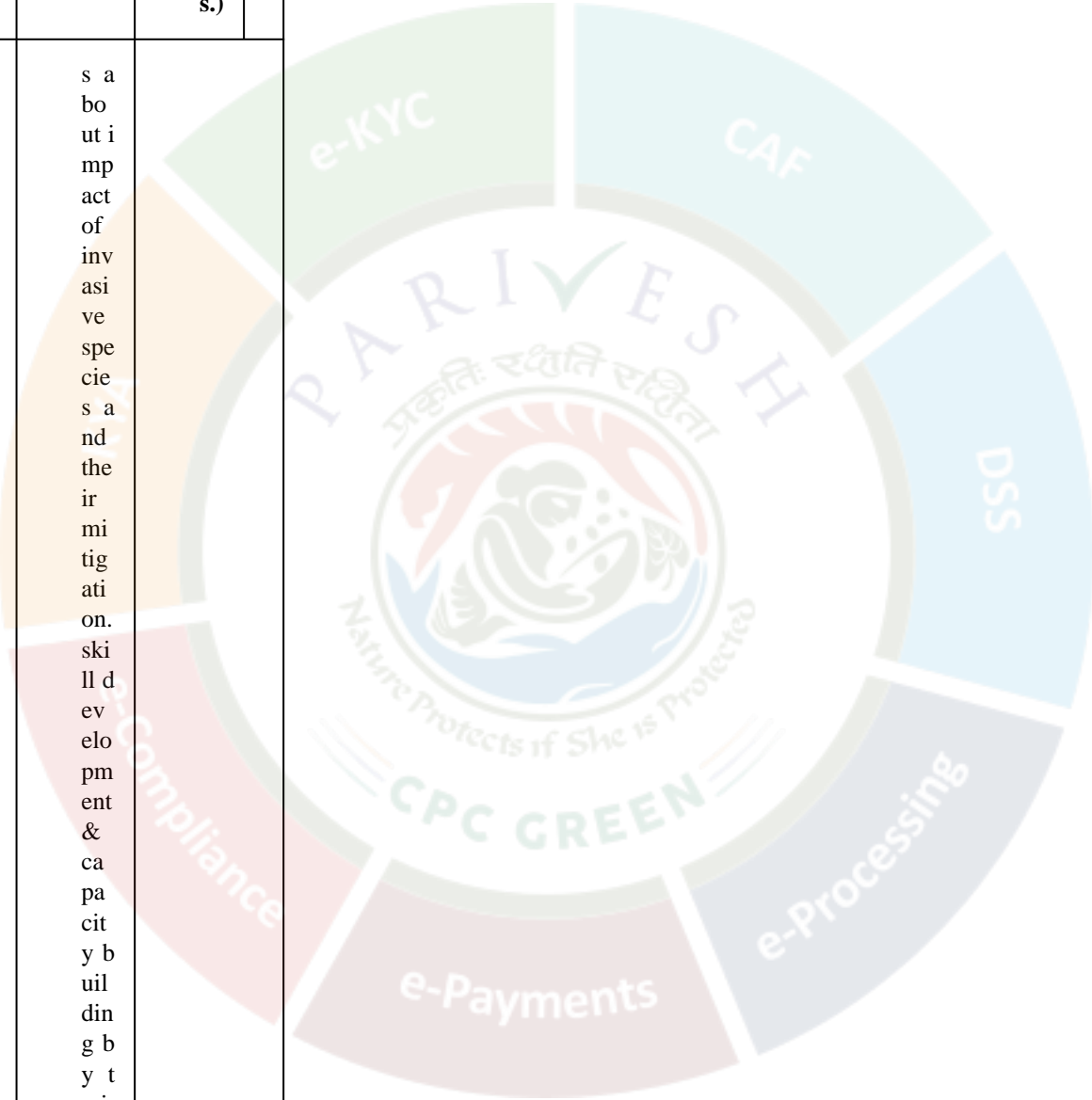


S. No.	Description	Amount in Lakhs (Rs.)
	but aries passing through ML through development of red bed systems for treatment of sewage at Nandgaonpode & Visapur	



S. No.	Description	Amount in Lakhs (Rs.)
8.	Native fish conservation measures, facilitating local fisher men for fish seed, Identification of invasive species, spreading awareness	12



S. No.	Description	Amount in Lakhs (Rs.)
	<p>s about impact of invasive species and their mitigation. skill development &amp; capacity building by trainings through experts agency.</p>	

S. No.	Description	Amount in Lakhs (Rs.)
	<b>T O T A L</b>	<b>79.5</b>

5. The Committee further deliberated on the Comprehensive Ecology Study being done by the proponent, as part of WLCP. Committee is of the opinion, that the recommendations of the study for protection of flora and fauna should form part of WLCP and accordingly, the budget of WLCP shall be increased. Also, this particular study is required to be conducted prior to the commencement of operation of mine. The Committee also sought undertaking from PP in this regard and the same has been submitted.
7. The Committee deliberated on the Public Hearing and observed that the PH was conducted on 24.04.2024 at the project site under the presiding officer Shri Sanjay Pawar, Additional District Magistrate. PH was attended by 157 people. 1561 written representation were received from within the district, out of which 1012 representations were in favour of the project for employment, growth and development of the area while the others opposed the project. Major concerns related raised during the PH were related to depletion of water table, provision of potable water, control of environmental pollution, discharge of acidified mine water containing heavy metals, land acquisition, presence of various wild animals like bear, tiger, deer, etc., employment to local and damage to crops due to transportation of coal. PP presented the video of Public Hearing during appraisal.
8. Committee deliberated on the EMP Cost of the project and observed that the PP has revised and enhanced the EMP cost as per the suggestions of 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup> October 2024. The revised EMP cost submitted by the PP is Rs. 5.839 crores (capital cost) & Rs. 4.72 crores (recurring cost). Details of the same is mentioned in para 18.1.8. EMP has been revised by incorporating the mitigation measures to be adopted in accordance with the Ministry's OM dated 31.10.2019 as the project is just 0.03 km away from CPA and budget for concurrent plantation.
9. The Committee deliberated on the plantation activities proposed by the PP. Committee observed that initially the plantation will be carried out in 3.64 Ha area. Plantation is also proposed as peripheral greenbelt (including 7.5 m safety zone), along the sides of haul roads (outside quarry area) and other vacant areas. It has been observed that the area proposed for plantation is only 0.45% of the total project area but 40% of the UG facility area. The Committee is of the opinion that gap plantation should be done by the PP and saplings to be planted should be increased. The Committee also suggested that, atleast 1000 fruit bearing trees should be planted on the lands of farmers.
10. The Committee also deliberated on the agricultural land present within the ML Area, and is of the opinion that the same should not be disturbed.
11. The Committee deliberated on the method of transportation for coal proposed for the instant proposal. The Committee observed that the transportation of coal will majorly take place through roads. The Committee is of the opinion that coal transportation shall be done only through tarpaulin covered trucks. As per the suggestions of the 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup>

- October 2024, PP has submitted a plan to reduce the coal transportation by road. PP submitted that the company will target to deploy 15-20% of the overall fleet of dumper/ trucks as electrical or CNG/ LNG based dumper/ trucks for transportation of coal.
12. The Committee also deliberated on the location of the mine incline and deliberated on the safe passage/ right of way to villagers. PP submitted that the paddy fields adjoining to the proposed underground facility area shall remain approachable from three directions via existing metaled road & kuccha path between fields. And to ensure free movement along boundary of proposed underground facility area, pucca road will be constructed on the western side as well as eastern side. This will ensure that no right of passage is affected of any villager. Also, Signboards, lights and markings will be there on roads for safe movement of villagers. The roads will be constructed in the first month of commencement of infrastructure construction activities and complete at the earliest. Total length of road to be constructed will be approximately 930 m of 7 m width and budget for land purchase and construction will be Rs. 1 crore approximately. On advice of the Committee, PP submitted that this particular road will be constructed in the development stage itself.
  13. The Committee observed that, there is no diversion of River/ Nallah proposed.
  14. The Committee observed that the power requirement for the said project is 12.6 MVA and no Hi-Tension Line/ Transmission Line is proposed for diversion.
  15. The Committee deliberated on the quality of ground water available in the mine area. Committee sought a relative comparison of the volume of ground water of mine seepage to that of available dynamic ground water resources in that area. As per the suggestions of the 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup> October 2024, PP has submitted the groundwater analysis and mitigation measures for the effect of mine seepage water on Wardha River and levels of mercury and arsenic present in the groundwater samples of ML area. PP has also submitted the map showing the locations proposed for installation of groundwater monitoring stations. As the Committee suggested, PP submitted that the quality of Wardha river at the upstream and downstream portions of the mine will be monitored quarterly every year. Four groundwater level monitoring stations will be installed on the downstream side of the mining area, and one station will be placed on each of the remaining two sides. These stations will constantly monitor the static water level (SWL). The SWL in ML area will be monitored by constructing piezometers (200 mm dia and 250 m depth) with telemetry- 4 on the downstream side and 1 each on the other two sides. This will be implemented in the first year of development of mine, before the commencement of production. The water level will be monitored for all piezometers and the record will be shared with the Regional Office (CGWB).
  16. The Committee also deliberated on the groundwater levels and is of the opinion, that to maintain the continuity of groundwater flow deep inside and around the mine area, PP should make artificial recharge systems. Committee also opined that the mine seepage water should be utilized for agriculture purpose in ML area as well as in river flow. Committee also suggested the PP to construct groundwater recharge ponds. The Committee also advised, that in case of abnormal mine seepage/ dewatering, the same shall be reported to concerned CGWB. PP submitted that the mine seepage will be pumped to the surface into the sedimentation tank. It will be 100% reutilized within mine for sprinkling & greenbelt irrigation, for first 5 years. Thereafter, with increase in seepage, excess can be given to, nearby farmers for irrigation, villagers for non-potable other use, nearby industries or will be discharged into nearby stream as being practiced by other operational mines in the surrounding area, ensuring compliance to MPCB norms. The mine seepage shall be released in the Wardha river after proper treatment according to the MPCB/ CPCB norms to avoid any water pollution in the area.
  17. Committee deliberated on the utilization of OB generated during the installation of mine shaft and mine incline. PP submitted that the same will be used in infrastructure development.
  18. There is no court case pending on the project.
  19. Committee deliberated on the measures proposed by the PP for green energy. As per the suggestions of the 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup> October 2024, PP has submitted an action plan for the rooftop installation of solar panels in the infrastructure area within 1 year of completion of construction. PP submitted that it shall generate 1000 KWp and budget allocated

for the same is 5 Crore. Power generated will be used within the mine. PP also submitted that as far as rest of ML area is concerned, land and homestead owners in Nandgaonpode and Visapur shall be given awareness training to install solar panels for their own use or to give to the grid. Provision for annual awareness program and interaction meets with solar expert shall be organised in the aforementioned two villages at a cost of Rs 20.000 per annum, as a part of the CSR activities. Committee also suggested that the villagers must be provided the LPG Cylinders and should be encouraged to use the solar energy.

20. The Committee received the comments on the said project through an anonymous mail. All those comments had been deliberated during the appraisal.
21. The Committee deliberated on the baseline data and incremental GLC due to the proposed project and observed that AAQ levels are within NAAQS.
22. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components.
23. The EAC also deliberated on the additional information as well as written submission of the project proponent and found it satisfactory.

#### **Recommendations of the Committee:**

**18.1.20:** 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:

#### **3.1.5. Recommendation of EAC**

Recommended (Subject to submission of requisite information/ documents)

#### **3.1.6. Details of Environment Conditions**

##### **3.1.6.1. Specific**

##### **A. Specific Conditions:**

1.	Project proponent shall undertake and complete “Comprehensive aquatic ecology study” by specialised agency covering all seasons from upstream, middle stream and downstream of Wardha river & the major tributaries within the study area prior to the commencement of production of the mine. Furthermore, the PP shall fulfill the additional budgetary requirement that will emerge from the findings & recommendations of the said report and make provisions in the EMP for the same. Copy of the study report and provisions made under the EMP shall be submitted to the Ministry and concerned Regional Office of MoEF&CC. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office and also kept on the web portal of the company.
2.	Project proponent shall undertake protection of micro & macro flora & fauna in seasonal tributaries passing through ML area by developing reed bed systems for treatment of sewage at Nandgaonpode & Visapur as committed.
3.	Project proponent shall undertake native fish conservation measures by facilitating local fishermen for fish seed, identification of invasive species, spreading awareness about impact of invasive species and their mitigation, skill development & capacity building by trainings through expert agency.
4.	Project proponent shall install ground water monitoring piezometers (6 nos.) with telemetry prior to commencement of production. Four on the downstream side of the mining area and one station will be placed on each of the remaining two sides, to monitor static water level. The water level will be monitored for all piezometers and the record will be shared with the Regional Office (CGWB).



5.	PP shall ensure that entire UG mine seepage will be pumped to the surface into the sedimentation tank. It will be 100% reutilized within mine for sprinkling & greenbelt irrigation. Excess treated shall be given to nearby farmers for irrigation, villagers for non- potable other use, nearby industries or discharged into nearby stream after ensuring compliance to MPCB norms.
6.	The quality of Wardha River at the upstream and downstream portions of the mine shall be monitored quarterly every year. Further, the quality of mine seepage, ground water from bore wells and Dug wells shall be monitored quarterly. Compliance in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office and also kept on the web portal of the company.
7.	Project proponent must make provision for and include LNG/ CNG/ E-trucks as part of the coal transportation fleet. Trucks should be covered with tarpaulin before leaving the loading area.
8.	Project proponent shall install 1000 KWp solar power in the ML area as committed.
9.	Project proponent shall provide a rain water-harvesting pond in ML area and outside facility area. Further, PP shall make artificial recharge systems to maintain the continuity of groundwater flow deep inside and around the mine area.
10.	Green belt shall be developed in an area of 3.64 Ha (40% of 9.09 Ha) by planting 9000 saplings in first year of mining operations. Local and native species will be planted with a density of 2500 trees per hectare. Further, additional plantation in government land 10 ha shall be carried out as committed. In addition to this, avenue plantation (6.1 km) from UG facility area to Colliery road intersection near Golpuliya, Ballarshah shall also be carried out.
11.	Low height noise absorption barriers along peripheral road of Nandgaonpode & Visapur shall be provided.
12.	Project proponent shall install 1 continuous ambient air quality monitoring station at suitable location preferably village side in consultation with SPCB. The real time data so generated shall be uploaded on company website and linked it with website of CPCB & SPCB. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.
13.	Project proponent shall adopt measures for protection of Wardha river such as establishing Settling pond in facility area, make provisions for Mine Sump Water monitoring system and establishing river water level monitoring station prior to commencement of production.
14.	The budget proposed for PH is Rs 7.133 Crores. The budget proposed shall be kept in a separate account and audited annually. Project proponent shall implement the action plan to address the issues raised during public hearing within a time frame of 3 years from the date of grant of EC. PP shall submit the progress report regarding the implementation of action plan to concerned RO along with the six monthly compliance report.
15.	PP shall implement the protective measure proposed in Environment Management Plan (EMP) in a time-bound manner. The budget earmarked for the same is Rs 5.83 Crores (Capital) and Rs 4.27 crores (recurring) and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year.
16.	PP shall follow the recommendation of subsidence study and monitor the degree of subsidence regularly and shall be submitted to concerned Regional Office of MoEF&CC.
17.	PP shall implement Effluent Treatment Plant for wastewater generated from workshop and Sewage Treatment Plan for its colony. No untreated water shall be discharged from mine boundaries to ponds/nallah/river.
18.	PP shall use the OB generated during the installation of mine shaft and mine incline in infrastructure development.
19.	Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the

9.	workers engaged in the Project and maintain records accordingly; also, 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. The prevention measures for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
2 0.	PP to install solar lights along the road used for transportation of minerals to avoid the accidents at night and also carry out its maintenance.
2 1.	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
2 2.	PP to maintain the transportation road properly to minimize the dust emission. PP to also develop pucca/concrete roads by seeking consent from the panchayat with widening of roads especially roads inter linking the villages within the study area of 10 km radius buffer zone.
2 3.	PP to accomplish the recruitment of a full-fledged qualified manpower with Environmental Engineer/Environment Science degree background in Environment Management Cell. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office of MoEF&CC.
2 4.	PP shall pay to farmers of agricultural land if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms.
2 5.	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.
2 6.	Wildlife conservation plan as approved by the competent authority shall be implemented. Additional, budget shall be added in the plan, in case additional measures suggested by state wildlife department. The final Wildlife conservation plan duly approved by the CWLW shall be submitted to RO, MoEF&CC within a time frame of three months from the date of grant of EC and the budget approved by the concerned authority shall be deposited in government account.
2 7.	PP shall ensure that all types of plastic waste generated from the plant shall be stored separately in isolated area and disposed of strictly adhering to the Plastic Waste Management Rules 2016 (as amended). In pursuant to the Ministry's OM dated 18/07/2022. PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic (SUP) in order to ensure compliance of Ministry's Notification published by the Ministry on 12/08/2021. A report along with photograph on the measures taken shall also be included in the six monthly compliance report being submitted by PP.

### 3.1.6.2. Standard

1( a)	<b>Mining of minerals</b>
<b>Statutory compliance</b>	
1.	The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project
2.	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

3.	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
4.	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.
5.	The project proponent shall obtain the necessary permission from the Central Ground Water Authority
6.	Solid/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.
7.	Permission of power supply to be taken from the concerned authority for meeting power demand of the project site.
8.	The maximum production or peak production at any given time shall not exceed the limit as prescribed in the EC.
9.	Validity of EC is as per life of the mine mentioned in EC letter or 30 years as per EIA Notification, 2006 and its amendments therein
<b>Air quality monitoring and mitigation measure</b>	
1.	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO <sub>2</sub> and NO <sub>x</sub> . 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. Online ambient air quality monitoring station/stations may also be installed in addition to the regular air monitoring stations as per the requirement and/or in consultation with the SPCB
2.	The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
3.	Transportation of coal, to the extent if permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water sprinkling/rain gun/ Fog cannon /mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
4.	Major approach roads shall be black topped and properly maintained.
5.	The transportation of coal shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed that the impact of sound, dust and accidents could be appropriately mitigated.
6.	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
7.	PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.

8.	Post environmental closure third party monitoring by reputed instituted in air quality, water, land & soil etc shall be carried out and analysed with EMP measures at regular interval. A suitable recommendation in this regard, shall be furnished to RO, MoEF&CC for compliance. The data used for analysis shall be obtained from continuous AQMS, site-specific water regime. Also, third party shall analyse the implementation of river diversion, meeting to the requirement of project report.
<b>Water quality monitoring and mitigation measures</b>	
1.	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
2.	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 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
3.	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 mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.
4.	Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff
5.	The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly
6.	Industrial waste water from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste water.
7.	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.
8.	The project proponent shall take all precautionary measures to ensure reverian/ riparian ecosystem in and around the coal mine upto a distance of 5 km. A revarian /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.
9.	No obsolete technologies for sewage treatment shall be implemented. Construction of Sewage Treatment Plant with latest technology should be completed within 2 years and treated water shall be reused for plantation. CTE and CTO of STP shall be obtained as per the norms.
<b>Noise and Vibration monitoring and prevention</b>	
1.	Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines

	in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
2.	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.
<b>Mining Plan</b>	
1.	5- Star Rating is mandatory to obtaine certification as per guidelines of Mininstry of Coal
2.	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
3.	No change in mining method i.e. UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).
4.	Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
5.	Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.
6.	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.
7.	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.
8.	Transportation by Railway Siding shall be developed to avoid transportation by Road.
<b>Land Recalvation</b>	
1.	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
2.	Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
3.	Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.
4.	A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.
5.	Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.
6.	Native tree species shall be selected and planted over areas affected by subsidence.

7.	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.
<b>Public hearing and Human health issues</b>	
1.	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
2.	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.
3.	Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
4.	Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.
5.	Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
6.	Implementation of the time bound 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 time bound 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.
7.	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'.
8.	PP should conduct epidemiology study for analysis of the distribution, patterns and determinants of health and disease conditions in defined populations.
<b>Corporate Environment Responsibility</b>	
1.	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.
2.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
3.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
4.	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
<b>Miscellaneous</b>	

1.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
2.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
5.	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.
6.	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
7.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
8.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
9.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
10.	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.
11.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
12.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
13.	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.
14.	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.
15.	The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.
1	Compensation of the land acquired for the project shall be settled as per the R&R Policy. Adequate facility of

6.	drinking water, plantation and other social amenities should be provided to established R&R villages.
1 7.	Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.

### 3.2. Agenda Item No 2:

#### 3.2.1. Details of the proposal

<b>Chandragupt Opencast Coal Mine Project by CENTRAL COALFIELDS LIMITED located at CHATRA, JHAR KHAND</b>			
<b>Proposal For</b>		Fresh EC	
<b>Proposal No</b>	<b>File No</b>	<b>Submission Date</b>	<b>Activity (Schedule Item)</b>
<a href="#">IA/JH/CMIN/501930/2024</a>	IA-J-11015/43/2021-IA-II(M)	06/11/2024	Mining of minerals (1(a))

#### 3.2.2. Project Salient Features

<p><u>Agenda No. 18.2</u></p> <p><u>18.2: Chandragupt Opencast Coal Mine Project (area 1495 Ha having capacity 20 MTPA) by M/s Central Coalfields Limited, located at Villages: Ursu, Bhadaikhap, Sejhua, Bukru, Chatti Bariatu, Jordag, Nawa Khap, Pachanra &amp; Peto; District: Hazaribagh &amp; Chatra; State: Jharkhand – Environment Clearance – reg.</u></p> <p><u>[Online Proposal No. IA/JH/CMIN/501930/2024; Consultant: CMPDI, NABET/EIA/22-25/SA0223, valid up to 08.04.2025]</u></p> <p><u>18.2.1: M/s Central Coalfields Limited has made an online application vide proposal no. IA/JH/CMIN/501930/2024 dated 19.10.2024 along with copy of EIA/EMP report, Form seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 1(a) Mining of minerals, under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.</u></p> <p><u>The project of M/s Central Coalfields Limited is for setting up a new opencast coal mining project in the lease area of 1495 Ha for 20 MTPA capacity located at villages: Ursu, Bhadaikhap, Sejhua, Bukru, Chatti Bariatu, Jordag, Nawa Khap, Pachanra &amp; Peto; district: Hazaribagh &amp; Chatra of state Jharkhand.</u></p> <p><u>This project has been earlier appraised in 48<sup>th</sup> EAC meeting held on 28.08.2023 and 8<sup>th</sup> EAC meeting held on 28.02.2024 and the proposal was returned in its present form. Now the proposal is again placed in 18<sup>th</sup> EAC meeting being held on 27.11.2024 before the EAC for appraisal.</u></p> <p><u>Details of the proposal as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:</u></p>
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### 18.2.2: Details of ToR and Previous Approvals:

The details of ToR are furnished as below:

<u>Date of Application</u>	<u>Details</u>	<u>Date of Accord</u>	<u>ToR Validity</u>
<u>26.05.2021</u>	<u>Online Proposal No. IA/JH/CMIN/208302/2021; File No. IA-J-11015/43/2021-IA-II(M)</u>	<u>13.09.2021</u>	<u>4 Years (valid till 12.09.2025)</u>

### 18.2.3: Environmental Site Settings:

PP submitted that the project area is covered under Survey of India Topo Sheet No. 73A/13 & 73E/1 and is bounded by latitudes 23°51'22.45'' N to 23°54'37.00'' N and longitudes 85°01'15.39'' E to 85°03'11.60'' E (WGS-84).

Project site is located in Hazaribagh District, which is a Severely Polluted Area as per CEPI Assessment 2018. However, the project site is not situated in the SPA specified areas of Hazaribagh and PP has submitted a letter from Jharkhand State Pollution Control Board in this regard. This aspect has also been verified through DSS KML. Hence, Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment 2018 by CPCB.

Forest Area: The project involves total 699.38 Ha of forestland the details of the approval obtained for the forestland is as follows:

<u>Sl. No.</u>	<u>Obtained vide letter No.</u>	<u>Area (in Ha)</u>	<u>Stage I/II</u>	<u>Validity</u>
<u>1</u>	<u>FC issued vide file no: 8-24/2023-FC dated 27.05.2024</u>	<u>699.38 Ha</u>	<u>Stage-I</u>	<u>Co-terminus with the period of the mining lease under the Mines and Minerals (Development and Regulation) Act, 1957</u>

Out of the total forestland, 400.96 Ha of forestland falls in Chatra South District and 298.42 Ha of forestland falls in Hazaribagh West District. PP submitted that there is no broken forest land and 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/ Elephant corridor etc and there is no violation of WLP Act. PP has submitted a letter of PCCF dated 16.04.2024 stating that "Chandragupt OCP, CCL does not fall under any notified Corridor, Sanctuary or ESZ".

PP submitted that 21 nos of Schedule-I species have been identified to be present in the study area, as per the baseline study and authenticated list of flora and fauna, namely Asiatic Elephant (*Elephas maimus indicus*), Indian Pangolin (*Manis crassicaudata*), Sloth Bear (*Melursus ursinus*), Jackal (*Canis aureus*), Jungle Cat (*Felis chaus*), Small Indian Mongoose (*Urva auro-punctata*), Grey Mongoose (*Urva edwardsii*), Asian Palm Civet (*Paradoxurus hermaphrodites*), Striped Hyena (*Hyaena hyaena*), Porcupine (*Hystrix indica*), Python (*Python molurus*), Cobra (*Naja naja*), Russell's Viper (*Daboia russelii*) Checkered Keelback (Water Snake) (*Fowlea piscator*), Rat Snake (*Ptyas mucosus*), Monitor Lizard (*Varanus bengalensis*), Indian Chameleon (*Chamaeleo zeylanicus*), Indian flap Shell turtle (*Lissemys punctata*), etc. A detailed wildlife management plan for the study area with budgetary provisions of Rs. 5360.96 Lakhs has been prepared and submitted to DFO for approval. Consequently, the revised wildlife management plan as per the suggestions of DFO was again submitted to DFO vide GM (AC)/PO(Chandragupt)/ 24-25/257, dated 24.08.2024 for

approval of CWLW.

Mine Lease Area: PP submitted that the instant proposal is proposed on 1495 Ha and the said land was acquired under CBA Act. Details of the ML area acquired are as follows:

<u>Sl. No.</u>	<u>Govt. Order/Notifications as the case may be</u>	<u>Date</u>	<u>Area (ha)</u>
<u>1</u>	<u>SO notification 1299 under CBA Act</u>	<u>25.05.2017</u>	<u>1348.78</u>
<u>2</u>	<u>SO notification 4943(E) under CBA Act</u>	<u>14.11.2023</u>	<u>170.72</u>
<u>Total</u>			<u>1519.50</u>

The Mine Lease been allotted is for 1519.50 Ha. However, mine plan is prepared by projecting an area of 1495 Ha within the acquired area as per the aforesaid notifications.

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

1. The Mine Plan and Mine Closure Plan of Chandragupt OCP revised as per the directions of 8<sup>th</sup> EAC Meeting held on 28.02.2024 is approved by the Board of Directors of M/s CCL on 22.07.2024 in its 541<sup>st</sup> Meeting.
2. Total geographical reserves reported in the mine lease area of 1495 Ha is 709.26 MT. Out of which mineable and extractable reserves are 465.59 MT. Percentage of extraction is 100%.
3. There are total 9 nos. of working seams.
4. The method of mining to be adopted is Opencast mining by fully mechanized method.
5. The life of mine is 41 years.
6. The total estimated volume of overburden is 928 Mcum. Of this 37.53 Mcum of OB will be generated during initial 6 years and will be dumped externally in 3 different locations on the coal bearing area. Starting from the 6<sup>th</sup> year, this external dump will be re-handled into the mine void of Chandragupt OCP.

7. Land use details:

a. Pre-mining land use

<u>S. no.</u>	<u>Type of Land</u>	<u>Area (Ha)</u>
<u>1.</u>	<u>Forest Land</u>	<u>699.38</u>
<u>2.</u>	<u>Agricultural Land</u>	<u>570.26</u>
<u>3.</u>	<u>Grazing Land</u>	<u>0.58</u>
<u>4.</u>	<u>Barren Land</u>	<u>7.72</u>
<u>5.</u>	<u>Surface Water Bodies</u>	<u>26.3</u>
<u>6.</u>	<u>Settlement</u>	<u>3.00</u>
<u>7.</u>	<u>Roads/Other Infrastructure</u>	<u>12.88</u>

8.	<u>Tenancy Land, Govt. Land and Religious Places</u>	<u>174.88</u>
	<u>Total</u>	<u>1495</u>

**b. Post-mining land use:**

<u>S. N</u> <u>o.</u>	<u>Type of L</u> <u>and</u>	<u>Agriculture</u>	<u>Plantation</u>	<u>Water</u> <u>Body (</u> <u>Ha)</u>	<u>Public/ Com</u> <u>pany use (H</u> <u>a)</u>	<u>Total (Ha)</u>
1.	<u>Quarry B</u> <u>ackfilled</u> <u>Area</u>	<u>198.02</u>	<u>880.93</u>	=	=	<u>1078.95</u>
2.	<u>Excavate</u> <u>d Void</u>	=	<u>26.68</u>	<u>94.77</u>	=	<u>221.45</u>
3.	<u>Green Bel</u> <u>t &amp; Safety</u> <u>Zone</u>	=	<u>112.45</u>	=	=	<u>112.45</u>
4.	<u>Stream Di</u> <u>version a</u> <u>nd River</u>	=	=	<u>15.02</u>	=	<u>15.02</u>
5.	<u>Built-up</u> <u>Area</u>	=	<u>26.44</u>	=	<u>24.26</u>	<u>50.70</u>
6.	<u>Embankm</u> <u>ent</u>	=	<u>16.43</u>	=	=	<u>16.43</u>
7.	<u>Total</u>	<u>198.02</u>	<u>1062.93</u>	<u>209.79</u>	<u>24.26</u>	<u>1495.00</u>

**8. Transportation of coal:**

i. In-pit: Combination of in-pit conveyor belt and rear loading of dumper.

ii. Surface to siding: Belt Conveyor.

iii. Siding to loading: Rail (silo loading)

Initially, till the commissioning of pit-head CHP, coal will be dispatched through dedicated coal transportation route to nearby Shivpur railway siding which is at around 8 kms away from the project by tipping trucks.

**9. Details of reclamation:**

i. Total Afforestation plan will be implemented covering an area of 1266.63 (includes 198.02 ha agroforestry) ha at the end of mine closure.

ii. 1078.95 Ha of internal dump will be covered with plantation and agroforestry of 880.93 Ha and 198.02 Ha respectively.

- iii. Greenbelt will be developed in an area of 112.45 Ha with the density of 2500 plants per Ha.
- iv. A void of 221.45 Ha at a depth of 40 m to 50 m, is proposed to be transformed into a water body covering 194.77 hectares, while 26.68 hectares will be designated for planting.
- v. Plantation of 42.87 hectares is proposed for the CHP land, as well as for the road, infrastructure, and embankments.

18.2.5: Baseline Data: Baseline data was generated from 1<sup>st</sup> March 2022 to 31<sup>st</sup> May 2022 and 1<sup>st</sup> March 2024 to 31<sup>st</sup> May 2024.

Period	Parameters		
AAQ parameter s	<u>Baseline Period (1<sup>st</sup> March to 31<sup>st</sup> May 2022)</u>		
	<u>Core Zone:</u>		
	<u>PM10</u>	≡	<u>56.0 to 76.5 to <math>\mu\text{g}/\text{m}^3</math></u>
	<u>PM2.5</u>	≡	<u>27.29 to 42.5 to <math>\mu\text{g}/\text{m}^3</math></u>
	<u>SO<sub>2</sub></u>	≡	<u>8.0 to 19.5 <math>\mu\text{g}/\text{m}^3</math></u>
	<u>NO<sub>x</sub></u>	≡	<u>16.3 to 28.7 <math>\mu\text{g}/\text{m}^3</math></u>
	<u>Buffer Zone:</u>		
	<u>PM<sup>10</sup></u>	≡	<u>54.6 to 93.2 to <math>\mu\text{g}/\text{m}^3</math></u>
	<u>PM<sup>2.5</sup></u>	≡	<u>26.06 to 52.4 to <math>\mu\text{g}/\text{m}^3</math></u>
	<u>SO<sub>2</sub></u>	≡	<u>10.2 to 34.6 <math>\mu\text{g}/\text{m}^3</math></u>
	<u>NO<sub>x</sub></u>	≡	<u>16.8 to 38.4 <math>\mu\text{g}/\text{m}^3</math></u>
	<u>Baseline Period (1<sup>st</sup> March to 31<sup>st</sup> May 2024)</u>		
	<u>Core Zone:</u>		
	<u>PM<sup>10</sup></u>	≡	<u>59.0 to 78.0 to <math>\mu\text{g}/\text{m}^3</math></u>
	<u>PM<sup>2.5</sup></u>	≡	<u>27.0 to 48.0 to <math>\mu\text{g}/\text{m}^3</math></u>
	<u>SO<sub>2</sub></u>	≡	<u>11.1 to 28.5 <math>\mu\text{g}/\text{m}^3</math></u>
	<u>NO<sub>x</sub></u>	≡	<u>13.1 to 25.7 <math>\mu\text{g}/\text{m}^3</math></u>
	<u>Buffer Zone:</u>		
	<u>PM<sup>10</sup></u>	≡	<u>62.0 to 87.0 to <math>\mu\text{g}/\text{m}^3</math></u>
	<u>PM<sup>2.5</sup></u>	≡	<u>26.0 to 58.0 to <math>\mu\text{g}/\text{m}^3</math></u>
<u>SO<sub>2</sub></u>	≡	<u>9.4 to 29.5 <math>\mu\text{g}/\text{m}^3</math></u>	

NOx	≡	8.6 to 31.9 µg/m <sup>3</sup>
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The predicted incremental due to proposed mine operation was modelled through AERMOD Software (Ver. 11.2.0).

The incremental increase in the values were projected in µg/m<sup>3</sup>.

Parameter	Core				
	Location and Distance#	Baseline (µg/m <sup>3</sup> )	Incremental (µg/m <sup>3</sup> )	Total GLC (µg/m <sup>3</sup> )	Permissible limits (µg/m <sup>3</sup> )
PM <sup>10</sup>	Ursu Village	85	18.32	103.32	300
PM <sup>2.5</sup>	Bukru Village	43	8.38	51.38	=
SO <sub>2</sub>	Pachra Village	23.5	3.43	26.93	120
NOx	Pachra Village	25.7	6.66	32.36	120

Incremental GLC Level (Maximum)

Parameter	Buffer				
	Location and Distance#	Baseline (µg/m <sup>3</sup> )	Incremental (µg/m <sup>3</sup> )	Total GLC (µg/m <sup>3</sup> )	Permissible limits (µg/m <sup>3</sup> )
PM <sup>10</sup>	Nawakha p Village. (200 m. Crosswind)	75	6.15	81.15	100
PM <sup>2.5</sup>	Nawakha p Village	41	2.33	43.33	60
SO <sub>2</sub>	Jordag Village. (500 m. Upwind)	20.5	1.11	21.61	80
NOx	Nawakha p Village	23.7	2.24	25.94	80

#Distance from the project boundary.

All predicted values are well within the permissible limits. The modelling was done for the worst case scenario considering peak rate of operations. The likelihood of occurrence of these scenarios is very low.

<p><u>Ground water quality at 2 Locations</u></p>	<p><u>pH: 7.40 to 7.45</u></p> <p><u>Total Hardness: 172 to 194 mg/l,</u></p> <p><u>Chlorides: 68.90 to 70.98 mg/l,</u></p> <p><u>Fluoride: 0.14 to 0.20 mg/l,</u></p> <p><u>Alkalinity: 156 to 172 mg/l</u></p>										
<p><u>Surface water quality at 2 Locations</u></p>	<p><u>pH: 7.30 to 7.58:</u></p> <p><u>DO: 6.1 to 7.2 mg/l</u></p> <p><u>BOD: 2.2 to 2.8 mg/l</u></p> <p><u>TDS from 326.0 to 375.0 mg/l</u></p>										
<p><u>Noise levels (Day and Night)</u></p>	<p><u>Residential Zone:</u></p> <p><u>45.0 to 50.8 dB(A) for the day time and 33.8 to 41.4 dB(A) for the Night time.</u></p>										
<p><u>Traffic assessment study findings</u></p>	<p><u>Traffic study has been conducted at coal transportation and SH. The distance between the Chandragupt OCP pit head and the Shivpur Railway Siding is 08.00 km. Within this distance, 7.00 km of the coal transportation road lies within the Amrapali OCP leasehold, while 0.55 km of road falls within the Chandragupta leasehold whereas 450 m stretch is an existing Tandwa-Simeria Road.</u></p> <p><u>Transportation of mineral will be done by belt conveyor to Siding. However, Commissioning of pit-head CHP would take around 3 years from the date of issuance of EC for present proposal or 2 years from acquisition of land for construction of Amrapali Railway siding, whichever is later. Hence, for the initial period of mine operation, 100% coal will be dispatched through dedicated coal transportation route to nearby Shivpur railway siding which is at around 8 kms away from the project by tipping trucks.</u></p> <p><u>Existing PCU in Tandwa-Simeria Road is 592 PCU/hr on 450 m SH and existing level of service (LOS) is 0.39.</u></p> <p><u>The Existing Level of service on Coal transportation stretches are given below:</u></p> <table border="1"> <thead> <tr> <th><u>Road</u></th> <th><u>Volumetric Capacity (V/C)</u></th> <th><u>Capacity (Capacity in PCU/h)</u></th> <th><u>Existing Capacity Ratio</u></th> <th><u>LOS</u></th> </tr> </thead> <tbody> <tr> <td><u>CT</u></td> <td><u>614</u></td> <td><u>1500</u></td> <td><u>0.41</u></td> <td><u>C</u></td> </tr> </tbody> </table>	<u>Road</u>	<u>Volumetric Capacity (V/C)</u>	<u>Capacity (Capacity in PCU/h)</u>	<u>Existing Capacity Ratio</u>	<u>LOS</u>	<u>CT</u>	<u>614</u>	<u>1500</u>	<u>0.41</u>	<u>C</u>
<u>Road</u>	<u>Volumetric Capacity (V/C)</u>	<u>Capacity (Capacity in PCU/h)</u>	<u>Existing Capacity Ratio</u>	<u>LOS</u>							
<u>CT</u>	<u>614</u>	<u>1500</u>	<u>0.41</u>	<u>C</u>							

<u>Road D1 Stretch</u>				
<u>CT Road 1 2 Stretch</u>	<u>281</u>	<u>1500</u>	<u>0.19</u>	<u>A</u>
<u>CT Road 2 C Stretch</u>	<u>714</u>	<u>1500</u>	<u>0.48</u>	<u>C</u>
<u>Tandwa-Simeria Road (B C)</u>	<u>592</u>	<u>1500</u>	<u>0.39</u>	<u>B</u>

The Proposed Level of service on Coal transportation stretches are given below:

<u>Road</u>	<u>Volumetric in PC U/hr.)</u>	<u>Capacity in PC U/hr.)</u>	<u>Proposed V/C Ratio</u>	<u>LOS</u>
<u>CT Road D1 Stretch</u>	<u>718</u>	<u>1500</u>	<u>0.47</u>	<u>C</u>

<u>h</u>				
<u>CT</u> <u>Ro</u> <u>ad</u> <u>12</u> <u>Str</u> <u>etc</u> <u>h</u>	<u>385</u>	<u>1500</u>	<u>0.25</u>	<u>B</u>
<u>CT</u> <u>Ro</u> <u>ad</u> <u>2C</u> <u>Str</u> <u>etc</u> <u>h</u>	<u>818</u>	<u>1500</u>	<u>0.54</u>	<u>C</u>
<u>Ta</u> <u>nd</u> <u>w</u> <u>a-S</u> <u>im</u> <u>eri</u> <u>a R</u> <u>oad</u> <u>(B</u> <u>C)</u>	<u>696</u>	<u>1500</u>	<u>0.46</u>	<u>C</u>

Note: Capacity as per IRC-106-1990 is 1500 PCUs Guideline for capacity for roads.

The analysis shows that for sections D1 and 2C, considering the projected heavy commercial vehicles (HCVs) used for coal transportation maintains the level of service as in the existing scenario whereas Sections 12 and BC, there is a change in the level of service from A to B and from B to C, respectively. The level of service for all sections remains either good or very good.

Flora and fauna

During baseline data generation, 21 nos of Schedule-I species (namely Asiatic Elephant (*Elephas maximus indicus*), Indian Pangolin (*Manis crassicaudata*), Sloth Bear (*Melursus ursinus*), Jackal (*Canis aureus*), Jungle Cat (*Felis chaus*), Small Indian Mongoose (*Urva auropunctata*), Grey Mongoose (*Urva edwardsii*), Asian Palm Civet (*Paradoxurus hermaphrodites*), Striped Hyena (*Hyaena hyaena*), Porcupine (*Hystrix indica*), Python (*Python molurus*), Cobra (*Naja naja*), Russell's Viper (*Daboia russelii*) Checkered Keelback (Water Snake) (*Fowlea piscator*), Rat Snake (*Ptyas mucosus*), Monitor Lizard (*Varanus bengalensis*), Indian Chameleon (*Chamaeleo zeylanicus*), Indian flap Shell turtle (*Lissemys punctata*), etc) were reported in the study area as listed in Wildlife Protection Act Amendment, 2022. A wildlife management plan was submitted to DFO vide GM (AC)/PO(Chandragupt)/ 24-25/257 Dt. 24.08.2024.

Water Re      Source of Water: Ground Water (Mine water seepage)



quirement

Ground Water Intersection:

The maximum depth of mine quarry is 250 meter. The projected radius of influence due to Ch andragupta OCP on groundwater has been estimated around 476 m.

Water Requirement:

During Operational Stage:

Peak Water Requirement – 6760 KLD

During Construction Phase:

Water Requirement – 200 KLD

NOC (Ground Water): NOC issued vide Ref No: CGWA/NOC/MIN/ORIG/2024/21001 Dated: 19.11.2024, valid till 18.11.2026.

18.2.6: Details of Water Requirement: The water requirement reported during construction phase is 200 KLD and during the operational phase is 6760 KLD. Source of water proposed to be used is groundwater for which PP has obtained NOC vide Ref No: CGWA/NOC/MIN/ORIG/2024/21001 Dated: 19.11.2024, valid till 18.11.2026 for extraction of 6420 KLD.

PP also submitted that Chotki River is proposed for diversion and a detailed study for the same has been done by IIT Roorkee, wherein DPR of stream diversion was prepared and submitted to Water Resource Dept. of Jharkhand. Diversion of Chotki stream was recommended by the Chief Engineer (WRD), Ranchi vide letter no C.E./.../645/2022/230 dated 25.04.2023 and forwarded the proposal for issuance of NoC. However, the issuance of NoC is awaited due to the departmental process for “Approval of guidelines for Nala Diversion” is currently in progress.

18.2.7: Public Hearing: The proposed project falls in 2 district, namely Hazaribagh District and Chatra District. Hence the PH has been conducted by the PP in both the districts. Details of the same are as follows:

Details of Public Hearing and related issues of Hazaribagh District:

The advertisement for Public Hearing of Hazaribagh District was given in Prabhat Khabar and Hindustan Times Newspapers dated 20.01.2023 for 21.02.2023. The Public Hearing took place on 21.02.2023 at Bazar Tand, Chatti Bariatu Village, Keradari Block, Hazaribagh District, under the chairmanship of Shri Vinod Kumar, District Land Acquisition Officer, Hazaribagh and in the presence of Shri Ashok Kumar Yadav, Regional Officer, Hazaribagh, JSCPCB and Shri. Ashutosh, Representative of Member Secretary, JSPCB Ranchi HQ. It was attended by 314 nos of person and the major issues raised during the PH were related to pollution and damage to environment, degradation of forest land, employment, land authentication, R&R, education, Health, general amenities, loss of livelihood and skill development.

Details of Public Hearing and related issue of Chatra District:

The advertisement for Public Hearing of Chatra District was given in Prabhat Khabar and Times of India Newspapers dated 20.01.2023 for 23.02.2023. The Public Hearing took place on 23.02.2023 at Purana Devi Mandap, Ursu village, Tandwa Block, Chatra District, under the chairmanship of Shri. Gaurang Mahto, District land Acquisition Officer, Chatra and in the presence of Shri. Ashok Kumar Yadav, Regional Officer, JSPCB Hazaribagh and Shri Kumar Gaurav Jain, Representative of Member Secretary,

JSPCB Ranchi HQ. It was attended by 196 nos of person and the major issues are related to pollution and damage to environment, degradation of forest land, employment, land authentication, R&R, education, Health, general amenities, loss of livelihood and skill development.

Combined Action Plan for both the Districts as per MoEF&CC OM dated 30.09.2020

<u>S. no.</u>	<u>Activities Proposed along with Timeline of Implementation</u>	<u>Capital (in Lakhs)</u>	<u>Revenue (in Lakhs)</u>	<u>Total Cost (in Lakhs)</u>	
1	<u>Education</u>				
	<u>Providing Basic Amenities in 16 schools of 9 villages (Nawakhap, Jordag, Chatti Bariatu, Sijhua, Bukru, Badhaikhap and Peto of Hazaribagh District and Serandag and Ursu villages of Chatra Dist) (Smart Classes, computers, toilets, boundary wall, drinking water, library, sports, uniform, desks and benches)</u>				
a	<u>1<sup>st</sup> Year</u>	<u>Deep boring at 5 schools costing 35 lakhs.(Nawakhap, Chatti Bariatu, Sijhua, Ursu, Badhaikhap)</u>	<u>35</u>	<u>0</u>	<u>35</u>
		<u>Furniture in 3 schools costing 1 Lakh &amp; Distribution of Utensils for 8 Schools costing 1 Lakh (All Villages)</u>	<u>2</u>	<u>0</u>	<u>2</u>
		<u>Smart classrooms 10 nos. schools costing 20 Lakhs (Nawakhap, Chatti Bariatu, Jordag, Badhaikhap and Peto)</u>	<u>20</u>	<u>0</u>	<u>20</u>
	<u>2<sup>nd</sup> Year</u>	<u>Provision of RO filters at 5 schools with 10 Lakhs. (Nawakhap, Chatti Bariatu, Sijhua, Ursu, Badhaikhap)</u>	<u>10</u>	<u>0</u>	<u>10</u>
		<u>Toilets at 5 schools costing 50 Lakhs (Nawakhap, Chatti Bariatu, Badhaikhap, Bukru and Peto) and Building renovation of Bukru school 20 lakhs.</u>	<u>70</u>	<u>0</u>	<u>70</u>
		<u>5 sets of computers to 5 schools costing 10 Lakhs. (Sijhua, Serandag, Ursu, Bukru and Badhaikhap)</u>	<u>10</u>	<u>0</u>	<u>10</u>
	<u>3<sup>rd</sup> Year</u>	<u>Construction of boundary wall at 8 schools costing 40 lakhs.( Jordag, Chatti Bariatu, Sijhua, Bukru, Badh</u>	<u>40</u>	<u>0</u>	<u>40</u>

		<u>aikhap, Peto, Serandag and Ursu villages</u>			
		<u>Building renovation Peto School costing 10 Lakhs.</u>	<u>10</u>	<u>0</u>	<u>10</u>
	<u>1<sup>st</sup> to 10<sup>th</sup> Year Revenue</u>	<u>Distribution of Uniforms, books and sports utility materials to 10 no. of schools in 9 villages costing 10 Lakhs per year for 10 years</u>	<u>0</u>	<u>100</u>	<u>100</u>
	<p><i>Providing Amenities in 12 no. of Anganwadis in nearby 7 villages ( Nawakhap, Jordag, CB, Peto, Badhaikhap and Bukru Villages of Hazaribagh Dist. and Serandag of Chatra Dist.)</i></p> <p><i>List of Activities: Toilets, boundary wall, drinking water, Fans, utensils, playing toys, uniform, Floor mats, benches etc.</i></p>				
	<u>1<sup>st</sup> Year:</u>	<u>Distribution of Utensils and floor mats for 12 Anganwadis costing 2 Lakhs (All villages)</u>	<u>2</u>	<u>0</u>	<u>2</u>
b	<u>2<sup>nd</sup> Year</u>	<u>Construction of Toilets for 4 centres 10 Lakhs (CB, Serandag and Bukru)</u>	<u>10</u>	<u>0</u>	<u>10</u>
		<u>Boundary wall and drinking water to 2 centres costing 10 Lakhs (Sijhua, Badhaikhap)</u>	<u>10</u>	<u>0</u>	<u>10</u>
	<u>1<sup>st</sup> to 10<sup>th</sup> Year (Revenue)</u>	<u>Distribution of Uniforms, books and sports utility materials to 10 no. of schools in 9 villages costing 1 Lakhs per year for 10 years</u>	<u>0</u>	<u>10</u>	<u>10</u>
<u>2</u>	<u>Enhancement of Green cover in nearby villages under the Campaign “Ek Ped Ma ke Naam”</u>				
	<p><i>Plantation of Fruit Bearing Saplings at 37 locations including 28 Schools and Anganwadis, and 9 Village Community Buildings in 7 villages of Hazaribagh Dist. ( Nawakhap, Jordag, Chatti Bariatu, Sijhua, Bukru, Badhaikhap and Peto) and 3 villages of Chatra Dist. (Usru, Serandag and Tandwa)</i></p>				
a	<u>1<sup>st</sup> to 7<sup>th</sup> Year (Capital)</u>	<u>Plantation of Fruit Bearing saplings at 37 identified locations @1000 saplings per year, costing 1.5 Lakh s/ year</u>	<u>10.5</u>	<u>0</u>	<u>10.5</u>
	<u>1<sup>st</sup> to 10<sup>th</sup> Year (Revenue)</u>	<u>Maintenance of Plantation @ 0.75 Lakhs/ year</u>	<u>0</u>	<u>7.5</u>	<u>7.5</u>

b	<u>Distribution of Fruit Bearing saplings 5000 nos every year to nearby villagers for Both Chatra and Hazaribagh Districts</u>				
	<u>1<sup>st</sup> to 10<sup>th</sup> Year (Revenue)</u>	<u>Distribution of Fruit Bearing saplings 5000 nos every year under the campaign "Ek Ped Ma ke Naam" with an estimated Capital Cost of Rs. 7.5 Lakhs /year for 10 years</u>	<u>0</u>	<u>75</u>	<u>75</u>
3	<u>Health Facilities Ambulance Facilities with Life Support System and Periodic Health camps for PAFs of Both Chatra and Hazaribagh Districts of Jharkhand.</u>				
a.	<u>1<sup>st</sup> to 10<sup>th</sup> Year (Revenue)</u>	<u>Ambulance with Basic Life Support System with nursing assistance and BP, oxygen monitoring equipment and Oxygen delivery services at Revenue Cost Rs. 25.55 Lakhs/ Year for 10 years</u>	<u>0</u>	<u>255.5</u>	<u>255.5</u>
b	<u>1<sup>st</sup> to 10<sup>th</sup> Year (Revenue)</u>	<u>Transport Ambulance System for nearby villages for 10 years with Revenue Cost Rs. 9.13 Lakhs/ year.</u>	<u>0</u>	<u>91.3</u>	<u>91.3</u>
c.	<u>1<sup>st</sup> to 10<sup>th</sup> Year (Revenue)</u>	<u>Conducting health camps bi annually with Health Consultation including check-ups, pathological tests and basic medicines Distribution @ Cost Rs. 10 Lakhs per year for next 10 years</u>	<u>0</u>	<u>100</u>	<u>100</u>
4	<u>Drinking Water Facility</u> <u>(Solar Powered Borewells with overhead tank and R.O. System at 6 locations in 5 no. of villages (Sijhua, Choti Bukru, Badhaikhap, Bukru and Peto villages of Hazaribagh Dist. and Ursu Village of Chatra Dist.)</u>				
a.	<u>1<sup>st</sup> Year</u>	<u>Construction of Bore wells with OHT at 6 locations with Capital Cost of Rs. 72 Lakhs</u>	<u>72</u>	<u>0</u>	<u>72</u>
b	<u>2<sup>nd</sup> Year to 3<sup>rd</sup> Year</u>	<u>Commissioning of RO plants at 6 locations @ capital cost of 50 Lakhs</u>	<u>50</u>	<u>0</u>	<u>50</u>
c.	<u>4th Year to 10th Year</u>	<u>Maintenance of RO Plants till 10th year of mine operation with an estimated revenue cost of Rs. 1.50 Lakhs per year from 3rd year to 10th year</u>	<u>0</u>	<u>12</u>	<u>12</u>

5	<u>Rejuvenation of Ponds</u>  (Restoration and rejuvenation of 57 no. of ponds (32 in buffer zone and 25 in core zone), activities including de-siltation, earthen embankment, plantation and grassing on slopes and aerator for pisci-culture) <u>Villages: Serandag, Kumarang Kalan, Kishunpur, Tandwa and Ursu villages of Chatra Dist and Sisai, Joradag, Chatti Bariatu, Bukru, Badhaikhap, Peto etc. of Hazaribagh Dist.</u>				
a	1st to 3rd Year	<u>Construction of Embankment for 57 ponds in nearby villages costing Rs. 60.64 Lakhs</u>	<u>60.64</u>	<u>0</u>	<u>60.64</u>
		<u>Planting and grassing on the embankments costing 41.80 Lakhs</u>	<u>41.8</u>	<u>0</u>	<u>41.8</u>
		<u>Provision of Aerator for Pisci-culture for 4 no. of Ponds costing 2.50 Lakhs</u>	<u>2.5</u>	<u>0</u>	<u>2.5</u>
b	1st to 10th Year (Revenue)	<u>De-siltation and cleaning of Ponds once in two years, maintenance of embankment and grassing costing 641.06 Lakhs over a period of 10 years.</u>	<u>0</u>	<u>641.06</u>	<u>641.06</u>
6	<u>Skill development (Skill development training in various trades i.e. Electrician, Welder, HMV, Fitter etc.) of Nawakhap, Joradag, Chatti Bariatu, Sijhua, Bukru, Badhaikhap and Peto of Hazaribagh District and Serandag and Ursu villages of Chatra Dist</u>				
a	1st to 10th Year (Revenue)	<u>Skill development training in various trades i.e. Electrician, Welder, HMV, Fitter etc. for 50 beneficiaries each year for next 10 years @ 17.5 Lakhs/year</u>	<u>0</u>	<u>175</u>	<u>175</u>
<u>Grand Total in Rs. Lakhs</u>			<u>456.44</u>	<u>1467.36</u>	<u>1923.8</u>

18.2.8: EMP Cost: The capital cost of the proposed project is Rs 973.50 Crores and the capital cost for environmental protection measures is proposed as Rs 190.33 Crores. The annual recurring cost towards environmental protection measures is 4.71 Cr. The employment generation from the proposed project / expansion is 2068. The details of cost for environmental protection measures is as follows:

S N	Description of Item	Proposed in Lakhs	
		Capital	Recurring
1	<u>Air Environment</u>	<u>1182.00</u>	<u>245.56</u>

2	<u>Water Environment</u>	1647.00	40.93
4	<u>Land Environment including conservation plan and other*</u>	16204.96	185.00
<u>Total</u>		19033.96	471.49

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

<u>S</u> <u>L</u> <u>N</u> <u>O.</u>	<u>Type of Waste</u>	<u>Source</u>	<u>Applicable Rule</u>	<u>Quantity</u>	<u>Disposal</u>
1	<u>Municipal Solid Waste</u>	<u>Township, Administrative Building, Canteen and other.</u>	<u>Solid Waste Management Rule 2016</u>	<u>3002.5 kg/day</u>	<u>Biodegradable Waste: Energy or resource recovery by Conventional composting/ vermicomposting/ WTE plant/ Biogas plant etc.</u> <u>Non-Biodegradable Waste: Given to the waste collectors or agency as directed by the local body as per MSW rules, 2016.</u>
2	<u>Hazardous Wastes</u>	<u>Used Oil &amp; Lubricants from HEMM/ Machines</u>	<u>Hazardous and other Wastes (Management &amp; Transboundary Movement) Rules, 2016</u>	<u>30 TPA</u>	<u>Disposed off through MoEF&amp;CC, SPCB, or CPCB Authorized Operator.</u>
3		<u>Settled Sludge from ETP</u>		<u>1068 kg/day</u>	<u>Disposed off into Landfill through MoEF&amp;CC, SPCB, or CPCB Authorized Operator.</u>
4		<u>Oil &amp; Grease Sludge from ETP</u>		<u>15 kg/day</u>	<u>Disposed off through MoEF&amp;CC, SPCB, or CPCB Authorized Operator.</u>

18.2.10: Power Requirement and details of diversion of Hi-Tension/ Transmission Line: Maximum power demand 1,00,46 kVA. PP submitted that two electricity transmission line of 11 KV & 33 KV are also proposed for diversion in first 5 years. PP submitted that a letter in this behalf was written to the electricity board and the demand draft raised by them has been paid.

18.2.11: Plantation: PP submitted that proposed greenbelt and safety zone will be developed in 112.45 ha which is about 8 % of the total project area. A 7.5 m wide greenbelt, consisting of at least 3 tiers around mine boundary will be developed as greenbelt & Safety zone and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 1600 trees per hectare in Greenbelt. Total no. of 1,80,000 saplings will be planted and nurtured in 112.45 hectares in 05 years. Total plantation will be carried out in 1266.63 Ha backfilled area, dismantled infra and others.

18.2.12: Project Cost: The Capital Cost of project is Rs. 973.50 Crores. The fund for the CSR will be allocated based on 2% of the average net profit of the company for the three immediately preceding financial years or Rs 2.00 per tonne of Coal Production of the previous year whichever is higher. Cost for implementing EMP is submitted to be Rs. 190.33 crores as capital cost and Rs. 4.71 crore as recurring cost per year.

18.2.13: R&R Issues: PP submitted that are total 9 villages in the project area. Out of these, 3 villages will be completely settled. PP submitted that there will be 1612 PAFs. Cost of R&R is 215 Crore.

18.2.14: Undertaking/ Affidavit: PP vide undertaking dated 19.11.2024 submitted that the information provided in Form-1 in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 27th November 2024 have no deviation in respect of the proposal no: IA/JH/CMIN/501930/2024 for EC for coal mining having 1495 Ha of ML Area and capacity of 20 MTPA for Coal Mine Project located at village: Badhaikhap, Bukru, Chatti-Bariyatu, Jordag, Nawakhap, Pachra/Pachanda, Peto, Sijhua and Ursu Villages in District: Hazaribagh and Chatra State: Jharkhand State by M/s. Cental Coalfields Limited. Further certified that there are no data entry errors in the information uploaded in PARIVESH system including names/email-id/mobile numbers/address of the project proponent, authorized person, etc. It is also certified that the supporting documents uploaded on PARIVESH portal are correct and duly authenticated by the Authorized Signatory and in case any deviation in data found in any of the documents, the Authorized Signatory shall be held responsible and furthermore, the above said project shall be rejected for grant of EC.

18.2.15: Legal issue /Violation: PP submitted that a litigation in Hon'ble High Court of Jharkhand is pending and first hearing date of the case is awaited.

PP submitted that a litigation (W.P.(C) No.5493 of 2023) is pending before the Hon'ble High Court of Jharkhand and first hearing date of the case is awaited. The case pertains to Public Hearing held for the project and MoEF&CC is not impleaded as a respondent in the matter.

18.2.16: ADS Information in Chronology: M/s. Central Coalfields Limited made an online application vide proposal no IA/JH/CMIN/501930/2024 dated 19.10.2024. The proposal was initially considered in 48<sup>th</sup> EAC meeting held on 28.08.2023 and 8<sup>th</sup> EAC meeting held on 28.02.2024. Proposal was returned in its present form. The proponent uploaded the proposal again on PARIVESH on 19.10.2024. Point-wise reply to the observations of EAC in its meeting held on 28/08/2023 and 28/02/2024 is given as below:

Point-wise reply to the observations of EAC in its meeting held on 28/08/2023

<u>S. no.</u>	<u>Observations by EAC</u>	<u>Reply</u>
1.	<u>Protection Plan for the streams passing through the ML area considering no diversion of stream for next 10 years from the commencement of mining operation cleaning/</u>	<u>.Chotki Stream is the only stream that flows through the mine leasing area, falling in the north-west corner of the mining block, and flowing north to south. This is purely a rain-fed stream and is almost dry in the non-monsoon</u>

de-siltation programme shall be part of study.

season.

: According to the Mine Plan of Chandragupt OC P, mining operations inside Chotki catchment would begin in the first year of operation. Accordingly, a detailed Stream Diversion study was done by the Hydrology experts of IIT Roorkee, and diversion of Chotki Stream was proposed before the commencement of mine operations. Whereas, EAC MoEFCC has directed to prepare a protection plan for the streams considering no diversion of Chotki stream for initial 10 years from the commencement of mine operation.

: It is to submit that, based on the above said studies carried out by IIT Roorkee and CMPDIL Ranchi, the primary goal of protecting and safeguarding the Chotki stream can be achieved only by diverting it prior to start of mine operations. Diversion is also needed from the point of view of efficient mine planning & development, safety, and conservation.

: Mine Development without stream diversion would require approx. 50 Ha. additional Land for External OB Dumping. This mine is land locked on four sides by forests and coal bearing areas, making it impossible for external dumping to occur.

: In addition, the prospect of external dumping on the mine's coal-bearing area and rehandling the same has been explored. The plan for the same is given below. Page 62 of 222 Minutes of 8 th EAC (Coal Mining Sector) held during 28-29 February, 2024 Page 14 of 173.

: The impact on environment with and without diversion for 10 years of mine operation is submitted.

: As a result, it is being proposed that diverting the stream prior to the start of mining operations would be a better alternative in terms of surface water conservation, environmental protection, effective mine planning & development methodology, and mine safety.

In addition, a detailed Stream Diversion study was done by IIT Roorkee, wherein the longitudinal and cross-sectional design of the diverted channel was finalized considering the worst-case scenario of 50-year return period rainfall.



<p>2.</p>	<p><u>Ecological assessment report of the river/s streams passing through the ML area with monitoring of flora &amp; fauna mainly dependent on the streams from the reputed organization.</u></p>	<p><u>Ecological assessment of streams has been carried out by a renowned Ecologist Dr. Santhan P (Accredited FAE (Ecology &amp; Biodiversity) QCI-NABET) in association with CMPDL.</u></p> <p><u>In this study, a comparative analysis of phytoplankton and zooplankton communities in Barki River (Major Drainage) and Chotki stream was done. Barki River exhibits higher diversity, harbouring 275 individuals belonging to 30 phytoplankton species and 44 zooplankton species, compared to the Chotki Nala, with 171-191 individuals across 26 phytoplankton species and 22 zooplankton species. Notably, protozoa were only detected in the river water, indicating a potentially richer microbial community.</u></p> <p><u>Barki is majorly rain-fed river and carries baseflow during non-monsoon. Chotki is a second order seasonal stream which is almost dry during non-monsoon. Therefore, due to lack of adequate water, the overall aquatic ecosystem is not healthy during pre-monsoon. However, the same gets rejuvenated after rainfall and water flow through catchment areas.</u></p> <p><u>Further, it has been observed that the terrestrial bio-diversity of both existing and proposed route indicate good diversity value, and Peepal (Ficus religiosa) and Neem Page 63 of 222 Minutes of 8 th EAC (Coal Mining Sector) held during 28-29 February, 2024 Page 15 of 173 (Azadirachta indica) emerged as the dominant species. It has been found that in the event of stream diversion, the aquatic ecosystems will develop along the diversion paths.</u></p>
<p>3.</p>	<p><u>Land use plan shall be submitted prohibiting construction of any non-essential infrastructure on forestland.</u></p>	<p><u>Only essential infrastructure for mine operation viz. crushers, sub-station, workshop have been proposed within the project boundary.</u></p> <p><u>Furthermore, the infrastructure layout has been revised by minimizing the utilization of forest land for industrial purposes</u></p>
<p>4.</p>	<p><u>Latest Video recording shall be submitted for the forest area and streams lying inside the ML area</u></p>	<p><u>Latest drone video recording has been completed for the forest area and streams lying inside the project area.</u></p>
<p>5.</p>	<p><u>Detailed report on total carbon sink/ absor</u></p>	<p><u>A detailed study has been carried out to assess t</u></p>

ption happening due to the presence of forest cover in area of 699.48 ha and its loss after cutting and further, rate of carbon sequestration with progressive backfilling, plantation, and implementation of electric vehicle.

he loss of carbon stocks due to proposed deforestation and the carbon sequestration due to progressive reclamation and compensatory afforestation activities. In addition, the other energy conservation measures to be adopted and the corresponding CO2 off-settings have been reported.

: As depicted in the above graph, the loss of carbon stock due to deforestation will be compensated by the corresponding biological reclamation of degraded land and compensatory afforestation. Therefore, the project will always be carbon positive w.r.t degradation and reclamation activities.

: In addition, adopting following measures will further enhance the carbon sequestration potential of the project:

: Solar Power Plant (5 MW): A dump-top solar power plant of 5 MW is proposed. The Annual CO2 emissions savings by installing this Solar Plant is 7200 tonnes/ Year.

Electric Vehicle: Annual CO2 emission savings by opting electric vehicle is 83.50 tonnes/ year.

6.

Nomination letter for appointment of District Land Acquisition Officer as Chairman of public hearing from District Magistrate

Copy of Nomination letter of District Land Acquisition Officer as Chairman of public hearing from District Magistrate is submitted.

7.

Detailed plan for dedicated in-pit belt conveyor system with silo loading system as part of Mechanized Coal evacuation needs to be submitted for its completion within 1 year. Accordingly, timeline shall be proposed in form of CPM/PERT chart considering all eventuality involved for implementation of mechanized system.

Brief timeline for operationalization of CHP-Silo-Siding for Chandragupta OCP is submitted below:

<u>S. No.</u>	<u>Particular</u>	<u>Timeline</u>
<u>1</u>	<u>Expected 1st date of coal production from Chandragupta OCP</u>	<u>By 31.12.2024</u>
<u>2</u>	<u>Construction of Operationalization of Railway Siding near Amrapali OCP</u>	<u>By 31.12.2025</u>
<u>3</u>	<u>Construction and operationalization of CHP and In-pit Conveyor* for transport of coal from Chandragupta OCP to nearby Railway Siding</u>	<u>By 31.12.2026</u>
<u>4</u>	<u>Construction and Operation</u>	<u>By 31.12.2</u>

		<table border="1"> <tr> <td>alization of Silo System for Chandragupta OCP</td> <td>027</td> </tr> </table> <p><u>PERT chart considering all eventuality involved for implementation of mechanized system is submitted.</u></p>	alization of Silo System for Chandragupta OCP	027
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8.	<p><u>District and village wise Pond rejuvenation &amp; restoration plan needs to be submitted.</u></p>	<p><u>: Village wise pond rejuvenation plan along with action plan and budgetary provisions has been prepared.</u></p> <p><u>: A detailed physical inspection of all ponds lying within the radius of influence of Page 65 of 222 Minutes of 8 th EAC (Coal Mining Sector) held during 28-29 February, 2024 Page 17 of 173 Chandragupt OCP (1 km Buffer) was done and in total, fifty ponds have been located.</u></p> <p><u>: It was noted that majority of the ponds i.e. 47 ponds out of 50 ponds are being used for agricultural purpose and only a few are used for the community purposes. None of the ponds are used by the villagers for drinking purpose.</u></p> <p><u>: Further, the basic parameters like pH and TDS for water quality were assessed for all the ponds and found within the acceptable limit of IS 10500 (2012): Drinking water.</u></p> <p><u>An Action plan for restoration and rejuvenation of these ponds involving activities like cleaning and de-siltation, development of embankments, aeration and grassing and plantation have been proposed for 10 years.</u></p>		
9.	<p><u>PP needs to submit certificate from the District Magistrate for verifying the existence of forest land covered under the Forest Right Act, 2006 and consequential forest land shall be required for diversion.</u></p>	<p><u>: The Forest Rights Act (FRA), officially known as the ‘Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006’, recognizes the rights of forest-dwelling communities to live in and cultivate forestland, and it aims to ensure that these communities are not displaced without proper recognition and compensation.</u></p> <p><u>: At present, the FC application of Chandragupta OCP is underway and FRA certificate in respect of 5 villages namely, Jordag, Chatti bariatu, Nawakhap, Bukru and Ursu has been issued by State Govt. As such, FRA process has been completed for approximately ~ 80 % of Forest land.</u></p> <p><u>: FRA process for the remaining 2 villages i.e., P</u></p>		

		<p><u>achra and Sejhua is also underway and is expected to be completed prior to the final FC approval.</u></p> <p><u>It may kindly be appreciated that as per the prevailing rules of MoEF&amp;CC, the compliance under FRA is required at the time of final approval (Stage-II FC).</u></p>																													
<p>10.</p>	<p><u>PP needs to submit the protection plan for villagers lying inside the mine lease area from the mining activities during overlapping period of mining and rehabilitation.</u></p>	<p><u>The planning of rehabilitation is done well in advance for smooth shifting of PAFs.</u></p> <table border="1"> <thead> <tr> <th><u>Village</u></th> <th><u>PDFs</u></th> <th><u>Timeline of Implementation of R&amp;R</u></th> </tr> </thead> <tbody> <tr> <td><u>Jordag</u></td> <td><u>71</u></td> <td rowspan="3"><u>Within first 3 years</u></td> </tr> <tr> <td><u>Chatti Bariatu</u></td> <td><u>0</u></td> </tr> <tr> <td><u>NawaKhap</u></td> <td><u>138</u></td> </tr> <tr> <td><u>Pachara</u></td> <td><u>339</u></td> <td rowspan="2"><u>4<sup>th</sup> and 5<sup>th</sup> Year</u></td> </tr> <tr> <td><u>Sejhua</u></td> <td><u>77</u></td> </tr> <tr> <td><u>Bukru</u></td> <td><u>155</u></td> <td><u>10<sup>th</sup> Year</u></td> </tr> <tr> <td><u>Peto</u></td> <td><u>0</u></td> <td><u>15<sup>th</sup> Year</u></td> </tr> <tr> <td><u>Bhadaikha</u></td> <td><u>20</u></td> <td rowspan="2"><u>25<sup>th</sup> Year</u></td> </tr> <tr> <td><u>Ursu</u></td> <td><u>0</u></td> </tr> <tr> <td><u>Total</u></td> <td><u>800</u></td> <td></td> </tr> </tbody> </table> <p><u>: In line with progression of mine operations, the schedule of shifting of PDF (Project Displaced Families) has been prepared and is submitted below:</u></p> <p><u>Project Proponent also undertake to follow the mitigation measures provided in MoEFCC OM No.Z-11013/5712014-IA.II (M) dated 29.10.2014, titled 'Impact of mining activities on habitations- Issues related to the mining projects where habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.</u></p>	<u>Village</u>	<u>PDFs</u>	<u>Timeline of Implementation of R&amp;R</u>	<u>Jordag</u>	<u>71</u>	<u>Within first 3 years</u>	<u>Chatti Bariatu</u>	<u>0</u>	<u>NawaKhap</u>	<u>138</u>	<u>Pachara</u>	<u>339</u>	<u>4<sup>th</sup> and 5<sup>th</sup> Year</u>	<u>Sejhua</u>	<u>77</u>	<u>Bukru</u>	<u>155</u>	<u>10<sup>th</sup> Year</u>	<u>Peto</u>	<u>0</u>	<u>15<sup>th</sup> Year</u>	<u>Bhadaikha</u>	<u>20</u>	<u>25<sup>th</sup> Year</u>	<u>Ursu</u>	<u>0</u>	<u>Total</u>	<u>800</u>	
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<p>11.</p>	<p><u>The PP shall submit the progressive reclamation plan of mine in time bound manner and approved Standard Operating Procedure for handing over the land-to-land allottees and Forest Department</u></p>	<p><u>: A detailed stage wise reclamation plan has been prepared. As per the planned progressive reclamation plan, around 88.37% of project area shall be brought under green cover by the end of mine operations.</u></p> <p><u>: The land of Chandragupta OCP is acquired und</u></p>																													

		<p><u>er CBA Act 1957. Under CBA Act 1957, land is vested to the mining company, free from all encumbrances through a Vesting Order by the Govt of India. Subsequently, the land is taken under possession from land owner after extending due R&amp;R benefit and compensation. Having been vested at the time of acquisition, there is no provision of returning the land to the original land owner within the existing framework of CBA Act. However, all such acquired land is put to productive use postmining such as water storage source and pisciculture by local communities, Solar Power Projects, Plantation of reclaimed dumps, ACA (Accredited Compensatory Afforestation), Eco-tourism, Pump Storage Projects.</u></p> <p><u>: The Forest land falling within the project will be returned to State Forest department after completion of mining and validity period of Forest Diversion as per the prevailing guidelines.</u></p> <p><u>SOP for post-mining management of nonforest and forest land is submitted</u></p>
<p><u>12.</u></p>	<p><u>PP shall submit the clarification whether project falls within severely polluted area or outside the area from State Pollution Control Board.</u></p>	<p><u>Clarification from SPCB was obtained Stating that this project doesn't fall within Severely Polluted Area is submitted.</u></p>
<p><u>13.</u></p>	<p><u>PP shall submit the details related to the destruction of the Agroforestry area lying inside the Mine lease area as per the approved mine plan. PP must submit the alternatives in terms of compensation (in Rs.) and in terms of Agriculture land</u></p>	<p><u>: No defined Agro-forestry activities are being undertaken within the project area. Copy of letter issued by District Agriculture Officers is submitted.</u></p> <p><u>: Alternatives in terms of compensation (in Rs.) and in terms of Agriculture land has been submitted and are deliberated below: o Compensation (in Rs.) for land: Payment of compensation for agriculture land is being done at a rate of Rs. 9,02,900/- per acre of land as per defined R&amp;R Policy of CIL. This apart, compensation of trees, well, pond situated on such lands is being done as per latest Jharkhand SOR and Zero Depreciation and as per the guidelines of Jharkhand State for felling of trees and rate of the trees provided by State Forest dept.</u></p> <p><u>: Employment: Land loser or dependents is provided</u></p>

		<p><u>ded regular job in company on every 02 acres of land under package deal. Affected families who are not eligible for employment due to less land-holding will be given an amount equal to six hundred days of agricultural wage.</u></p> <p><u>.Enabling Self-employment: The PP will assist P AP to take up non-farm self-employment through petty contracts or formation of co-operatives and encourage provisions of jobs with contractors. CCL has an approved policy for awarding contracts up to Rs 1 crores to land oustees who do not get regular employment in the company, through formation of PAFs/ PAFs Co-Operatives Society as per prevalent law with relaxation in Earnest Money Deposit and experience clause.</u></p> <p><u>.Choice of Annuity: Those who do not opt for employment against land are given an Annuity @ Rs 150 per decimal of land subject to a minimum of Rs 2000/-per month.</u></p> <p><u>One-time payment in-lieu of employment: One-time lumpsum amount in lieu of employment @ Rs 15,00,000/- per acres to Project Affected Persons and their dependents on having Tenancy Ownership.</u></p>
14.	<p><u>PP shall submit the road map to resolve the R&amp;R issues particularly for the persons completely dependent on the Forest</u></p>	<p><u>.CIL R&amp;R Policy enables to exercise a choice between various options along with regular employment under package deal at CIL subsidiary, land compensation, house compensation, lumpsum compensation in lieu of employment, choice of annuity, Plot at R &amp; R Site, Development of R &amp; R Site with community facilities, payment of houses/hutments and civil structures with valuation as per latest <u>SOR(Schedule of Rate) and zero depreciation along with other allied benefits.</u></u></p> <p><u>.Accordingly, the R&amp;R plan for PAFs at Chandragupta OCP is submitted. Further, Van Patta Holders under FRA Act are being given regular employment in the company as per CIL R&amp;R Policy.</u></p> <p><u>.There is a provision in the policy whereby tribal community can be shifted as a unit and facilities can be provided to meet the specific needs of the tribal community that will allow them to maintain their unique cultural identity.</u></p>

		<p><u>Tribal affected family will be given one-time financial assistance of 500 days of Minimum Agricultural Wages for loss of customary right or usages of forest produce. Loss of customary rights needs to be authenticated by the district authority. Tribal affected families resettled out of the district shall be given 25% higher rehabilitation and resettlement benefit.</u></p>
15.	<p><u>PP shall submit the number of trees to be cut in non-forest area and steps/SOP to protect these trees.</u></p>	<p><u>: Total 3,345 numbers of trees are proposed to be cut in non-forest areas.</u></p> <p><u>: Accordingly, in line with extant guidelines of State Forest Department and HPC, a total 33,450 plants shall be planted in lieu of tree felling of 3,345 trees in non-forest land (i.e. 10 times the number of trees being felled) in the form of block plantation. The size of the saplings planted shall be of 4 Feet and the said plantation shall be undertaken in 05 KM radius of the project.</u></p> <p><u>SOP for tree felling in the state of Jharkhand is submitted.</u></p>
16.	<p><u>Activity wise public hearing cost to be revised and submitted. It should not be less than 1% of total project cost. Activities such as dedicated water supply through dedicated pipeline system to 5 near villagers, Village wise mitigation measures to be submitted</u></p>	<p><u>: A detailed action plan for compliance of issues raised in Public Hearing was prepared and a detailed report is submitted.</u></p> <p><u>Further, it has been ensured that the total budgetary provisions for PH is more than 1% of the project cost (Approx. 1.21%).</u></p>
17.	<p><u>PP shall submit air quality prediction with &amp; without the control measures.</u></p>	<p><u>: Air Quality Impact Prediction of core and buffer zone of the study area has been carried out using AERMOD 11.2.0 software. This model was run for predicting the emissions for both without control and with proposed control measures. The detailed report is submitted.</u></p> <p><u>Based on the outcomes of this model, suitable air pollution control measures have been proposed including static and mobile fog canons for dust suppression, permanent wind screens, black topping of permanent haul roads etc. with a total estimated capital expenditure of Rs. 11.69 Cr.</u></p>
18.	<p><u>Pre-utilization of water to be submitted with proper schematic diagram with ETP &amp; STP of 1.2 MLD.</u></p>	<p><u>: Water demand (colony + industrial buildings) was projected as 925 cum/day. Thus, the total water requirement is 3590 cum/day. The detailed water balance is enclosed as Annexure</u></p>

		<p><u>XVII.</u></p> <p><u>: An ETP of capacity 0.3 MLD is proposed to treat workshop effluent generated from HEMM washing and floor cleaning. This ETP consists of oil and grease trap and clarifier-flocculator, and is proposed to recycle the treated effluent with zero liquid discharge.</u></p> <p><u>: Further, an STP of 0.9 MLD capacity is proposed to treat the colony sewage effluent. This STP consists of physical, chemical and biological treatment methods (SBR/ASP). The treated effluent will be used for dust suppression, landscaping and other community needs.</u></p> <p><u>The tentative schematic diagrams of ETP and STP is submitted.</u></p>
19.	<p><u>Clarification from PCCF was desired regarding mine not falling under corridors, sanctuary, ESZs with certified Mps</u></p>	<p><u>: Application was submitted to PCCF for issuance of certificate that mine is not falling under corridors, sanctuary, ESZs etc. Further PCCF has directed RCCF Hazaribagh to provide the details and the letter is submitted.</u></p> <p><u>Further in Forest application of the proposal (Proposal No: FP/JH/MIN/140599/2021) DFO Chatra South and DFO Hazaribagh West have provided that the mine area doesn't fall Page 71 of 222 Minutes of 8th EAC (Coal Mining Sector) held during 28-29 February, 2024 Page 23 of 173 under corridors, sanctuary, ESZs is submitted.</u></p>

**Point-wise reply to the observations of EAC in its meeting held on 28/02/2024:**

<u>S. no.</u>	<u>Observations by EAC</u>	<u>Reply</u>
1	<p><u>The PP shall comply with the Ministry's OM dated 4/08/2009, the correct accreditation certificate of the consultant needs to be uploaded, upload a legible copy of all the documents including the annexure of the EIA/EMP Report.</u></p>	<p><u>Updated EIA/EMP of Chandragupt OCP (20 MTPA &amp; 1495 Ha.) has been prepared in compliance with the MoEF CC OM No J-11013 /41/2006-IA.II Dt. 04.08.2009. Furthermore, it has been ensured that all documents supplied with the EIA EMP report are legible, and the accreditation certificate is enclosed.</u></p>
2	<p><u>Certificates of external labs involved in Baseline data generation were also not provided in EIA/EMP. PP assured to submit certificates of external labs.</u></p>	<p><u>Baseline data generation in respect of air, water, noise and soil was carried out during Pre-monsoon 2022 (March to May) by NABL Accredited agency Go-green Mechanisms Pvt. Ltd. with certificate no: TC-7073 Dt. 09.11.2020.</u></p> <p><u>In addition, a revised air quality data was generated during Pre-monsoon 2024 (March to May) to comply with the</u></p>



		<u>EAC observations regarding cumulative impact assessment and traffic impact on air quality. This data was generated by the NABL accredited lab of CMPDI, certificate no. TC – 7470 valid upto 15.12.2024.</u>
3	<u>The committee is of the view that the proposal should be such that no OB dump should be proposed outside the lease area and if it is proposed in the mining plan then the same needs to be revised</u>	<u>As directed by the EAC, OB dumping outside the ML area during the initial years of mine operation is eliminated, and the mine plan has been revised accordingly.</u>  <u>As per the revised dump plan, OB generated during the initial years of mine operation (1st to 6th year, 37.53 Mm<sup>3</sup> OB) will be stacked on the coal bearing area within the mine lease of Chandragupt OCP, and subsequently to be re-handled back into the mine void of Chandragupt OCP from 6th year on-wards.</u>
4	<u>The committee observed that a portion of the Barki River is falling within the lease area and PP shall not divert the same during the life of mine. Accordingly, PP shall include the necessary provision in the mining plan and submit an undertaking in this regard.</u>	<u>Mine plan has been revised by excluding the diversion of Barki River meandering. Accordingly, quarry boundary has been revised. Final Stage quarry plans showing previously planned mine development and the revised mine development is submitted.</u>
5	<u>Committee observed that the proposal includes 699.38 Ha of Forest land within the ML area of 1495 Ha is submitted vide proposal number: FP/JH/MIN/140599/2021. PP has informed us that the proposal for Stage-I FC has been forwarded to MoEFCC, New Delhi. PP shall submit the updated status of the same</u>	<u>Total Forest land falling within the ML area of Chandragupt OCP is 699.38 Ha. Stage-I Forest clearance of 699.38 Ha Forest land was obtained vide file no:8-24/2023-FC Dt. 27.05.2024.</u>
6	<u>PP shall submit authenticated documents by Forest department viz. distance from the protected area, list of flora &amp; fauna.</u>	<u>Mine Lease area of Chandragupt OCP falls within two forest divisions namely, Chatra south and Hazaribagh west divisions. Therefore, certification regarding involvement of forest land, distance from protected area and authenticated list of flora &amp; fauna have been obtained vide letter no: 223/2 Dt. 08.04.2024 and letter no: 747 Dt. 02.04.2024 for Hazaribagh west division and Chatra South Division respectively.</u>
7	<u>Pre-mining land use to be revised after ensuring its correctness in line with the forest land involved within the ML area of 1495 Ha.</u>	<u>Pre-mining land use is revised after ensuring its correctness in line with the forest land involved within the ML area of 1495 Ha and the same is submitted.</u>

8	<p><u>The action plan for issues raised during public hearings is only for 3 years while these need to be submitted for at least 10 years along with cost as the commitments include activities of a recurring nature also.</u></p>	<p><u>Action plan for compliance of PH has been revised from 3 years to 10 years, and accordingly the estimated expenditure (Capital and Revenue) has been revised from 1180.07 Lakh to 1923.80 Lakhs which is 1.98% of the total project cost.</u></p>
9	<p><u>The Committee also deliberated on the carbon sequestration study conducted by the PP and observed that it became carbon neutral in the 20th year of mine operation. The Committee is of the view that a 5MW solar power plant is of very less capacity and PP shall explore the means to increase the same and provide details. The Committee is of the view that carbon sequestration depends on many factors including the selection of type of species as the different species have different periods to become mature. The Committee, therefore, suggested that a study in this regard may be conducted from ICFRE to become carbon neutral at the earliest within a specific time frame.</u></p>	<p><u>As per the directions of EAC, ICFRE has conducted the study to assess the loss of carbon forest stock due to diversion of forest and suggested measures for carbon offsetting/sequestration of Chandragupt OCP, CCL. The report is submitted. Further, the capacity of Solar Power Plant has also enhanced from 5 MW to 8 MW.</u></p>
10	<p><u>Barki river shall not be subjected to any diversion during the life of mine. Further PP shall engage a scientific institute of repute for ecological assessment of Barki River, and the measures for the conservation of the aquatic system including flora and fauna. PP shall submit a declaration along with supporting documents for having engaged the institute of repute for this purpose, and also an undertaking for implementation of the recommendations of the report.</u></p>	<p><u>As directed, Barki River shall not be subjected to any diversion during the life of mine. Mining Plan has been revised accordingly and the same is incorporated in the revised EIA/EMP report.</u></p> <p><u>Ecological assessment of the river/streams passing through the ML area of Chandragupt OC with monitoring of flora and fauna mainly dependent on the streams was carried out by ICFRE, and the final report has been submitted.</u></p>
11	<p><u>PP did not get permission from the concerned department for diversion of Chotki Stream rather only the recommendation of the Chief Engineer (Planning and Monitoring) is submitted. The Committee is of the view that the Diversion plan needs to be approved by the concerned authority.</u></p>	<p><u>A detailed project report for diversion of Chotki Stream was prepared by IIT, Roorkee in April 2023 and the same has been recommended to Chief Engineer Scheme Monitoring &amp; Planning, Water Resource Division Ranchi on 25.04.2023.</u></p> <p><u>CCL has requested for issuance of in-principal approval/NoC for diversion of Chotki Nala at Chandragupt Project on 24.06.2024. Superintending Engineer, Water Resource Department, Jharkhand vide a letter dated: 16.07.2024 has stated that the said proposal was under departmental consideration and any decision regarding the same is subject to</u></p>

		<p><u>t to the approval of Nala Diversion Guidelines currently under the process of departmental approval.</u></p> <p><u>Further, Chief Engineer, Project Planning and Monitoring, Water Resource Department, Jharkhand has informed that the Standard Operating Procedure-cum-Guidelines issued by the Water Resources Department, Government of Jharkhand for diversion of water flow of river, stream, drain or natural water reservoir within the state of Jharkhand passing through the coal block allotted by the Government of India Dated: 04.10.2024 and directed to submit revised proposal to the concerned field Chief Engineer in context of the above mentioned SOP-cum-Guidelines.</u></p> <p><u>CCL has submitted the revised proposal to the Chief Engineer, Water Resources Department, Hazaribagh on 01.11.2024 which is presently under consideration.</u></p>
12	<p><u>PP shall invite the experts from IIT Roorkee who have prepared the report w.r.t Chotki Stream for discussion.</u></p>	<p><u>The experts from IIT Roorkee will be requested to attend EAC meeting.</u></p>
13	<p><u>PP shall increase the no. of ponds in the buffer zone, and the pond rejuvenation plan to be updated accordingly</u></p>	<p><u>Earlier, A Pond Rejuvenation Plan was submitted for 40 ponds with 25 ponds in core zone and 15 ponds in the buffer zone. However, as per the EAC committee directions, the plan has been revised by increasing the no. of ponds in the buffer zone from 15 nos. to 32 nos., and total nos. from 40 to 57 nos. Villages covered in the buffer zone include Peto, Karali, keradari, Tandwa, Sisai, Ursu, Badhaikhap, Nawakhap, Kumarang Kala etc.</u></p> <p><u>An Action plan for restoration and rejuvenation of 57 nos. (excluding the 10 ponds which will be falling in the active mining zone within 02 years) of pond have been planned for 10 years along with timeline and budgetary provision. Total estimated cost for restoration and rejuvenation of pond comes out to be Rs. 745.97 lakh.</u></p>
14	<p><u>PP shall revise the budget associated with the EMP and Public Hearing</u></p>	<p><u>Capital and revenue cost of implantation of EMP measures has been enhanced from Rs. 144.50 Crs and Rs. 2.65 Crs/year to Rs. 190.33 Crs and 4.71 Crs/year respectively. The detailed activity wise breakup along with the timeline of implementation is detailed at pt no 14 above.</u></p> <p><u>Action Plan of compliance of issues raised in the public hearing have been revised in line with observations received from the EAC committee with major focus on education, health facilities, drinking water, pond rejuvenation, en</u></p>

		<p><u>hancement of green cover and skill development. The estimated expenditure on PH compliance (both Capital and Revenue) has been revised from 1180.07 Lakh to 1923.80 Lakhs which is 1.98% of the total project cost.</u></p>
15	<p><u>PP shall submit an alignment of various activities of the project with UN defined SDG Framework.</u></p>	<p><u>The alignment of various activities of the project with UN defined SDG Framework is submitted.</u></p>
16	<p><u>PP shall submit the details of the agencies involved in the baseline data generation including work orders issued, original test reports, accreditation certificates etc.</u></p>	<p><u>Baseline data generation in respect of air, water, noise and soil was carried out during Pre-monsoon 2022 (March to May) by NABL Accredited agency Go-green Mechanisms Pvt. Ltd. with certificate no: TC-7073 Dt. 09.11.2020.</u></p> <p><u>In addition, a revised air quality data was generated during Pre-monsoon 2024 (March to May) to comply with the EAC observations regarding cumulative impact assessment and traffic impact on air quality. This data was generated by the NABL accredited lab of CMPDI, certificate no. TC - 7470 valid upto 15.12.2024.</u></p> <p><u>The accreditation certificates of labs involved have been submitted.</u></p>
17	<p><u>PP and consultant shall ensure to fill the Form-1 correctly and documents uploaded are legible.</u></p>	<p><u>Form-I has been filled after ensuring that data is inline with EIA EMP and correct. Further all documents uploaded are legible.</u></p>
18	<p><u>PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software</u></p>	<p><u>Plagiarism check of EIA EMP has been carried out using Turnitin software, and as per the report generated by the plagiarism software, 18% similarity has been found predominantly from environmentalclearance.nic.in.</u></p>
19	<p><u>All the certificates viz. Involvement of Forest land, distance from protected area, list of flora &amp; fauna and Wildlife 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.</u></p>	<p><u>Mine Lease area of Chandragupt OCP falls within two forest divisions namely, Chatra south and Hazaribagh west divisions.</u></p> <p><u>Accordingly, certification reg. involvement of forest land, distance from protected area and authenticated list of flora &amp; fauna have been obtained vide letter no: 2232 Dt. 08.04.2024 and letter no: 747 Dt. 02.04.2024 for Hazaribagh west division and Chatra South Division respectively, discussed in detail at S1 no. 6 above.</u></p>
20	<p><u>Plot the wind rose diagram using the typical</u></p>	<p><u>Typical meteorological year (TMY) has been generated f</u></p>

	<p><u>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.</u></p> <p><u>A mathematical model shall be developed for the local site rather than using the standard model available in software for both air &amp; water quality modelling</u></p>	<p><u>or the Pre-monsoon period (March to May) based on the resources viz IMD 30 years Normalized Data, recorded data from nearest IMD Station, Modelled Data (ERA5, Envitran etc.) and real time Monitoring by Automated MET Station.</u></p> <p><u>As per the sources referred and real-time Monitoring, the pre-dominant wind direction during Pre-Monsoon Period is from South-Eastern Direction (S-SE, E-SE, SE).</u></p> <p><u>Monitoring Locations were fixed as per the pre-dominant wind direction, proximity to the proposed project and other pollution generating sources.</u></p> <p><u>Monitoring Density (13 Locations) finalized as per IS 5182-14 (2000): Methods for Measurement of Air Pollution, Part 14, Sec 10.7.2.</u></p> <p><u>Air Dispersion Modelling by using Gaussian plume mathematical equation was done by considering in-situ Met, Terrain and LULC data and nearby contributing source on AERMOD Platform.</u></p>
21	<p><u>PP should submit the detailed plan in tabular format (year-wise for the life of the mine) for afforestation and green belt development in and around the mining lease.</u></p> <p><u>The PP should submit the number of saplings to be planted, details of native species, the area to be covered under afforestation &amp; green belt, the location of the plantation, the target for survival rate and the budget earmarked for the afforestation &amp; 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 &amp; green belt mentioning the latitude and longitude of the area to be covered during each 5 years.</u></p> <p><u>The capital and recurring expenditures to be incurred need to be submitted. The seedling of height not less than 2 meters is to be selected and accordingly cost of the plantation needs to be decided. In addition to this, the plantation in the safety zone at lease boundary the plantation should be planned in such a way that it should be completed within 3 years only.</u></p>	<p><u>The Proposed afforestation and greenbelt plantation include:</u></p> <ul style="list-style-type: none"> <li><u>: 112.45 Ha. Greenbelt all along the project boundary and other dust emitting sources viz. CHP, CTR, W/S etc. In addition, 16.43 Ha. embankment area adjacent to Barki River will also be reclaimed with plantation.</u></li> <li><u>: 907.61 Ha. of dump area will be reclaimed through block plantation and 198.02 Ha. of dump area will be transformed into agroforestry. 32.12 Ha. of industrial area will be reclaimed with plantation at the post mining stage.</u></li> <li><u>: The overall reclamation activities will be carried over 1266.63 Ha. of project area with an estimated cost of 108.44 Crs. This cost includes the capital cost of plantation and 5 years' maintenance post plantation. Survival rate of 80% shall be maintained through inspections with forest Dept.</u></li> </ul> <p><u>Proposed reclamation will be done through native species and the 2 m height saplings will be planted.</u></p>

22	<p><u>PP should submit the quantity of surface or groundwater to be used for this project. The complete water balance cycle needs to be submitted. In addition to this PP should submit a detailed plan for rainwater harvesting measures to be taken. The capital and recurring expenditures to be incurred need to be submitted.</u></p>	<p><u>Water requirement for industrial and domestic purposes to be proposed mining operation includes land reclamation, workshop activities, dust suppression, coal handling plants (CHP), greenbelt development, firefighting and drinking purposes at office and colony. The peak water demand for both industrial and domestic purposes has been estimated for stage-wise mine operation as per the prevailing guidelines of CPHEEO and yardsticks developed by CMPDI.</u></p>
23	<p><u>In the case of groundwater abstraction/interception. The PP shall comply with the Ministry's OM dated 23/05/2019. Compliance status needs to be presented before EAC at the time of appraisal</u></p>	<p><u>Point-wise compliance with the Ministry's OM dated 23/05/2019. Compliance status is submitted.</u></p>
24	<p><u>In the case of road transportation PP should clearly show the transport route of the mineral and protection and mitigative measures to be adopted while transporting the mineral. The impact from the centre line of the road on either side should be brought out supported by the line source modelling and isopleth.</u></p> <p><u>Further, the frequency of testing of Poly Aromatic Hydrocarbon needs to be submitted along with the budget. In case transportation is through village road then 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 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.</u></p> <p><u>The ground-level concentration of various pollutants in worst-case and control-case scenarios needs to be submitted. The cumulative impact of other activities needs to be considered in the EIA/EMP Report.</u></p>	<p><u>During the initial two years of mine operation, coal will be transported via a dedicated route to the Shivpur railway siding, located approximately 8 kilometres from the project site.</u></p> <p><u>Air quality impact prediction (AQIP) was carried out for the criteria pollutants i.e., PM<sup>10</sup>, PM<sup>2.5</sup>, SO<sub>2</sub> and NO<sub>x</sub>. The model was executed for three scenarios, which includes without control, existing control and proposed control measures.</u></p> <p><u>The incremental concentrations of PM<sub>10</sub> and PM<sup>2.5</sup> resulting from coal transportation without any control measures range from 0.26 to 8.38 µg/m<sup>3</sup> and 0.04 to 1.25 µg/m<sup>3</sup>, respectively. Whereas, with the implementation of existing and proposed control measures, the incremental concentrations of PM<sub>10</sub> and PM<sup>2.5</sup> are reduced to ranges of 0.12 to 2.52 µg/m<sup>3</sup> and 0.02 to 0.63 µg/m<sup>3</sup>, respectively. It is also important to note that the predicted levels of PM<sup>10</sup> and PM<sup>2.5</sup> at all baseline monitoring stations near the coal transportation route consistently remain within the established regulatory limits.</u></p> <p><u>Polycyclic Aromatic Hydrocarbons (PAHs), specifically benzene and benzo[a]pyrene (BaP), will be tested bi-monthly. The annual budget allocation for these tests is ₹14,50,800.00.</u></p> <p><u>AERMOD 11.2.0 was used to determine the incremental concentration of particulate matter on agricultural land adjacent to the coal transportation route.</u></p> <p><u>The figure above demonstrates that only the northern side</u></p>

		<p><u>of the agricultural land will experience incremental concentrations ranging from 0.5 to 4 µg/m<sup>3</sup>. No agricultural areas are affected by incremental concentrations in the range of 4 to 5 µg/m<sup>3</sup>. However, it is planned to monitor crop productivity during the coal transportation period, with compensation to be offered if a reduction in productivity is detected compared to the fiscal year 2023-24.</u></p> <p><u>The emission factors are used from the AP42, USEPA (1998) and Coal S&amp;T Project done by CMPDI. The details of emission factor and calculations formula are discussed in the “Traffic Study for Coal Transportation through Road”.</u></p>
25	<p><u>PP should bring out that what are the specific diesel consumption ~ (Litres/Tonne of total excavation &amp; 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 e-vehicles/LNG/CNG-based mining machinery and trucks for mining operations and transportation of coal.</u></p>	<p><u>Key measures incorporated in the mine planning of Chandragupt OCP for optimizing the energy consumption and minimizing specific diesel consumption are:</u></p> <ol style="list-style-type: none"> <li><u>1. Transportation of Coal and OB are the major sources of diesel consumption during the mine operation. Therefore, diesel dependence during coal handling is completely eliminated by proposing belt conveying system from mine to CHP and CHP to siding and Rapid loading system at sidings. Furthermore, OB dumping is planned through concurrent backfilling into mine voids and thus optimizing the lead distance for OB handling.</u></li> <li><u>2. Coal winning is proposed through surface miners and thus eliminating drilling, blasting and shovel operations.</u></li> <li><u>3. Few Electrical HEMM have been proposed including electric drills and shovels.</u></li> </ol> <p><u>It will be ensured that, subject to availability and techno-economic viability, up to 20% of the fleet will be classified as LNG/CNG and e-vehicles in the upcoming Chandragupt OCP HEMM procurement and outsourcing tenders.</u></p> <p><u>In addition, this project is going to adopt key energy conservation measures like 8 MW solar power plant for captive consumption, E-vehicles in the LMV category etc</u></p>
26	<p><u>To support the transportation road, PP shall carry out the traffic study for one month along with the mitigation measures to control air pollution.</u></p>	<p><u>Traffic density study was carried out in April 2024 to assess the Level of Service for the proposed increase in coal transportation on the existing roadway.</u></p> <p><u>The V/C ratio and Level of Service (LoS) were assessed at four sections: D1, 12, 2C, and BC. Two scenarios were analyzed: the existing traffic conditions based on field ob</u></p>

		<p><u>servations and a predicted scenario with the proposed additional coal transportation. The analysis indicates that for sections D1 and 2C, the projected increase in heavy commercial vehicles (HCVs) for coal transportation will not alter the Level of Service compared to the existing conditions. In contrast, sections 12 and BC will experience a change in Level of Service from A to B and from B to C, respectively. Nonetheless, the Level of Service for all sections remains within the categories of either good or very good.</u></p> <p><u>The Existing Air Pollution Control Measures includes fixed water sprinkler at Shivpur siding, Wind Barrier at Shivpur Siding, fixed sprinkling System on CTR near Honhe Village, Wind Barriers along Coal Transportation Road near Honhe, POC type existing Coal Transportation Road, water tankers of 28 KL capacity, 12 KL and 20 KL capacities and transportation of Coal through covered tipping trucks.</u></p> <p><u>The Proposed Control Measures includes development of Three-tier plantation along coal transportation route near Honhi Village and at Shivpur Railway Siding, fog cannon at proposed coal transportation road, Wheel Washing System and transportation of coal through 42 tonne dumper.</u></p>
27	<p><u>PP shall submit the action plan for all types of waste to be generated during mining operations including e-waste, battery waste, hazardous waste etc. Further, the action plan for compliance with the Ministry's OM dated 18/07/2022 needs to be submitted.</u></p>	<p><u>The quantification and action plan for all types of waste to be generated during mining operations including e-waste, battery waste, hazardous waste along with action plan for compliance with the Ministry's OM dated 18/07/2022 is submitted.</u></p>
28	<p><u>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 the Public Hearing. The capital and recurring expenditures to be incurred need to be submitted.</u></p>	<p><u>Capital and revenue cost of implantation of EMP measures has been enhanced from Rs. 144.50 Crs and Rs. 2.65 Crs/year to Rs. 190.33 Crs and 4.71 Crs/year respectively. The detailed activity wise breakup along with the timeline of implementation is detailed at pt no 14 above.</u></p> <p><u>Action Plan of compliance of issues raised in the public hearing have been revised in line with observations received from the EAC committee with major focus on education, health facilities, drinking water, pond rejuvenation, enhancement of green cover and skill development. The estimated expenditure on PH compliance (both Capital and Revenue) has been revised from 1180.07 Lakh to 1923.80 Lakhs which is 1.98% of the total project cost.</u></p>



29	<p><u>PP should 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 persons to be engaged for the implementation of an environmental management plan (EMP). The capital and recurring expenditures to be incurred need to be submitted. The composition of the Environment Management Cell needs to be provided.</u></p>	<p><u>The details of the manpower to be engaged for this project with their roles responsibilities/designations is submitted. The capital and recurring expenditures to be incurred along with the composition of the Environment Management Cell is submitted.</u></p>
30	<p><u>Member Secretary also informed that after the meeting a letter was received wherein certain suggestions and shortcomings in the instant proposal were highlighted w.r.t ADS point no 1.5, 10, 13, and 18. In addition to these, observations were also made in the EIA Report and its updating with ADS/EDS points, regarding the canal diversion report, depth of void, clarification from PCCF for distance of mine lease from PAs, recommendation of DFO on WLCP, cost-benefit analysis for canal diversion, etc. The Committee is of the view as the observation was received after the meeting the same could not be deliberated and The Ministry may forward the issues raised with reference to this proposal in the letter dated 29/02/2024 to PP and PP shall provide a point-wise reply to the same in the next EAC meeting.</u></p>	<p><u>Point-wise reply of suggestions and shortcomings in the instant proposal is submitted for kind perusal.</u></p>

**18.2.17: Written Submission: Project Proponent has submitted the following in writing:**

<u>Points</u>	<u>Written submissions made</u>
<u>Revised post-mine closure plan</u>	<p><u>PP submitted the revised post mining land use plan for Chandragupt OCM, wherein, reducing the mine void to be converted into water from 194.77 Ha to 46.31 Ha and increasing the plantation from 26.68 Ha to 175.14 Ha.</u></p>
<u>Undertaking for diversion of coal transportation route/ rehabilitation of houses near the transportation route of Binglat village</u>	<p><u>PP submitted an undertaking that:</u></p> <ol style="list-style-type: none"> <li><u>1. Steps shall be taken to explore an alternative coal transport route for the project to protect local community along Binglat.</u></li> <li><u>2. Rehabilitating the houses of Binglat near coal transportation route.</u></li> <li><u>3. Rehabilitating the houses of Binglat near coal transportation route.</u></li> </ol>

PP submitted the revised timeline for implementation of Environmental Control Measures, which is as follows:

Capital Cost of Environmental Control Measures in Lakh

A. Air Pollution Control Measures

<u>S</u> <u>N</u>	<u>Pollution Control Measure</u>	<u>Capital Cost</u>	<u>Earlier Timeline</u>	<u>Revised Timeline</u>
1	<u>7 no. Mobile Mist type Sprinkling system within Quarry and Dump</u>	<u>381</u>	<u>4 nos. for initial 5 years and 7 nos. from 6th Year</u>	<u>4 nos. from start of Mine Operation and 7 nos. from 6<sup>th</sup> Year</u>
2	<u>Black topping road of 1 km from Mine to T Junction Binglat</u>	<u>200</u>	<u>1<sup>st</sup> year of mine operation</u>	<u>Prior to Mine Operation.</u>
3	<u>Black topping of Coal transportation Haul road from Mine (Section 1.2 &amp; 3) to CHP</u>	<u>100</u>	<u>3rd year of mine operation</u>	<u>3rd year of mine operation</u>
4	<u>Fixed Mist type sprinkling system on Haul Road for length of around 2.5 km</u>	<u>200</u>		
5	<u>Closed crushing and Automated sprinkling system</u>	<u>Covered under CHP Cost</u>	<u>3rd Year of mine operation</u>	<u>3rd Year of mine operation</u>
6	<u>4 no. of Fixed Fog canons for Dust Suppressions at CHP</u>	<u>26</u>		
7	<u>Permanent Wind screens at CHP around 500 m</u>	<u>50</u>		
8	<u>1 no. of Mobile fog canon along CTR from Mine to Amrapali Entry Point</u>	<u>45</u>	<u>From 1st year to 3rd year of mine operation</u>	<u>Prior to Mine Operation</u>
9	<u>Permanent Wind screens on CTR near BINGLAT village from High level bridge to T-junction around 500</u>	<u>50</u>		

Revised timeline for Environmental Control Measures

	<u>m</u>			
10	<u>2 no. of Continuous Ambient Air Quality Monitoring System</u>	<u>130</u>	<u>1st year of mine operation</u>	<u>Prior to Mine Operation</u>
<u>Sub Total (A)</u>		<u>1182</u>		
<u>B. Water Pollution Control Measures</u>				
<u>Sn</u>	<u>Pollution Control Measure</u>	<u>Capital Cost</u>	<u>Earlier Timeline</u>	<u>Tentative Timeline</u>
11	<u>ETP of 300 KLD Capacity consisting of Oil and Grease Trap and Settling ponds with recycling arrangement</u>	<u>100</u>	<u>To be Completed during 1<sup>st</sup> year of mine operation</u>	<u>Prior to Mine Operation</u>
12	<u>STP (1 MLD) with Primary and Biological treatment systems to be provided at Colony and office premises</u>	<u>250</u>	<u>To be Completed during 3<sup>rd</sup> year of mine operation</u>	<u>To be Completed during 3<sup>rd</sup> year of mine operation</u>
13	<u>Toe Wall and Garland Drain with Sequential Settling ponds to treat runoff from OB Dump and other industrial Premises</u>	<u>402</u>	<u>As per the Mine development plan</u>	<u>As per the Mine development plan</u>
14	<u>Construction of Sequential Settling ponds to treat mine seepage</u>	<u>250</u>		
15	<u>Protection of Surface water bodies including diversion of Chotki Stream and construction of Embankment</u>	<u>425</u>	<u>As per the Nala diversion plan and mine development plan</u>	<u>As per the Nala diversion plan and mine development plan</u>

16	<u>Rooftop Rain water Harvesting at Office and residential buildings</u>	80	To be completed by the 3 <sup>rd</sup> year of mine operation	To be completed by the 3 <sup>rd</sup> year of mine operation
17	<u>Treated Drinking Water Supply to Colony and Office</u>	80	To be completed during 1 <sup>st</sup> year of mine operation	
18	<u>Installation of Piezometers with Telemetry for monitoring of ground water level</u>	60	To be Completed during 1 <sup>st</sup> year of mine operation	<u>Prior to Mine Operation</u>
<u>Sub Total (B)</u>		<u>1647</u>		
<u>C. Land Reclamation</u>				
19	<u>Progressive reclamation of degraded land</u>	10844	As per the progressive reclamation plan	As per the progressive reclamation plan
20	<u>Conservation Plan of Schedule-I species (WLMP)</u>	5360.96	To be taken up as per the approved Wildlife Management Plan	To be taken up as per the approved Wildlife Management Plan
<u>Sub Total (C)</u>		<u>16204.96</u>		
<u>Grand Total (A)+(B)+(C) in Rs. Lakhs</u>		<u>19033.96</u>		

NoC of CGWA

PP obtained NOC from CGWA vide Ref No: CGWA/NOC/MIN/ORIG/2024/21001 Date d: 19.11.2024, valid till 18.11.2026 for extraction of 6420 KLD.

### 3.2.3. Deliberations by the committee in previous meetings

N/A

### 3.2.4. Deliberations by the EAC in current meetings

Deliberations and Observations of the Committee:

18.2.18: The Committee noted the following:

1. The instant proposal is a greenfield project for grant of Environment Clearance (EC) for Chandragupt Opencast Coal Mine Project of M/s Central Coalfields Limited, located at Villages: Ursu, Bhadaikhap, Sejhua, Bukru, Chatti Bariatu, Jordag, Nawa Khap, Pachanra & Peto; District: Hazaribagh & Chatra; State: Jharkhand.
2. This proposal has been earlier appraised in 48th EAC meeting held on 28.08.2023 and 8th EAC meeting held on 28.02.2024 and the proposal was returned in its present form. Now the proposal is again placed in 18<sup>th</sup> EAC meeting held on 27.11.2024 before the EAC for appraisal wherein proponent has submitted point wise reply to the observations of EAC.
3. The EAC took into consideration the project site through KML file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH. Project site is located in Hazaribagh District, which is a Severely Polluted Area as per CEPI Assessment 2018. However, the project site is not situated in the SPA specified areas of Hazaribagh and PP has submitted a letter from Jharkhand State Pollution Control Board dated 05.10.2023 in this regard. Hence, Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment 2018.
4. The total mine lease area is 1495 Ha and it involves forestland of 699.38 Ha. Stage I FC for the forestland was accorded on 27/05/2024. Further, the project is not located within 10 km of any ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ tiger corridor/elephant corridor etc. PP also submitted a letter from PCCF dated 16.04.2024, wherein it is mentioned that “*Chandragupt OCP, CCL does not fall under any notified Corridor, Sanctuary and ESZ.*”
5. PP submitted that 21 nos of Schedule-I species have been identified to be present in the study area, as per the baseline study and authenticated list of flora and fauna. A detailed wildlife management plan for the study area with budgetary provisions of Rs. 5360.96 Lakhs has been prepared and submitted to DFO for approval. Consequently, the revised wildlife management plan as per the suggestions of DFO was again submitted to DFO vide GM (AC)/PO(Chandragupt)/ 24-25/257, dated 24.08.2024 for approval of CWLW. The DFO has approved the WLCP and has forwarded the same to RCCF for further processing.
6. Terms of Reference was granted on 13.09.2021. ToR is valid till 12.09.2025.
7. The Committee deliberated on the Carbon Sequestration Study done by the proponent and is of the opinion that the PP should continue the Carbon Sequestration Study monitoring through

MoEFCC institution (eg: ICFRE) for next 3 years including carbon emissions from coal mining.

8. Committee deliberated on the Ecological Assessment Study conducted for River/ Streams passing through the ML Area. The Committee is of the opinion that a biodiversity conservation plan in the riparian zone should be prepared and implemented in this regard.
9. The Committee deliberated on the water requirement for the said project and diversion of any river/ nallah, if proposed. PP submitted that the water requirement during construction phase is 200 KLD and during the operational phase is 6760 KLD (peak requirement). Source of water proposed to be used is groundwater for which PP has obtained NOC vide Ref No: CGWA/NOC/MIN/ORIG/2024/21001 Dated: 19.11.2024, valid till 18.11.2026 for extraction of 6420 KLD. PP also submitted that Chotki River is proposed for diversion and a detailed study for the same has been done by IIT Roorkee, wherein DPR of stream diversion was prepared and submitted to Water Resource Dept. of Jharkhand. Diversion of Chotki stream was recommended by the Chief Engineer (WRD), Ranchi vide letter no C.E./.../645/2022/230 dated 25.04.2023 and forwarded the proposal for issuance of NoC. However, the issuance of NoC is awaited due to the departmental process for “Approval of guidelines for Nala Diversion” is currently in progress.

The Committee is of the opinion that, the Chotki river should be diverted only after receiving the NoC from Water Resource Department of Jharkhand and no other river or nallah should be diverted.

10. Committee deliberated on the method of transportation proposed for Coal. The Committee is of the opinion that the construction of CHP must be completed within 3 years of grant of EC. Committee also deliberated on the dedicated coal transportation road which shall be used for transportation of coal. It was observed that there are a few houses besides the transportation road. Committee is of the opinion that, these houses shall be either rehabilitated or, if possible the particular road shall be diverted. PP submitted that, the houses besides the road will be rehabilitated and also submitted an undertaking in this behalf. The Committee also opined that plantation should be done on the transportation route and fog canons must be installed for dust suppression.
11. The Committee deliberated on the Public Hearing and observed that the PH was conducted in two districts, as the project area falls in 2 different districts, i.e., Hazaribagh District and Chatra District. PH in Hazaribagh district was conducted on 21.02.2023 and PH in Chatra District was conducted on 23.02.2023 and major issues raised during the PH in both the districts were related to pollution and damage to environment, degradation of forest land, employment, land authentication, R&R, education, Health, general amenities, loss of livelihood and skill development.

The Committee deliberated on the Court Case pending on the project at Hon’ble High Court of Jharkhand, which alleges a defective Public Hearing held for the project. PP submitted that the first hearing of the same is yet to happen and they shall abide by the order of the court.

12. The Committee deliberated on dumping of OB and is of the opinion that no OB dumping shall be done outside the ML area.
13. Committee deliberated on the plantation activities proposed by the PP. PP submitted that the proposed greenbelt and safety zone will be developed in 112.45 ha which is about 8 % of the total project area. A 7.5 m wide greenbelt, consisting of at least 3 tiers around mine boundary will be developed as greenbelt & Safety zone and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 1600 trees per hectare in Greenbelt. Total no. of 1,80,000 saplings will be planted and nurtured in 112.45 hectares in 05 years. Total plantation will be also be carried out in 1266.63 Ha backfilled area, dismantled infra and others. The Committee is of the opinion that the final void area as proposed should be reduced and plantation should be accordingly increased. PP submitted that the void of 194.77 Ha, which was supposed to be converted into a water body as per the approved mine plan will be reduced to 46.31 Ha and remaining 148.46 Ha land will be developed with plantation. Committee also suggested for the concurrent plantation plan to be implemented from 1<sup>st</sup> year onwards.
14. Committee is of the opinion that crop compensation shall be given to the farmers in case there is decrease in the production due to the mining activities.
15. Committee is of the opinion that the proponent must develop an inhouse Environment Management Cell with qualified personnel to make sure the implementation of all the mitigative measures and conditions for the safeguards of the environment.
16. Committee deliberated on the revised budget associated with EMP and Public Hearing and suggested to revise the timeline of the proposed environmental control measures. PP made the necessary changes and submitted the same as part of written submission.
17. The Capital Cost of project is Rs. 973.50 Crores. Cost for implementing EMP is submitted to be Rs. 190.33 crores as capital cost and Rs. 4.71 crore as recurring cost per year.
18. Committee also deliberated on the measures proposed towards the SDGs 2030 and suggested installation of Solar Roof Top Panels and Solar Street Lights as one of the measures towards it.
19. The Committee deliberated on the baseline data and incremental GLC due to the proposed project and observed that AAQ levels are within NAAQS.
20. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components.
21. The EAC also deliberated on the written submission of the project proponent and found it satisfactory.

**Recommendations of the Committee:**

18.2.19: 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:

### 3.2.5. Recommendation of EAC

Recommended (Subject to submission of requisite information/ documents)

### 3.2.6. Details of Environment Conditions

#### 3.2.6.1. Specific

A. Specific Conditions	
1.	No mining operations shall be undertaken in Forestland, until Stage – II forestry clearance for 699.38 Ha has been obtained under the provisions of Van (Sanrakshan Evam Samvardhan) Adhiniyam, Act 1980.
2.	Project proponent shall abide by the final order of the litigation (W.P.(C) No.5493 of 2023) pending before the Hon'ble High Court of Jharkhand.
3.	PP shall divert Chotki Nallah only after obtaining NoC from the Water Resource Department of Government of Jharkhand.
4.	PP shall divert the Chotki Nallah in a manner that its construction for diversion shall be covered in one go without extended period and works plan shall be designed to complete the diversion avoiding Monsoon season (i.e effective working months of non-monsoon season). Embankment height shall be maintained on both side of nallah with sufficient free board upto 3 mts from its HFL.
5.	PP shall maintain 50 mts width of embankment all along the diverted stream/nallah (Chotki) and shall carry out dense plantation with fruit bearing native species.
6.	The diversion of Chotki Nallah shall be monitored by RO and complete report with the drone video and satellite imagery shall be submitted to concerned Regional Office of MoEF&CC along with the six monthly compliance report.
7.	PP should complete the construction of CHP within 02 years from the date of grant of EC and no further extension in this regard will be granted. Till such time, coal shall be dispatched through dedicated coal transportation route to nearby Shivpur railway siding by covered trucks which is about 8 kms away from the mine lease area.
8.	No river/ nallah other than Chotki nallah shall be diverted.
9.	Plantation must be done on both the sides of coal transportation road and fog canons must be installed for dust suppression before the commencement of the mining operation.
10.	PP should continue the Carbon Sequestration Study monitoring through ICFRE for next 3 years including carbon emissions from coal mining. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office and also kept on the web portal of the company.
11.	PP shall conduct the Ecological Assessment Study for River/ Streams passing through the ML Area through a reputed Government Institution and must prepare and implement a biodiversity conservation plan in the riparian zone. Study report and the plan in this regard must be submitted to the concerned RO. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office and also kept on the web portal of the company.
1	Greenbelt and safety zone will be developed in 112.45 ha which is about 8 % of the total project area. A 7.5 m



2.	wide greenbelt, consisting of at least 3 tiers around mine boundary will be developed as greenbelt & Safety zone and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 1600 trees per hectare in Greenbelt. Total no. of 1,80,000 saplings will be planted and nurtured in 112.45 hectares in 05 years.
1 3.	PP should either explore the possibility to divert the coal transportation road or rehabilitate the houses in Binglat (near the coal transportation route), as committed.
1 4.	PP must give crop compensation to the farmers in case there is decrease in the production due to the mining activities. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office.
1 5.	No OB dumping should be done outside the ML area.
1 6.	PP must install rooftop solar panels and encourage the use of renewal sources of energy.
1 7.	The budget proposed for PH is Rs 19.23 Crores. The budget proposed shall be kept in a separate account and audited annually. Project proponent shall implement the action plan to address the issues raised during public hearing within a time frame of 3 years from the date of grant of EC. PP shall submit the progress report regarding the implementation of action plan to concerned RO along with the six monthly compliance report.
1 8.	PP shall implement the protective measure proposed in Environment Management Plan (EMP) in a time-bound manner. The budget earmarked for the same is Rs 190.3396 Crores (Capital) and Rs 4.71 crores (recurring) and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year.
1 9.	Main haul road in the mine shall be provided with permanent water sprinklers, and other roads shall be regularly wetted with water tankers fitted with sprinklers. Also PP shall install Mist Cannon Dust Suppression Systems (80-100 mtrs.) at Coal Stock Yard to suppress the dust particles.
2 0.	Garland drains (2mX3m) of adequate size shall be provided at the toe of the benches to arrest discharge and runoff with silt and sediments surging into areas adjoining the periphery of Overburden dump, which will be regularly cleaned before the onset of monsoon every year.
2 1.	Check dams shall be constructed at required locations within drains to arrest eroded materials and settling ponds shall be constructed to treat mine discharge water inside the mine block.
2 2.	Water harvesting pond shall be created separately to recharging the ground water and usage of project affected families.
2 3.	Proper profiling of working benches of pits and dumps shall be done to channelize water in garland drains & sumps.
2 4.	Waste generated from the domestic use shall be treated in STP and the treated water will be utilized in plantation & greenbelt development. Wastewater from the HEMM washing/ workshop will be treated in ETP. After treatment, water will be reused in washing of HEMM, dust suppression and greenbelt development.
2 5.	PP shall make use of advanced computer simulation techniques for design and execution of blasting operation in the mine. PP shall make use of Electronic Delay Detonators for optimal blasting in coal and OB rock to minimize the environmental impacts of blasting such as ground vibration, fly rocks and excessive dust generation.
2 6.	PP shall create a "Public Grievance Redressal and Monitoring System" for resolving any issues related to the pollution of mines and complaint has to resolve as soon as possible not beyond 30 days. In this regard, adequate awareness to be spread among the public to address their grievance to company with simple and easy manner and for which company needs to devise the mechanism. The same shall be reported to IRO within 3 months. A

	logbook to be maintained by PP on “Public Grievance Redressal and Monitoring System.
2 7.	PP shall install fixed fog cannon (mist spayer) and fixed sprinkler all along the haul road/ CHP, and OB dump till Railway siding is completed. The sufficient number of fog cannons (not less than 10 nos.) with 40 mts jet length shall be installed within 6 months. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB.
2 8.	PP shall deposit the approved amount as proposed for wildlife conservation plan to the Govt. of Jharkhand, Forest & Environment Dept. and further consult with State Biodiversity Authority for its CSR activity.
2 9.	PP shall conduct third party audit of compliance of EC condition at an interval six months and its report shall be submitted to IRO, MoEF&CC.
3 0.	The status of mine closure activities must be included in every six months compliance report submitted to the state pollution control board and RO of MoEF&CC.
3 1.	PP to install solar lights along the road used for transportation of minerals 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.
3 2.	Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.
3 3.	Hon’ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India &Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent”. The implementation report of the above said condition shall be sent to the Regional Office of the MoEF&CC.
3 4.	PP shall conduct feasibility studies for assessment of voids for backfilling of ash and mixing of ash with overburden, taking up backfilling ash and OB mixing activities during operations as well as post closure of mines in line with the Fly Ash Utilization Notification, 2021.
3 5.	Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, 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. The prevention measures for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
3 6.	PP to install solar lights along the road used for transportation of minerals to avoid the accidents at night and also carry out its maintenance.
3 7.	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
3 8.	PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non- compliance or infringement should be reported to the concerned authority.

3 9.	Wildlife conservation plan as approved by the competent authority shall be implemented. Additional, budget shall be added in the plan, in case additional measures suggested by state wildlife department. The final Wildlife conservation plan duly approved by the CWLW shall be submitted to RO, MoEF&CC within a time frame of three months from the date of grant of EC and the budget approved by the concerned authority shall be deposited in government account.
4 0.	PP shall ensure that all types of plastic waste generated from the plant shall be stored separately in isolated area and disposed of strictly adhering to the Plastic Waste Management Rules 2016 (as amended). In pursuant to the Ministry's OM dated 18/07/2022. PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic (SUP) in order to ensure compliance of Ministry's Notification published by the Ministry on 12/08/2021. A report along with photograph on the measures taken shall also be included in the six monthly compliance report being submitted by PP.
4 1.	Four numbers of Continuous Ambient Air Quality monitoring system shall be set up to monitor common/criteria pollutants from the flue gases such as PM10, PM2.5, SO2, NOX within the lease area in consultation with OSPCB. The monitoring of other locations (at least three locations outside the lease area covering upwind and downwind directions at an angle of 120° each) shall be carried out manually.
4 2.	PP shall ensure that diesel operated vehicles will be switched over to E-Vehicles in a time bound manner, replace the passenger vehicles to E-vehicle in phased manner. Further, for local movement of officials Contract of Vehicles deployment shall be awarded to Project affected people and all efforts for adopting heavy E-vehicles like Bulklers for ash transportation for short distance subject to availability of such E-vehicle and adequate charging infrastructure in the surrounding area shall be provided. PP shall submit the action taken report to concerned RO with amount spent, photographs (before & after), number of e-vehicles deployed etc. in six monthly compliance report.
4 3.	Digital processing of the entire lease shall be through remote sensing techniques should be done regularly once in 3 years for monitoring land use pattern and report submitted to MOEF and its Regional Office at Bhubaneswar.
4 4.	R&R shall be not less than the norms prescribed in National R&R Policy 2007/State R&R Policy/CCL Policy whichever is higher.
4 5.	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.

### 3.2.6.2. Standard

1( a)	<b>Mining of minerals</b>
<b>Statutory compliance</b>	
1.	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
2.	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
3.	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. TThe implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
4.	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 prior to start/commencement of mining operations/production
5.	The project proponent shall obtain the necessary permission from the Central Ground Water Authority
6.	Solid/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.
<b>Air quality monitoring and mitigation measure</b>	
1.	Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
2.	The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
3.	Transportation of coal, to the extent, if permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun/ Fog cannon etc shall be carried out in critical areas prone to air pollution (with higher values of PM10/PM2.5) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
4.	The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
5.	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
6.	Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
7.	Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.
<b>Water quality monitoring and mitigation measures</b>	
1.	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
2.	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 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
3.	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.

4.	Monitoring of water quality upstream and downstream of river including ponds, lakes, tanks 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.
5.	Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
6.	Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.
7.	Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).
8.	Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.
9.	The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
10.	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.
11.	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 rivarine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.
<b>Noise and Vibration monitoring and prevention</b>	
1.	Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
2.	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
3.	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

<b>Mining Plan</b>	
1.	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
2.	Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
3.	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.
4.	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.
<b>Land Reclamation</b>	
1.	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
2.	The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
3.	The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the “during mining”/”post mining” land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
4.	Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
5.	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.
<b>Green belt</b>	
1.	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
2.	Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads. And Plantation should also be carried out in nearby area with consent of forest department and gram panchayat within 10 km radius with its proper maintenance

<b>Public hearing and Human health issues</b>	
1.	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.
2.	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.
3.	Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
4.	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.
5.	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'.
<b>Corporate Environment Responsibility</b>	
1.	The project proponent shall comply with the provisions contained in this Ministry's OM dated 30/09/2020, as applicable, regarding Corporate Environment Responsibility.
2.	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholder's/stake holders.
3.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
4.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
5.	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
<b>Miscellaneous</b>	
1.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
2.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

3.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4.	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (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.
5.	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.
6.	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'.
7.	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.
8.	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
9.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
10.	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.
11.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
12.	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.
13.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
14.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
15.	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.
16.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

### 3.3. Agenda Item No 3:

#### 3.3.1. Details of the proposal



<b>Suliyari Coal Mine (Expansion from 5.0 MTPA to 7.0 MTPA) by AP MINERAL DEVELOPMENT CORPORATION located at SINGRAULI, MADHYA PRADESH</b>			
<b>Proposal For</b>		Fresh EC	
<b>Proposal No</b>	<b>File No</b>	<b>Submission Date</b>	<b>Activity (Schedule Item)</b>
<a href="#">IA/MP/CMIN/496827/2024</a>	IA-J-11015/35/2018-IA-II(M)	16/11/2024	Mining of minerals (1(a))

### 3.3.2. Project Salient Features

#### Agenda No. 18.3

18.3: Expansion of Suliyari Coal Mine (in existing area of 1298 Ha having expansion in capacity from 5.0 MTPA to 7.0 MTPA in two phases of 20% each) by M/s AP Mineral Development Corporation, located at Villages: Belwar, Bijauri, Dhirali, Dongri, Jhalri, Majholipath, Mohanban, Phatpaani; District: Singrauli; State: Madhya Pradesh – EC under para 7(ii) of EIA Notification, 2006 –reg.

[Online Proposal No. IA/MP/CMIN/496827/2024; Consultant: VARDAN ENVIRONET, NABET/EIA/2326/RA 0284, valid up to 04.05.2026]

18.3.1: M/s. Andhra Pradesh Mineral Development Corporation Limited (APMDC) has made an online application vide proposal no. IA/MP/CMIN/496827/2024 Dated 08.11.2024 along with copy of EIA/EMP report, Form and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for capacity enhancement from 5.0 MTPA to 7.0 MTPA in two phases of 20% each as per the MoEF&CC O.M. dated 11/04/2022. The proposed project activity is listed at schedule no. 1(a)(i)-Mining of Minerals with Coal Under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

The project of M/s. Andhra Pradesh Mineral Development Corporation Limited (APMDC) is a brownfield project or expansion in production capacity from 5 MTPA to 7 MTPA in two phases of 20% each as per the provisions of Ministry’s OM dated 11/04/2022, in the existing ML area of 1298 Ha. The project is located at Villages: Belwar, Bijauri, Dhirali, Dongri, Jhalri, Majholipath, Mohanban, Phatpaani; District: Singrauli; State: Madhya Pradesh.

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

#### 18.3.2: Details of Previous Approvals in chronological orders:

Sl. No	Details of Letter No.	EC/Expansion EC/Amendment in EC/Validity extension/Transfer of EC	Capacity	Area (Ha.)	Status of implementation

1.	J-11015/35/2018- IA. II(M) dated 1 2.04.2021	Environmental Clearance	5.0	12 98	Implemented
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18.3.3: Production details of the existing EC: W.r.t the previous approval, PP submitted the actual production details of the concerned mine and submitted that the mine became operational from September 2021 and coal production was started in March 2022 onwards. CTO renewal has been obtained from the SPCB vide consent no. AW-59436 dated 26.12.2023 and is valid up to 31.12.2024.

Details of the coal production are as follows:

Year	Actual Production in MT PA	Planned Coal production in MTPA as per Environmental Clearance	Excess Product ion
2021-22	0.02	5.0	-
2022-23	1.94	5.0	-
2023-24	5.00	5.0	-

18.3.4: Certified Compliance Report: PP submitted that the status of compliance of earlier EC was obtained from Regional Office, Bhopal vide letter no. 3-3/2021(Env) Dated 04.07.2024 in the name of M/s. Andhra Pradesh Mineral Development Corporation Limited (APMDC). The Action taken report regarding the partially condition was submitted to Regional officer, Bhopal MoEF&CC, vide letter no. APMDC/SCM/ENV/2024-25/444 dated 09.09.2024. Regional officer, MoEF&CC (RO), Bhopal evaluated the same and has issued letter File No. 3-3/2021(Env) dated 28.10.2024.

As per the CCR dated 04.07.2024, it is observed that, out of 106 conditions, 54 conditions were observed to be complied, 5 conditions were not applicable to the proponent, 29 conditions were partly complied, 1 condition was noted, 1 condition is compiled subject to needful amendment in EC and 16 conditions were agreed to comply. Apart from there were 12 general observations in the same CCR. RO Bhopal vide letter File No. 3-3/2021(Env) dated 28.10.2024, further issued a Report on the Action Taken Report submitted by the PP on 09.09.2024 vide letter no. APMDC/SCM/ENV/2024-25/444.

18.3.5: Instant proposal is for capacity enhancement from 5.0 MTPA to 7.0 MTPA in two phases of 20% each as per the MoEF&CC O.M. dated 11/04/2022 under para 7(ii)a of EIA Notification, 2006. PP submitted the following compliance to the Ministry's OM dated 11.04.2022:

S. No.	Provision under para 7(ii)	Compliance
1.	The project should have gone through the public hearing process, at least once, for its existing EC	The public hearing was conducted on 30.08.2019 at playground of Govt. High School, Majhauri

	capacity on which expansion is being sought, except those categories of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments.	path, Jhalari village in Sarai tehsil, Singrauli district, for the existing EC capacity of 5.0 MTPA on which expansion is being sought to 7.0 MTPA (40% enhancement)
2.	There should not be change in Category of the project from 'B2' to 'B1' or 'A' due to proposed modernization or expansion.	The mine at present is in Category 'A' and shall remain in the same category after proposed expansion.
3.	There is no additional land acquisition or forest land and diversion involved for 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.	There is no change in the mine lease area i.e. 1298 Ha. The EC was granted for 5.0 MTPA in 1298 Ha area and the proposed expansion will be done within 1298 Ha mine lease area.
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.	The proposed expansion is for 40%, to be carried out in two phases of 20% each as per the guidelines of MoEF&CC dated 11.04.2022. The pre-feasibility report has been prepared for 40% submission.
5.	Predicted environmental quality parameters arising out of proposed expansion/ modernization shall be within the prescribed norms and the same shall be maintained as per prescribed norms.	Predicted environmental quality parameters arising out of proposed expansion shall be within the prescribed norms and the same shall be maintained as per prescribed norms.
6.	The proposed expansion should not result in reduction in the greenbelt area as stipulated in the earlier EC, or if the existing ratio of greenbelt is more than 33%, after expansion it should not reduce below 33%.	The proposed expansion does not include any addition/ surrender of land and the lease area remains same as 1298 Ha. The greenbelt development and other plantation will be as per EC dated 12.04.2021
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 the commitments given while granting previous expansion, as may be applicable. This shall be duly recorded in the certified compliance report issued by the IRO/CP/CB/SPCB, which should not be more than one year old at the time of submission of application.	The compliance to EC conditions is being carried out and the latest certified compliance report from the IRO is given in Annexure-VI (A) of EIA report.

8.	Public Consultation shall be undertaken [if applicable] by obtaining response in writing, as per para 7 III (ii) (b) of EIA Notification 2006, except those categories of projects which have been exempted as per para 7 III(i) of EIA Notification 2006 and its amendments.	The proposed expansion is for 40%, to be carried out in two phases of 20% each as per the guidelines of MoEF&CC dated 11.04.2022, for which public consultation is not required.
9.	Effluent monitoring including air quality monitoring systems as specified in the existing EC, if stipulated, should have been installed.	The regular monitoring of air and water is being carried out at site as per conditions.

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

#### 18.3.6: Environmental Site Settings:

The project is covered under Survey of India Topo Sheet No. 64 I/5 and is bounded by the geographical coordinates ranging from Latitude 23°5'28" N to 23°58'15" N and Longitude 82°18'52" E to 82°20'58" E. As per CEPI Assessment 2018, the project does not fall in the Critically Polluted Area (CPA) and Severely Polluted Area (SPA).

Forest Area: The project involves total 259.239 Ha of forestland. Details of the approval pertaining to it are as follows:

Sl. No.	Obtained vide letter No.	Area (ha)	Stage I/II
1.	F No. 8-02/2020-FC dated: 15.12.2020	259.239	Stage I
2.	F No. 8-02/2020-FC dated: 15.06.2022	259.239	Stage II
Total		259.239	

PP submitted that there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

Project 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. and there is no violation of WLP Act. However, Schedule – I species [such as, *Melursus ursinus* (Sloth Bear), *Elephas maximus indicus* (Elephant), *Manis crassicaudata* (Pangolin), *Canis lupus callipes* (Indian Wolf), *Mellivora capensis* (Honey Badger), *Panthera pardus* (Leopard), *Tetracerus quadricornis* (Four-horned antelope), *Gazella bennettii* (Chinkara), *Tragulus meminna* (Mouse Deer), *Crocodylus palustris* (Mugger, Crocodile), *Varanus bengalensis* (Bengal Monitor Lizard), *Python molurus* (Python), *Pavo cristatus* (Indian Peafow), *Aquila rapax* (Tawny Eagle), *Gyps bengalensis* (White Rumped Vulture), *Nisaetus cirrhatus* (Crested Hawk Eagle), *Anthracoceros coronatus* (Pied

Hornbill), *Ciconia episcopus* (White stork), *Neophron percnopterus* (White Scavenger Vulture) and *Sarcogyps calvus* (King Vulture)] were observed in the study area and accordingly, Wildlife conservation Plan has been prepared. A Site Specific Wildlife Conservation Plan (SSWCP) w.r.t. Suliyari Coal Block has been approved by Chief Wildlife Warden (CWLW) cum PCCF (WL), Madhya Pradesh vide letter no dated 16.09.2019.

Mine Lease details: PP submitted the following Allotment Order and Mine Lease details:

Sl. No.	Govt. Order/Notifications as the case may be	Area (ha)
1.	F. No. 103/10/2016/NA dated 29.09.2016	1298
Total		1298

18.3.7: Details of ToR: ToR has not been accorded for the instant proposal under consideration. However, the proponent has submitted the EIA/EMP report for capacity enhancement from 5.0 to 7.0 MTPA as per standard ToR of coal mining sector available on Parivesh.

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

- i. The Mine Plan and Mine Closure Plan of Suliyari Coal Block has been approved by MoC vide letter no. F.No.34011-14-2017-CPAM dated 08.07.2019 for 5.0 MTPA. For expansion up to 150% no specific approval is required as per MoC circular dated 29.5.2020, in view of which APMDC board has given an approval for expansion from 5.0 to 7.0 MTPA on dated 05.02.2024.
- ii. Total geographical reserves are reported to be 142.36. Out of which mineable reserves are 113.08 MT and extractable reserves are 107.43 MT. Percentage of extraction is 86.71%.
- iii. There are total 15 major coal seams. With thickness of seams to be worked on will be between 0.5m to 5.82m.
- iv. Coal to be extracted will be of G7 grade.
- v. Stripping ratio is 7.29:1.
- vi. Balance life of mine as on 01.04.2024 is 18 years.
- vii. Opencast method of mining is proposed.
- viii. Land use details:

a. Pre-mining Land use details:

S. No.	Land Use	Within ML Area (ha)
1.	Agricultural Land	251.860
2.	Forest land	259.239
3.	Barren Land	688.851
4.	Township	51.990
5.	Surface Water Bodies	46.060
Total		1298

b. Post Mining Land use details:

Sl. No.	Type	Total Area	Reclaimed Area	Un-reclaimed area
1.	Excavation/Quarry Area:			
	(a) Backfilled areas	998.048	890.069	107.979
	(b) Excavated Void	173.848	13.778	160.070
2.	External Dump			
3.	Safety Zone	78.864	52.643	26.221
4.	Road and Infrastructure	19.327		19.327
5.	Road Diversion	4.439		4.439
6.	Diversion/Below River/Nala/Canal	23.474		23.474
Total		1298	956.49	341.51

ix. Transportation of Coal: [In pit: Dumpers/Trucks](#)

- a) Surface to siding: Dumpers/Trucks
- b) Surface to loading: Road/Rail
- c) Quantity being transported by Road/Rail/Conveyor: 7.0 MTPA

PP submitted that there are no changes proposed in the means of transportation of coal.

x. Details of reclamation: The Mine Plan and Mine Closure Plan of Suliyari Coal Block has been approved by MoC vide letter no. F.No.34011-14-2017-CPAM dated 08.07.2019 and there is no deviation proposed in the same. As per the approved Mine Closure Plan, the total excavated area is 200.107 Ha, 80.23 Ha and total reclaimed area is 10.51 Ha, as of now.

The afforestation plan shall be done progressively covering an area of 704.63 ha at the end of mining. This will include plantation over backfilled area of internal OB dump of 638.209 Ha, total plantation in greenbelt post mine closure will be 704.63 Ha. Density of tree plantation will be 2500 tree/ Ha. 160.070 Ha of void area is proposed to be converted into water body of 30 m depth. 23.474 Ha will be water body (Nala diversion), 49.987 Ha (Safety Zone/Rationalization area-26.221 ha, Road diversion-4.439 ha & Road & infrastructure area-19.327 ha) will be left for Public/Company use and 251.86 Ha of land will be used for agriculture and horticulture.

18.3.9: Baseline Data: Baseline Data was generated from December 2023 to February 2024 (Winter Season):

Period	December 2023 to February 2024 (Winter Season)
AAQ parameters for 10 Locations (min and max)	PM <sub>10</sub> – 63.20 to 89.10 µg/m <sup>3</sup> PM <sub>2.5</sub> – 31.20 to 77.30 µg/m <sup>3</sup> SO <sub>2</sub> – 12.40 to 23.05 µg/m <sup>3</sup> NO <sub>x</sub> – 15.80 to 35.80 µg/m <sup>3</sup> CO – 0.34 to 0.82 mg/m <sup>3</sup>
Incremental GLC Level	For Phase I: PM <sub>10</sub> – 8.1378 µg/m <sup>3</sup> PM <sub>2.5</sub> – 5.19135 µg/m <sup>3</sup> SO <sub>2</sub> – 0.29406 µg/m <sup>3</sup> NO <sub>x</sub> – 0.42303 µg/m <sup>3</sup> CO – 0.0000067 mg/m <sup>3</sup> For Phase II: PM <sub>10</sub> – 10.2424 µg/m <sup>3</sup> PM <sub>2.5</sub> – 6.45412 µg/m <sup>3</sup> SO <sub>2</sub> – 0.35077 µg/m <sup>3</sup> NO <sub>x</sub> – 0.49017 µg/m <sup>3</sup> CO – 0.0000084 mg/m <sup>3</sup>

<p>Ground water quality for 10 Locations</p>	<p>pH – 7.12 to 7.47  Total Hardness – 172 to 197 mg/l  Chlorides – 19.67 to 72.5 mg/l  Fluoride – 0.61 to 0.81 mg/l</p>																														
<p>Surface water quality for 10 Locations</p>	<p>pH – 7.35 to 7.90  DO – 5.9 to 6.5 mg/l  BOD – 13.0 to 18.0 mg/l  COD – 44.0 to 58.0 mg/l</p>																														
<p>Noise levels Leq (Day and Night)</p>	<p>41.85 to 62.60 dBA for the day time and 36.52 to 55.20 dBA for the Night time.</p>																														
<p>Traffic assessment study findings</p>	<p>Traffic study has been conducted at Bhalyatola to Jhaleri (Near Dhirauli – Road - 1) &amp; Belwar to Majhalipath (Near to Belwar – Road -2) which is approximately approx. 1.5 km from the mine site respectively.</p> <p>Existing PCU for Road-1 are 595 PCU/hr and for Road-2 are 727 PCU/hr respectively and existing level of service (LOS) for both road are “A”.</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>Road - 1</td> <td>595</td> <td>15000</td> <td>0.04</td> <td>A</td> </tr> <tr> <td>Road - 2</td> <td>727</td> <td>15000</td> <td>0.05</td> <td>A</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 745 PCU/hr for Road-1 and 877 PCU/hr for Road-2 and level of service (LOS) will be remain “A” for the both roads.</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>Road - 1</td> <td>745</td> <td>15000</td> <td>0.05</td> <td>A</td> </tr> <tr> <td>Road - 2</td> <td>877</td> <td>15000</td> <td>0.06</td> <td>A</td> </tr> </tbody> </table>	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	Road - 1	595	15000	0.04	A	Road - 2	727	15000	0.05	A	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Proposed V/C Ratio	LOS	Road - 1	745	15000	0.05	A	Road - 2	877	15000	0.06	A
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Note: Capacity as per IRC 64-1990 Standards Guideline for capacity for roads.

Conclusion: Due to the mine expansion project (increase of production by 40%) the traffic density will increase marginally as the entire mineral will be transported through the PWD Road, however the value of LOS will remain same as “Excellent”.

Flora and fauna	Presence of Schedule I fauna and endangered Flora if any: Schedule – I species were observed in the study area and accordingly, Wildlife conservation Plan has been prepared. A Site Specific Wildlife Conservation Plan (SSWCP) w.r.t. Suliyari Coal Block has been approved by Chief Wildlife Warden (CWLW) cum PCCF (WL), Madhya Pradesh vide letter no. dated 16.09.2019.
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Water Requirement	<p>Source of Water: Borewell and Mine water</p> <p>Ground Water Intersection: Yes</p> <p>Water Requirement:</p> <p>Existing: 1510 KLD</p> <p>Proposed: 2500 KLD</p> <p>NOC (Ground Water): Ground water withdrawal permission has been obtained from Central Ground Water Authority (CGWA) vide NOC no. CGWA/NOC/MIN/REN/1/2022/7166 which is valid from 13.03.2022 to 12.03.2024.</p> <p>Further, a fresh renewal application has been submitted vide application no. 21- 4/843/MP/MIN/2019 dt. 07.03.2024, in accordance with the CGWA notification dt. 14th Sept. 2020. As per the Gazette notification “if the application for renewal is submitted in time and the CGWA/the respective state/UT authority is unable to process the application in time, NOC shall be deemed to be extended till the date of renewal of NOC”.</p>
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18.3.10: Details of Water Requirement: PP submitted that the existing water requirement is 1510 KLD and water requirement on the proposed expansion is 2500 KLD. The source of water is submitted as borewell and mine water. Ground water withdrawal permission was obtained from Central Ground Water Authority (CGWA) vide NOC no. CGWA/NOC/MIN/REN/1/2022/7166 which is valid from 13.03.2022 to 12.03.2024. Further, the PP has submitted the application for renewal of NOC vide application no. 21- 4/843/MP/MIN/2019 dated 07.03.2024. PP also submitted that Hurdul Nallah passing through the ML area is proposed to be diverted in consultation with the Water Resource Department of the State Government as per the EC dated 12/04/2021.

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

Sl. No	Type of Waste	Source	Quantity (TPA)	Mode of Treatment	Disposal
1	Municipal Solid waste	Domestic waste from site	148	Authorized Vendors	Disposed off as per the solid waste management rule,

		office, Canteen etc.			2016
2	Plastic Waste	Site office, Canteen etc.	1.0	CPCB/SPCB Authorized recycling Vendors	As per the Plastic Waste Management Rules, 2016
3	Electronic Waste	Computers, switches, cables etc.	0.05	Authorized Vendors	As per E- Waste (Management) Rules, 2022
4	Used Batteries	Vehicles at sites	1.0	Authorized Vendors	As per Batteries Management rules 2022, sold to authorized vendors for recycling/refurbishment.
5	Biomedical Waste	Primary Health Center	0.01	As per BMW R, 2016	Yellow & Red
6	Used Oils, Waste Oil, Empty Oil barrels	DG Set, Workshop	1.26	Authorized Vendors	Handed over to CPCB/SPCB authorized vendor

18.3.12: Details of Public Hearing: There is no fresh Public Hearing conducted, as the proposal has been submitted under clause 7(ii) of EIA Notification 2006. However, details of the Public Hearing held for EC dated 12.04.2021 are as follows:

Advertisement for the Public Hearing was given in Hindustan Times (English daily newspaper), New Delhi edition dated 30.07.2019, Dainik Bhaskar (Hindi daily newspaper), Singrauli edition dated 30.07.2019, Navbharat (Hindi daily newspaper), Singrauli edition dated 30.07.2019, Patrika (Hindi daily newspaper), Satna edition dated 30.07.2019. Public Consultation was held on 30.08.2019 at playground of Govt. High School, Majhailpath, Jhalari village in Sarai tehsil, Singrauli district, Madhya Pradesh under the chairmanship of Shri Rituraj (IAS), ADM Singrauli. 1400 people attended the PH and total 102 representations were received from and outside the district, out of which 2 representations were received before the PH and 100 written representations were received during the PH. Major issues raised during the PH were Land Acquisition and R&R, Employment to locals, Plantation, Conservation of biodiversity, Pollution Control, Drinking water supply etc.

Compliance status of the PH action plan is as follows:

Compliance status of the implementation of the Action Plan on the issue raised during PH

S r. N o.	Issue/dem and raised by the Pub lic	Commitmen t given by P roject Propo nent	Brief description & Ti me frame	Fund allocation (Rs.)	Current Status
1.	Land Acq uisition an d R&R	<p>Rehabilitati on and Reha bilitation-20 18 has</p> <p>been prepar ed by Sub D ivisional Of ficer</p> <p>Land Acqui sition Offic er Devsar a nd</p> <p>approved by Commissio ner Rewa D ivision Rew a, in line wit h the guideli nes laid do wn by the S tate Govern ment (Reha bilitation Po lity of Mad hya Pradesh Governmen t- 2002 'A') and Govern ment of Indi a (Rehabilit ation Policy of Governm ent of</p> <p>India- 2007) for rehabilit ation of disp laced peopl e from time to time.</p> <p>Special pro</p>	<p>1. Land Acquisitio n: It is under a dvance stage a nd 30% of the land is in proc ession and bal ance land acq uisition is like ly to complete by 31.12.201 9.</p> <p>2. Providing ameni ties in R&amp;R co lony as per ap proved R&amp;R P lan by 30.06.2 020.</p> <p>3. Payments of R&amp; R benefits incl uding the const ruction of hous es etc. will be completed by 30.06.2020.</p>	<p>Total funds required f or acquisition of priva te lands are 716.89 cr ores, out of which AP MDC has already dep osited Rs 695.55 cror es to the district admi nistration. Remaining amount will be deposi ted during the course of taking possession o f land in stages and w ill be completed by sc heduled time. Note: A dditionally, the requir ed Govt. land falling within project area wi ll be acquired by AP MDC by paying the s uitable compensation as estimated towards t he same by the State Govt. Developing R&amp; R colony has been ent rusted to M/s AEL (M DO of the coal Blo ck) and amount of Rs 20 crores will be relea sed in stages. Amount will be disbursed to th e PDF's at the time of taking possession of l and and house.</p>	<p>1. Land acquisition fo r 742.20 ha. has been completed.</p> <p>2. Land Compensatio n has been awarded f or Rs 716.89 Cr. and deposited in the Govt. Account.</p> <p>3. Compensation of R s 695.55 Cr. has been disbursed by LAO to the concerned landow ners and balance is in process.</p> <p>Remaining amount R s. 21.34 will be disbu rsed from district ad ministration during al location of land.</p> <p>4. Basic amenities i. e.-School, Anganwad i, Hospital building, Water treatment plant of capacity 2x800 KL D, Water supply, Roa ds, Culverts, Drains, Substation with electr icity supply and Haat Bazaar (Shops) etc. h as been developed in the R&amp;R colony at vil lage Khanua, Tehsil S arai Distt Singrauli.</p> <p>5. Payments of R&amp;R benefits including the construction of house s etc. have been provi ded as per R&amp;R Plan.</p>

		visions have been made for the protection of the displaced / affected people in the R&R policy. According to the policy, all rehabilitation benefits will be given to the displaced and affected families of the project.			
	Employment to locals	Under the provisions of R&R Policy-2018 approved by Commissioner Rewa, Division Rewa, the displaced will be given job / employment in the company according to their ability.	There are 1100 PDF's in the age group of 18-55 years for whom suitable employment shall be given @ one from displaced house within the three years of taking possession of the land. Employment will be provided as per the requirement of the project or else Rs 5 Lakhs per eligible for employment for one time settlement.	Rs 50 Cr has been allocated for the purpose.	187 Numbers of displaced persons have been given employment by the Project proponent and more than Rs. 30 Cr have been disbursed to PDF.
5.	Plantation, Green belt Development.	About 17.60 lakh trees will be planted in the mine area in a time bound manner.  Plantation of trees of local species	Will be taken up as per the green belt development plan/progressive plantation scheme given in EMP and conditions stipulated by MoEF&CC/ MPPCB.	Included in cost for EMP (capital and recurring). (Refer Table 6.7 of the approved EIA/EMP report). 10 lakhs (capital cost).	Plantation is being carried out in phase wise manner; Initial phase plantation is being carried out near admin building and nursery will be developed for sapling. Native Species such as Amaltas, Sal, Arjun, Ashoka are planted near admin b

		will be done only after deliberations of forest department and Gram Panchayat.			<p>uilding and safety zone.</p> <p>Year wise plan for plantation has been submitted to RO, MoE F&amp;CC, Bhopal.</p> <p>The nursery has been developed in 1.5 ha and approx. 1.70 lacs saplings are ready for plantation.</p> <p>A total of 56.79 lakh amount has been spent till date for greenbelt plantation and preparation of nursery.</p>
6.	Compensatory Afforestation	A total of 15,940 trees are proposed to be cut/felled from the forest land within the coal block. In lieu of the same, 259.239 ha of non-forest revenue land has been identified as Compensatory Afforestation (CA) land in Koravalcircle of Chitrangitehsil in Singrauli district. About 4.14 lakh trees will be planted under CA scheme.	CA scheme has been prepared and submitted to DFO.	The required amount (99351319/-) will be deposited soon after getting stage-I FC / after issue of demand by Forest department.	<p>CA scheme approved by the DFO and the required amount for CA (99351319/-) &amp; the supervision charges (35,70,422/-) had been deposited in CAMPA account on 12.01.2021.</p> <p>Further, APMD vide letter dated 24.07.2024 requested DFO, Singrauli to provide the status of implementation of the CA cost.</p>

7.	Conservation of biodiversity	Plantation will be done after discussion with forest department and Gram Panchayat to ensure planting of local species of trees.	Local species will be planted as per the directions given by forest department and gram panchayat from time to time till post mining phase.	Included in cost for EMP (capital and recurring).  10 lakh (capital cost) as per approved EIA/EMP report	<p>Plantation is being carried out in phase wise manner; Initial phase plantation is being carried out near admin building. Native Species such as Amaltas, Sal, Arjun, Ashoka are planted near admin building and safety zone. The nursery has also been developed in 2.5 ha and approx. 1.70 lacs sapling are ready for plantation.</p> <p>A total of 56.79 lakh amount has been spent till date for greenbelt plantation and preparation of nursery.</p>
8.	Wildlife conservation	There are no notified elephant corridors within a 10 km radius of the study area. But elephants move from their habitat from one forest area to another forest area. Also there are several Schedule-I species viz. Peacock, Python, Bengal monitor lizard, Wolf, Leopard, Pangolin, Sloth bear etc. are found in the study area. T	As per approved wildlife management plan, action will be taken for conservation of wildlife as indicated in the plan.	Rs. 35.45 crores is allocated for implementation of wildlife management plan.	<p>Wildlife conservation in this regard already prepared with an estimated cost Rs 35.45 Crores Approved by Chief Wildlife Warden, cum PCCF (WL), MP vide letter No. /./ / 6538 date 16.09.2019.</p> <p>The amount (35.45 Cr.) for wildlife conservation plan and the supervision charges (35,70,422/-) had been deposited in CAMPA account on 12.01.2021.</p> <p>APMDC vide letter dated 24.07.2024 requested DFO, Singrauli to provide the status of implementation of the wildlife conservation plan and the spent</p>

		<p>hus, "Site-specific Wild life Conservation Plan" has been prepared, and submitted to the state government's forest department for certification.</p>			amount.
9.	Air Pollution Control	<p>The following measures will be taken to control air pollution arising from mining operations:</p> <ol style="list-style-type: none"> <li>1.The haul roads will be compacted, and water sprinkling will be done.</li> <li>2.Air pollution control through phase wise plantation and green belts development.</li> <li>3.Dumps will be strengthened by planting grass / trees.</li> <li>4.Spraying of water during drilling.</li> <li>5.Coal Exca</li> </ol>	<p>Air Pollution control measures will be taken up as suggested in the EMP and conditions stipulated by MoEF&amp;CC/MPPCB.</p>	<p>Included in cost for EMP (Capital and recurring). 50 lakh (capital cost) and 30 lakh (Recurring cost) as per approved EIA/EMP report.</p>	<p>Fixed type of water sprinklers (17 nos. in a approx. 500 m stretch approach road) are installed at site. Each jet sprinkler covers an average radius of 16 meters for water sprinkling, 360 degrees around its sprinkling area. Thus, covering a handling area of about 1.37 ha around coal stockyard of 10 ha, which was earmarked as per the mining plan. Currently, tankers with water sprinkling arrangements (13 nos.) and mist/fogging machines (1 nos.), dust sweeping machines (1 nos.) are also deployed at site for dust mitigation.</p> <p>1 no. CAAQMS has already been installed on site and the same is connected with MP PCB and CPCB.</p> <p>Additional CAAQMS with a value of INR 50 lakhs has been orde</p>

		<p>vation by Surface Miner.</p> <p>Provision of covered conveyor belts and housed unloading / transfer points.</p>			<p>red for installment. Documentary evidence for CAAQMS is provided to RO, MoEF&amp;CC, Bhopal.</p>
10.	Water Pollution	<p>Industrial water demand during initial years (construction phase) will be met from Hurdul Nala. Thereafter, industrial water demand will be met from treated mine discharge water. Surplus treated mine water will be discharged into Hurdul nala only after ensuring permissible water quality standards.</p>	<p>Water Pollution control measures will be taken up as suggested in the EMP and conditions stipulated by MoEF&amp;CC/MPPCB.</p> <p>Treated water will be discharged into Hurdul nala only after ensuring permissible water quality standards.</p>	<p>Included in cost for EMP (capital and recurring).</p> <p>50 Lakh as capital cost, as per approved EIA/EMP report.</p>	<p>Industrial Water Demand and being met from treated mine water. ETP is also provided, and the treated wastewater is used for horticulture and road sprinkling. (Amount Rs. 30 Lakhs has been already spent.)</p> <p>Regular water monitoring is being done by a NABL/MoEF&amp;CC accredited lab and the report submitted to RO, MoEF&amp;CC and MPPCB with half yearly compliance.</p>
11.	Drinking Water supply through pipeline	<p>RO plant will be provided in the nearby villages under CSR activities.</p> <p>By APMDC</p>	<p>There are 4 nearby villages for which treated and filtered drinking water will be supplied.</p>	<p>Requirement of funds will be met from the Revenue Expenditure of CSR budget (@2% of average net profits made in the preceding three years) by APMDC</p>	<p>Drinking water supply through pipeline has been provided for R&amp;R Colony of Khanua-Khas. (A total of 1.09 Cr. has been spent on establishing of the R.O plant).</p>



1 2.	Stabilization of external dump	<p>One temporary external OB dump is proposed for the project for initial 3 years.</p> <p>Grass turfin g will be done to stabilize the dump slopes. After 3 years of mining operation, the waste from the external dump shall be re-handled to the backfilled areas. Phase-wise plantation shall be done in the backfilled areas to ensure stabilization of the backfilled surface.</p>	Stabilization of temporary OB dump shall be done till complete re-handling of the dump into de-coaled voids/ backfilled surface.	Cost included in Progressive Mine Closure cost.	<p>Grass seeding has been done on OB dump and temporary grass has also been grown on a portion of it. OB is being backfilled progressively.</p> <p>Additionally, Garland Drains have been constructed to improve slope stability of OB in case of water seepage. Standardized and safe methods have been adopted for creation of bench profiles. Phase wise topsoil is being matted over the backfilled area.</p>
1 3.	Carrying capacity study for Singrauli region	On receiving the outcome of the carrying capacity (to be carried out by MoEF&CC for Singrauli region), whatever suggestions and orders will be mentioned, those will be duly followed in the	As stipulated by the Competent authority	As applicable	In Suliari Coal Mine, no such condition related to carrying capacity is reflected. However, carrying capacity study has already been carried out for an adjacent block considering the worst-case scenario of all operational mines.

		Suliyari project.			
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18.3.13: EMP Cost: Existing capital cost of project was Rs. 1873.75 Crores. The capital cost of the proposed project is Rs 386.20 Crores (total cost 2259.95 Crores) and the capital cost for environmental protection measures is proposed as Rs 791 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 395 Lakhs. The employment generation from the proposed expansion for Phase-I is 1620 persons and for Phase-II is 1800 persons.

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

Sl. No.	Description of Item	Existing (In Lakh)		Proposed (In Lakh)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
1.	Pollution Control Equipment's	50	30	500	100
2.	Effluent treatment /Oil & Grease traps	50	-	-	10
3.	Sewage treatment Plant (50 KL D)	50	-	80	10
4.	Pollution monitoring	Nil	07	0	55
5.	Occupational safety	10	03	100	20
6.	Green belt development / Progressive afforestation	10	16	111	100
7.	Socio-economic welfare measures in nearby villages	-	50	-	50
8.	Any other misc. cost for complying EC conditions	-	05	-	50
Total		170	111	791	395

18.3.14: Power Requirement and details of Hi-Tension/ Transmission Line: Power requirement for the project after expansion is submitted to be 4.4 MW, which will be sourced from 132/33 KV substation

located in Dongri Tal-II Coal Block. PP also submitted that A 132 KV High Tension Line passes through the mine area. It will be diverted along the safety zone within the mine. In this regard, APMDC has already deposited an amount of 1.965 lacs to MPPTCL (Madhya Pradesh Power Transmission Co. Ltd.) towards modification/shifting of 132 KV Dongratal-Rajmilan line vide letter no. APMDC/COAL/SUL/L.A./2019-20/297 dated 19.10.2019.

18.3.15: Plantation: Existing green belt has been developed in 10.51 ha area which is about 0.80 % of the total project area of 1298 with total sapling of 31369 nos. of Trees. The proposed greenbelt will be developed in 694.12 ha. Which is about 53.47 % of the total project area. A 7.5 m wide greenbelt, consisting of at least 3 tiers around boundary of mine lease area and vacant places will be developed as greenbelt and green cover as per CPCB/MoEF&CC. Local and native species are being planted with a density of 2500 trees per hectare. Total no. of 1761562 saplings will be planted and nurtured in 694.12 ha area in life of mine.

Year wise Plantation Details									
Mine Life Part (yrs.)	Year	Cumulative Plantation Area (Current) (ha)	Total Plantation Area (ha)	Backfilled Area & others' Proposed Plantation (ha)	Safety Zone Proposed Plantation (ha)	Total Plants Proposed to be Planted (nos.)	Cumulative Plants Proposed to be Planted (nos.)	Sal Plantation Proposed (ha)	Cumulative Sal Plantation Area (ha)
1	2021-2022	0	0	0	0	0	0	0	0
2	2022-2023	0.66	0.66	9.97	0.53	1646	1646	0.20	0.20
3	2023-2024	10.51	9.85			24616	26262		
4	2024-2025	53.83	43.32	40.89	2.43	108300	134562	17.90	18.10
5	2025-2026	106.98	53.15	50.74	2.41	132875	267437	8.68	26.78
6	2026-2027	142.47	35.49	33.01	2.48	88725	356162	11.04	37.82

7	2027-20 28	180.32	37.85	35.10	2.75	94625	450787	11.14	48.96
8	2028-20 29	215.39	35.07	35.07		87675	538462	11.17	60.13
9	2029-20 30	250.43	35.04	35.04		87600	626062	10.51	70.64
10	2030-20 31	285.49	35.06	35.06		87650	713712	10.52	81.16
11	2031-20 32	320.49	35.00	35.00		87500	801212	10.50	91.66
12	2032-20 33	360.60	40.11	40.11		100275	901487	12.03	103.69
13	2033-20 34	400.39	39.79	39.79		99475	1000962	11.94	115.63
14	2034-20 35	440.65	40.26	40.26		100650	1101612	12.08	127.71
15	2035-20 36	479.37	38.72	38.72		96800	1198412	11.91	139.62
16	2036-20 37	527.69	48.32	48.32		120800	1319212	15.00	154.62
17	2037-20 38	557.01	29.32	29.32		73300	1392512	9.02	163.64
18	2038-20 39	586.29	29.28	29.28		73200	1465712	9.01	172.65
19	2039-20 40	615.47	29.18	29.18		72950	1538662	8.85	181.50

20	2040-20 41	644.74	29.27	29.27		73175	1611837	7.00	188.50
21	2041-20 42	673.95	29.21	29.21		73025	1684862	5.00	193.50
22	2042-20 43	703.17	29.22	29.22		73050	1757912	4.00	197.50
23	2043-20 44	704.63	1.46	1.46		3650	1761562	2.50	200.00

18.3.16: Project Cost: Capital Cost of Project is Rs. 2259.95 Crores (Existing Cost: Rs 1873.75 Crores & Proposed Expansion Cost: Rs. 386.20 Crores). 2% of their net profit over the preceding three years will be spent towards CSR activities. Cost of implementing EMP for proposed expansion will be Rs. 791 Lakhs as Capital cost & Rs. 395 Lakhs/year as Recurring cost.

18.3.17: R&R Issues: The project involves expansion with increase in production capacity within the existing mine lease area and no land acquisition is involved for expansion. However, the project involves 1386 Project Affected Families and the R&R package is proposed to be 292.60 Crores.

18.3.18: Undertaking/ Affidavit: PP submitted an Undertaking that there is no construction/ mining done at the site or the construction done without any deviation as per previous EC obtained, there is no litigation pending on the project either at Hon'ble NGT or any other court law, the Suliyari Coal Mine has been allocated to M/s Andhra Pradesh Mineral Development Corporation Limited (APMDC) by Government of India, Ministry of Coal, New Delhi vide order no. F. No. 103/10/2016/NA dated 29.09.2016 through auction, the land acquisition is under process and R&R is being carried out as per the Acts, rules and prevailing guidelines, there is no difference in the documents submitted i.e., Form-1, EIA/EMP Report with all annexure and presentation being made to the EAC as per EIA Notification dated 14.09.2006, as amended thereof, the coal mining projects having an area >500 Ha falls under the category 'A' of Sr. No. '1' (Mining of Minerals), Project or Activity 1(a)(3). Thus, Suliyari Coal Mine project having an area of 1298 Ha which is >500 ha. Hence, it falls under Category 'A'. The company further undertakes that the contents of this declaration are true and correct to best of my knowledge and belief, that nothing has been concealed.

PP further submitted an Undertaking stating that, the information provided in CAF, Form- A&B in pdf format in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 27.11.2024 have no deviation in respect of the Proposal no. IA/MP/CMIN/496827/2024 for Environmental Clearance (EC) of "Suliyari Coal Mine Project of Opencast mining with 7.0 MTPA (Expansion from 5.0 MTPA to 7.0 MTPA in Two Phases of 20% Each) production capacity over ML area 1298 ha, there are no data entry errors in the information uploaded in PARIVESH system including names/email-id/mobile numbers/address of the project proponent, authorized person, etc. It is also certified that the supporting portal are correct and duly authenticated by the documents uploaded on PARIVESH portal are correct Authorized Signatory, in case of any deviation in data found in any of the

documents, the Authorized Signatory shall be held responsible and furthermore, the above said project shall be rejected for grant of Environmental Clearance (EC).

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

### 3.3.3. Deliberations by the committee in previous meetings

N/A

### 3.3.4. Deliberations by the EAC in current meetings

Deliberations and Observation of the Committee:

18.3.20: The Committee noted the following:

- i. Suliyari Mines originally accorded EC vide J-11015/35/2018-IA. II(M) dated 12.04.2021, for production capacity of 5 MTPA over an area of 1298 Ha. The project has been implemented and the mine is under operation.
- ii. The instant proposal is for grant of Environment Clearance to Suliyari Coal Mine by M/s. Andhra Pradesh Mineral Development Corporation Limited (APMDC) located at Villages: Belwar, Bijauri, Dhirali, Dongri, Jhalri, Majholipath, Mohanban, Phatpaani; District: Singrauli; State: Madhya Pradesh for expansion of production capacity from 5 MTPA to 6 MTPA and has applied under 7(ii)(a) of EIA Notification 2006 (as amended) keeping the land area same as 1298 Ha.
- iii. The EAC took into consideration the project site through kml file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH. The project does not fall in the Critically Polluted Area (CPA) and Severely Polluted Area (SPA) as per CEPI Assessment 2018.
- iv. 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. A Site Specific Wildlife Conservation Plan (SSWCP) w.r.t. Suliyari Coal Bock has been approved by Chief Wildlife Warden (CWLW) cum PCCF (WL), Madhya Pradesh vide letter dated 16.09.2019. PP also submitted a letter from Forest Division Officer dated 29.12.2020, confirming the distance of project site from Sanjay Tiger Reserve, Kaimur Wildlife Sanctuary, Guru Ghasidas National Park and Samirpingla Wildlife Sanctuary. However, as per the DSS KML, the Committee observed that, there is a wildlife sanctuary and a tiger reserve visible near the ML area. Further as per the EC accorded, Sanjay Gandhi Tiger reserve ESZ boundary is at a distance of 7.8km from the project site. The Committee is of the opinion that the PP must submit a clarification in this regard including permission if any obtained if any from NBWL.
- v. The project involves total 259.239 Ha of forestland. PP obtained Stage – I FC on the same vide F No. 8-02/2020-FC dated 15.12.2020 and obtained Stage – II FC on the same vide F No. 8-02/2020-FC dated 15.06.2022. Committee observed that there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

- vi. Committee deliberated on the Mine Plan & Mine Closure Plan submitted by the PP. PP submitted that the earlier Mine Plan and Mine Closure Plan of Suliyari Coal Block has been approved by MoC vide letter no. F.No.34011-14-2017-CPAM dated 08.07.2019 for 5.0 MTPA. For expansion up to 150% no specific approval is required as per MoC circular dated 29.5.2020, in view of which APMDC board has given an approval for expansion from 5.0 to 7.0 MTPA on dated 05.02.2024. Hence, the PP has submitted the Mine Plan and Mine Closure Plan for proposed expansion in capacity, approved by the APMDC Board.
- vii. Committee deliberated on the Certified Compliance Report obtained by the PP from the Ministry's Regional Office. Committee observed that the factual status of compliance to the EC conditions inter-alia development of prior green belt development in mine lease area, installation of ultrasonic flow meter, green belt development in R&R colony and implementation of drainage plan etc., was not explicitly furnished in the report dated 28/10/2024.
- viii. The Committee deliberated on the plantation activities been undertaken by the PP. The Committee is of the opinion that the plantation should be increased by the PP. The budget of the same to be increased and atleast 2,00,000 nos of new saplings should be planted in the next monsoon season.
- ix. The Committee further deliberated on the diversion of Hurdul nallah proposed to be diverted by the PP as part of the EC dated 12/04/2021. In this regard, study if any undertaken by the proponent for diversion of this nallah needs to submitted.
- x. In the presentation made by the PP, Committee observed that the hardness of groundwater and surface water is reported to be 172 to 197 mg/L and 342 to 383 mg/L respectively. Committee found this data to be inaccurate as hardness of surface water is reported to be more than that of groundwater. Besides, TDS levels in the surface water is reported to be more than the ground water samples.
- xi. The Committee also observed that the Presentation submitted to the Committee was different to what was presented during the meeting and there were some discrepancies observed in the data uploaded and submitted.

#### 18.3.21: Recommendations of the Committee:

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. Action taken report on the observations reported by the Regional Office in its monitoring report dated 24/07/2024 shall again be submitted by the proponent by explicitly stating the compliance status for all the prescribed EC conditions to the concerned RO, MoEF&CC to obtain their views/comments and the same shall be further submitted to the EAC for consideration in place of the report dated 28/10/2024.
- ii. A fresh report for groundwater and surface water quality analysis shall be submitted by the PP covering all the parameters.
- iii. As per specific condition no. xxvii of EC dated 12.04.2021, study if any, conducted for diversion of Hurdul nallah, shall be submitted with requisite documents. Along with that PP shall submit the NoC obtained from the State Water Resources Department if any for diversion of Hurdul Nallah.
- iv. PP shall submit the NoC from MP Rural Road Development Authority (MPRDA) if any for diversion of a public village road as proposed by the PP.
- v. Clarification and permission obtained from NBWL regarding the distance of Tiger reserve ESZ boundary, Wildlife Sanctuary and Tiger Reserve shall be submitted.
- vi. PP shall submit the third party monitoring report (by NEERI/ CIMFR/ IIT) for air quality carried out at identified locations both ambient and process area, along with the results and recommendations to

assess the efficacy and adequacy of pollution control measures.

- vii. Carrying capacity study report of the Singrauli area carried out during 2023 inter-alia includes the above mentioned coal mine of M/s. APMDC. In this regard, copy of the carrying capacity study report along with timebound action plan to comply with the recommendations and conclusion (section 5.2) of the said report shall be submitted.

### 3.3.5. Recommendation of EAC

Deferred for ADS

## 3.4. Agenda Item No 4:

### 3.4.1. Details of the proposal

<b>Bina Expansion Opencast project by NORTHERN COALFIELDS LTD. located at SONBHADRA,UTTAR PRADESH</b>			
<b>Proposal For</b>		<b>Fresh ToR</b>	
<b>Proposal No</b>	<b>File No</b>	<b>Submission Date</b>	<b>Activity (Schedule Item)</b>
<a href="#">IA/UP/CMIN/495647/2024</a>	J-11015-49-2011-IA-II(M)	24/10/2024	Mining of minerals (1(a))

### 3.4.2. Project Salient Features

#### Agenda No. 18.4

18.4: Bina Expansion Opencast project (from area 1790.377 Ha to 2079.221 Ha and capacity 10.5 MTPA to 17.5 MTPA) by M/s Northern Coalfields Ltd., located at Villages: Waidhan, Banbansi, Barwani, Bharuwa, Chanduyar, Jai Sila, Kohraul, Govind Ballabh Pant Sagar & Mishra; District: Singrauli & Sonabhadra; State: Madhya Pradesh & Uttar Pradesh – Prescribing of ToR – reg.

[Online Proposal No. IA/UP/CMIN/495647/2024; Consultant: CMPDI NABET/EIA/22-25/SA0223, valid up to 08.04.2025]

18.4.1: M/s. Northern Coalfields Limited has made an application online vide proposal no. IA/UP/CMIN/495647/2024 dated 24/10/2024 along with the application in prescribed format (Form-I), copy of pre-feasibility report, Mine Plan and Mine Closure Plan 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 of the EIA Notification, 2006 and being appraised at Central Level.

The project of M/s. Northern Coalfields Limited 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 17.5MTPA & increase in project area from 1790.377 ha to 2079.221 ha.

The project was earlier appraised in the 14<sup>th</sup> EAC Meeting held on 5<sup>th</sup>-7<sup>th</sup> August 2024 and the same



was returned in the present form due to discrepancies involved in the project. PP has submitted a fresh proposal by addressing the observations of EAC held in its meeting held on 5-7<sup>th</sup> August, 2024. The proposal was further placed before the EAC in its 18th meeting held on 27/11/2024 for consideration.

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

18.4.2: Details of previous approvals in chronological orders:

S. No.	Details of Letter No.	EC/ Expansion EC/ Amendment in EC/Validity extension/Transfer of EC	Capacity (MTPA)	Area (Ha)	Status of implementation
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	Implemented
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	Implemented
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	Implemented
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	Implemented
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	Being implemented
6.	No.J-11015/49/2011-IA.II(M) dated 02.07.2024	Amendment in EC	10.5	1790.377	Being implemented

18.4.3: Production Details of the existing EC: 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. The CTO renewal was obtained by the PP from MPPCB on 23.10.2023, valid up to 30.11.2024 and from UPPCB on 18.11.2022 valid from 01.01.2023 to 31.12.2024.

#### 18.4.4: 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. As per CEPI Assessment 2018, the project does not fall in the Critically Polluted Area (CPA). However, the project falls in Severely Polluted Area (SPA).

**Forest Area:** The total forestland involved in the project is 1369.046 Ha. 1080.202 Ha of forestland forms part of the existing ML Area and upon expansion 288.844 Ha of forestland will be added in the ML area.

Details of the approval for the same are as follows:

S. No.	Obtained vide letter no.	Area	Stage I/ II	Validity
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	Broken before FC Act, 1980.	Not provided.
2.	8B/ UP/ 05/ 11/ 2004/ FC; dated: 01.06.2006.	21.61	Stage II FC accorded by MoEF&CC	30 years from date of accord.
3.	8-58/ 2005- FC dated: 13.08.2007	371.312	Stage II FC accorded by MoEF&CC	30 years from date of accord.
4.	8-69/2018-FC dated: 16.04.2024	288.844	Stage II FC accorded by MoEF&CC	30 years from date of accord.
Total			1369.046	

PP submitted that the forest land of 687.280 Ha, was broken up way before FC Act, 1980 came into force. Hence, there is no requirement for forest clearance on this land. This land was acquired by Central Government under Section (9) of the Coal Bearing Areas (Acquisition and Development) Act, 1957. After that, as per provision of Section 10 of CB(A&D) Act, 1957, the total land including forest land was vested with the Central Government free from all encumbrances. Subsequently, Central Govt vested the land under Section (11) of CB(A&D) Act, 1957 to Coal India Limited (Formerly known as National Coal Development Corporation Ltd, Ranchi) which is the parent company of Northern Coalfields Limited vide order dated 23.09.1975. Therefore, there is no violation of 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.

Mine Lease Details: PP submitted the following Mine Lease details:

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	-	-

18.4.5: Mining Plan and Mine Closure Plan: The mining plan & mine closure plan for the project was approved for 17.5 MTPA over an area of 2079.221 Ha by NCL Board vide ref. no. NCL/Board/9/2024/187 dated 21<sup>st</sup> August 2024.

- i. Method of Mining to be adopted shall be Opencast. 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 158.42 MT mineable reserve. Balance mineable reserve as on 01.04.2024 is 136.32. Out of balance mineable reserve of 136.32MT, 129.50MT are Extractable reserves. Balance extractable reserves available for extraction as on 01.04.2024 is 129.50 MT. Percent of extraction is 58.10 %.
- iii. Three number of seams namely Purewa Top, Purewa Bottom and Turraseams 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 m<sup>3</sup>/t.
- iv. Life of mine is 10 years.
- v. The Project has 3 no. of external OB dumps in an area of 79.27 Ha with maximum height of 60 m and 14.25 Mm<sup>3</sup> of OB and 2 no. of internal OB dumps in an area of 1060 Ha with 1418.39 Mm<sup>3</sup> of OB is envisaged in the project. 1118.39 Mm<sup>3</sup> of OB will be utilized by backfilling. These dumps are technically and biologically reclaimed. Backfilled OB will also be utilized in proposed OB to Sand Processing plant as a waste utilization initiative. 295 Mm<sup>3</sup> of OB will be backfilled in the voids of adjoining mines. In Post closure stage, about 300 Mm<sup>3</sup> of OB sourced from adjacent mines will be utilized for backfilling of void up to R.L. of 360 m (above mean sea level). This backfilled void will be technically & biologically reclaimed with plantation.
- vi. Total quarry area is 1096 ha out of which backfilling will be done in 1060ha. Total Backfilled quarry area of 1060 ha shall be reclaimed with plantation. There will be no mine void left post closure of the mine.

vii. Details of Land usage:

**A. Pre-mining:**

S. 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

C. Post-mining:

S. No.	Type	Total Area	Reclaimed Area	Un-reclaimed/ Undisturbed Area
1	Excavation/Quarry Area			
	(a) Backfilled areas	1060.000	1060.000	-
	(b) Excavated Void/mine batter	36.000	36.000	-
2	External Dump	79.270	79.270	-
3	Safety Zone	206.550	202.300	4.250
4	Road & Infrastructure	450.000	340.000	110.000
5	Garland Drains	0.500	-	0.500
6	Green belt	200.000	200.000	-
7	Settling pond	4.000	-	4.000
8	Water Reservoir near pit (Eco-park)	10.000	-	10.000
9	Undisturbed/Mining right for UG	30.901	30.901	-
10	Embankment	2.000	-	2.000
	Total	2079.221	1948.471	130.75

viii. Details of Transportation:

In-pit	i. Through rear dumper/ trucks
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	ii. ROM Coal from face to receiving pit of CHP (there is existing CHP of 4.5 MTPA and a new CHP of 9.5 MTPA is under construction).						
Surface to siding	i. From receiving pit of CHP to Silo for rail rake loading (14 MTPA capacity). ii. 1.2 MTPA crushed coal (by surface miner) will be sent to Belt Pipe Conveyor receiving point while 2.3 MTPA crushed coal (by surface miner) will be sent to wharf wall for rail rake loading.						
Siding to loading	i. By Rail & Belt Pipe Conveyor to end consumer. ii. Small fraction of coal will be transported by road to small consumers.						
Quantity being transported by Road/ Rail/ conveyer/ ropeway	Quantity transported: <table border="1"> <thead> <tr> <th>Year</th> <th>Rail</th> <th>Road</th> </tr> </thead> <tbody> <tr> <td>2023-24</td> <td>7.57</td> <td>2.93</td> </tr> </tbody> </table>	Year	Rail	Road	2023-24	7.57	2.93
Year	Rail	Road					
2023-24	7.57	2.93					

In addition to existing CHP, 9.5 MTPA CHP with silo is under construction at Bina Project which will be operational from FY 2024-25.

- ix. The Status of implementation of progressive mine is that out of total excavated area of 850 Ha, the area backfilled after excavation is 610 Ha, the total area reclaimed is 432.30 Ha. There is no deviation from the approved PMCP.
- x. Reclamation: 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 Ha, Greenbelt of 200 Ha. Density of the plantation will be 2500 no. of plants per Ha. No void will be left out at the end of mine life. 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 as excavation area long ML boundary, along roads and infrastructure, embankment area and in township located outside the lease etc. Also, Chandrasekhar Azad Eco Park with water reservoir has been developed.
- xi. The Status of implementation of progressive mine is that out of total excavated area of 850 Ha, the area backfilled after excavation is 610 Ha, the total area reclaimed is 432.30 Ha. There is no deviation from the approved PMCP.

18.4.6: Baseline Data: Baseline study has been carried during March 2024 to June 2024.

Period	15.03.2024 to 15.06.2024
AAQ parameters at 10 Locations	$PM_{2.5} = 27.9 \text{ g/m}^3 \text{ to } 71.8 \mu\text{g/m}^3$ $PM_{10} = 47 \text{ g/m}^3 \text{ to } 122.1 \text{ Mg/m}^3$ Residential $PM_{2.5} = 102.8 \text{ g/m}^3 \text{ to } 161.2 \mu\text{g/m}^3$ $PM_{10} = 177.4 \text{ g/m}^3 \text{ to } 256.3 \mu\text{g/m}^3$ Industrial $SO_2 = 11.8 \text{ g/m}^3 \text{ to } 43.9 \text{ g/m}^3$ $NO_x = 17.4 \text{ g/m}^3 \text{ to } 50.7 \text{ g/m}^3$
Incremental GLC Level	Air Quality prediction modelling shall be carried out during EIA Study.

Ground water quality at 4 Locations	pH: 7.22to 7.63 mg/l., Total Hardness: 214 to 602 mg/l, Chlorides: 55.2 to 121.96mg/l, Fluoride: 0.36 to 0.63 mg/l Heavy metals were generally found below detection limit
Surface water quality at 4 Locations	pH: 7.03 to 7.89 ; DO: 7.5to7.8 mg/l and BOD: 2.4 to 2.8 mg/l
Noise levels Leq (Day and Night)	Core Zone: 69.8 dB(A) to 74.5dB(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.
Water Requirement	Source of Water: Strata Seepage Mine Water Ground Water Intersection: Yes Water Requirement: 4814 KLD NOC (For surface water):Yes NOC (Ground Water): NOC has been granted. Renewal is under process.

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 NoTC – 7073 issued at 09.11.2022 and valid up to 08.11.2024.

18.4.7: Details of Water Requirement: Total water requirement proposed by the PP post expansion is 4814 KLD. The source of water will be intake well in GBP reservoir, Mine Seepage Water and accumulated rainwater. Permission from SE (Commercial), UPSEB vide letter no. 649-Cu-II/NTPC/79 has been obtained for surface water and NOC from CGWA vide no. CGWA/ NOC/ MIN/ ORIG/ 2021/ 13979, dated 08.12.2021 has also been obtained, valid from 08.12.2021 to 07.12.2023 and application for the renewal of the same was submitted on 25.11.2023. The same is under process.

PP also submitted that there is no diversion proposed for the Nallah flowing along the ML boundary.

18.4.8: Details of Power Requirement: PP has submitted the Power Requirement for the project is 6.2 MW, which will be sourced from Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited. There is no diversion proposed

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

S. No.	Name of Waste	Source	Qty (TPA)	Mode of Disposal	Mode of Transport

1	Solid waste (domestic wastes)	Colony	2044	Door to door collection, segregation and further processing.	Road
2	Plastic waste	Colony	100	Disposal through SLRM plant.	Road
3	E-waste	Office	0.05	Through Surveying off to qualified parties as per e-Waste (Management Rules), 2016	Road
4	Batteries waste	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 Biomedical waste treatment facility.	Road
6	Hazardous wastes (as per Hazardous Waste Management Rules) a. Residue containing oil b. Sludge from Wastewater Treatment c. Used Oil or spent Oil	HEMM Workshop	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

18.4.10: R&R Plan: PP submitted that all the R&R activities have been completed and no R&R issue is pending for the existing project.

18.4.11: Project Cost: Total Cost of project is 1361.58 Crores as per the 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.

18.4.12: 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.

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

- i. Status of NGT OA 164/2018: The original application was in respect of pollution in Singrauli area due to various industries. Presently, case is pending at Principal Bench of Hon'ble NGT for hearing on the



objections/ compliances filed by respective respondents (incl. Bina Extn. OCP) w.r.t. the report of Oversight Committee. The case was listed again on 01.10.2024. Respondents were granted four weeks to file the reply, by way of affidavit. The case is to be listed again on 28.01.2025.

- ii. Status of NGT OA 817/2022: The Case was listed by Hon'ble NGT Principal Bench on 16.11.2022. Bina Project had filled a review petition which was rejected by NGT vide its order dated 11.08.2023. It was again challenged in Hon'ble Supreme Court. Hon'ble Supreme Court in its order dated 15.09.2023 has directed the appellant to provide some information in the form of an Affidavit, which was submitted by the appellant on 06.12.2023. The case was listed again on 16.07.2024. Civil Appeal before Hon'ble Supreme Court against the order of the Tribunal is still pending.
- iii. Status of NGT OA 643/2023: The original application was in respect of pollution in nearby area of Bina Project. The Case was listed by Hon'ble NGT Principal Bench on 02.01.2024. Action taken report was submitted by the respondent in the form of an Affidavit on 19.02.2024. Presently, the case is pending at Principal Bench of Hon'ble NGT for hearing on the objections/ compliances filed by the respondent. The case was listed on 12.09.2024. Hon'ble NGT directed UPPCB to verify the compliance status as mentioned in the objections. The case is to be listed again on 10.12.2024.
- iv. Status of Case No. 1798 2014 CJM Sonbhadra: A case vide no. 1798/2014 under section 15/16 of EPA Act 1986 is currently under consideration at court of CJM Sonbhadra. Application to obtain relief was filed at Hon'ble High Court of Allahabad to quash the proceedings of court of CJM Sonbhadra and order was passed by Hon'ble High Court on 26.08.2014 to apply the objection/ discharge petition in the District Court, Sonbhadra. Accordingly, a discharge petition was filed on 20.09.2014 at court of CJM Sonbhadra and which is currently under consideration.

18.4.14: Undertaking: The PP submitted an undertaking that, the information provided in Form-1 in physical form and/or in pdf format in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 27.11.2024 have no deviation in respect of the proposal no. IA/UP/CMIN/495647/2024 dated 09.09.2024 for Grant of Terms of Reference (ToR) to Bina Expansion Opencast Project (area 2079.221 ha having capacity of 17.5 MTPA) located at Village Jamshila, PO-Bina, Tehsil- Dudhi, District- Sonbhadra in the state of Uttar Pradesh; and Village Churidah, Tehsil-Waidhan, District- Singrauli in the state of Madhya Pradesh and there are no data entry errors in the information uploaded in PARIVESH system including names/email-id/mobile numbers/address of the project proponent, authorized person, etc. It is also certified that the supporting documents uploaded on PARIVESH portal are correct and duly authenticated by the Authorized Signatory and in case of any deviation in data found in any of the documents, the Authorized Signatory shall be held responsible and furthermore, the above said project shall be rejected for grant of ToR.

PP further through an affidavit, submitted that there is no construction done at the site without any deviation as per previous Environmental Clearance obtained vide letter no. J-11015/49/2011-IA.II (M) dated 02.07.2024 (10.5 MTPA); J- 11015/49/2011-IA.II(M) dated 06.03.2024 (10.5 MTPA); 3-11015/49/2011-1A.II(M) dated 29.07.2022 (10.5 MTPA); J-11015/49/2011-IA.II(M) dated 12/02/2021 (9.0 MTPA); J 11015/49/2011-1A.II(M) dated 06/08/2014 (7.5 MTPA) and J-11015/29/2004-IA.Π(M) dated 02/08/2006 (6.0 MTPA) and a A case vide no. 1798/2014 under section 15/16 of EPA Act 1986 is currently under consideration at court of CJM Sonbhadra. Application to obtain relief was filed at Hon'ble High Court of Allahabad to quash the proceedings of court of CJM Sonbhadra and order was passed by Hon'ble High Court on 26.08.2014 to apply the objection/ discharge petition in the District Court, Accordingly, a discharge petition was filed on 20.09.2014 at court of CJM Sonbhadra currently under consideration. Also, case vide O.A. no. 164/2018; 817/2022; 643/2023 are currently under consideration at Hon'ble NGT (PB

18.4.15: ADS Reply: PP submitted the following reply to the observations of EAC in its meeting held on 5-7<sup>th</sup> August, 2024.

Observation of EAC	Reply submitted by the PP
<p>Status of transfer of 7.623 Ha of the forestland to Khadia OCP</p>	<p><u>Chronology of processing the application for transfer of 7.623 ha forest land is as under:</u></p> <ul style="list-style-type: none"> <li>· The Project Proponent (Bina OCP) had submitted the application for transfer of 7.623 ha forest land to MP Forest Department vide proposal no. Bina/Forest/ MP Forest/23/17 dt 21.06.2023.</li> <li>· PP requested to APCCF/NO (LM) vide no. Bina/Env/MP Forest/24/03 dt 04/01/2024.</li> <li>· PP made representation to DFO Singrauli vide dtd 12/01/2024 for consideration of proposal.</li> <li>· APCCF/NO(LM) gave directives to DFO Singrauli.</li> <li>· Site inspection done by SDO Forest on 24/02/2024.</li> <li>· DFO Singrauli forwarded the proposal to CCF Rewa vide no. 1722 dtd 11/03/2024.</li> <li>· CCF Rewa forwarded the proposal to APCCF/NO (LM), Bhopal vide no. 2441 dtd 03.04.2024.</li> </ul> <p><u>Developments since last EAC dtd 07-08-2024:</u></p> <ul style="list-style-type: none"> <li>· APCCF, Govt of MP raised 5-point query on the proposal vide letter dtd 09.07.2024 to DFO Singrauli. PP submitted the reply to APCCF/NO(LM) vide letter dtd 08/08/2024.</li> <li>· Since then, the proposal has been recommended by MP Forest Department and forwarded to the State Government of MP on 12<sup>th</sup> August 2024 for further process and approval.</li> <li>· State Govt. of MP has agreed on the proposal on 19.11.2024.</li> </ul> <p><u>Submission:</u> It is to submit that the subject forest land measuring 7.623 ha is already having Stage-II Forest Clearance as a part of 378.935 ha. The same was enclosed with the ToR Application. Further, the project proponent hereby undertakes that the transfer of 7.623 ha forest land to Khadia OCP will be submitted along with compliance report of ToR for obtaining Environment Clearance</p>
<p>The Mining Plan along with mine closure plan for Expansion of the Bina Expansion OCP is yet to be approved by the Competent Authority</p>	<p>The mining plan along with mine closure plan of Bina Expansion OCP (17.5 MTPA) has been approved by NCL Board vide ref no. NCL/Board/9/2024/187 dtd 21<sup>st</sup> August 2024.</p>

18.4.16: Written Submission: PP submitted the written submission during the meeting, pertaining to total excavated area & external dump area, total forest area involved and details of coal reserves of Bina Expansion OCP, which is as follows:

- i. As on 01.04.2024, total "Excavated area and External dump area" is 929.27 ha (excavated area 850 ha, external dump area 79.27 ha). Out of 929.27 ha, 904.20 ha is broken forest land area and remaining is non-forest land area.
- ii. As on 01.04.2024, total broken forest land area of 904.20 ha includes excavated area in forest land and existing external dumps in forest land.
- iii. Total excavated area is 850 Ha which includes non-forest land as well as forest land.

iv. Total Forest area involved is 1369.046 Ha in Bina Expansion OCP.

v. PP uploaded pointwise response to the concerns raised in the public representation pertaining to the instant proposal under consideration.

### 3.4.3. Deliberations by the committee in previous meetings

N/A

### 3.4.4. Deliberations by the EAC in current meetings

#### Observations and deliberations of the EAC

18.4.17: The Committee noted the following:

- i. The instant 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 M/s 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 Opencast Project was accorded 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 project involves forestland of 1369.046 Ha. Out of which the forest land of 687.280 Ha, was broken up way before FC Act, 1980 came into force. Hence, there is no requirement for forest clearance on this land. This land was acquired by Central Government under Section (9) of the Coal Bearing Areas (Acquisition and Development) Act, 1957. After that, as per provision of Section 10 of CB(A&D) Act, 1957, the total land including forest land was vested with the Central Government free from all encumbrances. Subsequently, Central Govt vested the land under Section (11) of CB(A&D) Act, 1957 to Coal India Limited (Formerly known as National Coal Development Corporation Ltd, Ranchi) which is the parent company of Northern Coalfields Limited vide order dated 23.09.1975. Therefore, there is no violation of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980. 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.

However, the Committee is of opinion that in addition to above, comments of Forest Division may be sought on the same.

- v. 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. PP submitted that in this regard, a CEPI Action Plan has been formulated in consultation with the State Pollution Control Board and quarterly report of CEPI action plan is being submitted to SPCB on regular basis. PP submitted the CEPI Action Plan formulated in this regard. Committee further asked the PP to include additional mitigation measures to control the pollution as per the MoEF&CC OM dated 30/10/2019.

- vi. The Committee deliberated on the Mining Plan along with mine closure plan for Expansion of the Bina Expansion OCP. The same has been presented to the Committee.
- 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 m<sup>3</sup>/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.
- i. 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 Ha, Greenbelt of 200 Ha. Density of the plantation will be 2500 no. of plants per Ha. No void will be left out at the end of mine life. 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 as excavation area long ML boundary, along roads and infrastructure, embankment area and in township located outside the lease etc. Also, Chandrasekhar Azad Eco Park with water reservoir has been developed.
- ii. 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. PP submitted that Tippa Jharia is predominantly a rain-fed nallah having lean flow mainly due to sub-surface contribution during non-monsoon period. The nallah bed is much below excavation area, so, it gives natural protection against any backflow of water into the mine working.
- However, PP submitted that following additional protection measures in this regard will be taken:
- Earthen embankment of with a height of 2 m will be constructed all along the edge of surface boundary of the mine to preserve nallah's natural catchment. In the central stretch of excavation boundary where the distance is on lower side, the embankment will be supported with stone pitching on inside slope.
  - Measures for controlled blasting will be put in place. These include- use of electronic delay detonators, restriction on charge per delay & total charge so that PPV will be kept within the threshold limit as per DGMS norms.
- iii. 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 vide 649-Cu-II/NTPC/79.
- iv. Committee deliberated on the plantation activities proposed for the project. 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. PP further submitted that Miyawaki plantation will be done. The Committee is of the opinion that plantation must be increased and a concurrent plantation plan must be prepared.
- v. Committee deliberated on the dumping of OB and observed that PP will fill the voids of adjacent mines of its own

with the OB being extracted from this particular mine. The Committee asked the PP to restrict the OB dumping outside the ML area. PP submitted that they shall restrict the OB dumping to the ML area of Bina only. The area of OB dump will remain same and the height of OB Dump will increase.

- vi. Total Cost of project is 1361.58 Crores as per the 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.
- vii. Four (04) litigations are pending on the project as discussed in para 18.4.13.
- viii. The committee is of the opinion that the PP must align its activities with the Sustainable Development Goals 2030.
- ix. As per Decision support system, EAC noted that several schools are located inside the project area, which needs to be relocated with prior permissions from the concerned authority.
- x. The Committee received the comments on the said project through an anonymous mail. All those comments had been deliberated during the appraisal.
- xi. The committee also deliberated on the written submission by the PP and found it satisfactory.
- xii. EAC opined that a site visit should be conducted by the Sub-committee of EAC to see the various issues pertaining to the instant project before consideration of EC proposal. The findings of the subcommittee report shall be incorporated in the final EIA/EMP report and the same shall be reported along with the ToR compliance.

**18.4.18: 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, subject uploading the written submission on PARIVESH Portal to M/s Northern Coalfields Ltd., in addition to generic ToR given at Annexure-II for opencast mines for preparation of EIA/EMP report for Bina Expansion Opencast Project, located at Villages: Waidhan, Banbansi, Barwani, Bharuwa, Chanduyar, Jai Sila, Kohraul, Govind Ballabh Pant Sagar & Mishra; District: Singrauli & Sonabhadra; State: Madhya Pradesh & Uttar Pradesh

**3.4.5. Recommendation of EAC**

Recommended (Subject to submission of requisite information/ documents)

**3.4.6. Details of Terms of Reference**

**3.4.6.1. Specific**

<b>A. Specific ToRs</b>	
1.	Public consultation (Public Hearing and Written submission) shall be conducted in Singrauli district of Madhya Pradesh & Sonabhadra district of Uttar Pradesh as per the provisions of EIA Notification, 2006 and as amended. Project proponent shall submit an action plan as per the provisions contained under MoEF&CC OM dated 30/09/2020 to address the concerns raised during public consultation.
2.	Project proponent shall submit the proposal for Environment Clearance only after successful transfer of 7.623 Ha of forestland to the Khadia OCP.
3.	Project proponent shall monitor the presence of Poly Aromatic Hydrocarbons in the Ambient air and the analysis data shall be submitted.
4.	Project proponent shall submit a time bound action plan for complying with the additional environmental safeguards as per the MoEF&CC OM dated 30/10/2019 as the ML area is located in SPA. Further, specific action

	plan to control the PM levels in the ML area within the NAAQS shall be submitted as the PM level is reported to be 177.4 $\mu\text{g}/\text{m}^3$ to 256.3 $\mu\text{g}/\text{m}^3$ .
5.	A Cumulative Environmental Impact Assessment study of all the existing and proposed projects in the 10-km radius of the proposed project shall be conducted and the same shall be included in the EIA/EMP report. Details of industrial units present in 10 Km radius of the ML area shall be earmarked in map and submitted.
6.	PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.
7.	Project proponent shall commission a study on Hydrology and Hydrogeology of the project site as well as the study area of the project site through a reputed institute/Government organization. The study report along with the action plan for implementing the recommendations of the report shall be submitted along with the EIA/EMP report.
8.	Biodiversity analysis of the study area to be done through any reputed Government institutions. The study report along with the action plan for implementing the recommendations of the report shall be submitted along with the EIA/EMP report.
9.	PP is not allowed to divert the existing Nallah/Rivers or water bodies present in mine lease area. Detailed protection plan for streams/ nallah may be submitted with budgetary outlays.
10.	PP should submit rejuvenation plan for seasonal water courses/ seasonal water bodies and financial commitments need to be submitted for the protection of river. PP shall carry out regular monitoring of Ground water level and quality and measures to be taken.
11.	Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA) only for mining activity.
12.	PP should submit the quantity of surface or groundwater to be used for this project. The complete water balance cycle needs to be submitted. In addition to this PP should submit a detailed plan for rainwater harvesting measures to be taken. The capital and recurring expenditures to be incurred need to be submitted.
13.	In case of ground water abstraction/intersection, PP shall comply with the Ministry's OM dated 23/05/2019. Compliance status needs to be presented before EAC at the time of appraisal.
14.	PP has to plan and implement the mechanized common coal evacuation system including in-pit conveyor belt with silo loading for transportation of coal till railway siding. No transportation of coal by trucks/dumpers shall be proposed in EIA/EMP.
15.	PP shall submit action plan for using e-vehicles/LNG/CNG based mining machineries and trucks for mining operation and transportation of coal.
16.	PP shall provide plan to implement the in-pit belt conveyor system to stop the road transportation.
17.	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 Aromatic 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.
18.	To support the transportation road, PP shall carry out the traffic study for one month along with the mitigation measures to control air pollution.

1 9.	PP shall submit the action plan for installation of additional CAAQMS in the ML area and in the study area.
2 0.	Wind rose pattern in the area should be reviewed and accordingly location of AAQMS shall be planned by the collection of air quality data. 12 nos of Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area.
2 1.	Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report. Further, detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
2 2.	PP shall have ETP for treatment of surplus clear mine water passing after settling tank. It should not be directly discharged into natural drainage of the area.
2 3.	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.
2 4.	Clarification from PCCF that mine does not fall under corridors of any National Park and Wildlife Sanctuary and does not involve any violation of forest area and wild sanctuary.
2 5.	PP shall not plan any non-essential infrastructure of mining operation on non-coal bearing forest area.
2 6.	PP 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.
2 7.	PP shall prepare a wildlife conservation plan in consultation with the local forest department.
2 8.	PP has to plan and implement the safety barrier all along the stretch Tippa-Jharia Nallah with barrier height of 6m from the HFL in consultation with the irrigation department.
2 9.	PP shall explore the possibilities of utilization of OB material for different purposes (in construction of roads, manufacture of artificial sand, aggregates, use for farmers etc.) and accordingly Plan shall be included in EIA/EMP Report.
3 0.	Details of toe-wall and garland drain to be constructed along the OB dump.
3 1.	PP shall submit the plan for installation of wind barrier sheet & fixed sprinkler all along the railway siding and deployment of mobile water tanker for dust suppression.
3 2.	The PP should submit the number of saplings to be planted in 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 completed within 2 years only. PP should submit a concurrent plantation plan.
3 3.	PP to submit the status of any pending court cases or disposed of cases related to Civil court, High court, Supreme court and in any tribunal.

3 4.	PP shall submit the action plan for all types of waste to be generated during mining operations including e-waste, battery waste, hazardous waste etc. Further, the action plan for compliance with the Ministry's OM dated 18/07/2022 needs to be submitted.
3 5.	PP shall submit the action plan to adhere the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.
3 6.	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.
3 7.	PP shall submit all mandatory permissions from the concerned department of Railway, National & State Highway /PWD, Water Resources Department and concerned Electricity Department.
3 8.	PP shall submit certified compliance report of previous EC conditions from Regional Office of MoEF&CC as per OM dated 08/06/2022.
3 9.	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.
4 0.	PP should submit the real-time aerial footage & video of the mining lease area including transportation route, streams passing through ML area, and plantation status.
4 1.	PP shall submit the action plan with an appropriate budgetary provision for addressing the issues arising during the public hearing.
4 2.	PP shall submit an action plan for relocating the schools located inside and adjacent to the project site with approval of the state Education department.
4 3.	A site visit of the EAC subcommittee shall be conducted and its recommendations will form part of the TOR.
4 4.	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.
4 5.	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. PPs shall update the same to the EAC.

#### 3.4.6.2. Standard

1( a)	<b>Mining of minerals</b>
<b>null</b>	
1.	An EIA-EMP Report shall be prepared for..... MTPA peak capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
2.	An EIA-EMP Report would be prepared for..... MTPA peak 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.
3.	If the washery is located within the mine lease or near to the mine lease its location should be cited seperately also, providing pillar cordinates and site layout plan. Insuch cases cumulative impact of mine operation with washery to be assessd and EMP measure to be drawn to the worst scenario
4.	Plan of mechanized transportation of coal to coal washery also for rejects and washed coal to be drawn
5.	Propoer KML file with pin drop and coordinate of mine at 500-1000 m interval be provided
6.	A toposheet specifying locations of the State, District and Project site should be provided.
7.	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, washery 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. The above details to be furnished in tabular form also.
8.	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.
9.	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.
10.	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.
11.	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.
12.	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.
13.	Catchment area with its drainage map of 25 km area within and outside the mine shall be provided with names, details of rivers/ riverlet system and its respective order. The map should clearly indicate drainage pattern of the catchment area with basin of major rivers. Diversion of drains/ river need eloboration in form of lengthe, quantity and quality of water to be diverted
14.	Prior in principle approval from the respective state govt shall be required in cases where PP proposes diversion of river/ stream/ nallah/ drains. However, state approval shall not be finally considered before the appraisal by EAC. PP shall have submitted detailed project report in case where diversion is required with emphasis on hydrological study
15.	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.
16.	Break up of lease/project area as per different land uses and their stage of acquisition should be provided.

LANDUSE DETAILS FOR OPENCAST PROJECT should be given as per the following table:

Sl.	Landuse	Within ML area/project area	Outside ML area/project area	Total
No.		(ha)	(ha)	
1	Agricultural land			
2	Forest land			
3	Wasteland			
4	Grazing land			
5	Surface water bodies			
6	Settlements			
7	Others (specify)			
	Total			

1  
7. Break-up of lease/project area as per mining plan should be provided.

1  
8. Impact of changes in the land use due to the project if the land is predominantly agricultural land/forestland/grazing land, should be provided.

1  
9. 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.

2  
0. One-season (other than monsoon) primary baseline data on environmental quality - air (PM10, PM2.5, SOx, NOx 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. The detail of NABL/ MoEF&CC certification of the respective laboratory and NABET accreditation of the consultant to be provided.

2  
1. 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.

2  
2. For proper baseline air quality assessment, Wind rose pattern in the area should be reviewed and accordingly location of AAMSQ shall be planned by the collection of air quality data by adequate monitoring stations in the downwind areas. Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e.

	dispersed in 10 km buffer area. In case of expansion, the displayed data of CAAQMS and its comparison with the monitoring data to be provided
2 3.	A detailed traffic study along with presence of habitation in 100 mts distance from both side of road, the impact on the air quality with its proper measures and plan of action with timeline for widening of road. The project will increase the no. of vehicle along the road which will indirectly contribute to carbon emission so what will be the compensatory action plan should be clearly spell out in EIA/ EMP report.
2 4.	The socio-economic study to conducted with actual survey report and a comparative assessment to be provided from the census data should be provided in EIA/ EMP report also occupational status & economic status of the study area and what economically project will contribute should be clearly mention. The study should also include the status of infrastructural facilities and amenities present in the study area and a comparative assessment with census data to be provided and to link it with the initialization and quantification of need based survey for CSR activities to be followed.
2 5.	The Ecology and biodiversity study should also indicate the likely impact of change in forest area for surface infrastructural development or mining activity in relation to the climate change of that area and what will be the compensatory measure to be adopted by PP to minimize the impact of forest diversion.
2 6.	Impact of proposed project/activity on hydrological regime of the area shall be assessed and report be submitted. Hydrological studies as per GEC 2015 guidelines to be prepared and submitted
2 7.	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.
2 8.	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.
2 9.	Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing though the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
3 0.	Forest diversion shall be only proposed for coal bearing areas. No non-essential infrastructure, office, workshop etc shall be propped or developed in forest area. No forest area shall be used for OB dump, accordingly Mine plan to be prepared
3 1.	Detail of OB recovery for reutilization of minerals from mining shall be explored
3 2.	OB dump management from its extraction, transportation to reutilization, disposal / backfilling, to be carry on in a manner to minimize its impact. A detail to be furnished in EIA/EMP report
3 3.	Detailed water balance should be provided. The break-up of water requirement for the various mine operations should be given separately.
3 4.	Flow chart of water balance should be provided. Treatment of effluents from workshop, township, domestic wastewater, 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.
3 5.	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
3 6.	PP shall propose and explore to use LNG/CNG based mining machineries and trucks for mining operation and transportation of coal. The measures adopted to conserve energy or use of renewable sources shall be submitted.

3 7.	PP to evaluate the green house emission gases from the mine operation/ washery plant and corresponding carbon absorption plan.														
3 8.	Site specific impact assessment with its respective measure to be provided														
3 9.	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.														
4 0.	Impact of blasting, noise and vibrations should be given.														
4 1.	Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.														
4 2.	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.														
4 3.	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.														
4 4.	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.														
4 5.	Efforts be made for maximising 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.														
4 6.	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.														
4 7.	<p>Progressive Green belt and ecological restoration /afforestation plan (both in text, figures and in the Adequate greenbelt nearby areas, coal stock yard and transportation area of coal shall be provided with details of species selected and survival rate. Adequate greenbelt nearby areas, coal stock yard and transportation area of coal shall be provided with details of species selected and survival rate. Greenbelt development should be undertaken particularly around the transport route and CHP.</p> <p>Table 2 : Stage Wise Cumulative Plantation</p> <p>H341</p> <table border="1"> <thead> <tr> <th>S.N.</th> <th>Land use Category</th> <th>Present (1st Year)</th> <th>5th Year</th> <th>10th Year</th> <th>20th Year</th> <th>24th Year (end of mine life)*</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Backfilled</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	S.N.	Land use Category	Present (1st Year)	5th Year	10th Year	20th Year	24th Year (end of mine life)*	1	Backfilled					
S.N.	Land use Category	Present (1st Year)	5th Year	10th Year	20th Year	24th Year (end of mine life)*									
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					

6

S. No.	YEAR*	Green Belt	External Dump	Backfilled Area	Others(Undisturbed Area/etc))	TOTAL	
1	1st year						
2	3rd year						
3	5th year						
4	10th year						
5	15th year						
	20th year						
7	25th year						
8	30th year						
9	34th year(end of mine life)						
10	34- 37th Year (Post-mining)						

4  
8. 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. Table 3: Post-Mining Landuse Pattern of ML/Project Area (ha)

S.N.	Land use during Mining	Land Use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	External OB Dump					
2	Top soil Dump					
3	Excavation					
4	Roads					
5	Built up area					
6	Green Belt					
7	Undisturbed Area					
	Total					

49.	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.
50.	Site specific Risk Assessment and Disaster Preparedness and Management Plan should be provided.
51.	(i) Integration of the Env. Management Plan with measures for minimizing use of natural resources - water, land, energy, etc. should be carried out.
52.	Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
53.	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.
54.	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.
55.	Corporate Environment Responsibility:
56.	a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
57.	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.
58.	c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for

8.	ensuring compliance with the environmental clearance conditions must be furnished.										
5 9.	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.										
6 0.	f) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.										
6 1.	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 time bound 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.										
6 2.	Status of any litigations/ court cases filed/pending on the project should be provided.										
6 3.	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.										
6 4.	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.										
6 5.	<p><b>FOREST CLEARANCE:</b> Details on the Forest Clearance should be given as per the format given:</p> <table border="1"> <thead> <tr> <th>TOTAL ML/PROJECT AREA (ha)</th> <th>TOTAL FORESTLAND (ha)</th> <th>Date of FC</th> <th>Balance area for which FC is yet to be obtained</th> <th>Status of appl for. diversion of forest land</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>If more than, provide details of each FC</td> <td></td> <td></td> </tr> </tbody> </table>	TOTAL ML/PROJECT AREA (ha)	TOTAL FORESTLAND (ha)	Date of FC	Balance area for which FC is yet to be obtained	Status of appl for. diversion of forest land			If more than, provide details of each FC		
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		If more than, provide details of each FC									
6 6.	PP shall submit clarification from PCCF that mine does not falls under corridors of any National Park and Wildlife Sanctuary with certified map showing distance of nearest sanctuary.										
6 7.	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.										
6 8.	In case of expansion of the proposal, the status of the work done/activities as per mining plan and mine closure plan and progressive reclamation of OB dump shall be detailed in EIA/ EMP report										
6 9.	A copy of application submitted for 5 star rating system to Ministry of coal for expansion cases may be provided. Certificate /rating given to project shall be provided with EIA-EMP report										
7 0.	PP shall carry out survey through drone highlighting the ground reality for atleast 10 minutes										
7 1.	Detailed Chronology of the project starting from the first lease deed allotted/Block allotment/ Land acquired to its No. of renewals, CTO /CTE with details of no. renewals, previous EC(s) granted details and its compliance details, NOC details from various Govt bodies like Forest NOC(s), CGWA permissions, Power permissions, etc as per the requisites respectively to be furnished in tabular form.										

7 2.	The first page of the EIA/ EMP report must mention the peak capacity production, area, detail of PP, Consultant (NABET accreditation) and Laboratory (NABL / MoEF & CC certification)
7 3.	The compliances of ToR must be properly cited with respective chapter section and page no in tabular form and also mention sequence of the respective ToR complied within the EIA-EMP report in all the chapter,s section.

### 3.5. Agenda Item No 5:

#### 3.5.1. Details of the proposal

<b>Amelia Coal Mine Project by THDC INDIA LIMITEDSINGRAULI located at SIDHI,MADHYA PRADESH</b>			
<b>Proposal For</b>		Amendment in EC	
<b>Proposal No</b>	<b>File No</b>	<b>Submission Date</b>	<b>Activity (Schedule Item)</b>
<a href="#">IA/MP/CMIN/438322/2023</a>	J-11015/310/2006-IA.II(M)	11/09/2023	Mining of minerals (1(a))

#### 3.5.2. Project Salient Features

Agenda No. 18.5

18.5: Amelia Coal Mine Project (area 1180.2 Ha having capacity 5.6 MTPA) by M/s THDC India Limited located at Villages: Pidarwah; District: Singrauli; State: Madhya Pradesh – Regarding grant of Amendment in EC for time extension of coal transportation through road and diversion of Nallah within lease area, based on ADS Reply

[Online Proposal No. IA/MP/CMIN/438322/2023; Consultant: Srushti Seva Pvt. Ltd., NABET/EIA/21-24/SA-0229, valid up to 12.05.2025]

18.5.1: The instant proposal is for amendment in Environment Clearance granted to M/s THDC India Limited vide letter no. J-11015/310/2006-IA.II(M), dated 27.03.2008, further transferred and amended vide letter dated 03.08.2021 for Amelia Coal Mine Project (area 1180.2 Ha having production capacity of 5.6 MTPA) located at village Pidarwah, District Singrauli of State Madhya Pradesh.

18.5.2: Details of previous approvals including EC in which amendment is sought:

S. No.	Details of letter No.	EC/Expansion EC/ Amendment in EC/ Validity extension/ Transfer of EC	Capacity (MTPA)	Area (Ha)	Date of issuance	Status of implementation
1	J-11015/310/2006- 1A.II(M)	EC granted to M/s MPSMDCL based on approved Mining Plan (dtd. ) for an opencast & an underground mine	8.4	1619.10	27.03.2008	Cancellation of Coal Block as per Hon'ble Supreme Court judgement dated 25.08.2014 & order dated 24.09.2014.



						Before the operations could commence the block was de allocated. It was re allocated to M/s THDCIL by MOC vide F.No. 103/11/2016-NA dated 17.01.2017
2	J-11015/310/2006-1A.II(M)	Transfer with amendment of EC granted to M/s THDCIL as per Revised Mining plan for an open cast mine only duly approved by MOC on 13-03-2020	5.6	1180.20	03.08.2021	Mine started operations in November 2022 after obtaining the statutory approvals. Hence being implemented.

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

18.5.3: Implementation status of the EC for which amendment is sought: In compliance of the EC, it is submitted that the mine became operational from November 2022 onwards and the actual production details since inception of the concerned mine is given in the table below. CTO renewal has also been obtained from MPPCB and is valid up to 31-08-2025.

Year	Actual Coal Production in MTPA	Planned Coal production in MTPA as per Environmental Clearance	Excess Production
2022-23	0.31	5.6	NIL
2023-24	1.25	5.6	NIL
2024-25	2.17	5.6	NIL

18.5.4: The PP has made an online application vide proposal no. IA/MP/CMIN/438322/2023 dated 27.07.2023 for amendment in EC dated 27.03.2008 and subsequently transferred and amended vide EC dated 03.08.2021. The said proposal was submitted for amendment in “specific condition xi”, to seek the permission for diversion of nallah. The same was appraised in 50<sup>th</sup> EAC meeting held on 27<sup>th</sup> September 2023 and 11<sup>th</sup> EAC meeting held on 8<sup>th</sup> & 9<sup>th</sup> May 2024. The said proposal was deferred for want of further additional information. PP submitted the proposal along with the reply to the additional information sought by the EAC in its meeting held on 27<sup>th</sup> September 2023 and 11<sup>th</sup> EAC meeting held on 8<sup>th</sup> & 9<sup>th</sup> May 2024. In addition this, PP also sought for amendment in “specific condition v” and “specific condition vii” pertaining to extension in timeline for road transportation of coal.

Details of the same are as follows:

Specific/ General Condition No	Details of the Conditions as per E C	Amendment Sought	Justification
Specific Condition v	Transportation of coal through Coal Handling Plant shall be through mechanized covered trucks for 2 years and proposed railway siding should be constructed within 2 years of mine operations.	Extension in time for Road transportation of coal may be allowed beyond 2 years (mine started its operation in November, 2022) till June 2026	<p>With all construction activities for installation of conveyor system nearing completion, the construction of the Ground Bunker, Silo and other components (Railway siding) has already begun. Evacuation of coal by Conveyor transport along-with dispatch by rail is expected to be completed in 610 days from 1/10/2024 i.e. by June 2026.</p> <p>As directed, a traffic Assessment study has been carried out, Impact Assessment study for road transportation with numerical modelling has also been completed (showing insignificant impact with control measures in place).</p> <p>Based on the aforesaid studies, an Environmental Management Plan (EMP) especially for continuing road transportation in the existing route has been prepared. During this extended period, as indicated in the EMP, all the pollution control measures for mitigating air pollution (as being taken presently – in 2 years period as per E C) will continue to be operated and maintained. In addition, as mentioned in the aforesaid EMP, the measures will be further strengthened/ augmented.</p>
Specific Condition vi	Mining shall be carried out by Surface miners for the project and also Silo Loading through in-pit conveyors should be installed to stop road transportation in 2 years of mine operations.	Extension in time for Road transportation of coal may be allowed beyond 2 years of mine operation (started in November 2022) till June 2026	<p>Mining of Coal is being carried out by Surface Miners and as such no crushing is involved in the CHP.</p> <p>With all construction activities for installation of conveyor nearing completion, construction of the Ground Bunker, Silo and other components has begun. Evacuation of coal by Conveyor transport along-with dispatch by rail is expected to be completed in 610 days from 1/10/2024 i.e. by June 2026.</p> <p>As directed, a traffic Assessment study has been carried out, Impact Assessment study for road transportation with numerical modelling has also been completed (showing insignificant impact with control measures in place).</p> <p>Based on the aforesaid studies, an Environmental Management Plan (EMP) especially for continuing road transportation in the existing route has been prepared. During this extended period, as indicated in the EMP, all the pollution con</p>

			<p>control measures for mitigating air pollution (as being taken presently – in 2 years period as per EC) will continue to be operated and maintained. In addition, as mentioned in the aforesaid EMP, the measures will be further strengthened/augmented.</p>
Specific Condition xi	As committed no channelization/ diversion will be undertaken and regular water quality monitoring will be done to ensure the quality of water	Based on the detailed scientific study carried out by IIT-BHU for diversion of nala and the approval accorded by concerned Department of Govt. of M.P., it may be permitted.	<p>The proposed diversion of nala has been mentioned in the approved Mining Plan.</p> <p>In order to undertake safe mining activity and conservation of coal (about 38.53 Mt is blocked under nala), it is necessary to divert Kanchanmuda Nala and the same will be undertaken as per approvals accorded by concerned State Government Authority and also following the recommendations which have already been taken.</p>

18.5.5: Details of Court Cases: There is no court case pending on the project.

18.5.6: ADS Reply: PP submitted the following compliance of ADS of 50<sup>th</sup> EAC Meeting held on 27<sup>th</sup> September 2023.

S. No.	ADS Point	Reply of PP																														
1.	PP shall submit the proper justification for the amendment of EC considering the coal reserves available (in million tonne) near or below the streams with technology intervention.	<ul style="list-style-type: none"> <li>Considering the case that nala is not diverted and a barrier of 50-60 meter is left as per EC condition for plantation of Sal trees along both sides of stream, the mine will be bifurcated into 2 opencast quarries (Eastern and Western quarries) instead of single quarry operation as per Approved Mining Plan.</li> <li>Extractable reserves in the scenarios (with nala diversion &amp; without nala diversion) are as follows:</li> </ul> <table border="1"> <thead> <tr> <th colspan="2">Scenario 1 (With Nala diversion)</th> <th colspan="3">Scenario 2 (Without Nala diversion)</th> </tr> <tr> <th></th> <th></th> <th>Eastern Quarry</th> <th>Western Quarry</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Combined quarry as per AMP</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Coal (Mtes)</td> <td>139.48</td> <td>29.19</td> <td>71.76</td> <td>100.95</td> </tr> <tr> <td>OB (Mcu m)</td> <td>511.55</td> <td>92.59</td> <td>342.39</td> <td>434.98</td> </tr> <tr> <td>Stripping Ratio (Cum/</td> <td>3.67</td> <td>3.17</td> <td>4.77</td> <td>4.31</td> </tr> </tbody> </table>	Scenario 1 (With Nala diversion)		Scenario 2 (Without Nala diversion)					Eastern Quarry	Western Quarry	Total	Combined quarry as per AMP					Coal (Mtes)	139.48	29.19	71.76	100.95	OB (Mcu m)	511.55	92.59	342.39	434.98	Stripping Ratio (Cum/	3.67	3.17	4.77	4.31
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Te)							
2.	PP should explore alternate technology/ methods for exploration of such coal reserves to extract coal without diverting the stream.	<p>Possible method of working to extract 38.53 MTes of coal blocked by nala barrier against nala was explored with following observations:</p> <ul style="list-style-type: none"> <li>· The average depth of lowermost seam VII (Considered for opencast mining) beneath the barrier is about 60 meter.</li> <li>· Considering the surface barrier against nala and angle of draw for underground mining the coal reserves blocked for Opencast mining will largely remain blocked for underground mining also.</li> <li>· As the underground working will be between opencast high wall slopes at both ends mine safety may be compromised.</li> <li>· One possible method of working blocked coal reserves is using High wall Mining method but for limited span (about 200m) with open cast high wall slopes at both ends will be a sub-optimal working with low extraction (~15-20%) rate.</li> <li>· More than 30 Mtes of coal reserves will remain blocked even after extraction of coal through underground/High wall mining methods.</li> </ul>					
3.	Biodiversity study of Kanchanmuda Stream/Nallah (source to destination) considering all dependent flora and fauna	Biodiversity study of Kanchanmuda Stream has been carried out through Biodiversity Expert Dr. Manas Badge. PP submitted a report prepared by Dr. Badge.					
4.	Proper Catchment area study including carrying capacity of river and stream passing be done with hydrological and watershed data.	<ul style="list-style-type: none"> <li>· Catchment area study including carrying capacity of river and stream passing has been carried out considering hydrological and watershed data.</li> <li>· The Catchment Area Study concluded that the estimated bifurcation ratio of 4:16 indicates that the geological structure has not affected the drainage pattern of Kanchanmuda watershed. The drainage pattern developed may be due to elevation difference and more erosional activity. The proposed Amelia diversion is based on elevation difference. For erosional activity the adequate lining of channel will be undertaken.</li> </ul>					

		<ul style="list-style-type: none"> <li>· Carrying Capacity of a river basin refers to the maximum amount of water available naturally as stream flow, ground water, soil moisture etc., to meet ecological and social (domestic, irrigation and livestock) demand in a river basin.</li> <li>· Considering above factors, the carrying capacity of Kanchanmuda watershed has been estimated to the tune of 12.091 MCM/year which is discharged into Kanchan River.</li> <li>· There will not be any impact on carrying capacity of Kanchanmuda watershed due to proposed diversion of eastern and western streams with appropriate capacity diversion channel. The design and dimension of proposed diversion channel is duly approved by Water Resource Department, Madhya Pradesh.</li> <li>· PP also submitted the copy of catchment area study and carrying capacity study</li> </ul>
5.	Environment Impact Study for Nallah in the situation of diversion of catchment area be studied with loss of biodiversity and ecosystem. The Catchment area study should include flow rate of water in the stream, volume of water being diverted and major impact on habitation living therein.	<ul style="list-style-type: none"> <li>· PP submitted the copy of Environment Impact study for Kanchanmuda Nala with loss of Biodiversity and Ecosystem.</li> <li>· The flow estimation carried out during catchment area study is separately provided. It is observed that the Flow Rate of Kanchanmuda watershed during 1970 to 2021 is varying from 3.58 to 21.02 MCM/year based on annual rainfall of 304.80 mm and 1785.30 mm respectively. Average being 11.724 MCM/year. It may be concluded that annual flow rate is dependent on annual rainfall in watershed area.</li> </ul>
6.	Drone video of the ML area mainly covering the source and destination of Kanchanmuda Stream/Nallah.	The drone survey of the ML area is carried out in first week of December 2023. PP submitted the summary of the survey. The size of data collected through Drone Survey being heavy, the same was displayed during appraisal of the compliance to Honorable EAC (Coal Mining). If desired the data will be submitted to MoEF & CC through pen drive.
7.	PP should submit the Contour plan for the drainage system	PP submitted the Contour plan of the drainage system.
8.	PP should also mention the exact number of rivulets passing through the ML area flowing within the 5km Buffer zone of ML area.	<ul style="list-style-type: none"> <li>· There are various seasonal rivulets of 1<sup>st</sup>, 2nd, 3rd &amp; 4th order exist within 5 km radius of the mining lease.</li> <li>· Total number of rivulets within 5 km radius from ML is 652 while 100 number of rivulets passes through ML area.</li> <li>· PP also submitted a map showing rivulets of 1<sup>st</sup>, 2nd, 3rd &amp; 4th order</li> </ul>

		er around 5 km radius of ML area.
9.	The PP should study the impact of water management due to channelization/diversion.	It is concluded that the water management of diverted channel has been designed in such a way that the total water generated in mine and external area will be channelized to downstream of Kanchanmuda stream and there will not be any loss of water either peak flow or annual yield of the stream confluence into Kanchan River.  Report submitted on Impact of water Management due to Channelization / Diversion for impact of water management due to channelization/diversion.
10.	PP should explore the possibility to save the stream flowing through the ML area and adjacent to the lease area.	PP submitted a detailed note on the possibility to save the stream flowing through the ml area and adjacent to the lease area.

PP submitted the following compliance of ADS of 11<sup>th</sup> EAC meeting held on 8<sup>th</sup> & 9<sup>th</sup> May 2024:

S. No.	ADS Point	Reply of PP
1.	Biodiversity study of the stream / rivulet and its surrounds should be done through reputed / Government Institute /IIT/WII/ICFRE with its mitigation measures particularly the aquatic flora and fauna to clearly bring out impact of the proposed diversion.	The report / observation of IIT (BHU) on Biodiversity study of the stream / rivulet and its surrounds is submitted along with relevant certificate. The key suggestions of the report is as under: <ul style="list-style-type: none"> <li>· Continue long term monitoring of flora and fauna in the project area to track changes due to mining activities and ensure effective mitigation measures.</li> <li>· Implement species – specific conservation measures, especially for any vulnerable or threatened species identified in the region.</li> <li>· Enhance community engagement and educational programs to promote biodiversity conservation among local stakeholders/</li> <li>· Strengthen habitat restoration initiatives post mining, ensuring the re – establishment of native vegetation and ecological balance.</li> </ul>
2.	Hydrology study of the stream / rivulet proposed to be diverted be done by Government Institute / NI H.	The report / observation of IIT (BHU) on Hydrology study of the stream / rivulet proposed to be diverted is enclosed along with relevant certificate is submitted. The conclusion of the report is as under: “Upon through evaluation the hydrology report has been found to adhere to all relevant standards, comprehensively addressing the criti

		<p>cal aspects of their respective fields.</p> <ul style="list-style-type: none"> <li>· The hydrology report offers accurate flow rate assessments, water quality analysis, and appropriate measures for managing water systems and protecting ecological health.</li> <li>· Hydrology report prepared by M/s. Srushti Seva Private Limited reflects a robust methodology, ensuring that the environmental impact of mining activities is well – monitored and managed.</li> </ul>
3.	PP should submit detailed progress of planting done so far, along with geotagged photos.	<p>MoU between THDCIL and MP Rajya Van Vikas Nigam Ltd. (MP RVVNL) has been signed for fencing and plantation along the mine lease boundary (safety zone 7.5 m wide) and for which Rs. 2.38 Cr has been released to MPRVVNL.</p> <p>Avenue plantation along road side is being done. Development of Nursery is being carried in Phased manner, initially 2 ha area has been allotted and fenced for the germination of local species.</p> <p>A site photographs is submitted.</p>
4.	PP shall submit the inspection report Certified by RO and its ATR.	The same is submitted.
5.	Post mining maintenance plan, especially de-siltation, for diverted nallah.	<ul style="list-style-type: none"> <li>· The mining operation has started in November 2022 and the mine is in development stage having a life of 28 years.</li> <li>· The post mining maintenance plan for desiltation of diverted nala will be implemented in due course.</li> </ul>
6.	Details of downstream impact with respect to ground water recharge and water use by people residing in the downstream area be provided and certified by the local authorities.	<ul style="list-style-type: none"> <li>· There are no villages lying in the downstream of the project as can be seen from the attached Map 1. However, ground water levels are being monitored regularly along with its quality to assess impacts (if any).</li> <li>· Mine has started its operation from November 2022 and till date no such impacts has been recorded/reported.</li> </ul>
7.	PP shall explore the possibility of reducing the depth of mine void.	<ul style="list-style-type: none"> <li>· As per the approved mining plan, total quarry area is 899.68 ha out of which backfilling will be done in 710.03 ha (79%) while final mine void will be created in an area of 189.65 ha (21%) with a depth of 170 m. Backfilled quarry area of 710.03 ha shall be reclaimed with plantation. Final mine void will be converted into water body.</li> <li>· As directed, depth of mine void can be reduced by re-handling internal OB dump and filling into the void for which appropriate planning and subsequent action will be taken in due course during implementation.</li> </ul>

		<ul style="list-style-type: none"> <li>· As per the statutory requirement necessary modification in the mining plan as well as mine closure plan will be solicited at that point of time.</li> </ul>
8.	<p>Details w.r.t Environment Management Cell to oversee the implementation of environmental safeguard, ensure compliances and reporting to concerned authorities shall be provided.</p>	<ul style="list-style-type: none"> <li>· Dedicated team as Environmental Management Cell with suitable qualified personnel has been set up under the control of a Senior Executive, who reports directly to the Head of the company. Details of Environment Management Cell is submitted.</li> <li>· Environmental monitoring has been carried out with association of NABL/MOEF&amp;CC accredited agency. The procedural guidelines are being followed considering the respective guidelines and data generation &amp; record of the environmental monitoring data is being maintained and are being shared with MPPCB.</li> </ul>
9.	<p>PP to align project with SDG goals.</p>	<p>The Sustainable Development Goals (SDGs) are a set of 17 global goals established by the United Nations to address a wide range of global challenges.</p> <p>The project is aligned with the SDG goals. Detailed report is submitted.</p>
10.	<p>PP shall clarify if the plan to divert the stream was disclosed in the public hearing and if so, what were the comments of the participants. Further, the PP shall obtain the comments of various stakeholders and local people on diversion of Kanchanmuda Nala by publishing the advertisement in at least two newspapers.</p>	<p>Nala diversion proposal form part of the approved Mine Plan and the same was submitted to MoEF&amp;CC as an EIA Annexure. During Public Consultation all points were highlighted before all the stakeholders including Locals.</p> <p>Subsequently after EAC appraisal EC was recommended by MoEF&amp;CC. The EC letter was published in two newspapers, as well.</p>
11.	<p>Proposal of diversion of Nala must be a part of approved mining plan.</p>	<p>The proposal for the diversion of the nala has been incorporated into the approved Mining Plan (Ref: Mining Plan Section 3.3, page no. 47).</p>
12.	<p>It is observed that the district mentioned in earlier EC is Sidhi while the PP has submitted the district name as Singrauli, PP may clarify.</p>	<p>Madhya Pradesh, which was created on 24th May '2008 by division of Sidhi district, which covers a region comprising of the eastern part of the district.</p> <p>The address of the mine is Amelia Opencast Coal Mine with Production Capacity of 5.6 MTPA in ML area of 1180.2 Ha located in village Pidarwah, Tehsil Singrauli, District Singrauli (Madhya Pradesh).</p>
13.	<p>Site visit by the subcommittee as recommended in the 50th meeting shall be conducted.</p>	<p>The pointwise compliances have been addressed above, and requested to consider the proposal in upcoming agenda.</p> <p>In the meanwhile the compliance report against EC condition is being</p>



		ng submitted to IRO MoEF & CC Bhopal for taking up inspection. In this regard it is humbly submitted that the proposed site visit as r ecommended in the 50th meeting may kindly be taken up at a later date.
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18.5.7: Undertaking/ Affidavit: The proponent through an Affidavit submitted that there is no construction done at the site or the construction done without any deviation as per previous EC obtained vide letter No. 110015/310/2006-IA.II(M), dated 3rd August 2021. There is no litigation on the project either at NGT or any other court of Law. The land has been allotted to THDC India Ltd. The land is in our possession and R&R is under process. There is no difference in the documents submitted ie., Form 1. Mining Plan, EIA/EMP report and presentation being made to the EAC. Reason for submitting the project at MoEF&CC for Amendment in Specific EC Condition No. v, vil, & xi that, the proposal for extension in time for evacuation of coal by road and diversion of Kanchan Muda Nala and its tributaries.

### 3.5.3. Deliberations by the committee in previous meetings

Date of EAC 1 :27/09/2023



**Deliberations of EAC 1 :**

**50.6.3** *The committee after deliberation observed that the instant proposal is for amendment in EC wherein diversion of Kanchanmuda Nala has been requested along with other several drains. The Committee noted that as per EC dated 03.08.2021, PP was not allowed for channelization/diversion of stream as the same was committed during transfer EC as mandatory EC amendment condition.*

*The Committee expressed displeasure on the presentation as it was neither well documented nor clearly brought out contentions of the project with respect to catchment area covered under river. Further due to weak internet connectivity, consultant unable to address queries of Committee.*

*The Committee noted that earlier mine plan was based in UG with OC but now PP is inclined with OCP method which requires diversion of number of drains within catchment area fall in ML. Therefore, knowing with facts that project area forms important catchment zone with number of stream/drains contributing watershed system of the area, and also in view of the area fall within SPA, the committee decided that a sub-committee shall visit the site and bring out the facts about catchment area fall within the mine lease before further consideration of project and meanwhile PP shall work to comply on the followings points.*

*In view of the above, the committee opined that the project proponent must complete the following course of action and submit the following documents: -*

- i. PP shall submit the proper justification for the amendment of EC considering the coal reserves available (in million tonne) near or below the streams with technology intervention.*
- ii. PP should explore alternate technology/methods for exploration of such coal reserves to extract coal without diverting the stream.*
- iii. Biodiversity study of Kanchanmuda Stream/Nallah (source to destination) considering all dependent flora and fauna.*
- iv. Proper Catchment area study including carrying capacity of river and stream passing be done with hydrological and watershed data.*
- v. Environment Impact Study for Nallah in the situation of diversion of catchment area be studies with loss of biodiversity and ecosystem. The Catchment area study should include flowrate of water in the stream, volume of water being diverted and major impact on habitation living therein.*
- vi. Drone video of the ML area mainly covering the source and destination of Kanchanmuda Stream/Nallah.*
- vii. PP should submit the Contour plan for the drainage system.*
- viii. PP should also mention the exact number of rivulets passing through the ML area and flowing within the 5km of Buffer zone of ML area.*
- ix. The PP should study the impact of water management due to channelization/diversion.*
  - x. PP should explore the possibility to save the stream flowing through the ML area and adjacent to the lease area.*

*In view of the above, the project was **deferred** to submit the above observation.*

**Date of EAC 2 :08/05/2024**

**Deliberations of EAC 2 :**

**11.3.2 The EAC during the deliberation held in 50<sup>th</sup> meeting observed the following:**

Earlier, the Environment clearance for the project was granted under EIA Notification, 2006 vide Ministry’s letter no. J-11015/310/2006-IA.II(M) dated 27.03.2008 for a capacity of 8.4 MTPA in a mine lease area of 1619.10 Ha to Madhya Pradesh State Mining Corporation Limited. After reallocation of this Coal block to THDC India Limited, the EC was transferred in the name of THDC India Limited and also amendment in EC was granted for reduction in production capacity to 5.6 MTPA, reduction in lease area to 1180.2 Ha and change in method of mining to only opencast. The transfer of EC with amendment under EIA Notification, 2006 was granted vide Ministry’s letter no. J-11015/310/2006-IA. II(M) dated 03.08.2021.

Now, PP has made an application on 11.09.2023 to amend the specific condition no. (xi) of the EC Transfer letter dated 03.08.2021 which states that:

*“As committed, no channelization/ diversion will be undertaken and regular water quality monitoring will be done to ensure the quality of water.”*

PP submitted the justification for the diverting order of Kanchanmuda Nala by submitting the hydrological study for the Kanchanmuda Nala watershed carried out by using the CWC mathematical model for flood estimation in sub-zone 1(d) for the 50-year return period of 20 cm in 24 hrs rainfall.

This proposal for amendment was considered in the 50<sup>th</sup> EAC Meeting of Coal Mining, held on 27.09.2023 wherein the Committee deferred the proposal for want of additional information. The information submitted by PP is as follows:

Sr. No.	Observation	Compliance												
(i)	PP shall submit the proper justification for the amendment of EC considering the coal reserves available (in million tonne) near or below the streams with technology intervention.	<ul style="list-style-type: none"> <li>· Considering the case that nala is not diverted and a barrier of 50-60 meter is left as per EC condition for plantation of Sal trees along both sides of stream, the mine will be bifurcated into 2 opencast quarries (Eastern and Western quarries) instead of single quarry operation as per Approved Mining Plan.</li> <li>· Extractable reserves in the scenarios (with nala diversion &amp; without nala diversion) are as follows:</li> </ul> <table border="1"> <thead> <tr> <th>Scenario 1 (With Nala diversion)</th> <th colspan="3">Scenario 2 (Without Nala diversion)</th> </tr> <tr> <th>Combined quarry as per AMP</th> <th>Eastern Quarry</th> <th>Western Quarry</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Scenario 1 (With Nala diversion)	Scenario 2 (Without Nala diversion)			Combined quarry as per AMP	Eastern Quarry	Western Quarry	Total				
Scenario 1 (With Nala diversion)	Scenario 2 (Without Nala diversion)													
Combined quarry as per AMP	Eastern Quarry	Western Quarry	Total											

Coal (Mtes)	139.48	29.19	71.76	100.95
OB (Mcum)	511.55	92.59	342.39	434.98
Stripping Ratio (Cum/Te)	3.67	3.17	4.77	4.31

- It may be observed from above that there will be blockade/loss of 38.53 Mtes of coal beneath the nala barrier which amounts to 7 years of coal requirement for Khurja 2X660MW captive power plant).
- PP also submitted the copy of Final Stage Quarry Plan without nala Diversion and Final Stage Quarry Plan with nala Diversion.

(ii)

PP should explore alternate technology/ methods for exploration of such coal reserves to extract coal without diverting the stream.

Possible method of working to extract 38.53 MT es of coal blocked beneath barrier against nala was explored with following observations:

- The average depth of lowermost seam VII ( Considered for opencast mining) beneath the barrier is about 60 meter.
- Considering the surface barrier against nala and angle of draw for underground mining the coal reserves blocked for Opencast mining will largely remain blocked for underground mining also.
- As the underground working will be between opencast high wall slopes at both ends mine safety may be compromised.
- One possible method of working blocked coal reserves is using Highwall Mining method but for limited span (about 200m) with opencast high wall slopes at both ends will be a sub-optimal working with low extraction (~15-20%) rate.
- More than 30 Mtes of coal reserves will remain blocked even after extraction of coal through underground/High wall mining methods.

(iii)

Biodiversity study of Kanchanmuda Stream/ Nallah (source to destination) considering all dependent flora and fa

Biodiversity study of Kanchanmuda Stream has been carried out through Biodiversity Expert Dr. Manas Badge. PP submitted a report prepared by Dr. Badge.

	una	
(iv)	<p>Proper Catchment are a study including carrying capacity of river and stream passing be done with hydrological and watershed data.</p>	<ul style="list-style-type: none"> <li>· Catchment area study including carrying capacity of river and stream passing has been carried out considering hydrological and watershed data.</li> <li>· The Catchment Area Study concluded that the estimated bifurcation ratio of 4:16 indicates that the geological structure has not affected the drainage pattern of Kanchanmuda watershed. The drainage pattern developed may be due to elevation difference and more erosional activity. The proposed Amelia diversion is based on elevation difference. For erosional activity the adequate lining of channel will be undertaken.</li> <li>· Carrying Capacity of a river basin refers to the maximum amount of water available naturally as stream flow, ground water, soil moisture etc., to meet ecological and social (domestic, irrigation and livestock) demand in a river basin.</li> <li>· Considering above factors, the carrying capacity of Kanchanmuda watershed has been estimated to the tune of 12.091 MCM/year which is discharged into Kanchan River.</li> <li>· There will not be any impact on carrying capacity of Kanchanmuda watershed due to proposed diversion of eastern and western streams with appropriate capacity diversion channel. The design and dimension of proposed diversion channel is duly approved by Water Resource Department, Madhya Pradesh.</li> <li>· PP also submitted the copy of catchment area study and carrying capacity study.</li> </ul>
(v)	<p>Environment Impact Study for Nallah in the situation of diversion of catchment area be studied with loss of biodiversity and ecosystem. The Catchment area study should in</p>	<ul style="list-style-type: none"> <li>· PP submitted the copy of Environment Impact study for Kanchanmuda Nala with loss of Biodiversity and Ecosystem.</li> <li>· The flow estimation carried out during catchment area study is separately provided. It is observed that the Flow Rate of Kanchanmuda watershed during 1970 to 2021 is varying from 3.58 to 21.02 MCM/year based on annual</li> </ul>

	clude flow rate of water in the stream, volume of water being diverted and major impact on habitation living therein.	rainfall of 304.80 mm and 1785.30 mm respectively. Average being 11.724 MCM/year. It may be concluded that annual flow rate is dependent on annual rainfall in watershed area.
(vi)	Drone video of the ML area mainly covering the source and destination of Kanchanmuda Stream/Nallah.	The drone survey of the ML area is carried out in first week of December 2023. PP submitted the summary of the survey. The size of data collected through Drone Survey being heavy, the same was displayed during appraisal of the compliance to Honorable EAC (Coal Mining). If desired the data will be submitted to MoEF & CC through pen drive.
(vii)	PP should submit the Contour plan for the drainage system.	PP submitted the Contour plan of the drainage system.
(viii)	PP should also mention the exact number of rivulets passing through the ML area flowing within the 5km of Buffer zone of ML area.	<ul style="list-style-type: none"> <li>· There are various seasonal rivulets of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> &amp; 4<sup>th</sup> order exist within 5 km radius of the mining lease.</li> <li>· Total number of rivulets within 5 km radius from ML is 652 while 100 number of rivulets passes through ML area.</li> <li>· PP also submitted a map showing rivulets of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> &amp; 4<sup>th</sup> order around 5 km radius of ML area.</li> </ul>
(ix)	The PP should study the impact of water management due to channelization/diversion.	<ul style="list-style-type: none"> <li>· It is concluded that the water management of diverted channel has been designed in such a way that the total water generated in mine and external area will be channelized to downstream of Kanchanmuda stream and there will not be any loss of water either peak flow or annual yield of the stream confluence into Kanchan River.</li> </ul> <p>Kindly refer the report submitted on Impact of water Management due to Channelization / Diversion for impact of water management due to channelization/diversion.</p>
(x)	PP should explore the	<ul style="list-style-type: none"> <li>· PP submitted a detailed note on the possibility</li> </ul>

	possibility to save the stream flowing through the ML area and adjacent to the lease area.	to save the stream flowing through the ml area and adjacent to the lease area.
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The PP and NABET Accredited Consultant made a detailed presentation on the proposal and on the additional information sought by the EAC. The Committee deliberated on the proposal and observation of EAC are as follows:

1) The proposal is for amendment specific condition no. 11 (xi) of EC dated 03.08.2021 regarding the diversion of Kanchanmuda Nala along with the other several drains.

2) The committee noted that as per EC dated 03.08.2021, PP was not allowed the channelization/diversion of the stream as the same was committed during the transfer of EC as a mandatory EC amendment condition.

3) The said proposal was considered in the 50<sup>th</sup> EAC held on 27.09.2023 and the consultant was unable to address the queries of the committee due to a weak internet connection. Also, the committee found that the presentation did not clearly brought out contentions of the project concerning the catchment area covered under the river. Knowing the facts that the project area forms an important catchment zone with several streams/ drains contributing watershed system of the area, and the area falls within SPA, the committee decided that a sub-committee shall visit the site and bring out the facts about the catchment area fall within the mine lease area before further consideration of the project and meanwhile PP shall work to comply the points raised during the meeting. Accordingly, the proposal was deferred for want of additional information.

4) As regards the query regarding the proper justification for the amendment of EC considering the coal reserves available (in million tonne) near or below the streams with technology intervention. PP submitted that Considering the case that nala is not diverted and a barrier of 50-60 meter is left as per EC condition for plantation of Sal trees along both sides of stream, the mine will be bifurcated into 2 opencast quarries (Eastern and Western quarries) instead of single quarry operation as per Approved Mining Plan and there will be blockade/loss of 38.53 Mtes of coal beneath the nala barrier which amounts to 7 years of coal requirement for Khurja 2X660MW captive power plant). On the query to explore alternate technology/ methods for exploration of such coal reserves to extract coal without diverting the stream PP submitted that two methods were explored like underground mining, High wall mining and More than 30 Mtes of coal reserves will remain blocked even after extraction of coal through underground/High wall mining methods. *The Committee asked the PP whether this diversion is mentioned in the approved mining plan or not. If not then mining plan should be modified accordingly, and PP shall submit a geological plan and corresponding section showing the coal seam position below the nallah.*

5) The Committee deliberated on the Biodiversity study of Kanchanmuda Stream/Nallah (source to destination) considering all dependent flora and fauna. PP Submitted that Biological reclamation is the Phase-II of reclamation process. Re-vegetation covers in terms of grass & trees of appropriate species would be raised over the physically reclaimed land for three tier plantation. The Committee asked the PP about the restoration plan of the living system of the Nala. PP submitted that plantation of native plants to maintain biodiversity, strengthening the safety zone to avoid accident by animal falling in to mining pit. The Committee noted that although the chapter on impact and mitigative

measure are provided in the report but they are general in nature w.r.t impact of coal mining. The impact on biodiversity due to nallah diversion is not specifically brought out with specific measure for its mitigation/reduction. Further, in the mitigative measure chapter the figure 7.1 shown the diversion route which does not cover all the stream passing through the lease. Further, Committee observed that previously it was suggested for Environment Impact Study for Nallah in the situation of diversion of catchment area be studied with loss of biodiversity and ecosystem. The Committee is not doubting on the work of the expert but is of the view that PP shall get the study done through a reputed government institute.

6) As desired in the earlier EAC, PP to carry out proper Catchment area study including carrying capacity of river and stream passing be done with hydrological and watershed data. PP Submitted that catchment area study with hydrological and watershed data was carried out and PP mentioned that the study is designed with safety factor of 220m<sup>3</sup>/sec as against the required 110 m<sup>3</sup>/sec. PP further submitted that the carrying capacity of Kanchanmuda watershed has been estimated to the tune of 17.98 MCM/year. Ecological and social demand in a river basin is 4.53 MCM/year. The net carrying capacity after evaporation is 12.091 MCM/year which is discharged into Kanchan River. PP ensured that there will not be any impact on carrying capacity of Kanchanmuda watershed due to proposed diversion of eastern and western streams with appropriate capacity of diversion channel. The construction of catch drain will be in two phases and the average hydraulic gradient in both phases will be 1:100, the catch drain will be in trapezoid 1.5 H:1, side length with with floor width 4 m, 3m water depth and 2 m free board and the same design and dimension of proposed diversion channel is duly approved by Water Resource Department, Madhya Pradesh vide letter no. Memo no. 4446 / dated 23.05.2023. As regards Environment Impact Study for Nallah in the situation of diversion of catchment area be studied with loss of biodiversity and ecosystem. The Catchment area study should include flow rate of water in the stream, volume of water being diverted and major impact on habitation living therein, PP submitted that it is observed that the Flow Rate of Kanchanmuda watershed during 1970 to 2021 is varying from 3.58 to 21.02 MCM/year based on annual rainfall of 304.80 mm and 1785.30 mm respectively. Average being 11.724 MCM/year. It may be concluded that annual flow rate is dependent on annual rainfall in watershed area.

7) PP was asked to mention the exact number of rivulets passing through the ML area flowing within the 5 km of Buffer zone of ML area. PP submitted that there are various seasonal rivulets of 1st, 2nd, 3rd & 4th order exist within 5 km radius of the mining lease. Total number of rivulets within 5 km radius from ML is 652 while 100 number of rivulets passes through ML area. The Committee asked the PP to study the impact of water management due to channelization/ diversion. PP submitted that the water management of diverted channel has been designed in such a way that the total water generated in mine and external area will be channelized to downstream of Kanchanmuda stream and there will not be any loss of water except either peak flow or annual yield of the stream confluence into Kanchan River. PP also submitted the note on the impact of water management due to channelization/ diversion.

8) On the query to explore the possibility to save the stream flowing through the ML area and adjacent to the lease area PP submitted that the diversion of external part of the stream particularly eastern and western sector is important for the safety of mine. The mine cannot be operated without having either embankment or diversion all along eastern and western part of the mine lease area. The diverted runoff of external area of eastern and western sector will be ultimately confluence in to main Kanchanmuda stream. PP further submitted that the proposed environmental management plan particularly development of green belt and various other mitigative measures will compensate this loss. Thus, the diversion of external stream is fully justified for safety and operational part of the



mine.

*The Committee observed that as per the catchment plan shown during the meeting it is evident that all the 1<sup>st</sup> order and 2<sup>nd</sup> order streams are not considered while designing the diversion route. Further, the Committee observed that contour is not properly drawn and are intersecting to each other. The Committee is of the view that PP shall get the study done from a reputed government institute.*

9) The Committee asked the PP to submit the Drone video of the ML area mainly covering the source and destination of Kanchanmuda Stream/Nallah. PP submitted that the drone survey of the ML area is carried out in first week of December 2023 and PP displayed the same during the meeting. The committee observed that the plantation done in 7.5-meter belt is not clearly visible. PP should submit detailed progress of planting done so far along with geo tagged photos.

10) In addition to the above the Committee also deliberated on the details of water use by people in the downstream area be provided and certified by the local authorities, post closure restoration and cleaning of the diverted Nala. The Committee further observed that the depth of the mine void is 170m and asked the PP to reduce the depth of mine void. The Committee also advised that the Project should have a dedicated Environment Management Cell for ensuring compliance of EC conditions and other statutory requirements related to environment. Further, the Project be aligned with SGD goals.

11) Based on the discussions held and documents submitted the Committee deferred the proposal of THDC India Limited regarding Amendment in Environment Clearance (EC) granted for Amelia Opencast Coal Mine project with production capacity of 5.6 MTPA in ML area of 1180.2 ha of located in village Pidarwah, Tehsil Singrauli, District Singrauli (Madhya Pradesh) for want of the following information:

1. Biodiversity study of the stream/ rivulet and its surrounds should be done through reputed/Government Institute/IIT/WII/ICFRE with its mitigation measures particularly the aquatic flora and fauna to clearly bring out impact of the proposed diversion.
2. Hydrology study of the stream/ rivulet proposed to be diverted be done by Government Institute/NIH.
3. PP should submit detailed progress of planting done so far along with geo tagged photos.
4. PP shall submit the inspection report Certified by RO and its ATR.
5. Post mining maintenance plan, especially de-siltation, for diverted nallah.
6. Details of downstream impact with respect to ground water recharge and water use by people residing in the downstream area be provided and certified by the local authorities.
7. PP shall explore the possibility of reducing the depth of mine void.
8. Details w.r.t Environment Management Cell to oversee the implementation of environmental safeguard, ensure compliances and reporting to concerned authorities shall be provided.
9. PP to align project with SDG goals.
10. PP shall clarify if the plan to divert the stream was disclosed in the public hearing and if so what were the comments of the participants. Further, the PP shall obtain the comments of various

stake holders and local people on diversion of Kanchanmuda Nala by publishing the advertisement in at least two newspapers.

11. Proposal of diversion of Nala must be a part of approved mining plan.

12. It is observed that the district mentioned in earlier EC is Sidhi while the PP has submitted the district name as Singrauli, PP may clarify.

13. Site visit by the subcommittee as recommended in the 50<sup>th</sup> meeting shall be conducted.

#### 3.5.4. Deliberations by the EAC in current meetings

Observations and deliberation of the Committee:

18.5.8: The EAC noted the following:

- i. The instant proposal is for amendment in EC transferred to M/s THDC India Limited vide letter no. J-11015/310/2006-IA.II(M), dated 03.08.2021 for Amelia Coal Mine Project (area 1180.2 Ha having production capacity of 5.6 MTPA) located at village Pidarwah, District Singrauli of State Madhya Pradesh.
- ii. The Environment Clearance for the said block was earlier granted to M/s MPSMDCL vide letter dated 27.03.2008. It was then de-allocated vide the order of Hon'ble Supreme Court and was reallocated to M/s THDCIL by MOC vide F.No. 103/11/2016-NA dated 17.01.2017.
- iii. The Proponent has submitted this proposal for amendment in "specific condition no. v", "specific condition no. vii" & "specific condition no. xi" vide proposal no. IA/MP/CMIN/438322/2023 dated 14.10.2024.
- iv. The Committee deliberated on the Biodiversity Study and Hydrology Study submitted by the proponent. The Committee observed that the Hydrology report submitted by the PP is prepared by the NABET accredited consultant and further vetted by IIT (BHU). The Committee is of the opinion that the study report must be prepared by some reputed Government Institute/ IIT and on the basis of that, further appraisal in this regard shall be done.
- v. The Committee is of the opinion that a budget for mitigation measures to be adopted as per the recommendations of revised Hydrology Study Report must be submitted.
- vi. The Committee also opined that, as the length of diversion is substantially more, the opinion on diversion of the said nallah will only be given after the site visit by the sub-committee of EAC.
- vii. The Committee did not find the ADS reply satisfactory and further, did not deliberate on the amendment sought for extension in timeline for transportation of coal through road.
- viii. The Committee noted that there was a public representation against the instant proposal under consideration. MOEF&CC may send the issues stated in the representation to the proponent for submitting the point wise response.

ix. The PP shall furnish fresh CCR report from RO of MoEFCC on compliance of EC conditions along with ATR.

#### 18.5.9: Recommendations of the Committee:

In view of the foregoing and after detailed deliberations, the committee *deferred* the proposal and asked the proponent to resubmit the ADS reply after addressing the above-mentioned observations. It was also recommended that sub-committee of EAC may undertake a site visit for considering the amendment proposal pertaining to diversion of nallah.

#### 3.5.5. Recommendation of EAC

Deferred for ADS

#### 3.6. Agenda Item No 6:

##### 3.6.1. Details of the proposal

<b>Kasta East Coal Mine by JITUSOL DEVELOPERS PRIVATE LIMITED located at BIRBHUM, WEST BENGAL</b>			
<b>Proposal For</b>		Amendment in ToR	
<b>Proposal No</b>	<b>File No</b>	<b>Submission Date</b>	<b>Activity (Schedule Item)</b>
<a href="#">IA/WB/CMIN/497581/2024</a>	J-11015/32/2024-IA-II	24/10/2024	Mining of minerals (1(a))

##### 3.6.2. Project Salient Features

#### Agenda No. 18.6

18.6: Kasta East Coal Mine (area 1409.026 Ha having capacity targeted/ peak 1.89/2.835) by M/s Jitusol Developers Private Limited located at Villages: Gohalia, Barra, Binodpur, Kaithi, Sira, Khajuria, Sahapur; District: Birbhum: State: West Bengal –Amendment in ToR –reg.

[Online Proposal No. IA/WB/CMIN/497581/2024; Consultant: Min Mec Consultancy Pvt Ltd, NABET/EIA/2225/IA 0096, valid up to 29.03.2025]

18.6.1: The instant proposal is for amendment in Terms of Reference granted to M/s Jitusol Developers Private Limited vide letter no. TO24A0605WB5604342N, dated 22.7.2024 for Kasta East Coal Mine (area 1409.026 Ha having capacity targeted/ peak 1.89/2.835 MTPA) located at Villages: Gohalia, Barra, Binodpur, Kaithi, Sira, Khajuria, Sahapur; District: Birbhum: State: West Bengal.

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

18.6.2: PP has made an online application vide proposal no. IA/WB/CMIN/497581/2024 dated

24.10.2024 for amendment of ToR Specific Condition no. 1.31 of ToR letter dated 22.07.2024.

18.6.3: Details of previous approvals: It is a Greenfield project and the proposal is for amendment in TOR accorded vide letter dated 22.07.2024.

S.No.	Details of Letter No.	ToR/ Expansion EC/ Amendment in ToR/ Validity extension/ Transfer of ToR	Capacity (MTPA)	Area (Ha)	Date of Issuance	Present status
1	TO24A0605W B5604342N	ToR	Targeted capacity: 1.890 MTPA, Peak capacity 2.835 MTPA	1409.026	22/7/2024	Preparation of EIA/EMP is under progress.

18.6.4: Details of amendment sought along with the justification furnished by the PP is as below:

Specific/ General Condition No.	Details of Conditions as per ToR	Amendment Sought	Justification
1.31	PP shall ensure that the mine plans should be in line with the submission of PP that there would be no diversion of the railway line. PP shall obtain the necessary permission for working near the railway line as the case may be from the concerned authority	PP shall obtain necessary permission for diversion of railway line before 5 <sup>th</sup> year as per approved mining plan as the case may be from the concerned authority. PP shall also keep the safety distance as per applicable rules and as suggested by railways.	Mining Plan and Mine Closure Plan was approved with proposed diversion of railway line. Shifting of railway line is required from 5th year onwards. Bhimgara-Palasthali section of Eastern Railways passes through the Block, which is non-operational. A letter sent to Eastern Railway for permission of dismantling/diversion of railway track vide letter dated 26/09/2022 requesting a proposal for diversion of the Railway route. Ministry of Railway vide letter dated 2/1/2024 mentioned "As per MoR Policy: Railway land cannot be transferred to the private parties". Ministry of Coal has issued an O.M addressing to MOR dated 15/3/2024 for proposal for Diversion of Railway track. In absence of clear guidelines for railway diversion application was made for ToR with NO proposal for diversion of railway line and accordingly ToR accorded by MoEF&CC. In the meeting held on dated 11.9.2024 with Nominated Authority, MOC Director (Tech)/NA advised allottee to represent the matter to MoEF&CC once again.

18.6.5: Details of Court Cases: There are no court cases pending on the project.

18.6.6: Undertaking/ Affidavit: The proponent through an affidavit submitted that the information provided in Form-1 (Part A&B) in .pdf format in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 27.11.2024 have no deviation in respect of the proposal no IA/WB/CMIN/497581/2024 for Amendment in ToR for coal mining having 1409.026 ha of ML area and capacity of 1.89 MTPA (Targated) / 2.835 MTPA (Targated) for Kasta East Coal Mine Project located at village Arjjunshuli, Barra, Bhurachak, Binodpur, Gohalia, Kankartala, Kaithi, Khajuria, Mundira, Nabasan, Nalgara, Palpai, Parsundi, Rasa, Sahapur, Shira, Taluk: Khoyrasol, District Birbhum, State West Bengal by M/s. Jitusol Developers Private Limited. Further certified that there are no data entry errors in the information uploaded in PARIVESH system including names/email-id/mobile numbers/address of the project proponent, authorized person, etc. It is also certified that the supporting documents uploaded on PARIVESH portal are correct and duly authenticated by the Authorized Signatory and in case of any deviation in data found in any of the documents, the Authorized Signatory shall be held responsible and furthermore, the above said project shall be rejected for grant of amendment in Terms of Reference (ToR).

### 3.6.3. Deliberations by the committee in previous meetings

N/A

### 3.6.4. Deliberations by the EAC in current meetings

Observations and deliberation of the Committee:

18.6.7: The EAC noted the following:

- i. The instant proposal is for amendment in ToR issued to M/s Jitusol Developers Private Limited vide letter no. TO24A0605WB5604342N, dated 22.7.2024 for Kasta East Coal Mine (area 1409.026 Ha having capacity targeted/ peak 1.89/2.835 MTPA) located at Villages- Gohalia, Barra, Binodpur, Kaithi, Sira, Khajuria, Sahapur; District- Birbhum in the State of West Bengal.
- ii. It is a Greenfield Project and the compliance of ToR conditions is under process.
- iii. The Proponent has submitted this proposal for amendment in “specific condition no. 1.31” of ToR granted vide letter dated 22.07.2024. This particular condition states that “PP shall ensure that the mine plan should be in line with the submission of PP that there would be no diversion of the railway line. PP shall obtain the necessary permission for working near the railway line as the case may be from the concerned authority.” While granting ToR, such condition was stipulated in line with the submission of PP that no diversion of railway line will take place for mine operations.
- iv. The Committee sought clarification from PP in this regard, as to why this aspect was not brought to the notice of EAC while the appraisal of ToR. PP submitted the following justification in this regard:
  - Bhimgara-Palasthali section (branches off from Bhimgara Junction on Andal-Siuri-Santhia branch line) of the Eastern Railway passes through the Block from east to west and that railway track has not been in use in the past but recently it has become operational upto Hazaratpur railway station siding on east of Kasta East Coal Mine and the coal from the WBPDC coal mine (located on north of Kasta East Coal Mine) is evacuated from this siding. Barra Gram and Raswan are the two railway stations, on this non-operational section, located within the block. A letter had been sent to Eastern Railway for permission of dismantling/diversion of railway track vide letter No. JDPL/HZH/RASA-PVT SDG/

Coal Block SDG/22-23 dated 26/09/2022 requesting a proposal for diversion of the Railway route.

- Senior Divisional Engineer (Co-Ordn.), Eastern Railway has, after obtaining remarks from the concerned divisional authorities, forwarded the request to the Principal Chief Engineer for necessary action.
- Ministry of Railway vide letter dated 2/01/2024 mentioned "*As per MoR Policy: Railway land cannot be transferred to the private parties. Only vacant surplus Railway land can be transferred to the State/Central Government for their own use*".
- Meanwhile, the Ministry of Coal has issued an Office Memorandum addressing to Ministry of Railway dated 15.03.2024 for proposal for Diversion of Railway tracks/lines within coal blocks areas stating that "*The necessity for effective land utilization for coal mining purposes, it is urged to formulate a comprehensive policy allowing for the diversion of railway tracks/lines lying within the coal blocks. This policy should include provisions for providing lands to allottees, including private entities, under commercially viable terms, thereby facilitating efficient coal mining operations and contributing to our country's energy security and economic growth*".
- Subsequently the Mining Plan and Mine Closure Plan was also approved on dated 15/03/2024 with proposed diversion of railway line.
- In absence of clear guidelines for railway diversion, an application was made for Terms of Reference (ToR) with no proposal for diversion of railway line and accordingly ToR was accorded by MoEF&CC.
- In the meeting held on dated 11.09.2024 with Nominated Authority, Ministry of Coal, to review the Non-Operational Coal Mines, our project Kasta East was reviewed and minutes of meeting issued on 30.09.2024. The MOM (at serial no. 67) states that "*The allottee informed that they have received the provisional grant for ML on 18.01.24, and Mining Plan has been approved on 15.03.2024. As for EC, the allottee informed that ToR has been granted on 22.07.24. However, there was a condition in the ToR with reference to a railway track passing through the block. The allottee mentioned that in absence of clear guidelines, they have decided to revise the mine plan with changes in the existing provision with respect to railway track. Director (Tech)/NA advised allottee to represent the matter to MoEF&CC once again*".
- As per the approved Mine Plan and Mine Closure Plan, the benches created in the 2 box cuts will be advanced towards each other and also towards dip side. The benches of both the box cuts will merge in the 5th year to result into formation of single pit after which pit will advance towards dip side till the end of mine."
- Since the shifting of railway line is required in the later stage of mining operation i.e. from 5th year onwards, hence, till merger of 2 box cuts there will be no diversion of railway line. PP will obtain the permission from Indian Railways to dismantle the non-operational railway line in our block in those 5 years. We shall operate the two mine pits on north and south of the railway line, maintaining the statutory safe distance, till the time permission is received from Indian Railways. This operation in two pits, even if continued beyond 5 years, will not cause any increase in the impact on the environmental parameters such as air quality, water, noise, ecology, socio-economics etc but will lead to blockage of coal resources. Hence, diversion of the non-operational railway line is in best interest of conservation of minerals.

In view of the above PP sought amendment in the Specific Condition no. 1.31 of the ToR dated 22.07.2024.

- v. After detailed deliberation the Committee observed that the proposal was submitted for ToR without proposing the diversion of railway line due to absence of clear guidelines for railway diversion. Committee also observed that Ministry of coal vide OM dated 15.03.2024, has made a proposal to Railway Board for Diversion of Railway tracks/lines located within coal blocks areas. As the matter is between Ministry of Coal and Railway Board, the Committee is of the opinion, that amendment for this condition is not necessary at this point on time and the

same shall be considered at the time of appraisal of proposal for grant of Environment Clearance, as till that time Railway Board may formulate policy in this regard or give its comments on the OM of Ministry of Coal.

#### 18.6.8: Recommendations of the Committee:

In view of the foregoing and after detailed deliberations, the committee recommended to *return the proposal in its present form.*

#### 3.6.5. Recommendation of EAC

Returned in present form

#### 4. Any Other Item(s)

N/A

#### 5. List of Attendees

Sr. No.	Name	Designation	Email ID	Remarks
1	Dr Sharad Singh Negi	Chairman, EAC	sha*****@gmail.com	Present
2	Dr Santoshkumar Hampannavar	Member (EAC)	san*****@yahoo.com	Present
3	Dr Umesh Jagannathrao Kahalekar	Member (EAC)	uka*****@rediffmail.com	Present
4	Shri K B Biswas	Member (EAC)	bis*****@gmail.com	Present
5	Dr Nazimuddin	Member (EAC)	naz*****@nic.in	Absent
6	Shri Mahi Pal Singh	Member (EAC)	mps*****@nic.in	Present
7	Shri Sanjay Bisht	Member (EAC)	san*****@imd.gov.in	Present
8	Sundar Ramanathan	Scientist E	r.s*****@nic.in	Present
9	Sh Inder Pal Singh Matharu IFS	Member (EAC)	mat*****@gmail.com	Present
10	Sh Lalit Kapur	Member (EAC)	lka*****@yahoo.com	Present
11	Dr Umesh Jagannathrao Kahalekar	Member (EAC)	uka*****@gmail.com	Present
12	Sh Savalge Chandrasekhar	Member (EAC)	sav*****@gmail.com	Present
13	Prof Shyam Shanker Singh	Member (EAC)	sin*****@gmail.com	Present
14	Dr Vinod Agrawal	Member (EAC)	vin*****@yahoo.com	Present
15	Shri Harmeet Sahaney	Member (EAC)	har*****@imd.gov.in	Absent
16	Prof R M Bhattacharjee	Member (EAC)	rmb*****@iitism.ac.in	Present

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

**Date of zero draft MoM sent to Chairman: 04/12/2024**

**Approval by Chairman: 08/12/2024**

**Uploading on PARIVESH: 09/12/2024**

**SUMMARY RECORD OF THE EIGHTEENTH (18<sup>TH</sup>) MEETING OF EXPERT APPRAISAL COMMITTEE (EAC) HELD ON 27<sup>TH</sup> NOVEMBER 2024 FOR ENVIRONMENT APPRAISAL OF COAL MINING SECTOR PROJECTS THROUGH VIRTUAL MODE.**

**DAY-1: 27<sup>TH</sup> NOVEMBER, 2024 [WEDNESDAY]**

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 – II**. The Standard/Generic EC & ToR conditions shall be system generated through the PARIVESH Portal.

Confirmation of the Minutes of the 17<sup>th</sup> Meeting of the EAC (Coal): The minutes of the 17<sup>th</sup> meeting of the EAC (Coal) held during 21<sup>st</sup>-22<sup>nd</sup> October, 2024 have been confirmed by the EAC as uploaded on Parivesh along with following corrections:

**A. Agenda item no: 17.3**

Minutes uploaded on PARIVESH	To be read as
<p><b><u>Para No. 17.3.14; Point “v”</u></b></p> <p>Project is not located within 10 KM of any ESZ/ ESA national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/elephant corridor etc. However, it is observed that the project is <b>located near a tiger corridor and 2 national parks</b>. Committee deliberated on the same and is of the opinion that recommendations of NTCA and PCCF shall be sought and NOC from State wildlife department must be submitted in this regard. Also, a Wildlife Conservation Plan must be made and submitted.</p>	<p><b><u>Para No. 17.3.14; Point “v”</u></b></p> <p>Project is not located within 10 KM of any ESZ/ ESA national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/elephant corridor etc. However, it is observed that the project is located <b>near a tiger corridor</b>. Committee deliberated on the same and is of the opinion that recommendations of NTCA and PCCF shall be sought and NOC from State wildlife department must be submitted in this regard. Also, a Wildlife Conservation Plan must be made and submitted.”</p>
<p><b><u>Para No. 17.3.15; Specific Condition No. “x”</u></b></p> <p><b>Hydrogeological</b> study from reputed institute with appropriate mitigation measures to be conducted for the nallahs passing through the ML area, dam located at the distance of 1.5 km in the north direction from the ML area and effects of mining on the ground water.</p>	<p><b><u>Para No. 17.3.15; Specific Condition No. “x”</u></b></p> <p><b>Hydrological</b> study from reputed institute with appropriate mitigation measures to be conducted for the nallahs passing through the ML area, dam located at the distance of 1.5 km in the north direction from the ML area and effects of mining on the ground water.</p>
<p><b><u>Para No. 17.3.15; Specific Condition No. “xi”</u></b></p> <p>As the project involves groundwater intersection a <b>Hydrological study</b> shall be carried out by</p>	<p><b><u>Para No. 17.3.15; Specific Condition No. “xi”</u></b></p> <p>As the project involves groundwater intersection a <b>Hydrogeological study</b> shall be carried out by reputed</p>



Minutes uploaded on PARIVESH	To be read as
reputed Institute. Further, PP shall comply with the Ministry's OM dated 23.05.2019 and provide necessary details/studies in the EIA/EMP Report.	Institute. Further, PP shall comply with the Ministry's OM dated 23.05.2019 and provide necessary details/studies in the EIA/EMP Report.
<b><u>Standard Condition No.23</u></b> Impact of proposed project/activity on <b>hydrological regime</b> of the area shall be assessed and report be submitted. Hydrological studies as per GEC 2015 guidelines to be prepared and submitted.	<b><u>Standard Condition No.23</u></b> Impact of proposed project/activity on <b>hydrogeological regime</b> of the area shall be assessed and report be submitted. Hydrogeological studies as per GEC 2015 guidelines to be prepared and submitted.

#### B. Agenda item no: 17.4

Minutes uploaded on PARIVESH	To be read as
<b><u>Para No. 17.4.2; B. Status of FCs obtained for Utkal D &amp; E Block.</u></b> PP submitted that the total broken forest area is 312.6979 Ha and there is no violation of Van (Sanrakshan Evam Samvardhan) Adhinyam, 1980.	<b><u>Para No. 17.4.2; B. Status of FCs obtained for Utkal D &amp; E Block.</u></b> PP submitted that the total broken forest area is 60.238 Ha and there is no violation of Van (Sanrakshan Evam Samvardhan) Adhinyam, 1980.

#### **Agenda No. 18.1:**

#### **18.1 Bhivkund Coal Mine (Area 802 Ha having capacity of 0.72 MTPA Normative/1.08 MTPA Peak) by M/s Sunflag Iron & Steel Company Ltd, located at Villages: Ballarpur, Nandagaon Pode & Visapur; District: Chandrapur; State: Maharashtra – Environment Clearance – Regarding.**

**[Online proposal No. IA/MH/CMIN/495397/2024; Consultant: Min Mec Consultancy Private Limited; NABET/EIA/2225/IA 0096 valid up to 29.03.2025]**

**18.1.1:** M/s Sunflag Iron & Steel Company Ltd has made an online application vide proposal no. IA/MH/CMIN/495397/2024 dated 06/09/2024 along with copy of EIA/EMP report, Form 1, Part A, B & C seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 1(a) "mining" Under Category "A" of the schedule of the EIA Notification, 2006 (as amended), as the mining lease area is more than 500 Ha. Further, the project is attracting general conditions of the EIA Notification as the project site is located at a distance of 0.03km from the boundary of the critically polluted area namely MIDC Ballarpur area. Hence, the project is appraised at Central Level.

The Bhivkund Coal Mine of M/s Sunflag Iron & Steel Company Ltd is located at Visapur, Nandgaonpode and urban area of Ballarpur of Ballarpur Tehsil, District Chandrapur, Maharashtra is for setting up of a new Underground Coal Mine. The project ToR was granted for the production of 0.72 (targeted capacity), while 1.08 MTPA (Peak rated capacity) in the mine lease area of 802 Ha on 15.03.2023, valid up to 14.03.2027. The said ToR was further amended on 01.06.2023.

The said project has been earlier appraised in 16<sup>th</sup> EAC Meeting held on 8-9<sup>th</sup> October 2024 and was deferred for want of additional information. ADS was submitted by the proponent on 06.11.2021. Now proposal is again placed in 18<sup>th</sup> EAC Meeting being held on 27.11.2024 before the EAC for appraisal.

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

**18.1.2: Environmental Site Settings:**

PP submitted that the project area is covered under Survey of India Topo sheet No. 56 M/5 and is bounded by the geographical coordinates ranging from 19° 51' 19.911"N to 19° 54' 04.133"N and longitudes 79° 18' 08.744" E to 79° 20' 29.486"E.

The Project site is located within 10 km radius of CPA MIDC Chandrapur (10km, NW) and CPA MIDC Ballarpur area (0.03 km, E) as per CEPI Assessment 2018. However, the project site is not falling within the CPA & SPA as per CEPI assessment 2018 by CPCB. This aspect has also been verified and confirmed through DSS.

**Forest Area:** The project does not involve any forest land and there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 Act.

**Protected Area:** PP submitted that the project site is not located within 10 km of any ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ tiger corridor/elephant corridor etc. However, it is located within 6.48 km from the notified Eco Sensitive Zone of Tadoba Andhari Tiger Reserve. The said distance has been certified vide letter dated 18.04.2022 from DFO, Forest Department, Tadoba Andheri Tiger Reserve, Chandrapur. Apart from this, Reserved and protected forests present within 10 km radius of the project site are Balharshah PF (0.05 km, E), Junana RF (2.7 km, E), Rajura RF (6.3 km, S) and Morwa RF (10.0 km, NW).

PP submitted that the Wildlife Conservation Plan has also been prepared and approved by Principal Chief Conservator of Forest (Wildlife), Maharashtra State vide letter No. SEC-23(2)/VAZI/ SURVEY/ PRO.NO.180/2049/2023-24 dated 03.10.2023, for Sloth bear (*Melursus ursinus*), Leopard (*Panthera pardus*), Tiger (*Panthera tigris*), Indian Bison (*Bos gaurus*), Shikra (*Accipiter badius*), Indian Peafowl (*Pavo Cristatus*), White eyed Buzzard (*Butastur teesa*), Black Kite (*Milvus migrans*), Black Winged kite (*elanus caeruleus*), Oriental Honey Buzzard (*Pernis apivorus*), Monitor Lizard (*Varanus bengalensis*). Further, it also stated that the proposed project does not require wildlife approval as there is no national park/ sanctuary within 10 km of the mine lease area. PP submitted a letter dated 18.04.2022 from DFO, stating ESA of Tadoba Andhari Tiger Reserve is located at a distance of 6.48 km (aerially) from the project and core boundary of Tadoba Andhari Tiger Reserve is at the distance of 23.59 km.

**Project Area/ Mine Lease:** PP submitted that the instant proposal is proposed on 802 Ha land and does not involve any forest land. The said ML area is provided to the proponent through the vesting order no. NA-104/2/2021-NA dated 18.11.2021.

**18.1.3: Details of ToR are furnished below:**

Date of Application	Details	Date of Accord	ToR Validity
06.01.2023	File No. J-11015/252/2010-IA-II(I)	15.03.2023	14.03.2027

Date of Application	Details	Date of Accord	ToR Validity
28.04.2023	Proposal for amendment in ToR vide Proposal no. IA/MH/CMIN/425645/2023	01.06.2023	Nil

#### 18.1.4: Method of Mining and Mine Plan:

1. The Mine Plan and Mine Closure Plan of Bhivkund Coal Mine is approved by the Ministry of Coal vide letter dated 02.08.2022 for rated capacity of 0.72 MTPA and peak rated capacity of 1.08 MTPA on the mine lease area of 802 Ha.
2. The total geographical reserves reported in the mine lease area of 802 Ha is 102.264 MT, out of which mineable reserves are 87.875 MT and extractable reserves are 50.5900 MT. Percentage of extraction is 49.470%.
3. There are total 4 nos of seams, out of which only 2 are workable, i.e., section II (having thickness 1.72-12.15) and section III (having thickness 1.0-4.95).
4. The method of mining to be adopted will be underground mining by mechanized method.
5. Only 9.09 ha shall be disturbed on the surface.
6. The life of underground mine is 64 years.
7. Since, it is an underground mine the waste generated from driving of inclines and shaft will be used for raising plinth of infrastructure area and internal roads development simultaneously. Thus, no waste dump/ OB dump is proposed.
8. Land use details:
  - a. Pre-Mining Land Use:

Land Use Pattern	Area (Ha)
<b>Tenancy</b>	
Agricultural	753.46
Township	5.23
Road	10.56
<b>Government Non Forest</b>	
Barren/ Other use (water bodies)	32.75
<b>TOTAL</b>	<b>802</b>

- b. Post-Mining Land Use:

Land Use Pattern	Area (Ha)
Green Belt	3.64
Agriculture	5.45
Undisturbed	792.91
<b>TOTAL</b>	<b>802</b>

9. Transportation of Coal: When the coal production will start from UG mine, the coal will be coming out through a conveyor. The Coal Handling Plant (CHP) is proposed to be located at the top of Incline where the out coming conveyor will discharge the coal into the pit head bunkers. The coal will be dispatched from the bunkers of CHP into the consumer's trucks for onwards transportation to their destinations or to the nearest railway siding, as the case may be.

**18.1.5: Baseline Data:** Baseline Data was generated from 1<sup>st</sup> October 2022 to 31<sup>st</sup> December 2022 and 10<sup>th</sup> March 2023 to 9<sup>th</sup> June 2023.

Period	1st October 2022 to 31st December 2022 and 10th March 2023 to 9th June 2023	Additional Study (if any)																														
AAQ Parameters at 12 Locations (min and max)	PM <sub>2.5</sub> : 20 to 47 µg/m <sup>3</sup> PM <sub>10</sub> : 43.4 to 88.2 µg/m <sup>3</sup> SO <sub>2</sub> : 6 to 13.3 µg/m <sup>3</sup> NO <sub>x</sub> : 6 to 20.3 µg/m <sup>3</sup> CO: 0.115 to 0.802 mg/m <sup>3</sup>																															
Incremental GLC Level	PM <sub>10</sub> : 0.39 µg/m <sup>3</sup> (Level at core zone near Visapur village, within ML boundary) SO <sub>2</sub> : 0.002 µg/m <sup>3</sup> (Level at core zone near Visapur village, within ML boundary) NO <sub>x</sub> : 0.010 µg/m <sup>3</sup> (Level at core zone near Visapur village, within ML boundary)																															
Ground water quality at 9 Locations	pH: 6.65 to 7.32, Total Hardness: 152 to 576 mg/l, Chlorides: 29 to 264 mg/l, Fluoride: 0.36 to 0.88 mg/l, Heavy metals (Mn): BDL to 0.057 mg/l.																															
Surface water quality at 9 Locations	pH: 7.16 to 7.96; DO: 6.8 to 8.5 mg/l and BOD: 1.5 to 10.5 mg/l, COD: 30.2 to 69.7 mg/l																															
Noise levels Leq (Day and Night)	45.80 to 53.93 dBA for the daytime and 36.15 to 42.83 dBA for the Night time.																															
Traffic Assessment Study findings	<p>Traffic study has been conducted at two locations namely road near Nandgaonpode village (0.2 km, N) on Nandgaonpode to Chandrapur Road and near Lalpet Mine Quarters (2.9 km, N) on Nandgaonpode to Nandgaonpode railway Siding -WCL Road.</p> <p>Transportation of mineral will be done 100% by road either to railway siding or direct to consumer. Existing PCU and existing level of service (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>Nandgaonpode to Chandrapur Road</td> <td>61</td> <td>500</td> <td>0.122</td> <td>A</td> </tr> <tr> <td>Nandgaonpode to Nandgaonpode railway Siding -WCL Road</td> <td>208</td> <td>500</td> <td>0.41</td> <td>A</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 61 &amp; 208 (Existing) + 3 (Additional) PCU/hr and level of service (LOS) will be:</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr)</th> <th>C (Capacity in PCU/hr)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>Nandgaonpode to Chandrapur Road</td> <td>64</td> <td>500</td> <td>0.128</td> <td>A</td> </tr> <tr> <td>Nandgaonpode to Nandgaonpode railway Siding - WCL Road</td> <td>211</td> <td>500</td> <td>0.422</td> <td>A</td> </tr> </tbody> </table> <p>Note: Capacity as per IRC:64-1991 Guideline for capacity for roads</p>	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS	Nandgaonpode to Chandrapur Road	61	500	0.122	A	Nandgaonpode to Nandgaonpode railway Siding -WCL Road	208	500	0.41	A	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS	Nandgaonpode to Chandrapur Road	64	500	0.128	A	Nandgaonpode to Nandgaonpode railway Siding - WCL Road	211	500	0.422	A	
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Period	1st October 2022 to 31st December 2022 and 10th March 2023 to 9th June 2023	Additional Study (if any)
	Conclusion: The level of service will A after including additional traffic due to proposed project.	
Flora and fauna	"Biodiversity Assessment and Conservation Plan with Mitigation Measures for Flora, Fauna and Wildlife with Budgetary Provision for Bhivkund Coal Block over an Area of 802 Hectares located at villages Visapur and Nandgaonpode and Urban Area of Ballarpur, Tehsil Ballarpur, District Chandrapur (Maharashtra)" has been prepared by Econsus Environmental Solutions LLP, Nagpur. It has been approved by Principal Chief Conservator of Forest (Wildlife), Maharashtra State vide letter No. SEC-23(2)/VAZI/SURVEY/PRO.NO.180/2049/2023-24 dated 03.10.2023 for Shedule- I species, namely, Sloth bear ( <i>Melursus ursinus</i> ), Leopard ( <i>Panthera pardus</i> ), Tiger ( <i>Panthera tigris</i> ), Indian Bison ( <i>Bos gaurus</i> ), Shikra ( <i>Accipiter badius</i> ), Indian Peafowl ( <i>Pavo Cristatus</i> ), White eyed Buzzard ( <i>Butastur teesa</i> ), Black Kite ( <i>Milvus migrans</i> ), Black Winged kite ( <i>elanus caeruleus</i> ), Oriental Honey Buzzard ( <i>Pernis apivorus</i> ), Monitor Lizard ( <i>Varanus bengalensis</i> ).	Separate study as mentioned
Water requirement	Source of Water: Ground water (borewell & mine seepage water) Ground Water Intersection: Yes Water Requirement: 106 KLD NOC (For surface water): Not applicable since no surface water will be used NOC (Ground Water): NOC No. CGWA/NOC/MIN/ORIG/2023/19456 valid till 19.10.2025	Comprehensive Hydrogeological Report for Bhivkund underground Coal Mine has been prepared by Sujalam Consultants, Nagpur.

**18.1.6: Details of Water Requirement:** Total water requirement submitted by the PP is 106 KLD, which will be sourced from ground water. 43 KLD will be sourced from borewell, 40.3 KLD will be met from Mine Sump Water and 22.7 KLD will be met from treated waste water. PP has obtained NOC from CGWA for 50 KLD vide NOC No. CGWA/NOC/MIN/ORIG/2023/19456, dated 20.10.2023, valid up to 19.10.2025. PP also submitted that, there is no diversion of River/ Nallah proposed.

**18.1.7: Public Hearing:** The Advertisement for the Public Hearing was given in Marathi daily newspaper "Lokmat" and in English newspaper "Times of India" dated 16.02.2024 for PH on 20.03.2024. Later a corrigendum was published on 20/03/2024 in the above mentioned newspapers for postponement of public hearing due to Lok Sabha election to 24.04.2024 on same venue.

The PH was conducted on 24.04.2024 at the project site under the presiding officer Shri Sanjay Pawar, Additional District Magistrate. PH was attended by 157 people. 1561 written representation were received from within the district, out of which 1012 representations were in favour of the project for employment, growth and development of the area while the others opposed the project.

Major concerns related raised during the PH were concerns related to depletion of water table, provision of potable water, control of environmental pollution, discharge of acidified mine water containing heavy metals, land acquisition, presence of various wild animals like bear,

tiger, deer, etc., employment to local and damage to crops due to transportation of coal.

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

Sl.	Physical activity and action plan		Year of Implementation (Budget in Rs. lakhs)			Total Expenditure (Rs. Lakhs)
	Name of the Activity	Physical Target	Year 1	Year 2	Year 3	
1	<b>Depletion of ground water level</b>	Construction of rain water harvesting structure in facility area as well as villages Nangaonpode and Visapur for recharge of ground water	3.93	1.00	1.00	5.93
		Installation of piezometers to monitor the water level at 6 locations (including villages Nangaonpode and Visapur)	-	12.0	12.0	24.0
		Construction of deep tubewell at Nangaonpode and Visapur village	4.0	4.0	-	8.0
2	<b>Provision of potable water</b>	Potable Water supply to nearby villages such as Visapur and Nandgaon Poda as per requirement	0.50	0.50	0.50	1.50
3	<b>Environmental Pollution</b>	Various measures as suggested in Chapter 4 & 10 of EIA report for controlling air, water, noise, environmental monitoring, reclamation, green belt etc. Refer Table 10.2 and 10.3 for activities as well as capital cost & recurring cost.	583.90	-	-	583.90 (part of EMP cost)
4	<b>Discharge of acidified mine water containing heavy metals</b>	Sulphur content of the coal varies from 0.5 to 1.4 % in workable seams. Hence the possibility of acid mine drainage is not there. However, monitoring of the sump water quality shall be carried out by installing an online pH monitoring device after commencement of operation	-	-	0.50	0.50
5	<b>Land acquisition</b>	Land is being purchased by direct negotiation with consent and mutual agreement with land seller	Payment shall be made as per mutual agreed rates			
6	<b>Presence of various wild animals like bear, tiger, deer, etc.</b>	Recommendations as suggested in Biodiversity Assessment and Conservation Plan for nursery management for raising key floral species, green fencing management, avenue plantation, Exotic/Invasive species management and watch tower management.	25.0	25.0	29.5	79.5
7	<b>Employment to local</b>	Preference to land losers and local people as per their capability and qualification	Wages as per Company's rules and regulations			
8	<b>Damage to crops due to transportation of coal</b>	Coal transportation shall be done through existing routes which are predominantly through non-agricultural land to railway siding & other directions. Precautions such as PUC, tarpaulin cover, optimum weight shall be followed, which are part of recurring cost and EMP measures. Industrial mechanised sweeper shall be purchased	-	-	10.0	10.0
		<b>Total</b>	<b>617.33</b>	<b>42.5</b>	<b>53.5</b>	<b>713.33*</b>

\*Rs. 49.93 lakh direct and Rs. 663.4 lakh indirect

**18.1.8: EMP Cost:** The capital cost of the proposed project is Rs 125 crores and the capital cost for environmental protection measures is proposed as Rs. 5.839 crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 4.72 crores. The details of cost for environmental protection measures are as follows:

SI No.	Description of Item	Proposed	
		Capital Cost (In Lakh Rs)	Recurring Cost (In Lakh Rs/ year)
(i)	Air Pollution Control & Management	55.00	103.11
(ii)	Water Pollution Control	140.70	124.63
(iii)	Noise pollution control	114.00	2.78
(iv)	Environment Monitoring	66.85	26.85
(v)	Reclamation	0.00	3.63
(vi)	Occupational health	56.00	37.75
(vii)	Greenbelt (3.63 Ha)	113.90	38.64
(viii)	Others (Expert advice, other studies, etc)	37.45	16.72
(ix)	Interest on Capital cost	-	66.21
(viii)	Overheads (3% of dep., energy, R&M and Interest)	-	7.08
	<b>TOTAL</b>	<b>583.90</b>	<b>427.42</b>

**18.1.9: Details Solid and Hazardous Waste:** The details of solid and hazardous waste generation along with its mode of treatment/ disposal is furnished as below by the PP:

Sl. No.	Type of Waste	Source	Quantity (TPA)	Mode of Treatment	Disposal
1	Plastic	Packaging waste	2.34	Stored at mine store, shall be sent to authorised Recycler	Truck
2	Used Batteries	Vehicles, UPS, machines & others	0.225	Buy back by supplier	Truck
3	Sludge	from STP & ETP	3.20	Used as manure in green belt	Trolley/ Truck
4	MSW	Canteen	23.48	Waste segregated, dry recyclable waste will be sold to recycling vendors and wet organic waste shall be composted and used as manure.	Truck
5	Bulbs, tubes, electrical fitting, old laptops, PCs, mobiles, screens, TVs, etc	Administration building	0.01	Given to e-waste dealer	Truck
6	Contaminated Waste (Recyclable) Tubing, bottles, Intravenous tubes syringes	First aid centre	0.03	To authorised BMW Management agency	Truck
7	Used oil/ spent oil	Used oil will be generated from the HEMM and other machines & vehicles	82 KL	will be handed over to authorized CPCB/ SPCB Authorized recycling vendors	Truck

Sl. No.	Type of Waste	Source	Quantity (TPA)	Mode of Treatment	Disposal
8	Empty barrels/Containers/liners Contaminated with hazardous chemicals/ wastes	Mine area	40 nos.	will be sold to Authorized recycler	Truck

**18.1.10: Power Requirement and details of diversion of Hi-Tension/ Transmission Line:**

Power requirement for the said project submitted by the proponent is 12.6 MVA. PP also submitted that no Hi-Tension Line/ Transmission Line is proposed for diversion.

**18.1.11: Plantation:** Proposed greenbelt will be developed in 3.64 ha which is about 0.45% of the total project area but 40% of the UG facility area. A 5 to 25 m wide greenbelt, consisting of at least 3 tiers around mine boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 9000 saplings will be planted and nurtured in 3.64 hectares in first year.

**18.1.12: Project Cost:** The capital cost of the project is Rs. 125 crore. Cost of production submitted by the PP is Rs. 2200-2400 per tonne of coal. CSR cost proposed by the PP is 2% of the average annual profit of last three years of operation as per Companies Act 2013 and cost of implementing EMP is Rs 583.9 Lakhs (capital cost) and Rs. 424.12 Lakhs (recurring cost per year).

**18.1.13: R&R Issues:** PP submitted that no R&R plan is applicable, as only land losers shall be there in 9.09 Ha area and no human settlement is present in this area. Direct purchase at the mutually agreed rates shall be carried out by the company for which the estimated purchase cost will be Rs. 772.65 Lakhs for this land.

**18.1.15: Undertaking/ Affidavit:** PP submitted an affidavit, stating that, there is no construction/ mining done at the site and the same will be carried out on receipt of environmental clearance from MoEF&CC, that there is no litigation on the project either at NGT or any other court of law related to environment and pollution matters, that there will be no rehabilitation of inhabited villages envisaged although there are habitation of two villages namely Visapur and Nandgaonpode and urban area of Ballarpur located within the Bhivkund Coal Mine. Only 9.09 Ha of land shall be required for infrastructure development for mining activities, which will be directly purchased from private party, that there is no difference in the documents submitted i.e., CAF, Form – 2, EIA/ EMP Report and the presentation being made to the EAC, that the reason for submitting the project at MoEF&CC is that the proposed project falls under the Category A as per the EIA Notification 2006 and amendments made there under till date.

Apart from this, the PP has submitted an undertaking stating that information provided in CAF, Form 1 (Part A, B and C), EIA & updated as per ADS reply dt. 06.11.2024 in .pdf format in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 27th November 2024 have no deviation in respect of the proposal no.: IA/MH/CMIN/495397/2024 for EC for coal mining having 802.00 ha of ML area/Project area and capacity 0.72 MTPA (Peak 1.08 MTPA) for Coal Mine Project located at villages Visapur and Nandgaonpode and urban area of Ballarpur, Teshil Ballarpur, District Chandrapur, State Maharashtra by M/s Sunflag Iron & Steel Company Ltd. And further submitted that there are



no data entry errors in the information uploaded in PARIVESH system including names/email-id/mobile numbers/address of the project proponent, authorized person, etc. It is also certified that the supporting documents uploaded on PARIVESH portal are correct and duly authenticated by the Authorized Signatory and in case of any deviation in data found in any of the documents, the Authorized Signatory shall be held responsible and furthermore, the above said project shall be rejected for grant of amendment in EC.

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

**18.1.17: ADS Information in chronology:** The proposal was initially considered in 16th Meeting of EAC (Coal) held on 08.10.2024. Proposal was deferred for want of additional information. The observations and recommendation is given as below:  
The proponent submitted the ADS reply vide letter dated 06.11.2024 uploaded on PARIVESH on 06.11.2024 Point-wise reply of ADS is given as below:

S. No.	ADS Point	Reply/Response of PP																					
1	Distance certificate from DFO, certifying that the Eco Sensitive Zone of Tadoba Andhari Tiger Reserve is not located within 10 KM from the project area	Eco Sensitive Zone of Tadoba Andhari Tiger Reserve is located at a distance of 6.48 km (aerially) from project. Distance certificate from Forest Department, Conservator of Forest, Tadoba Andhari Tiger Reserve, Chandrapur dated 18.04.2022 along with English Translation is also uploaded along with the ADS reply.																					
2	The budget earmarked for Wildlife Conservation Plan shall be enhanced by including conservation of the aquatic biodiversity of flora and fauna species present in the flood plains of Wardha River.	Budget earmarked for Wildlife Conservation Plan has been enhanced by including conservation of the aquatic biodiversity of flora and fauna species present in the flood plains of Wardha River. Wildlife Conservation Plan budget has been revised from Rs. 25 lakhs to Rs. 79.5 lakhs as follows: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Description</th> <th>Amount in Lakhs Rs.</th> </tr> </thead> <tbody> <tr> <td>(i)</td> <td>Nursery Management for Raising Key Floral Species (10,000 saplings initially)</td> <td>5</td> </tr> <tr> <td>(ii)</td> <td>Green Belt in Safety Zone (25% cost, balance 75% included in EMP)</td> <td>4.55</td> </tr> <tr> <td>(iii)</td> <td>Avenue Plantation Management (2.3 km from north of Nandgaonpode to UG facility area)</td> <td>5.75</td> </tr> <tr> <td>(iv)</td> <td>Exotic/ Invasive Species Management</td> <td>7.2</td> </tr> <tr> <td>(v)</td> <td>Watch Tower Management (4 nos.)</td> <td>10</td> </tr> <tr> <td>(vi)</td> <td>Comprehensive aquatic ecology study by specialised agency covering all seasons from the upstream, middle stream and downstream of the Wardha river and the major tributaries</td> <td>15</td> </tr> </tbody> </table>	S. No.	Description	Amount in Lakhs Rs.	(i)	Nursery Management for Raising Key Floral Species (10,000 saplings initially)	5	(ii)	Green Belt in Safety Zone (25% cost, balance 75% included in EMP)	4.55	(iii)	Avenue Plantation Management (2.3 km from north of Nandgaonpode to UG facility area)	5.75	(iv)	Exotic/ Invasive Species Management	7.2	(v)	Watch Tower Management (4 nos.)	10	(vi)	Comprehensive aquatic ecology study by specialised agency covering all seasons from the upstream, middle stream and downstream of the Wardha river and the major tributaries	15
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S. N o.	ADS Point	Reply/Response of PP	
			within the study area. Identification of intervention areas and recommendations.
		(vii)	Protection of micro & macro flora & fauna in seasonal tributaries passing through ML through development of reed bed systems for treatment of sewage at Nandgaonpode & Visapur 20
		(viii)	Native fish conservation measures - ● facilitating local fishermen for fish seed, ● identification of invasive species, spreading awareness about impact of invasive species and their mitigation, ● skill development & capacity building by trainings through expert agency 12
		<b>TOTAL</b>	
3	Videography of Public Hearing proceedings shall be presented before the EAC.	Videography of Public Hearing proceedings shall be presented before the EAC.	
4	Environmental Management Plan (EMP) shall be revised by incorporating the mitigation measures to be adopted by the project proponent in accordance with the Ministry's O.M. dated 31/10/2019 as the project site is only 0.03 km from the critically polluted area namely MIDC Ballarpur area. Further, EMP shall also address the measures to be adopted for protection of Wardha River. The budget earmarked towards EMP shall be enhanced including the budget earmarked for concurrent plantation.	Environmental Management Plan (EMP) has been revised by incorporating the mitigation measures to be adopted due to presence of critically polluted area namely MIDC Ballarpur area at a distance of 0.03 km from project site by inclusion of following, in line with the Action Plan for the CPA by Maharashtra Pollution Control Board: (i) 40% green belt in the disturbed area of 9.09 Ha. (ii) Avenue plantation (6.1 km) from UG facility area to Colliery road intersection near Golpuliya, Ballarshah (iii) Additional plantation in government land (10 ha) (iv) Low height noise absorption barriers along peripheral road of Nandgaonpode & Visapur (v) Regular monitoring and testing of ambient air and water quality (vi) Installation of 01 no. of Continuous ambient air quality monitoring station (vii) Segregation of solid waste at source by keeping coloured dustbins in accordance with norms (viii) Awareness camps for use of recycled/ reuseable products and avoid using plastic especially single use. (ix) Awareness on avoiding use of domestic coal as a fuel to avoid smoke generation and deterioration of air quality (x) Training of mine staff on importance of clean environment (xi) Use of treated mine sump water for mine activities and plantation.	

S. N o.	ADS Point	Reply/Response of PP																
		<p>(xii) Use of Tarpaulin covered and optimally loaded trucks/dumpers of coal transport</p> <p>(xiii) Working with Pollution Control Board in decreasing pollution</p> <p>(xiv) Submitting monthly report about operation and maintenance of pollution control system and report about compliance done.</p> <p>(xv) Periodic health checkup of employees and organizing health camps in nearby areas of Viaspur and Nanadgaonpode villages and Ballarpur area (under CSR)</p> <p>The measures to be adopted for protection of ecology of Wardha River have already been included in the revised Wildlife Conservation Budget, addressed in the previous question. In addition, the above, EMP has also been revised for the additional provisions as follows:</p> <p>(i) Settling pond (0.2 ha)</p> <p>(ii) Mine Sump Water treatment system</p> <p>(iii) State of the art online multi-parameter mine sump water quality analyser</p> <p>(iv) Ground water monitoring piezometers (6 nos.)</p> <p>(v) River water level monitoring station upside and downside of mine lease</p> <p><b>The budget earmarked towards EMP has been further enhanced by including the costs of :</b></p> <p>(i) Underground sanitation system</p> <p>(ii) Solar panels</p> <p>(iii) Personal samplers for employees</p> <p>(iv) Plantation along river and its tributaries</p> <p>(v) Plantation of fruit trees on field boundaries, subject to acceptance/ agreement by land owners.</p> <p>The revised EMP budget, thus, is as follows:</p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Description</th> <th>Capital cost, Rs. Lakhs</th> <th>Recurring cost per annum, Rs. Lakhs</th> </tr> </thead> <tbody> <tr> <td>(i)</td> <td>Air pollution control</td> <td>55.00</td> <td>103.11</td> </tr> <tr> <td>(ii)</td> <td>Water pollution control</td> <td>140.70</td> <td>124.63</td> </tr> <tr> <td>(iii)</td> <td>Noise pollution control</td> <td>114.00</td> <td>2.78</td> </tr> </tbody> </table>	Sl. No.	Description	Capital cost, Rs. Lakhs	Recurring cost per annum, Rs. Lakhs	(i)	Air pollution control	55.00	103.11	(ii)	Water pollution control	140.70	124.63	(iii)	Noise pollution control	114.00	2.78
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		(iv)	Environment monitoring	66.85	26.85
		(v)	Reclamation	0.00	3.63
		(vi)	Occupational health	56.00	37.75
		(vii)	Green belt (3.63 Ha)	113.90	38.64
		(viii)	Others (Expert advice, other studies, etc.)	37.45	16.72
		(ix)	Interest on capital cost		66.21
		(x)	Overheads (3% of Dep., Energy, R&M & Interest)		7.08
			<b>Total</b>	<b>583.90</b>	<b>427.42</b>
		<p>The details of the components of the various headings in the above table are uploaded in the ADS reply. Thus, the EMP capital cost has been revised from Rs. 245.35 lakhs to Rs. 583.9 lakhs and the recurring cost has been revised from Rs. 272.27 lakhs to Rs. 427.42 lakhs.</p>			
5	Time bound action plan to reduce the transportation of coal by road shall be submitted.	<p>Coal mine is not linked to any end user plant. Sale of coal will be through e-auction or directly by consumers through mutually agreed rates. The company's Steel Plant at Eklari in Bhandara district (200 km) will also be a potential end user.</p> <p>Thus, in order to minimise the road distances, following <b>action plan</b> will be implemented:</p> <ul style="list-style-type: none"> <li>(i) Nearest railway sidings, namely, Hindustan Lalpeth Colliery siding at Babupeth (~7 km), Ballarpur Colliery siding at Ballarshah (~16 km) and Rayatwari Colliery siding at Chandrapur (~9 km) will be used, to the extent possible.</li> <li>(ii) Any transportation of coal to Company's steel plant at Eklari in Bhandara district shall be through road-cum-rail combination to minimise the road transportation.</li> <li>(iii) While signing the agreement with long term consumers, one clause related to transportation of coal shall be added to encourage transportation to nearest railway siding (as per capacity of siding) by road and from there by rail. Additional clause related to minimum size of truck to be use shall also be included.</li> <li>(iv) The capacity of truck shall be increased to 25 T as compared to 20 T presently proposed. Furthermore, the number of days of transportation will be increased from 330 days to 350 days. Thereby reducing the number of trucks trips (to &amp; fro) from 220 trucks/ day to 164 trucks/day, which is a reduction by 25.5%.</li> <li>(v) Fleet size will be of 6-8 trucks approximately.</li> </ul>			

S. No.	ADS Point	Reply/Response of PP																																																
		No separate time period will be required for implementation of the above since they will be implemented right from the beginning of coal production.																																																
6	Action plan for safe passage/ right to pass of the villagers in midst of the mine infrastructure facilities shall be submitted.	<p>Underground facility area and associated infrastructures/ utility facility limited and restricted within 9.09 Ha only on the surface. 792.91 ha shall remain undisturbed. The paddy fields adjoining to the proposed underground facility area shall remain approachable from three directions as per the ADS reply via existing metaled road &amp; kuccha path between fields. However, an action plan has been made for providing safe passage/ right to pass to villagers as follows:</p> <ul style="list-style-type: none"> <li>(i) To ensure free movement along boundary of proposed underground facility area, pucca road will be constructed on the western side as well as eastern side, as seen in Fig 1. This will ensure that no right of passage is affected of any villager.</li> <li>(ii) Signboards, lights and markings will be there on roads for safe movement of villagers</li> <li>(iii) The roads will be constructed in the first month of commencement of infrastructure construction activities and complete</li> <li>(iv) Total length of road to be constructed will be approximately 930 m of 7 m width</li> <li>(v) Budget for land purchase and construction will be Rs. 1 crore approximately</li> </ul>																																																
7	A comparative study of the volume of ground water in mine seepage and the dynamic groundwater available in that area, monitoring of the ground water quality to assess the effect of mine seepage water on Wardha river and mitigation plan as per the observation no. xii shall be submitted.	<p>Based on the approved mine plan and the proposed mine working during the underground life of mine i.e. 64 years, the year wise and depth wise anticipated mine seepage is estimated below:</p> <p style="text-align: center;"><b>TABLE : YEAR WISE PEAK DAILY ACNTICIPATED MINE SEEPAGE (MONSOON)</b></p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Year</th> <th>Year wise</th> <th>Depth (m)</th> <th>Anticipated monsoon seepage</th> <th>Annual Seepage</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td><b>KLD</b></td> <td><b>Ha.m.</b></td> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>2025-26</td> <td>0</td> <td colspan="2">Construction Phase</td> </tr> <tr> <td>2</td> <td>2</td> <td>2026-27</td> <td>70</td> <td>284</td> <td>10</td> </tr> <tr> <td>3</td> <td>3</td> <td>2027-28</td> <td>72</td> <td>500</td> <td>18</td> </tr> <tr> <td>4</td> <td>4</td> <td>2028-29</td> <td>75</td> <td>1077</td> <td>39</td> </tr> <tr> <td>5</td> <td>5</td> <td>2029-30</td> <td>78</td> <td>1491</td> <td>54</td> </tr> <tr> <td>6</td> <td>6</td> <td>2030-31</td> <td>80</td> <td>1491</td> <td>54</td> </tr> </tbody> </table>	S. No.	Year	Year wise	Depth (m)	Anticipated monsoon seepage	Annual Seepage					<b>KLD</b>	<b>Ha.m.</b>	1	1	2025-26	0	Construction Phase		2	2	2026-27	70	284	10	3	3	2027-28	72	500	18	4	4	2028-29	75	1077	39	5	5	2029-30	78	1491	54	6	6	2030-31	80	1491	54
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S. N o.	ADS Point	Reply/Response of PP					
		7	7	2031-32	83	1491	54
		8	8	2032-33	86	1491	54
		9	9	2033-34	89	1598	58
		10	10	2034-35	92	1598	58
		11	11	2035-36	98	1704	62
		12	12	2036-37	102	1704	62
		13	13	2037-38	105	1832	67
		14	14	2038-39	109	1832	67
		15	15	2039-40	115	1917	70
		16	16	2040-41	122	1917	70
		17	17	2041-42	129	2024	74
		18	18	2042-43	136	2024	74
		19	19	2043-44	146	2130	78
		20	20	2044-45	152	2130	78
		21	21	2045-46	160	2130	78
		22	22	2046-47	164	2343	86
		23	23	2047-48	170	2343	86
		24	24	2048-49	225	2983	109
		25	25	2049-50	235	3622	132
		26	26	2050-51	245	3622	132

MoM of 18<sup>th</sup> meeting of the EAC for Coal Mining sector held on 27<sup>th</sup> November, 2024

S. N o.	ADS Point	Reply/Response of PP					
		27	27	2051-52	255	3622	132
		28	28	2052-53	265	3622	132
		29	29	2053-54	200	2663	97
		30	30	2054-55	210	2770	101
		31	31	2055-56	214	2770	101
		32	32	2056-57	219	2876	105
		33	33	2057-58	225	2876	105
		34	34	2058-59	230	2983	109
		35	35	2059-60	239	2983	109
		36	36	2060-61	190	2663	97
		37	37	2061-62	193	2663	97
		38	38	2062-63	196	2663	97
		39	39	2063-64	198	2663	97
		40	40	2064-65	200	2663	97
		41	41	2065-66	195	2663	97
		42	42	2066-67	196	2663	97
		43	43	2067-68	199	2663	97
		44	44	2068-69	203	2663	97
		45	45	2069-70	203	2663	97
		46	46	2070-71-	205	2663	97

MoM of 18<sup>th</sup> meeting of the EAC for Coal Mining sector held on 27<sup>th</sup> November, 2024

S. N o.	ADS Point	Reply/Response of PP					
		47	47	2071-72	206	2663	97
48	48	2072-73	207	2663	97		
49	49	2073-74	207	2663	97		
50	50	2074-75	208	2663	97		
51	51	2075-76	208	2663	97		
52	52	2076-77	210	2663	97		
53	53	2077-78	211	2663	97		
54	54	2078-79	212	2663	97		
55	55	2079-80	213	2663	97		
56	56	2080-81	213	2663	97		
57	57	2081-82	214	2663	97		
58	58	2082-83	215	2663	97		
59	59	2083-84	215	2663	97		
60	60	2084-85	216	2663	97		
61	61	2085-86	217	2663	97		
62	62	2086-87	217	2663	97		
63	63	2086-88	217	2663	97		
64	64	2086-89	217	2663	97		
		<b>Minimum</b>	<b>70</b>	<b>284</b>	<b>10</b>		
		<b>Maximum</b>	<b>265</b>	<b>3622</b>	<b>132</b>		



S. N o.	ADS Point	Reply/Response of PP																			
			Average	178	2407	88															
		<p>The maximum mine seepage during the monsoon for Bhivkund U/G Coal Mine is anticipated to be 3622 KLD during the 25<sup>th</sup> to 28<sup>th</sup> year of operation. The average seepage during the entire life of the mine is projected to be around 2407 KLD (88 Ha.m.). Seepage during the dry season will be significantly lower.</p> <p><b>Groundwater Resources Analysis:</b> The ground water resources for Ballarpur block for the year 2023 are sourced from the INGRES portal. The following table provides a summary of the groundwater availability and usage in the region:</p> <table border="1"> <thead> <tr> <th>Ground Water Resources of Ballarpur Block, District: Chandrapur, (Maharashtra)</th> <th>Year 2023 Value (Ha.m)</th> </tr> </thead> <tbody> <tr> <td>Annual Domestic and Industrial Draft</td> <td>532.78</td> </tr> <tr> <td>Annual Irrigation Draft</td> <td>492.79</td> </tr> <tr> <td>Annual Groundwater Draft (Total)</td> <td>1025.57</td> </tr> <tr> <td>Annual Replenishable Groundwater Resources (Total)</td> <td>6064.32</td> </tr> <tr> <td>Net Groundwater Availability</td> <td>5761.11</td> </tr> <tr> <td>Stage of Groundwater Development (%)</td> <td>17.80</td> </tr> <tr> <td>Categorization</td> <td>Safe</td> </tr> </tbody> </table> <p>As on date Ballarpur block shows ground water development of just 17.80% and hence is categorized as SAFE for further development. The net ground water availability for same is found to be @5761 Ha.m. Hence, Considering the mine seepage on higher side @5000m<sup>3</sup>/day (during 25<sup>th</sup> to 28<sup>th</sup> year) due to nearness of Wardha river; the mine seepage @182.5 Ha.m. per annum will not have significant effect on this situation. This mine seepage is just 3.16% of the ground water resources of Ballarpur block. The annual mine seepage is anticipated to be 88 Ha.m. (~1.53%) which will not affect these statistics significantly. Hence, the ground water resources of Ballarpur block are not envisaged to be disturbed significantly owing to the mine seepage.</p> <p><b><u>Mitigation measures for the effect of mine seepage water on Wardha river</u></b></p> <p>To ensure that groundwater seepage and discharge from the Bhivkund U/G Coal Mine does not negatively affect the local environment, the following mitigation measures will be implemented:</p> <p>(i) The quantum of mine seepage or mine discharge will be monitored by installing the flow meters with telemetry on the</p>				Ground Water Resources of Ballarpur Block, District: Chandrapur, (Maharashtra)	Year 2023 Value (Ha.m)	Annual Domestic and Industrial Draft	532.78	Annual Irrigation Draft	492.79	Annual Groundwater Draft (Total)	1025.57	Annual Replenishable Groundwater Resources (Total)	6064.32	Net Groundwater Availability	5761.11	Stage of Groundwater Development (%)	17.80	Categorization	Safe
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S. N o.	ADS Point	Reply/Response of PP																																										
		<p>dewatering pumps and the bore wells. It will be done immediately. The daily data will be maintained and seasonal data will be shared with the Regional office (CGWB).</p> <p>(ii) Any abnormal mine seepage/ dewatering will be reported to them and NOC regarding same will be obtained.</p> <p>(iii) The water from the underground working will be evacuated through inclines or boreholes drilled for the purpose. The main sump of the mine will be near the landing of the inclines at Section-III, but subsidiary sumps at other locations will be created as needed. The pumps will be as follows:</p> <table border="1"> <thead> <tr> <th>Sl. N o.</th> <th>Location</th> <th>Numbers</th> <th>Capacity (GPM)</th> <th>Voltage (KV)</th> <th>Head (m)</th> <th>KW</th> </tr> </thead> <tbody> <tr> <td>i</td> <td>Main pump (Sector II)</td> <td>3</td> <td>1000</td> <td>3.3</td> <td>150</td> <td>200</td> </tr> <tr> <td>ii</td> <td>Stage pump (Sector I)</td> <td>2</td> <td>1000</td> <td>550</td> <td>100</td> <td>90-130</td> </tr> <tr> <td>iii</td> <td>Stage pump (Sector III)</td> <td>2</td> <td>1000</td> <td>550</td> <td>100</td> <td>90-130</td> </tr> <tr> <td>iv</td> <td>Stage pump (Sector IV)</td> <td>3</td> <td>1000</td> <td>550</td> <td>100</td> <td>90-130</td> </tr> <tr> <td>v</td> <td>Stage pump (Sector VI)</td> <td>2</td> <td>1000</td> <td>550</td> <td>100</td> <td>90-130</td> </tr> </tbody> </table> <p><b>Source: Table given in section 5.3 of approved Mine plan and Mine Closure Plan (first Modification dated 23/08/2022).</b></p> <p>Face pumps of 10 kw, capacity for each panel, during drifting works etc, will be additionally provided wherever required.</p> <p>(iv) The entire UG mine seepage will be pumped to the surface into the sedimentation tank. It will be 100% reutilized within mine for sprinkling &amp; greenbelt irrigation, for first 5 years. Thereafter, with increase in seepage, excess can be given to:</p> <ul style="list-style-type: none"> <li>• Nearby farmers for irrigation,</li> <li>• Villagers for non-potable other use</li> <li>• Nearby industries or</li> </ul>	Sl. N o.	Location	Numbers	Capacity (GPM)	Voltage (KV)	Head (m)	KW	i	Main pump (Sector II)	3	1000	3.3	150	200	ii	Stage pump (Sector I)	2	1000	550	100	90-130	iii	Stage pump (Sector III)	2	1000	550	100	90-130	iv	Stage pump (Sector IV)	3	1000	550	100	90-130	v	Stage pump (Sector VI)	2	1000	550	100	90-130
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S. No.	ADS Point	Reply/Response of PP												
		<ul style="list-style-type: none"> <li>• Discharged into nearby stream as being practiced by other operational mines in the surrounding area, ensuring compliance to MPCB norms.</li> <li>• The mine seepage shall be released in the Wardha river after proper treatment according to the MPCB/CPCB norms.</li> </ul> <p>(v) The quality of Wardha river at the upstream and downstream portions of the mine will be monitored quarterly every year.</p> <p>(vi) Four groundwater level monitoring stations will be installed on the downstream side of the mining area, and one station will be placed on each of the remaining two sides. These stations will constantly monitor the static water level (SWL). The SWL in ML area will be monitored by constructing piezometers (200 mm dia and 250 m depth) with telemetry- 4 on the downstream side and 1 each on the other two sides. This will be implemented in the first year of development of mine, prior to commencement of production. The water level will be monitored for all piezometers and the record will be shared with the Regional Office (CGWB).</p> <p>(vii) Map showing the proposed location of the ground water monitoring stations is given in <b>Annexure- 3 of uploaded letter</b>. (Actual location of monitoring stations will be constructed after consultation with the concern authority (CGWB), Nagpur)</p> <p>(viii) The quality of mine seepage, ground water from bore wells and Dug wells will be monitored quarterly and the result to be shared with Concerned Authority</p> <p>(ix) The management and the working team of Bhivkund underground mine to monitor constantly the mine seepage. Any abnormal seepage to be immediately brought to the notice of concerned authority.</p> <p>(x) Monitoring systems will be installed at strategic points upstream and downstream of the mine. This will allow for real-time observation of water flow and quality changes in the river. In the event of any adverse impacts from mine seepage, mitigation measures, including water treatment, will be implemented promptly.</p>												
8	Levels of mercury and arsenic present in the ground water samples in the ML area.	<p>Mercury and Arsenic in two ground water samples from ML area, namely, Visapur and Nandgaon Poda villages is as follows:</p> <table border="1"> <thead> <tr> <th>Location</th> <th>Visapur village</th> <th>Nandgaon Poda villages</th> <th>Acceptable Limits (IS 10500:2012)</th> </tr> </thead> <tbody> <tr> <td>As, mg/l</td> <td>BDL</td> <td>BDL</td> <td>0.01</td> </tr> <tr> <td>Hg, mg/l</td> <td>BDL</td> <td>BDL</td> <td>0.001</td> </tr> </tbody> </table> <p><i>Note: BDL for As is 0.01 mg/l &amp; Hg is 0.001mg/l</i>  <i>Source: Report no. MMW/11-22/11 dt. 22.11.2022 and MMW/10-24/37 dt. 16.10.2024</i></p>	Location	Visapur village	Nandgaon Poda villages	Acceptable Limits (IS 10500:2012)	As, mg/l	BDL	BDL	0.01	Hg, mg/l	BDL	BDL	0.001
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S. N o.	ADS Point	Reply/Response of PP
9	Action plan for installation of solar power in the ML area shall be submitted	<p>Rooftop installation of solar panels in infrastructure area shall be carried within 1 year of completion of construction. The solar power generation shall be as follows:</p> <ul style="list-style-type: none"> <li>(i) Capacity : 1000 KWp</li> <li>(ii) Area requirement: 10,000 sq. mtr</li> <li>(iii) Installation at UG facility area on roof tops of Administrative Buildings, MVTC, Canteen, Security, Crèche, Workers Rest Room, Driver's Rest room, Sampling Lab, Repair shop, Pit Head Store, Clay Pill Shed, Control room, First aid Room, Officers rooms, Main stores and closed sheds</li> <li>(iv) Budget : Rs. 5 Crore</li> </ul> <p>Power generated will be used within mine. As far as rest of ML area is concerned, land and homestead owners in Nandgaonpode and Visapur shall be given awareness training to install solar panels for their own use or to give to the grid. Provision for annual awareness program and interaction meets with solar expert shall be organised in the aforementioned two villages at a cost of Rs. 20,000 per annum, as a part of the CSR activities.</p>

#### 18.1.18: Written Submissions:

Project Proponent has given the undertaking stating the following:

1. To utilise CNG/LNG/E-trucks as part of the coal transportation fleet. Company will target to deploy 15-20% of overall fleet of dumpers/trucks as electrical or CNG/LNG based dumpers/trucks for transportation of coal.
2. The capacity of truck used for transportation of coal shall be increased, as possible according to road conditions, thereby reducing the number of trucks trips (to & fro) trucks/day.
3. To provide a rain water harvesting pond in government land at a budget of Rs. 10 lakhs.
4. To increase tree plantation by additional 5,000 saplings along field boundary, subject to acceptance/ agreement by land owners. Additional budgetary provision of Rs. 25 lakhs shall be kept for the same.
5. To complete the "Comprehensive aquatic ecology study" by engaging specialized agency covering all seasons from upstream, middle stream and downstream of Wardha river & the major tributaries within the study area, prior to the commencement of production of the mine.
6. To fulfill the additional budgetary requirement that will emerge from the findings & recommendations of the "Comprehensive aquatic ecology study" by specialised agency as mentioned above.
7. To increase the Budgetary Plan for wildlife conservation by adding the cost incurred for implementation of point no. 6 above.

8. Track roads of approximately 930 m length, existing along the boundary of utility area, will be made pucca road in the first month of commencement of infrastructure development, to enable villagers to approach their fields without hindrance.
9. PP uploaded pointwise response to the concerns raised in the public representation pertaining to the instant proposal under consideration

### **Deliberations and Observation of the Committee:**

#### **18.1.19: The Committee noted the following:**

1. The instant proposal is for greenfield project for grant of Environment Clearance (EC) for Bhivkund Coal Mine of M/s Sunflag Iron & Steel Company Ltd, located at Villages: Ballarpur, Nandagaon Poda & Visapur; District: Chandrapur; State: Maharashtra. The said project has been earlier appraised in 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup> October 2024 and was deferred for want of additional information. ADS was submitted by the proponent on 06.11.2021. Now proposal is again placed in 18<sup>th</sup> EAC Meeting being held on 27.11.2024 before the EAC for appraisal.
2. The EAC took into consideration the project site through kml file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH. The Project site is located within 10 km radius of CPA MIDC Chandrapur (10km, NW) and CPA MIDC Ballarpur area (0.03 km, E) as per CEPI Assessment 2018. However, the project site is not falling within the CPA & SPA as per CEPI assessment 2018. PP submitted the details of mitigation measures to be undertaken in this regard at para no. 18.1.17.
3. The total project area is 802 Ha and it doesn't involve any forestland. Further, the project is not located within 10 km of any ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ tiger corridor/elephant corridor etc. However, it is located within 6.48 km from the notified Eco Sensitive Zone of Tadoba Andhari Tiger Reserve. PP submitted a letter dated 18.04.2022 from DFO, stating that ESA of Tadoba Andhari Tiger Reserve is located at a distance of 6.48 km (aerially) from the project and core boundary of Tadoba Andhari Tiger Reserve is at the distance of 23.59 km.
4. The Wildlife Conservation Plan has also been prepared and approved by the Principal Chief Conservator of Forest (Wildlife), Maharashtra State vide letter No. SEC-23(2)/VAZI/ SURVEY/ PRO.NO.180/2049/2023-24 dated 03.10.2023. Further, it also stated that the proposed project does not require wildlife approval as there is no national park/ sanctuary/ wildlife trekking route within 10 km of the mine lease area. As per the suggestions of the 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup> October 2024 the PP has enhanced the Wildlife Conservation Plan budget which includes the aquatic biodiversity including the flora and fauna species present in the flood plain of Wardha River. The Wildlife Conservation Plan Budget has been enhanced from Rs. 25 Lakhs to Rs. 79.5 Lakhs. The revised plan is as follows:

S. No.	Description	Amount in Lakhs (Rs.)
1.	Nursery Management for Raising Key Floral Species (10,000 saplings initially)	5
2.	Green Belt in Safety Zone (25% cost, balance 75% included in EMP)	4.55
3.	Avenue Plantation Management (2.3 km from north of Nandgaonpode to UG facility area)	5.75
4.	Exotic/ Invasive Species Management	7.2
5.	Watch Tower Management (4 nos.)	10
6.	Comprehensive aquatic ecology study by specialised agency covering all seasons from the upstream, middle stream and downstream of the Wardha river and the major tributaries within the study area. Identification of intervention areas and recommendations.	15
7.	Protection of micro & macro flora & fauna in seasonal tributaries passing through ML through development of reed bed systems for treatment of sewage at Nandgaonpode & Visapur	20
8.	Native fish conservation measures. facilitating local fishermen for fish seed, Identification of invasive species, spreading awareness about impact of invasive species and their mitigation. skill development & capacity building by trainings through expert agency.	12
<b>TOTAL</b>		<b>79.5</b>

5. The Committee further deliberated on the Comprehensive Ecology Study being done by the proponent, as part of WLCP. Committee is of the opinion, that the recommendations of the study for protection of flora and fauna should form part of WLCP and accordingly, the budget of WLCP shall be increased. Also, this particular study is required to be conducted prior to the commencement of operation of mine. The Committee also sought undertaking from PP in this regard and the same has been submitted.
6. Terms of Reference was granted on 15.03.2023, vide letter no. J-11015/252/2010-IA-II(I). It was further amended vide letter dated 01.06.2023. The amendment sought was regarding the condition to modify the mine plan for UG and EIA/EMP shall be prepared for UG mining operations only. The amendment sought was “EIA/ EMP shall be prepared for UG mining operations as per the existing mine plan, which shall be modified at a later stage as per the guidelines of MOC.” The ToR is valid till 14.03.2026.
7. The Committee deliberated on the Public Hearing and observed that the PH was conducted on 24.04.2024 at the project site under the presiding officer Shri Sanjay Pawar, Additional District Magistrate. PH was attended by 157 people. 1561 written representation were received from within the district, out of which 1012 representations were in favour of the project for employment, growth and development of the area while the others opposed the project. Major concerns related raised during the PH were related to depletion of water table, provision of potable water, control of environmental pollution, discharge of acidified mine water containing heavy metals, land acquisition, presence of various wild animals like bear, tiger, deer, etc., employment to local and

damage to crops due to transportation of coal. PP presented the video of Public Hearing during appraisal.

8. Committee deliberated on the EMP Cost of the project and observed that the PP has revised and enhanced the EMP cost as per the suggestions of 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup> October 2024. The revised EMP cost submitted by the PP is Rs. 5.839 crores (capital cost) & Rs. 4.72 crores (recurring cost). Details of the same is mentioned in para 18.1.8. EMP has been revised by incorporating the mitigation measures to be adopted in accordance with the Ministry's OM dated 31.10.2019 as the project is just 0.03 km away from CPA and budget for concurrent plantation.
9. The Committee deliberated on the plantation activities proposed by the PP. Committee observed that initially the plantation will be carried out in 3.64 Ha area. Plantation is also proposed as peripheral greenbelt (including 7.5 m safety zone), along the sides of haul roads (outside quarry area) and other vacant areas. It has been observed that the area proposed for plantation is only 0.45% of the total project area but 40% of the UG facility area. The Committee is of the opinion that gap plantation should be done by the PP and saplings to be planted should be increased. The Committee also suggested that, atleast 1000 fruit bearing trees should be planted on the lands of farmers.
10. The Committee also deliberated on the agricultural land present within the ML Area, and is of the opinion that the same should not be disturbed.
11. The Committee deliberated on the method of transportation for coal proposed for the instant proposal. The Committee observed that the transportation of coal will majorly take place through roads. The Committee is of the opinion that coal transportation shall be done only through tarpaulin covered trucks. As per the suggestions of the 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup> October 2024, PP has submitted a plan to reduce the coal transportation by road. PP submitted that the company will target to deploy 15-20% of the overall fleet of dumper/ trucks as electrical or CNG/ LNG based dumper/ trucks for transportation of coal.
12. The Committee also deliberated on the location of the mine incline and deliberated on the safe passage/ right of way to villagers. PP submitted that the paddy fields adjoining to the proposed underground facility area shall remain approachable from three directions via existing metaled road & kuccha path between fields. And to ensure free movement along boundary of proposed underground facility area, pucca road will be constructed on the western side as well as eastern side. This will ensure that no right of passage is affected of any villager. Also, Signboards, lights and markings will be there on roads for safe movement of villagers. The roads will be constructed in the first month of commencement of infrastructure construction activities and complete at the earliest. Total length of road to be constructed will be approximately 930 m of 7 m width and budget for land purchase and construction will be Rs. 1 crore approximately. On advice of the Committee, PP submitted that this particular road will be constructed in the development stage itself.
13. The Committee observed that, there is no diversion of River/ Nallah proposed.
14. The Committee observed that the power requirement for the said project is 12.6 MVA and no Hi-Tension Line/ Transmission Line is proposed for diversion.

15. The Committee deliberated on the quality of ground water available in the mine area. Committee sought a relative comparison of the volume of ground water of mine seepage to that of available dynamic ground water resources in that area. As per the suggestions of the 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup> October 2024, PP has submitted the groundwater analysis and mitigation measures for the effect of mine seepage water on Wardha River and levels of mercury and arsenic present in the groundwater samples of ML area. PP has also submitted the map showing the locations proposed for installation of groundwater monitoring stations. As the Committee suggested, PP submitted that the quality of Wardha river at the upstream and downstream portions of the mine will be monitored quarterly every year. Four groundwater level monitoring stations will be installed on the downstream side of the mining area, and one station will be placed on each of the remaining two sides. These stations will constantly monitor the static water level (SWL). The SWL in ML area will be monitored by constructing piezometers (200 mm dia and 250 m depth) with telemetry- 4 on the downstream side and 1 each on the other two sides. This will be implemented in the first year of development of mine, before the commencement of production. The water level will be monitored for all piezometers and the record will be shared with the Regional Office (CGWB).
16. The Committee also deliberated on the groundwater levels and is of the opinion, that to maintain the continuity of groundwater flow deep inside and around the mine area, PP should make artificial recharge systems. Committee also opined that the mine seepage water should be utilized for agriculture purpose in ML area as well as in river flow. Committee also suggested the PP to construct groundwater recharge ponds. The Committee also advised, that in case of abnormal mine seepage/ dewatering, the same shall be reported to concerned CGWB. PP submitted that the mine seepage will be pumped to the surface into the sedimentation tank. It will be 100% reutilized within mine for sprinkling & greenbelt irrigation, for first 5 years. Thereafter, with increase in seepage, excess can be given to, nearby farmers for irrigation, villagers for non-potable other use, nearby industries or will be discharged into nearby stream as being practiced by other operational mines in the surrounding area, ensuring compliance to MPCB norms. The mine seepage shall be released in the Wardha river after proper treatment according to the MPCB/ CPCB norms to avoid any water pollution in the area.
17. Committee deliberated on the utilization of OB generated during the installation of mine shaft and mine incline. PP submitted that the same will be used in infrastructure development.
18. There is no court case pending on the project.
19. Committee deliberated on the measures proposed by the PP for green energy. As per the suggestions of the 16<sup>th</sup> EAC Meeting held on 1<sup>st</sup> & 8<sup>th</sup> October 2024, PP has submitted an action plan for the rooftop installation of solar panels in the infrastructure area within 1 year of completion of construction. PP submitted that it shall generate 1000 KWp and budget allocated for the same is 5 Crore. Power generated will be used within the mine. PP also submitted that as far as rest of ML area is concerned, land and homestead owners in Nandgaonpode and Visapur shall be given awareness training to install solar panels for their own use or to give to the grid. Provision for annual awareness program and interaction meets with solar expert shall be organised in the



aforementioned two villages at a cost of Rs 20.000 per annum, as a part of the CSR activities. Committee also suggested that the villagers must be provided the LPG Cylinders and should be encouraged to use the solar energy.

20. The Committee received the comments on the said project through an anonymous mail. All those comments had been deliberated during the appraisal.
21. The Committee deliberated on the baseline data and incremental GLC due to the proposed project and observed that AAQ levels are within NAAQS.
22. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components.
23. The EAC also deliberated on the additional information as well as written submission of the project proponent and found it satisfactory.

#### **Recommendations of the Committee:**

**18.1.20:** 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 shall undertake and complete “Comprehensive aquatic ecology study” by specialised agency covering all seasons from upstream, middle stream and downstream of Wardha river & the major tributaries within the study area prior to the commencement of production of the mine. Furthermore, the PP shall fulfill the additional budgetary requirement that will emerge from the findings & recommendations of the said report and make provisions in the EMP for the same. Copy of the study report and provisions made under the EMP shall be submitted to the Ministry and concerned Regional Office of MoEF&CC. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office and also kept on the web portal of the company.
- ii. Project proponent shall undertake protection of micro & macro flora & fauna in seasonal tributaries passing through ML area by developing reed bed systems for treatment of sewage at Nandgaonpode & Visapur as committed.
- iii. Project proponent shall undertake native fish conservation measures by facilitating local fishermen for fish seed, identification of invasive species, spreading awareness about impact of invasive species and their mitigation, skill development & capacity building by trainings through expert agency.

- iv. Project proponent shall install ground water monitoring piezometers (6 nos.) with telemetry prior to commencement of production. Four on the downstream side of the mining area and one station will be placed on each of the remaining two sides, to monitor static water level. The water level will be monitored for all piezometers and the record will be shared with the Regional Office (CGWB).
- v. PP shall ensure that entire UG mine seepage will be pumped to the surface into the sedimentation tank. It will be 100% reutilized within mine for sprinkling & greenbelt irrigation. Excess treated shall be given to nearby farmers for irrigation, villagers for non- potable other use, nearby industries or discharged into nearby stream after ensuring compliance to MPCB norms.
- vi. The quality of Wardha River at the upstream and downstream portions of the mine shall be monitored quarterly every year. Further, the quality of mine seepage, ground water from bore wells and Dug wells shall be monitored quarterly. Compliance in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office and also kept on the web portal of the company.
- vii. Project proponent must make provision for and include LNG/ CNG/ E-trucks as part of the coal transportation fleet. Trucks should be covered with tarpaulin before leaving the loading area.
- viii. Project proponent shall install 1000 KWp solar power in the ML area as committed.
- ix. Project proponent shall provide a rain water-harvesting pond in ML area and outside facility area. Further, PP shall make artificial recharge systems to maintain the continuity of groundwater flow deep inside and around the mine area.
- x. Green belt shall be developed in an area of 3.64 Ha (40% of 9.09 Ha) by planting 9000 saplings in first year of mining operations. Local and native species will be planted with a density of 2500 trees per hectare. Further, additional plantation in government land 10 ha shall be carried out as committed. In addition to this, avenue plantation (6.1 km) from UG facility area to Colliery road intersection near Golpuliya, Ballarshah shall also be carried out.
- xi. Low height noise absorption barriers along peripheral road of Nandgaonpode & Visapur shall be provided.
- xii. Project proponent shall install 1 continuous ambient air quality monitoring station at suitable location preferably village side in consultation with SPCB. The real time data so generated shall be uploaded on company website and linked it with website of CPCB & SPCB. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.
- xiii. Project proponent shall adopt measures for protection of Wardha river such as establishing Settling pond in facility area, make provisions for Mine Sump Water monitoring system and establishing river water level monitoring station prior to commencement of production.

- xiv. The budget proposed for PH is Rs 7.133 Crores. The budget proposed shall be kept in a separate account and audited annually. Project proponent shall implement the action plan to address the issues raised during public hearing within a time frame of 3 years from the date of grant of EC. PP shall submit the progress report regarding the implementation of action plan to concerned RO along with the six monthly compliance report.
- xv. PP shall implement the protective measure proposed in Environment Management Plan (EMP) in a time-bound manner. The budget earmarked for the same is Rs 5.83 Crores (Capital) and Rs 4.27 crores (recurring) and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year.
- xvi. PP shall follow the recommendation of subsidence study and monitor the degree of subsidence regularly and shall be submitted to concerned Regional Office of MoEF&CC.
- xvii. PP shall implement Effluent Treatment Plant for wastewater generated from workshop and Sewage Treatment Plan for its colony. No untreated water shall be discharged from mine boundaries to ponds/nallah/river.
- xviii. PP shall use the OB generated during the installation of mine shaft and mine incline in infrastructure development.
- xix. Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, 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. The prevention measures for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- xx. PP to install solar lights along the road used for transportation of minerals to avoid the accidents at night and also carry out its maintenance.
- xxi. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
- xxii. PP to maintain the transportation road properly to minimize the dust emission. PP to also develop pucca/concrete roads by seeking consent from the panchayat with widening of roads especially roads inter linking the villages within the study area of 10 km radius buffer zone.

- xxiii. PP to accomplish the recruitment of a full-fledged qualified manpower with Environmental Engineer/Environment Science degree background in Environment Management Cell. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office of MoEF&CC.
- xxiv. PP shall pay to farmers of agricultural land if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms.
- xxv. 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.
- xxvi. Wildlife conservation plan as approved by the competent authority shall be implemented. Additional, budget shall be added in the plan, in case additional measures suggested by state wildlife department. The final Wildlife conservation plan duly approved by the CWLW shall be submitted to RO, MoEF&CC within a time frame of three months from the date of grant of EC and the budget approved by the concerned authority shall be deposited in government account.
- xxvii. PP shall ensure that all types of plastic waste generated from the plant shall be stored separately in isolated area and disposed of strictly adhering to the Plastic Waste Management Rules 2016 (as amended). In pursuant to the Ministry's OM dated 18/07/2022. PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic (SUP) in order to ensure compliance of Ministry's Notification published by the Ministry on 12/08/2021. A report along with photograph on the measures taken shall also be included in the six monthly compliance report being submitted by PP.

**B. Standard Conditions:**

**1. Statutory Conditions:**

- i. The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
- iv. 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.

- v. The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- vi. Solid/hazardous waste generated in the mines needs to be addressed in accordance with the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.
- vii. Permission of power supply to be taken from the concerned authority for meeting power demand of the project site.
- viii. The maximum production or peak production at any given time shall not exceed the limit as prescribed in the EC.
- ix. Validity of EC is as per life of the mine mentioned in EC letter or 30 years as per EIA Notification, 2006 and its amendments therein.

## **2. Air Quality Monitoring and Mitigation Measures**

- i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO<sub>2</sub> and NO<sub>x</sub>. 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. Online ambient air quality monitoring station/stations may also be installed in addition to the regular air monitoring stations as per the requirement and/or in consultation with the SPCB.
- ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- iii. Transportation of coal, to the extent if permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water sprinkling/rain gun/Fog cannon /mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- iv. Major approach roads shall be black topped and properly maintained.
- v. The transportation of coal shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed that the impact of sound, dust and accidents could be appropriately mitigated.
- vi. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- vii. PP should Install Wind breaker/shield arrangement along the railway siding for

reducing the dust propagation in upwind direction.

- viii. Post environmental closure third party monitoring by reputed institution in air quality, water, land & soil etc shall be carried out and analysed with EMP measures at regular interval. A suitable recommendation in this regard, shall be furnished to RO, MoEF&CC for compliance. The data used for analysis shall be obtained from continuous AQMS, site-specific water regime. Also, third party shall analyse the implementation of river diversion, meeting to the requirement of project report.

### **3. Water Quality Monitoring and Mitigation Measures**

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- iii. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.
- iv. Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff
- v. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly
- vi. Industrial wastewater from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic wastewater.
- vii. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.

- viii. The project proponent shall take all precautionary measures to ensure reverian/ riparian ecosystem in and around the coal mine upto a distance of 5 km. A reverian /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.
- ix. No obsolete technologies for sewage treatment shall be implemented. Construction of Sewage Treatment Plant with latest technology should be completed within 2 years and treated water shall be reused for plantation. CTE and CTO of STP shall be obtained as per the norms.

#### **4. Noise and Vibration Monitoring and Prevention**

- i. Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
- ii. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

#### **5. Mining Plan**

- i. 5- Star Rating is mandatory to obtain certification as per guidelines of Ministry of Coal.
- ii. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- iii. No change in mining method i.e. UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).
- iv. Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- v. Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.
- vi. No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.
- vii. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.
- viii. Transportation by Railway Siding shall be developed to avoid transportation by Road.

#### **6. Land Reclamation**

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and

Climate Change (MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).

- ii. Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- iii. Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.
- iv. A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.
- v. Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.
- vi. Native tree species shall be selected and planted over areas affected by subsidence.
- vii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

#### **7. Public Hearing and Human Health Issues:**

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
- ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time
- iii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.
- v. Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
- vi. Implementation of the time bound 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 time bound 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.
- vii. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z11013/5712014-IA.II (M) dated 29<sup>th</sup> 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. PP should conduct epidemiology study for analysis of the distribution, patterns and determinants of health and disease conditions in defined populations.

#### **8. Corporate Environment Responsibility:**

- i. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders
- ii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- iii. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
- iv. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

#### **9. Miscellaneous:**

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of

Environment, Forest and Climate Change at environment clearance portal.

- v. The project proponent shall submit the environmental statement for each financial year in Form V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vi. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports
- xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xv. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.
- xvi. Compensation of the land acquired for the project shall be settled as per the R&R Policy. Adequate facility of drinking water, plantation and other social amenities should be provided to established R&R villages.
- xvii. Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.

**Agenda No. 18.2**

**18.2: Chandragupt Opencast Coal Mine Project (area 1495 Ha having capacity 20 MTPA) by M/s Central Coalfields Limited, located at Villages: Ursu, Bhadaikhap, Sejhua, Bukru, Chatti Bariatu, Jordag, Nawa Khap, Pachanra & Peto; District: Hazaribagh & Chatra; State: Jharkhand – Environment Clearance – reg.**

**[Online Proposal No. IA/JH/CMIN/501930/2024; Consultant: CMPDI, NABET/EIA/22-25/SA0223, valid up to 08.04.2025]**

**18.2.1:** M/s Central Coalfields Limited has made an online application vide proposal no. IA/JH/CMIN/501930/2024 dated 19.10.2024 along with copy of EIA/EMP report, Form seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 1(a) Mining of minerals, under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

The project of M/s Central Coalfields Limited is for setting up a new opencast coal mining project in the lease area of 1495 Ha for 20 MTPA capacity located at villages: Ursu, Bhadaikhap, Sejhua, Bukru, Chatti Bariatu, Jordag, Nawa Khap, Pachanra & Peto; district: Hazaribagh & Chatra of state Jharkhand.

This project has been earlier appraised in 48<sup>th</sup> EAC meeting held on 28.08.2023 and 8<sup>th</sup> EAC meeting held on 28.02.2024 and the proposal was returned in its present form. Now the proposal is again placed in 18<sup>th</sup> EAC meeting being held on 27.11.2024 before the EAC for appraisal.

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

**18.2.2: Details of ToR and Previous Approvals:**

The details of ToR are furnished as below:

<b>Date of Application</b>	<b>Details</b>	<b>Date of Accord</b>	<b>ToR Validity</b>
26.05.2021	Online Proposal No. IA/JH/CMIN/208302/2021; File No. IA-J-11015/43/2021-IA-II(M)	13.09.2021	4 Years (valid till 12.09.2025)

**18.2.3: Environmental Site Settings:**

PP submitted that the project area is covered under Survey of India Topo Sheet No. 73A/13 & 73E/1 and is bounded by latitudes 23°51'22.45" N to 23°54'37.00" N and longitudes 85°01'15.39" E to 85°03'11.60" E (WGS-84).

Project site is located in Hazaribagh District, which is a Severely Polluted Area as per CEPI Assessment 2018. However, the project site is not situated in the SPA specified areas of Hazaribagh and PP has submitted a letter from Jharkhand State Pollution Control Board in

this regard. This aspect has also been verified through DSS KML. Hence, Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment 2018 by CPCB.

**Forest Area:** The project involves total 699.38 Ha of forestland the details of the approval obtained for the forestland is as follows:

Sl. No.	Obtained vide letter No.	Area (in Ha)	Stage I/II	Validity
1	FC issued vide file no:8-24/2023-FC dated 27.05.2024	699.38 Ha	Stage-I	Co-terminus with the period of the mining lease under the Mines and Minerals (Development and Regulation) Act, 1957

Out of the total forestland, 400.96 Ha of forestland falls in Chatra South District and 298.42 Ha of forestland falls in Hazaribagh West District. PP submitted that there is no broken forest land and 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/ Elephant corridor etc and there is no violation of WLP Act. PP has submitted a letter of PCCF dated 16.04.2024 stating that “Chandragupt OCP, CCL does not fall under any notified Corridor, Sanctuary or ESZ”.

PP submitted that 21 nos of Schedule-I species have been identified to be present in the study area, as per the baseline study and authenticated list of flora and fauna, namely Asiatic Elephant (*Elephas maimus indicus*), Indian Pangolin (*Manis crassiicaudata*), Sloth Bear (*Melursus ursinus*), Jackal (*Canis aureus*), Jungle Cat (*Felis chaus*), Small Indian Mongoose (*Urva auropunctata*), Grey Mongoose (*Urva edwardsii*), Asian Palm Civet (*Paradoxurus hermaphrodites*), Striped Hyena (*Hyaena hyaena*), Porcupine (*Hystrix indica*), Python (*Python molurus*), Cobra (*Naja naja*), Russell’s Viper (*Daboia russelii*) Checkered Keelback (Water Snake) (*Fowlea piscator*), Rat Snake (*Ptyas mucosus*), Monitor Lizard (*Varanus bengalensis*), Indian Chameleon (*Chamaeleo zeylanicus*), Indian flap Shell turtle (*Lissemys punctata*), etc. A detailed wildlife management plan for the study area with budgetary provisions of Rs. 5360.96 Lakhs has been prepared and submitted to DFO for approval. Consequently, the revised wildlife management plan as per the suggestions of DFO was again submitted to DFO vide GM (AC)/PO(Chandragupt)/ 24-25/257, dated 24.08.2024 for approval of CWLW.

**Mine Lease Area:** PP submitted that the instant proposal is proposed on 1495 Ha and the said land was acquired under CBA Act. Details of the ML area acquired are as follows:

Sl. No.	Govt. Order/Notifications as the case may be	Date	Area (ha)
1	SO notification 1299 under CBA Act	25.05.2017	1348.78
2	SO notification 4943(E) under CBA Act	14.11.2023	170.72
<b>Total</b>			<b>1519.50</b>

The Mine Lease been allotted is for 1519.50 Ha. However, mine plan is prepared by projecting an area of 1495 Ha within the acquired area as per the aforesaid notifications.

#### 18.2.4: Method of Mining and Mine Plan & Mine Closure Plan:

1. The Mine Plan and Mine Closure Plan of Chandragupt OCP revised as per the

directions of 8<sup>th</sup> EAC Meeting held on 28.02.2024 is approved by the Board of Directors of M/s CCL on 22.07.2024 in its 541<sup>st</sup> Meeting.

2. Total geographical reserves reported in the mine lease area of 1495 Ha is 709.26 MT. Out of which mineable and extractable reserves are 465.59 MT. Percentage of extraction is 100%.
3. There are total 9 nos. of working seams.
4. The method of mining to be adopted is Opencast mining by fully mechanized method.
5. The life of mine is 41 years.
6. The total estimated volume of overburden is 928 Mcum. Of this 37.53 Mcum of OB will be generated during initial 6 years and will be dumped externally in 3 different locations on the coal bearing area. Starting from the 6<sup>th</sup> year, this external dump will be re-handled into the mine void of Chandragupt OCP.
7. Land use details:
  - a. Pre-mining land use

S. no.	Type of Land	Area (Ha)
1.	Forest Land	699.38
2.	Agricultural Land	570.26
3.	Grazing Land	0.58
4.	Barren Land	7.72
5.	Surface Water Bodies	26.3
6.	Settlement	3.00
7.	Roads/Other Infrastructure	12.88
8.	Tenancy Land, Govt. Land and Religious Places	174.88
	<b>Total</b>	<b>1495</b>

- b. Post-mining land use:

S. No.	Type of Land	Agriculture	Plantation	Water Body (Ha)	Public/ Company use (Ha)	Total (Ha)
1.	Quarry Backfilled Area	198.02	880.93	-	-	1078.95
2.	Excavated Void	-	26.68	94.77	-	221.45
3.	Green Belt & Safety Zone	-	112.45	-	-	112.45
4.	Stream Diversion and River	-	-	15.02	-	15.02
5.	Built-up Area	-	26.44	-	24.26	50.70

S. No.	Type of Land	Agriculture	Plantation	Water Body (Ha)	Public/ Company use (Ha)	Total (Ha)
6.	Embankment	-	16.43	-	-	16.43
7.	<b>Total</b>	<b>198.02</b>	<b>1062.93</b>	<b>209.79</b>	<b>24.26</b>	<b>1495.00</b>

8. Transportation of coal:

- i. In-pit: Combination of in-pit conveyor belt and rear loading of dumper.
- ii. Surface to siding: Belt Conveyor.
- iii. Siding to loading: Rail (silo loading)

Initially, till the commissioning of pit-head CHP, coal will be dispatched through dedicated coal transportation route to nearby Shivpur railway siding which is at around 8 kms away from the project by tipping trucks.

9. Details of reclamation:

- i. Total Afforestation plan will be implemented covering an area of 1266.63 (includes 198.02 ha agroforestry) ha at the end of mine closure.
- ii. 1078.95 Ha of internal dump will be covered with plantation and agroforestry of 880.93 Ha and 198.02 Ha respectively.
- iii. Greenbelt will be developed in an area of 112.45 Ha with the density of 2500 plants per Ha.
- iv. A void of 221.45 Ha at a depth of 40 m to 50 m, is proposed to be transformed into a water body covering 194.77 hectares, while 26.68 hectares will be designated for planting.
- v. Plantation of 42.87 hectares is proposed for the CHP land, as well as for the road, infrastructure, and embankments.

**18.2.5: Baseline Data:** Baseline data was generated from 1<sup>st</sup> March 2022 to 31<sup>st</sup> May 2022 and 1<sup>st</sup> March 2024 to 31<sup>st</sup> May 2024.

Period	Parameters
AAQ parameters	<p><b><u>Baseline Period (1<sup>st</sup> March to 31<sup>st</sup> May 2022)</u></b></p> <p><i>Core Zone:</i></p> <p>PM10 = 56.0 to 76.5 to <math>\mu\text{g}/\text{m}^3</math></p> <p>PM2.5 = 27.29 to 42.5 to <math>\mu\text{g}/\text{m}^3</math></p> <p>SO<sub>2</sub> = 8.0 to 19.5 <math>\mu\text{g}/\text{m}^3</math></p> <p>NO<sub>x</sub> = 16.3 to 28.7 <math>\mu\text{g}/\text{m}^3</math></p> <p><i>Buffer Zone:</i></p> <p>PM<sup>10</sup> = 54.6 to 93.2 to <math>\mu\text{g}/\text{m}^3</math></p> <p>PM<sup>2.5</sup> = 26.06 to 52.4 to <math>\mu\text{g}/\text{m}^3</math></p>

Period	Parameters					
	SO <sub>2</sub>	=	10.2 to 34.6 µg/m <sup>3</sup>			
	NO <sub>x</sub>	=	16.8 to 38.4 µg/m <sup>3</sup>			
	<b>Baseline Period (1<sup>st</sup> March to 31<sup>st</sup> May 2024)</b>					
	<i>Core Zone:</i>					
	PM <sup>10</sup>	=	59.0 to 78.0 to µg/m <sup>3</sup>			
	PM <sup>2.5</sup>	=	27.0 to 48.0 to µg/m <sup>3</sup>			
	SO <sub>2</sub>	=	11.1 to 28.5 µg/m <sup>3</sup>			
	NO <sub>x</sub>	=	13.1 to 25.7 µg/m <sup>3</sup>			
	<i>Buffer Zone:</i>					
	PM <sup>10</sup>	=	62.0 to 87.0 to µg/m <sup>3</sup>			
	PM <sup>2.5</sup>	=	26.0 to 58.0 to µg/m <sup>3</sup>			
	SO <sub>2</sub>	=	9.4 to 29.5 µg/m <sup>3</sup>			
	NO <sub>x</sub>	=	8.6 to 31.9 µg/m <sup>3</sup>			
Incremental GLC  Level (Maximum)	The predicted incremental due to proposed mine operation was modelled through AERMOD Software (Ver. 11.2.0).					
	The incremental increase in the values were projected in µg/m <sup>3</sup> .					
	<b>Core</b>					
	<b>Parameter</b>	<b>Location and Distance#</b>	<b>Baseline (µg/m<sup>3</sup>)</b>	<b>Incremental (µg/m<sup>3</sup>)</b>	<b>Total GLC (µg/m<sup>3</sup>)</b>	<b>Permissible limits (µg/m<sup>3</sup>)</b>
	PM <sup>10</sup>	Ursu Village	85	18.32	103.32	300
	PM <sup>2.5</sup>	Bukru Village	43	8.38	51.38	-
	SO <sub>2</sub>	Pachra Village	23.5	3.43	26.93	120
	NO <sub>x</sub>	Pachra Village	25.7	6.66	32.36	120
	<b>Buffer</b>					
	<b>Parameter</b>	<b>Location and Distance#</b>	<b>Baseline (µg/m<sup>3</sup>)</b>	<b>Incremental (µg/m<sup>3</sup>)</b>	<b>Total GLC (µg/m<sup>3</sup>)</b>	<b>Permissible limits (µg/m<sup>3</sup>)</b>
	PM <sup>10</sup>	Nawakhap Village, (200 m, Crosswind)	75	6.15	81.15	100

Period	Parameters					
	PM <sup>2.5</sup>	Nawakhap Village	41	2.33	43.33	60
	SO <sub>2</sub>	Jordag Village, (500 m, Upwind)	20.5	1.11	21.61	80
	NO <sub>x</sub>	Nawakhap Village	23.7	2.24	25.94	80
<p>#Distance from the project boundary.</p> <p>All predicted values are well within the permissible limits. The modelling was done for the worst case scenario considering peak rate of operations. The likelihood of occurrence of these scenarios is very low.</p>						
Ground water quality at 2 Locations	<p>pH: 7.40 to 7.45</p> <p>Total Hardness: 172 to 194 mg/l,</p> <p>Chlorides: 68.90 to 70.98 mg/l,</p> <p>Fluoride: 0.14 to 0.20 mg/l.</p> <p>Alkalinity: 156 to 172 mg/l</p>					
Surface water quality at 2 Locations	<p>pH: 7.30 to 7.58;</p> <p>DO: 6.1 to 7.2 mg/l</p> <p>BOD: 2.2 to 2.8 mg/l</p> <p>TDS from 326.0 to 375.0 mg/l</p>					
Noise levels Leq (Day and Night)	<p>Residential Zone:</p> <p>45.0 to 50.8 dB(A) for the day time and 33.8 to 41.4 dB(A) for the Night time.</p>					
Traffic assessment study findings	<p>Traffic study has been conducted at coal transportation and SH. The distance between the Chandragupt OCP pit head and the Shivpur Railway Siding is 08.00 km. Within this distance, 7.00 km of the coal transportation road lies within the Amrapali OCP leasehold, while 0.55 km of road falls within the Chandragupta leasehold whereas 450 m stretch is an existing Tandwa-Simeria Road.</p> <p>Transportation of mineral will be done by belt conveyor to Siding. However, Commissioning of pit-head CHP would take around 3 years from the date of issuance of EC for present proposal or 2 years from acquisition of land for construction of Amrapali Railway siding, whichever is later. Hence, for the initial period of mine operation, 100% coal will be dispatched through dedicated coal transportation route to nearby Shivpur railway siding which is at around 8 kms away from the project by tipping trucks.</p> <p>Existing PCU in Tandwa-Simeria Road is 592 PCU/hr on 450 m SH and existing level of service (LOS) is 0.39.</p> <p>The Existing Level of service on Coal transportation stretches are given below:</p>					



Period	Parameters				
	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS
	CT Road D1 Stretch	614	1500	0.41	C
	CT Road 12 Stretch	281	1500	0.19	A
	CT Road 2C Stretch	714	1500	0.48	C
	Tandwa-Simeria Road (BC)	592	1500	0.39	B
	The Proposed Level of service on Coal transportation stretches are given below:				
	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Proposed V/C Ratio	LOS
	CT Road D1 Stretch	718	1500	0.47	C
	CT Road 12 Stretch	385	1500	0.25	B
	CT Road 2C Stretch	818	1500	0.54	C
	Tandwa-Simeria Road (BC)	696	1500	0.46	C
	Note: Capacity as per IRC-106-1990 is 1500 PCUs Guideline for capacity for roads.				
	The analysis shows that for sections D1 and 2C, considering the projected heavy commercial vehicles (HCVs) used for coal transportation maintains the level of service as in the existing scenario whereas Sections 12 and BC, there is a change in the level of service from A to B and from B to C, respectively. The level of service for all sections remains either good or very good.				
Flora and fauna	During baseline data generation, 21 nos of Schedule-I species (namely Asiatic Elephant ( <i>Elephas maimus indicus</i> ), Indian Pangolin ( <i>Manis crassiicaudata</i> ), Sloth Bear ( <i>Melursus ursinus</i> ), Jackal ( <i>Canis aureus</i> ), Jungle Cat ( <i>Felis chaus</i> ), Small Indian Mongoose ( <i>Urva auropunctata</i> ), Grey Mongoose ( <i>Urva edwardsii</i> ), Asian Palm Civet ( <i>Paradoxurus hermaphrodites</i> ), Striped Hyena ( <i>Hyaena hyaena</i> ), Porcupine ( <i>Hystrix indica</i> ), Python ( <i>Python molurus</i> ), Cobra ( <i>Naja naja</i> ), Russell's Viper ( <i>Daboia russelii</i> ) Checkered Keelback (Water Snake) ( <i>Fowlea piscator</i> ), Rat Snake ( <i>Ptyas mucosus</i> ), Monitor Lizard ( <i>Varanus bengalensis</i> ), Indian Chameleon ( <i>Chamaeleo zeylanicus</i> ), Indian flap Shell turtle ( <i>Lissemys punctata</i> ), etc) were reported in the study area as listed in Wildlife Protection Act				

Period	Parameters
	Amendment, 2022. A wildlife management plan was submitted to DFO vide GM (AC)/PO(Chandragupt)/ 24-25/257 Dt. 24.08.2024.
Water Requirement	<p><b>Source of Water:</b> Ground Water (Mine water seepage)</p> <p><b>Ground Water Intersection:</b></p> <p>The maximum depth of mine quarry is 250 meter. The projected radius of influence due to Chandragupta OCP on groundwater has been estimated around 476 m.</p> <p><b>Water Requirement:</b></p> <p>During Operational Stage:</p> <p>Peak Water Requirement – 6760 KLD</p> <p>During Construction Phase:</p> <p>Water Requirement – 200 KLD</p> <p><b>NOC (Ground Water):</b> NOC issued vide Ref No: CGWA/NOC/MIN/ORIG/2024/21001 Dated: 19.11.2024, valid till 18.11.2026.</p>

**18.2.6: Details of Water Requirement:** The water requirement reported during construction phase is 200 KLD and during the operational phase is 6760 KLD. Source of water proposed to be used is groundwater for which PP has obtained NOC vide Ref No: CGWA/NOC/MIN/ORIG/2024/21001 Dated: 19.11.2024, valid till 18.11.2026 for extraction of 6420 KLD.

PP also submitted that Chotki River is proposed for diversion and a detailed study for the same has been done by IIT Roorkee, wherein DPR of stream diversion was prepared and submitted to Water Resource Dept. of Jharkhand. Diversion of Chotki stream was recommended by the Chief Engineer (WRD), Ranchi vide letter no C.E./.../645/2022/230 dated 25.04.2023 and forwarded the proposal for issuance of NoC. However, the issuance of NoC is awaited due to the departmental process for “Approval of guidelines for Nala Diversion” is currently in progress.

**18.2.7: Public Hearing:** The proposed project falls in 2 district, namely Hazaribagh District and Chatra District. Hence the PH has been conducted by the PP in both the districts. Details of the same are as follows:

**Details of Public Hearing and related issues of Hazaribagh District:**

The advertisement for Public Hearing of Hazaribagh District was given in Prabhat Khabar and Hindustan Times Newspapers dated 20.01.2023 for 21.02.2023. The Public Hearing took place on 21.02.2023 at Bazar Tand, Chatti Bariatu Village, Keradari Block, Hazaribagh District, under the chairmanship of Shri Vinod Kumar, District Land Acquisition Officer, Hazaribagh and in the presence of Shri Ashok Kumar Yadav, Regional Officer, Hazaribagh, JSCPCB and Shri. Ashutosh, Representative of Member Secretary, JSPCB Ranchi HQ. It was attended by 314 nos of person and the major issues raised during the PH were related to pollution and damage to environment, degradation of forest land, employment, land authentication, R&R, education, Health, general amenities, loss of livelihood and skill development.

**Details of Public Hearing and related issue of Chatra District:**

The advertisement for Public Hearing of Chatra District was given in Prabhat Khabar and Times of India Newspapers dated 20.01.2023 for 23.02.2023. The Public Hearing took place on 23.02.2023 at Purana Devi Mandap, Ursu village, Tandwa Block, Chatra District, under the chairmanship of Shri. Gaurang Mahto, District land Acquisition Officer, Chatra and in the presence of Shri. Ashok Kumar Yadav, Regional Officer, JSPCB Hazaribagh and Shri Kumar Gaurav Jain, Representative of Member Secretary, JSPCB Ranchi HQ. It was attended by 196 nos of person and the major issues are related to pollution and damage to environment, degradation of forest land, employment, land authentication, R&R, education, Health, general amenities, loss of livelihood and skill development.

**Combined Action Plan for both the Districts as per MoEF&CC OM dated 30.09.2020**

S. no.	Activities Proposed along with Timeline of Implementation	Capital (in Lakhs)	Revenue (in Lakhs)	Total Cost (in Lakhs)
<b>1</b>	<b>Education</b>			
a	<i>Providing Basic Amenities in 16 schools of 9 villages (Nawakhap, Jordag, Chatti Bariatu, Sijhua, Bukru, Badhaikhap and Peto of Hazaribagh District and Serandag and Ursu villages of Chatra Dist) (Smart Classes, computers, toilets, boundary wall, drinking water, library, sports, uniform, desks and benches)</i>			
<b>1<sup>st</sup> Year</b>	Deep boring at 5 schools costing <b>35 lakhs.</b> (Nawakhap, Chatti Bariatu, Sijhua, Ursu, Badhaikhap)	<b>35</b>	<b>0</b>	<b>35</b>
	Furniture in 3 schools costing 1 Lakh & Distribution of Utensils for 8 Schools costing 1 Lakh (All Villages)	<b>2</b>	<b>0</b>	<b>2</b>
	Smart classrooms 10 nos. schools costing 20 Lakhs (Nawakhap, Chatti Bariatu, Jordag, Badhaikhap and Peto)	<b>20</b>	<b>0</b>	<b>20</b>
<b>2<sup>nd</sup> Year</b>	Provision of RO filters at 5 schools with 10 Lakhs. (Nawakhap, Chatti Bariatu, Sijhua, Ursu, Badhaikhap)	<b>10</b>	<b>0</b>	<b>10</b>
	Toilets at 5 schools costing 50 Lakhs (Nawakhap, Chatti Bariatu, Badhaikhap, Bukru and Peto) and Building renovation of Bukru school 20 lakhs.	<b>70</b>	<b>0</b>	<b>70</b>
	5 sets of computers to 5 schools costing 10 Lakhs. (Sijhua, Serandag, Ursu, Bukru and Badhaikhap)	<b>10</b>	<b>0</b>	<b>10</b>
<b>3<sup>rd</sup> Year</b>	Construction of boundary wall at 8 schools costing 40 lakhs.( Jordag, Chatti Bariatu, Sijhua, Bukru, Badhaikhap, Peto, Serandag and Ursu villages)	<b>40</b>	<b>0</b>	<b>40</b>
	Building renovation Peto School costing 10 Lakhs.	<b>10</b>	<b>0</b>	<b>10</b>
<b>1<sup>st</sup> to 10<sup>th</sup> Year Revenue</b>	Distribution of Uniforms, books and sports utility materials to 10 no. of schools in 9 villages costing 10 lakhs per year for 10 years	<b>0</b>	<b>100</b>	<b>100</b>
b	<i>Providing Amenities in 12 no. of Anganwadis in nearby 7 villages ( Nawakhap, Jordag, CB, Peto, Badhaikhap and Bukru Villages of Hazaribagh Dist. and Serandag of Chatra Dist.) List of Activities: Toilets, boundary wall, drinking water, Fans, utensils, playing toys, uniform, Floor mats, benches etc.</i>			
<b>1<sup>st</sup> Year:</b>	Distribution of Utensils and floor mats for 12 Anganwadis costing 2 Lakhs (All villages)	<b>2</b>	<b>0</b>	<b>2</b>

S. no.	Activities Proposed along with Timeline of Implementation		Capital (in Lakhs)	Revenue (in Lakhs)	Total Cost (in Lakhs)
	2 <sup>nd</sup> Year	Construction of Toilets for 4 centres 10 Lakhs (CB, Serandag and Bukru)	10	0	10
		Boundary wall and drinking water to 2 centres costing 10 Lakhs (Sijhua, Badhaikhap)	10	0	10
	1 <sup>st</sup> to 10 <sup>th</sup> Year (Revenue)	Distribution of Uniforms, books and sports utility materials to 10 no. of schools in 9 villages costing 1 lakhs per year for 10 years	0	10	10
<b>2</b>	<b>Enhancement of Green cover in nearby villages under the Campaign “Ek Ped Ma ke Naam”</b>				
a	<i>Plantation of Fruit Bearing Saplings at 37 locations including 28 Schools and Anganwadis, and 9 Village Community Buidlings in 7 villages of Hazaribagh Dist. ( Nawakhap, Jordag, Chatti Bariatu, Sijhua, Bukru, Badhaikhap and Peto) and 3 villages of Chatra Dist. (Usru, Serandag and Tandwa)</i>				
	1 <sup>st</sup> to 7 <sup>th</sup> Year (Capital)	Plantation of Fruit Bearing saplings at 37 identified locations @1000 saplings per year, costing 1.5 Lakhs/ year	10.5	0	10.5
	1 <sup>st</sup> to 10 <sup>th</sup> Year (Revenue)	Maintenance of Plantation @ 0.75 Lakhs/ year	0	7.5	7.5
b	<i>Distribution of Fruit Bearing saplings 5000 nos every year to nearby villagers for Both Chatra and Hazaribagh Districts</i>				
	1 <sup>st</sup> to 10 <sup>th</sup> Year (Revenue)	Distribution of Fruit Bearing saplings 5000 nos every year under the campaign "Ek Ped Ma ke Naam"with an estimated Capital Cost of Rs. 7.5 Lakhs /year for 10 years	0	75	75
<b>3</b>	<b>Health Facilities Ambulance Facilities with Life Support System and Periodic Health camps for PAFs of Both Chatra and Hazaribagh Districts of Jharkhand.</b>				
a.	1 <sup>st</sup> to 10 <sup>th</sup> Year (Revenue)	Ambulance with Basic Life Support System with nursing assistance and BP, oxygen monitoring equipment and Oxygen delivery services at Revenue Cost Rs. 25.55 Lakhs/ Year for 10 years	0	255.5	255.5
b	1 <sup>st</sup> to 10 <sup>th</sup> Year (Revenue)	Transport Ambulance System for nearby villages for 10 years with Revenue Cost Rs. 9.13 Lakhs/ year.	0	91.3	91.3
c.	1 <sup>st</sup> to 10 <sup>th</sup> Year (Revenue)	Conducting health camps bi annually with Health Consultation including check-ups, pathological tests and basic medicines Distribution @ Cost Rs. 10 Lakhs per year for next 10 years	0	100	100

S. no.	Activities Proposed along with Timeline of Implementation		Capital (in Lakhs)	Revenue (in Lakhs)	Total Cost (in Lakhs)	
4	<b>Drinking Water Facility</b> (Solar Powered Borewells with overhead tank and R.O. System at 6 locations in 5 no. of villages (Sijhua, Choti Bukru, Badhaikhap, Bukru and Peto villages of <b>Hazaribagh Dist.</b> and Ursu Village of <b>Chatra Dist.</b> )					
	a.	1 <sup>st</sup> Year	Construction of Bore wells with OHT at 6 locations with Capital Cost of Rs. 72 Lakhs	72	0	72
	b	2 <sup>nd</sup> Year to 3 <sup>rd</sup> Year	Commissioning of RO plants at 6 locations @ capital cost of 50 Lakhs	50	0	50
c.	4 <sup>th</sup> Year to 10 <sup>th</sup> Year	Maintenance of RO Plants till 10th year of mine operation with an estimated revenue cost of Rs. 1.50 Lakhs per year from 3rd year to 10th year	0	12	12	
5	<b>Rejuvenation of Ponds</b> (Restoration and rejuvenation of 57 no. of ponds (32 in buffer zone and 25 in core zone), activities including de-siltation, earthen embankment, plantation and grassing on slopes and aerator for pisci-culture) <b>Villages:</b> Serandag, Kumarang Kalan, Kishunpur, Tandwa and Ursu villages of <b>Chatra Dist</b> and Sisai, Jordag, Chatti Bariatu, Bukru, Badhaikhap, Peto etc. of <b>Hazaribagh Dist.</b>					
	a	1 <sup>st</sup> to 3 <sup>rd</sup> Year	Construction of Embankment for 57 ponds in nearby villages costing Rs. 60.64 Lakhs	60.64	0	60.64
			Planting and grassing on the embankments costing 41.80 Lakhs	41.8	0	41.8
Provision of Aerator for Pisci-culture for 4 no. of Ponds costing 2.50 Lakhs			2.5	0	2.5	
b	1 <sup>st</sup> to 10 <sup>th</sup> Year (Revenue)	De-siltation and cleaning of Ponds once in two years, maintenance of embankment and grassing costing 641.06 Lakhs over a period of 10 years.	0	641.06	641.06	
6	<b>Skill development</b> (Skill development training in various trades i.e. Electrician, Welder, HMV, Fitter etc.) of <i>Nawakhap, Jordag, Chatti Bariatu, Sijhua, Bukru, Badhaikhap and Peto of Hazaribagh District and Serandag and Ursu villages of Chatra Dist</i>					
a	1 <sup>st</sup> to 10 <sup>th</sup> Year (Revenue)	Skill development training in various trades i.e. Electrician, Welder, HMV, Fitter etc. for 50 beneficiaries each year for next 10 years @ 17.5 Lakhs/year	0	175	175	
<b>Grand Total in Rs. Lakhs</b>			<b>456.44</b>	<b>1467.36</b>	<b>1923.8</b>	

**18.2.8: EMP Cost:** The capital cost of the proposed project is Rs 973.50 Crores and the capital cost for environmental protection measures is proposed as Rs 190.33 Crores. The annual recurring cost towards environmental protection measures is 4.71 Cr. The employment generation from the proposed project / expansion is 2068. The details of cost for environmental protection measures is as follows:

SN	Description of Item	Proposed in Lakhs	
		Capital	Recurring
1	Air Environment	1182.00	245.56
2	Water Environment	1647.00	40.93
4	Land Environment including conservation plan and other*	16204.96	185.00
<b>Total</b>		<b>19033.96</b>	<b>471.49</b>

**18.2.9: Details of Solid and Hazardous Waste:** The details of solid and hazardous waste generation along with its mode of treatment/ disposal is furnished as below by the PP:

Sl. No.	Type of Waste	Source	Applicable Rule	Quantity	Disposal
1	Municipal Solid Waste	Township, Administrative Buildings, Canteen and other.	Solid Waste Management Rule 2016	3002.5 kg/day	<b>Biodegradable Waste:</b> Energy or resource recovery by Conventional composting/ vermicomposting/ WTE plant/ Biogas plant etc. <b>Non-Biodegradable Waste:</b> Given to the waste collectors or agency as directed by the local body as per MSW rules, 2016.
2	Hazardous Wastes	Used Oil & Lubricants from HEMM/ Machineries	Hazardous and other Wastes (Management & Transboundary Movement) Rules, 2016	30 TPA	Disposed off through MoEF&CC, SPCB, or CPCB Authorized Operator.
3		Settled Sludge from ETP		1068 kg/day	Disposed off into Landfill through MoEF&CC, SPCB, or CPCB Authorized Operator.
4		Oil & Grease Sludge from ETP		15 kg/day	Disposed off through MoEF&CC, SPCB, or CPCB Authorized Operator.

**18.2.10: Power Requirement and details of diversion of Hi-Tension/ Transmission Line:** Maximum power demand 1,00,46 kVA. PP submitted that two electricity transmission line of 11 KV & 33 KV are also proposed for diversion in first 5 years. PP submitted that a letter in this behalf was written to the electricity board and the demand draft raised by them has been paid.

**18.2.11: Plantation:** PP submitted that proposed greenbelt and safety zone will be developed in 112.45 ha which is about 8 % of the total project area. A 7.5 m wide greenbelt, consisting of at least 3 tiers around mine boundary will be developed as greenbelt & Safety zone and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 1600 trees per hectare in Greenbelt. Total no. of 1,80,000 saplings will be

planted and nurtured in 112.45 hectares in 05 years. Total plantation will be carried out in 1266.63 Ha backfilled area, dismantled infra and others.

**18.2.12: Project Cost:** The Capital Cost of project is Rs. 973.50 Crores. The fund for the CSR will be allocated based on 2% of the average net profit of the company for the three immediately preceding financial years or Rs 2.00 per tonne of Coal Production of the previous year whichever is higher. Cost for implementing EMP is submitted to be Rs. 190.33 crores as capital cost and Rs. 4.71 crore as recurring cost per year.

**18.2.13: R&R Issues:** PP submitted that are total 9 villages in the project area. Out of these, 3 villages will be completely settled. PP submitted that there will be 1612 PAFs. Cost of R&R is 215 Crore.

**18.2.14: Undertaking/ Affidavit:** PP vide undertaking dated 19.11.2024 submitted that the information provided in Form-1 in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 27th November 2024 have no deviation in respect of the proposal no: IA/JH/CMIN/501930/2024 for EC for coal mining having 1495 Ha of ML Area and capacity of 20 MTPA for Coal Mine Project located at village: Badhaikhap, Bukru, Chatti-Bariyatu, Jordag, Nawakhap, Pachra/Pachanda, Peto, Sijhua and Ursu Villages in District: Hazaribagh and Chatra State: Jharkhand State by M/s. Cental Coalfields Limited. Further certified that there are no data entry errors in the information uploaded in PARIVESH system including names/email-id/mobile numbers/address of the project proponent, authorized person, etc. It is also certified that the supporting documents uploaded on PARIVESH portal are correct and duly authenticated by the Authorized Signatory and in case any deviation in data found in any of the documents, the Authorized Signatory shall be held responsible and furthermore, the above said project shall be rejected for grant of EC.

**18.2.15: Legal issue /Violation:** PP submitted that a litigation in Hon'ble High Court of Jharkhand is pending and first hearing date of the case is awaited. PP submitted that a litigation (W.P.(C) No.5493 of 2023) is pending before the Hon'ble High Court of Jharkhand and first hearing date of the case is awaited. The case pertains to Public Hearing held for the project and MoEF&CC is not impleaded as a respondent in the matter.

**18.2.16: ADS Information in Chronology:** M/s. Central Coalfields Limited made an online application vide proposal no IA/JH/CMIN/501930/2024 dated 19.10.2024. The proposal was initially considered in 48<sup>th</sup> EAC meeting held on 28.08.2023 and 8<sup>th</sup> EAC meeting held on 28.02.2024. Proposal was returned in its present form. The proponent uploaded the proposal again on PARIVESH on 19.10.2024. Point-wise reply to the observations of EAC in its meeting held on 28/08/2023 and 28/02/2024 is given as below:

Point-wise reply to the observations of EAC in its meeting held on 28/08/2023

S. no.	Observations by EAC	Reply
1.	Protection Plan for the streams passing through the ML area considering no diversion of stream for next 10 years from the commencement of mining operation	<ul style="list-style-type: none"> <li>Chotki Stream is the only stream that flows through the mine leasing area, falling in the north-west corner of the mining block, and flowing north to south. This is purely a rain-</li> </ul>

S. no.	Observations by EAC	Reply
	<p>cleaning/de-siltation programme shall be part of study.</p>	<p>fed stream and is almost dry in the non-monsoon season.</p> <ul style="list-style-type: none"> <li>• According to the Mine Plan of Chandragupt OCP, mining operations inside Chotki catchment would begin in the first year of operation. Accordingly, a detailed Stream Diversion study was done by the Hydrology experts of IIT Roorkee, and diversion of Chotki Stream was proposed before the commencement of mine operations. Whereas, EAC MoEFCC has directed to prepare a protection plan for the streams considering no diversion of Chotki stream for initial 10 years from the commencement of mine operation.</li> <li>• It is to submit that, based on the above said studies carried out by IIT Roorkee and CMPDIL Ranchi, the primary goal of protecting and safeguarding the Chotki stream can be achieved only by diverting it prior to start of mine operations. Diversion is also needed from the point of view of efficient mine planning &amp; development, safety, and conservation.</li> <li>• Mine Development without stream diversion would require approx. 50 Ha. additional Land for External OB Dumping. This mine is landlocked on four sides by forests and coal bearing areas, making it impossible for external dumping to occur.</li> <li>• In addition, the prospect of external dumping on the mine's coal-bearing area and rehandling the same has been explored. The plan for the same is given below. Page 62 of 222 Minutes of 8<sup>th</sup> EAC (Coal Mining Sector) held during 28-29 February, 2024 Page 14 of 173.</li> <li>• The impact on environment with and without diversion for 10 years of mine operation is submitted.</li> <li>• As a result, it is being proposed that diverting the stream prior to the start of mining operations would be a better alternative in terms of surface water conservation, environmental protection, effective mine planning &amp; development methodology, and mine safety.</li> </ul> <p>In addition, a detailed Stream Diversion study was done by IIT Roorkee, wherein the longitudinal and cross-sectional design of the diverted channel was finalized considering the worst-case scenario of 50-year return period rainfall.</p>



S. no.	Observations by EAC	Reply
2.	<p>Ecological assessment report of the river/streams passing through the ML area with monitoring of flora &amp; fauna mainly dependent on the streams from the reputed organization.</p>	<ul style="list-style-type: none"> <li>• Ecological assessment of streams has been carried out by a renowned Ecologist Dr. Santhan P (Accredited FAE (Ecology &amp; Biodiversity) QCI-NABET) in association with CMPDI.</li> <li>• In this study, a comparative analysis of phytoplankton and zooplankton communities in Barki River (Major Drainage) and Chotki stream was done. Barki River exhibits higher diversity, harbouring 275 individuals belonging to 30 phytoplankton species and 44 zooplankton species, compared to the Chotki Nala, with 171-191 individuals across 26 phytoplankton species and 22 zooplankton species. Notably, protozoa were only detected in the river water, indicating a potentially richer microbial community.</li> <li>• Barki is majorly rain-fed river and carries baseflow during non-monsoon. Chotki is a secondorder seasonal stream which is almost dry during non-monsoon. Therefore, due to lack of adequate water, the overall aquatic ecosystem is not healthy during pre-monsoon. However, the same gets rejuvenated after rainfall and water flow through catchment areas.</li> </ul> <p>Further, it has been observed that the terrestrial biodiversity of both existing and proposed route indicate good diversity value, and Peepal (<i>Ficus religiosa</i>) and Neem Page 63 of 222 Minutes of 8<sup>th</sup> EAC (Coal Mining Sector) held during 28-29 February, 2024 Page 15 of 173 (<i>Azadirachta indica</i>) emerged as the dominant species. It has been found that in the event of stream diversion, the aquatic ecosystems will develop along the diversion paths.</p>
3.	<p>Land use plan shall be submitted prohibiting construction of any non-essential infrastructure on forestland.</p>	<ul style="list-style-type: none"> <li>• Only essential infrastructure for mine operation viz. crushers, sub-station, workshop have been proposed within the project boundary.</li> </ul> <p>Furthermore, the infrastructure layout has been revised by minimizing the utilization of forest land for industrial purposes</p>
4.	<p>Latest Video recording shall be submitted for the forest area and streams lying inside the ML area</p>	<p>Latest drone video recording has been completed for the forest area and streams lying inside the project area.</p>
5.	<p>Detailed report on total carbon sink/absorption happening due to the presence of forest cover in area of 699.48 ha and its loss after cutting and further, rate of carbon sequestration with progressive backfilling,</p>	<ul style="list-style-type: none"> <li>• A detailed study has been carried out to assess the loss of carbon stocks due to proposed deforestation and the carbon sequestration due to progressive reclamation and compensatory afforestation activities. In</li> </ul>

S. no.	Observations by EAC	Reply															
	plantation, and implementation of electric vehicle.	<p>addition, the other energy conservation measures to be adopted and the corresponding CO2 off-settings have been reported.</p> <ul style="list-style-type: none"> <li>As depicted in the above graph, the loss of carbon stock due to deforestation will be compensated by the corresponding biological reclamation of degraded land and compensatory afforestation. Therefore, the project will always be carbon positive w.r.t degradation and reclamation activities.</li> <li>In addition, adopting following measures will further enhance the carbon sequestration potential of the project:</li> <li>Solar Power Plant (5 MW): A dump-top solar power plant of 5 MW is proposed. The Annual CO2 emissions savings by installing this Solar Plant is 7200 tonnes/ Year.</li> </ul> <p>Electric Vehicle: Annual CO2 emission savings by opting electric vehicle is 83.50 tonnes/ year.</p>															
6.	Nomination letter for appointment of District Land Acquisition Officer as Chairman of public hearing from District Magistrate	Copy of Nomination letter of District Land Acquisition Officer as Chairman of public hearing from District Magistrate is submitted.															
7.	Detailed plan for dedicated in-pit belt conveyor system with silo loading system as part of Mechanized Coal evacuation needs to be submitted for its completion within 1 year. Accordingly, timeline shall be proposed in form of CPM/PERT chart considering all eventuality involved for implementation of mechanized system.	<p>Brief timeline for operationalization of CHP-Silo-Siding for Chandragupta OCP is submitted below:</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Particular</th> <th>Timeline</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Expected 1st date of coal production from Chandragupta OCP</td> <td>By 31.12.2024</td> </tr> <tr> <td>2</td> <td>Construction of Operationalization of Railway Siding near Amrapali OCP</td> <td>By 31.12.2025</td> </tr> <tr> <td>3</td> <td>Construction and operationalization of CHP and In-pit Conveyor* for transport of coal from Chandragupta OCP to nearby Railway Siding</td> <td>By 31.12.2026</td> </tr> <tr> <td>4</td> <td>Construction and Operationalization of Silo System for Chandragupta OCP</td> <td>By 31.12.2027</td> </tr> </tbody> </table> <p>PERT chart considering all eventuality involved for implementation of mechanized system is submitted.</p>	S. No.	Particular	Timeline	1	Expected 1st date of coal production from Chandragupta OCP	By 31.12.2024	2	Construction of Operationalization of Railway Siding near Amrapali OCP	By 31.12.2025	3	Construction and operationalization of CHP and In-pit Conveyor* for transport of coal from Chandragupta OCP to nearby Railway Siding	By 31.12.2026	4	Construction and Operationalization of Silo System for Chandragupta OCP	By 31.12.2027
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S. no.	Observations by EAC	Reply
8.	District and village wise Pond rejuvenation & restoration plan needs to be submitted.	<ul style="list-style-type: none"> <li>• Village wise pond rejuvenation plan along with action plan and budgetary provisions has been prepared.</li> <li>• A detailed physical inspection of all ponds lying within the radius of influence of Page 65 of 222 Minutes of 8<sup>th</sup> EAC (Coal Mining Sector) held during 28-29 February, 2024 Page 17 of 173 Chandragupt OCP (1 km Buffer) was done and in total, fifty ponds have been located.</li> <li>• It was noted that majority of the ponds i.e. 47 ponds out of 50 ponds are being used for agricultural purpose and only a few are used for the community purposes. None of the ponds are used by the villagers for drinking purpose.</li> <li>• Further, the basic parameters like pH and TDS for water quality were assessed for all the ponds and found within the acceptable limit of IS 10500 (2012): Drinking water.</li> </ul> <p>An Action plan for restoration and rejuvenation of these ponds involving activities like cleaning and desiltation, development of embankments, aeration and grassing and plantation have been proposed for 10 years.</p>
9.	PP needs to submit certificate from the District Magistrate for verifying the existence of forest land covered under the Forest Right Act, 2006 and consequential forest land shall be required for diversion.	<ul style="list-style-type: none"> <li>• The Forest Rights Act (FRA), officially known as the 'Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006', recognizes the rights of forest-dwelling communities to live in and cultivate forestland, and it aims to ensure that these communities are not displaced without proper recognition and compensation.</li> <li>• At present, the FC application of Chandragupta OCP is underway and FRA certificate in respect of 5 villages namely, Jordag, Chatti bariatu, Nawakhap, Bukru and Ursu has been issued by State Govt. As such, FRA process has been completed for approximately ~ 80 % of Forest land.</li> <li>• FRA process for the remaining 2 villages i.e., Pachra and Sejhua is also underway and is expected to be completed prior to the final FC approval.</li> </ul> <p>It may kindly be appreciated that as per the prevailing rules of MoEF&amp;CC, the compliance under FRA is required at the time of final approval (Stage-II FC).</p>
10.	PP needs to submit the protection plan for villagers lying inside the mine lease area from	The planning of rehabilitation is done well in advance for smooth shifting of PAFs.

S. no.	Observations by EAC	Reply		
	the mining activities during overlapping period of mining and rehabilitation.	Village	PDFs	Timeline of Implementation of R&R
		Jordag	71	Within first 3 years
		Chatti Bariatu	0	
		NawaKhap	138	
		Pachara	339	4 <sup>th</sup> and 5 <sup>th</sup> Year
		Sejhua	77	
		Bukru	155	10 <sup>th</sup> Year
		Peto	0	15 <sup>th</sup> Year
		Bhadaikhap	20	25 <sup>th</sup> Year
		Ursu	0	
		Total	800	
		<ul style="list-style-type: none"> <li>In line with progression of mine operations, the schedule of shifting of PDF (Project Displaced Families) has been prepared and is submitted below: Project Proponent also undertake to follow the mitigation measures provided in MoEFCC OM No.Z-11013/5712014-IA.II (M) dated 29.10.2014, 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'.</li> </ul>		
11.	The PP shall submit the progressive reclamation plan of mine in time bound manner and approved Standard Operating Procedure for handing over the land-to-land allottees and Forest Department	<ul style="list-style-type: none"> <li>A detailed stage wise reclamation plan has been prepared. As per the planned progressive reclamation plan, around 88.37% of project area shall be brought under green cover by the end of mine operations.</li> <li>The land of Chandragupta OCP is acquired under CBA Act 1957. Under CBA Act 1957, land is vested to the mining company, free from all encumbrances through a Vesting Order by the Govt of India. Subsequently, the land is taken under possession from land owner after extending due R&amp;R benefit and compensation. Having been vested at the time of acquisition, there is no provision of returning the land to the original land owner within the existing framework of CBA Act. However, all such acquired land is put to productive use postmining such as water storage source and pisciculture by local</li> </ul>		

S. no.	Observations by EAC	Reply
		<p>communities, Solar Power Projects, Plantation of reclaimed dumps, ACA (Accredited Compensatory Afforestation), Eco-tourism, Pump Storage Projects.</p> <ul style="list-style-type: none"> <li>The Forest land falling within the project will be returned to State Forest department after completion of mining and validity period of Forest Diversion as per the prevailing guidelines.</li> </ul> <p>SOP for post-mining management of nonforest and forest land is submitted</p>
12.	PP shall submit the clarification whether project falls within severely polluted area or outside the area from State Pollution Control Board.	Clarification from SPCB was obtained Stating that this project doesn't fall within Severely Polluted Area is submitted.
13.	PP shall submit the details related to the destruction of the Agroforestry area lying inside the Mine lease area as per the approved mine plan. PP must submit the alternatives in terms of compensation (in Rs.) and in terms of Agriculture land	<ul style="list-style-type: none"> <li>No defined Agro-forestry activities are being undertaken within the project area. Copy of letter issued by District Agriculture Officers is submitted.</li> <li>Alternatives in terms of compensation (in Rs.) and in terms of Agriculture land has been submitted and are deliberated below: <ul style="list-style-type: none"> <li>Compensation (in Rs.) for land: Payment of compensation for agriculture land is being done at a rate of Rs. 9,02,900/- per acre of land as per defined R&amp;R Policy of CIL. This apart, compensation of trees, well, pond situated on such lands is being done as per latest Jharkhand SOR and Zero Depreciation and as per the guidelines of Jharkhand State for felling of trees and rate of the trees provided by State Forest dept.</li> </ul> </li> <li>Employment: Land loser or dependents is provided regular job in company on every 02 acres of land under package deal. Affected families who are not eligible for employment due to less land-holding will be given an amount equal to six hundred days of agricultural wage.</li> <li>Enabling Self-employment: The PP will assist PAP to take up non-farm self-employment through petty contracts or formation of co-operatives and encourage provisions of jobs with contractors. CCL has an approved policy for awarding contracts up to Rs 1 crores to land oustees who do not get regular employment in the company, through formation of PAFs/PAPs Co-Operatives Society as per prevalent law with relaxation in Earnest Money Deposit and experience clause.</li> <li>Choice of Annuity: Those who do not opt for</li> </ul>

S. no.	Observations by EAC	Reply
		<p>employment against land are given an Annuity @ Rs 150 per decimal of land subject to a minimum of Rs 2000/-per month.</p> <p>One-time payment in-lieu of employment: One-time lumpsum amount in lieu of employment @ Rs 15,00,000/- per acres to Project Affected Persons and their dependents on having Tenancy Ownership.</p>
14.	<p>PP shall submit the road map to resolve the R&amp;R issues particularly for the persons completely dependent on the Forest</p>	<ul style="list-style-type: none"> <li>• CIL R&amp;R Policy enables to exercise a choice between various options along with regular employment under package deal at CIL subsidiary, land compensation, house compensation, lumpsum compensation in lieu of employment, choice of annuity, Plot at R &amp; R Site, Development of R &amp; R Site with community facilities, payment of houses/hutments and civil structures with valuation as per latest SOR(Schedule of Rate) and zero depreciation along with other allied benefits.</li> <li>• Accordingly, the R&amp;R plan for PAFs at Chandragupta OCP is submitted. Further, Van Patta Holders under FRA Act are being given regular employment in the company as per CIL R&amp;R Policy.</li> <li>• There is a provision in the policy whereby tribal community can be shifted as a unit and facilities can be provided to meet the specific needs of the tribal community that will allow them to maintain their unique cultural identity.</li> </ul> <p>Tribal affected family will be given one-time financial assistance of 500 days of Minimum Agricultural Wages for loss of customary right or usages of forest produce. Loss of customary rights needs to be authenticated by the district authority. Tribal affected families resettled out of the district shall be given 25% higher rehabilitation and resettlement benefit.</p>
15.	<p>PP shall submit the number of trees to be cut in non-forest area and steps/SOP to protect these trees.</p>	<ul style="list-style-type: none"> <li>• Total 3,345 numbers of trees are proposed to be cut in non-forest areas.</li> <li>• Accordingly, in line with extant guidelines of State Forest Department and HPC, a total 33,450 plants shall be planted in lieu of tree felling of 3,345 trees in non-forest land (i.e. 10 times the number of trees being felled) in the form of block plantation. The size of the saplings planted shall be of 4 Feet and the said plantation shall be undertaken in 05 KM radius of the project.</li> </ul> <p>SOP for tree felling in the state of Jharkhand is submitted.</p>

S. no.	Observations by EAC	Reply
16.	Activity wise public hearing cost to be revised and submitted. It should not be less than 1% of total project cost. Activities such as dedicated water supply through dedicated pipeline system to 5 near villagers, Village wise mitigation measures to be submitted	<ul style="list-style-type: none"> <li>A detailed action plan for compliance of issues raised in Public Hearing was prepared and a detailed report is submitted.</li> </ul> <p>Further, it has been ensured that the total budgetary provisions for PH is more than 1% of the project cost (Approx. 1.21%).</p>
17.	PP shall submit air quality predication with & without the control measures.	<ul style="list-style-type: none"> <li>Air Quality Impact Prediction of core and buffer zone of the study area has been carried out using AERMOD 11.2.0 software. This model was run for predicting the emissions for both without control and with proposed control measures. The detailed report is submitted.</li> </ul> <p>Based on the outcomes of this model, suitable air pollution control measures have been proposed including static and mobile fog canons for dust suppression, permanent wind screens, black topping of permanent haul roads etc. with a total estimated capital expenditure of Rs. 11.69 Cr.</p>
18.	Pre-utilization of water to be submitted with proper schematic diagram with ETP & STP of 1.2 MLD.	<ul style="list-style-type: none"> <li>Water demand (colony + industrial buildings) was projected as 925 cum/day. Thus, the total water requirement is 3590 cum/day. The detailed water balance is enclosed as Annexure XVII.</li> <li>An ETP of capacity 0.3 MLD is proposed to treat workshop effluent generated from HEMM washing and floor cleaning. This ETP consists of oil and grease trap and clarifloculator, and is proposed to recycle the treated effluent with zero liquid discharge.</li> <li>Further, an STP of 0.9 MLD capacity is proposed to treat the colony sewage effluent. This STP consists of physical, chemical and biological treatment methods (SBR/ASP). The treated effluent will be used for dust suppression, landscaping and other community needs.</li> </ul> <p>The tentative schematic diagrams of ETP and STP is submitted.</p>
19.	Clarification from PCCF was desired regarding mine not falling under corridors, sanctuary, ESZs with certified Mps	<ul style="list-style-type: none"> <li>Application was submitted to PCCF for issuance of certificate that mine is not falling under corridors, sanctuary, ESZs etc. Further PCCF has directed RCCF Hazaribagh to provide the details and the letter is submitted.</li> </ul> <p>Further in Forest application of the proposal (Proposal No: FP/JH/MIN/140599/2021) DFO Chatra South and DFO Hazaribagh West have provided that the mine area doesn't fall Page 71 of 222 Minutes of 8<sup>th</sup> EAC (Coal Mining Sector) held during 28-29 February, 2024 Page</p>

S. no.	Observations by EAC	Reply
		23 of 173 under corridors, sanctuary, ESZs is submitted.

**Point-wise reply to the observations of EAC in its meeting held on 28/02/2024:**

S. no.	Observations by EAC	Reply
1	The PP shall comply with the Ministry's OM dated 4/08/2009, the correct accreditation certificate of the consultant needs to be uploaded, upload a legible copy of all the documents including the annexure of the EIA/EMP Report.	Updated EIA/EMP of Chandragupt OCP (20 MTPA & 1495 Ha.) has been prepared in compliance with the MoEFCC OM No J-11013 /41/2006-IA.II Dt. 04.08.2009. Furthermore, it has been ensured that all documents supplied with the EIA EMP report are legible, and the accreditation certificate is enclosed.
2	Certificates of external labs involved in Baseline data generation were also not provided in EIA/EMP. PP assured to submit certificates of external labs.	Baseline data generation in respect of air, water, noise and soil was carried out during Pre-monsoon 2022 (March to May) by NABL Accredited agency Go-green Mechanisms Pvt. Ltd. with certificate no: TC-7073 Dt. 09.11.2020. In addition, a revised air quality data was generated during Pre-monsoon 2024 (March to May) to comply with the EAC observations regarding cumulative impact assessment and traffic impact on air quality. This data was generated by the NABL accredited lab of CMPDI, certificate no. TC – 7470 valid upto 15.12.2024.
3	The committee is of the view that the proposal should be such that no OB dump should be proposed outside the lease area and if it is proposed in the mining plan then the same needs to be revised	As directed by the EAC, OB dumping outside the ML area during the initial years of mine operation is eliminated, and the mine plan has been revised accordingly. As per the revised dump plan, OB generated during the initial years of mine operation (1st to 6th year, 37.53 Mm <sup>3</sup> OB) will be stalked on the coal bearing area within the mine lease of Chandragupt OCP, and subsequently to be re-handled back into the mine void of Chandragupt OCP from 6th year on-wards.
4	The committee observed that a portion of the Barki River is falling within the lease area and PP shall not divert the same during the life of mine. Accordingly, PP shall include the necessary provision in the mining plan and submit an undertaking in this regard.	Mine plan has been revised by excluding the diversion of Barki River meandering. Accordingly, quarry boundary has been revised. Final Stage quarry plans showing previously planned mine development and the revised mine development is submitted.



S. no.	Observations by EAC	Reply
5	Committee observed that the proposal includes 699.38 Ha of Forest land within the ML area of 1495 Ha is submitted vide proposal number: FP/JH/MIN/140599/2021. PP has informed us that the proposal for Stage-I FC has been forwarded to MoEFCC, New Delhi. PP shall submit the updated status of the same	Total Forest land falling within the ML area of Chandragupt OCP is 699.38 Ha. Stage-I Forest clearance of 699.38 Ha Forest land was obtained vide file no:8-24/2023-FC Dt. 27.05.2024.
6	PP shall submit authenticated documents by Forest department viz. distance from the protected area, list of flora & fauna.	Mine Lease area of Chandragupt OCP falls within two forest divisions namely, Chatra south and Hazaribagh west divisions. Therefore, certification reg. involvement of forest land, distance from protected area and authenticated list of flora & fauna have been obtained vide letter no: 2232 Dt. 08.04.2024 and letter no: 747 Dt. 02.04.2024 for Hazaribagh west division and Chatra South Division respectively.
7	Pre-mining land use to be revised after ensuring its correctness in line with the forest land involved within the ML area of 1495 Ha.	Pre-mining land use is revised after ensuring its correctness in line with the forest land involved within the ML area of 1495 Ha and the same is submitted.
8	The action plan for issues raised during public hearings is only for 3 years while these need to be submitted for at least 10 years along with cost as the commitments include activities of a recurring nature also.	Action plan for compliance of PH has been revised from 3 years to 10 years, and accordingly the estimated expenditure (Capital and Revenue) has been revised from 1180.07 Lakh to 1923.80 Lakhs which is 1.98% of the total project cost.
9	The Committee also deliberated on the carbon sequestration study conducted by the PP and observed that it became carbon neutral in the 20th year of mine operation. The Committee is of the view that a 5MW solar power plant is of very less capacity and PP shall explore the means to increase the same and provide details. The Committee is of the view that carbon sequestration depends on many factors including the selection of type of species as the different species have different periods to become mature. The Committee, therefore, suggested that a study in this regard may be conducted from ICFRE to become carbon neutral at the earliest within a specific time frame.	As per the directions of EAC, ICFRE has conducted the study to assess the loss of carbon forest stock due to diversion of forest and suggested measures for carbon offsetting/sequestration of Chandragupt OCP, CCL. The report is submitted. Further, the capacity of Solar Power Plant has also enhanced from 5 MW to 8 MW.
10	Barki river shall not be subjected to any diversion during the life of mine. Further PP shall engage a scientific institute of repute for ecological assessment of Barki River, and the measures for the conservation of the aquatic system including flora and fauna. PP shall submit a declaration along with supporting	As directed, Barki River shall not be subjected to any diversion during the life of mine. Mining Plan has been revised accordingly and the same is incorporated in the revised EIA/EMP report.  Ecological assessment of the river/streams passing through the ML area of Chandragupt OC with monitoring of flora and fauna mainly dependent on the

S. no.	Observations by EAC	Reply
	documents for having engaged the institute of repute for this purpose, and also an undertaking for implementation of the recommendations of the report.	streams was carried out by ICFRE, and the final report has been submitted.
11	PP did not get permission from the concerned department for diversion of Chotki Stream rather only the recommendation of the Chief Engineer (Planning and Monitoring) is submitted. The Committee is of the view that the Diversion plan needs to be approved by the concerned authority.	<p>A detailed project report for diversion of Chotki Stream was prepared by IIT, Roorkee in April 2023 and the same has been recommended to Chief Engineer Scheme Monitoring &amp; Planning, Water Resource Division Ranchi on 25.04.2023.</p> <p>CCL has requested for issuance of in-principal approval/NoC for diversion of Chotki Nala at Chandragupt Project on 24.06.2024. Superintending Engineer, Water Resource Department, Jharkhand vide a letter dated: 16.07.2024 has stated that the said proposal was under departmental consideration and any decision regarding the same is subject to the approval of Nala Diversion Guidelines currently under the process of departmental approval.</p> <p>Further, Chief Engineer, Project Planning and Monitoring, Water Resource Department, Jharkhand has informed that the Standard Operating Procedure-cum-Guidelines issued by the Water Resources Department, Government of Jharkhand for diversion of water flow of river, stream, drain or natural water reservoir within the state of Jharkhand passing through the coal block allotted by the Government of India Dated: 04.10.2024 and directed to submit revised proposal to the concerned field Chief Engineer in context of the above mentioned SOP-cum-Guidelines.</p> <p>CCL has submitted the revised proposal to the Chief Engineer, Water Resources Department, Hazaribagh on 01.11.2024 which is presently under consideration.</p>
12	PP shall invite the experts from IIT Roorkee who have prepared the report w.r.t Chotki Stream for discussion.	The experts from IIT Roorkee will be requested to attend EAC meeting.
13	PP shall increase the no. of ponds in the buffer zone, and the pond rejuvenation plan to be updated accordingly	<p>Earlier, A Pond Rejuvenation Plan was submitted for 40 ponds with 25 ponds in core zone and 15 ponds in the buffer zone. However, as per the EAC committee directions, the plan has been revised by increasing the no. of ponds in the buffer zone from 15 nos. to 32 nos., and total nos. from 40 to 57 nos. Villages covered in the buffer zone include Peto, Karali, keradari, Tandwa, Sisai, Ursu, Badhaikhap, Nawakhap, Kumarang Kala etc.</p> <p>An Action plan for restoration and rejuvenation of 57 nos. (excluding the 10 ponds which will be falling in the active mining zone within 02 years) of pond have been planned for 10 years along with timeline and budgetary</p>

S. no.	Observations by EAC	Reply
		provision. Total estimated cost for restoration and rejuvenation of pond comes out to be Rs. 745.97 lakh.
14	PP shall revise the budget associated with the EMP and Public Hearing	<p>Capital and revenue cost of implantation of EMP measures has been enhanced from Rs. 144.50 Crs and Rs. 2.65 Crs/year to Rs. 190.33 Crs and 4.71 Crs/year respectively. The detailed activity wise breakup along with the timeline of implementation is detailed at pt no 14 above.</p> <p>Action Plan of compliance of issues raised in the public hearing have been revised in line with observations received from the EAC committee with major focus on education, health facilities, drinking water, pond rejuvenation, enhancement of green cover and skill development. The estimated expenditure on PH compliance (both Capital and Revenue) has been revised from 1180.07 Lakh to 1923.80 Lakhs which is 1.98% of the total project cost.</p>
15	PP shall submit an alignment of various activities of the project with UN defined SDG Framework.	The alignment of various activities of the project with UN defined SDG Framework is submitted.
16	PP shall submit the details of the agencies involved in the baseline data generation including work orders issued, original test reports, accreditation certificates etc.	<p>Baseline data generation in respect of air, water, noise and soil was carried out during Pre-monsoon 2022 (March to May) by NABL Accredited agency Go-green Mechanisms Pvt. Ltd. with certificate no: TC-7073 Dt. 09.11.2020.</p> <p>In addition, a revised air quality data was generated during Pre-monsoon 2024 (March to May) to comply with the EAC observations regarding cumulative impact assessment and traffic impact on air quality. This data was generated by the NABL accredited lab of CMPDI, certificate no. TC – 7470 valid upto 15.12.2024.</p> <p>The accreditation certificates of labs involved have been submitted.</p>
17	PP and consultant shall ensure to fill the Form-1 correctly and documents uploaded are legible.	Form-I has been filled after ensuring that data is inline with EIA EMP and correct. Further all documents uploaded are legible.
18	PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software	Plagiarism check of EIA EMP has been carried out using Turnitin software, and as per the report generated by the plagiarism software, 18% similarity has been found predominantly from environmentalclearance.nic.in.
19	All the certificates viz. Involvement of Forest land, distance from protected area, list of flora & fauna and Wildlife should be duly authenticated by the Forest Department. The Certificate should bear the name, designation,	<p>Mine Lease area of Chandragupt OCP falls within two forest divisions namely, Chatra south and Hazaribagh west divisions.</p> <p>Accordingly, certification reg. involvement of forest land, distance from protected area and authenticated list</p>

S. no.	Observations by EAC	Reply
	official seal of the person signing the certificate and dispatch number.	of flora & fauna have been obtained vide letter no: 2232 Dt. 08.04.2024 and letter no: 747 Dt. 02.04.2024 for Hazaribagh west division and Chatra South Division respectively, discussed in detail at Sl no. 6 above.
20	<p>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.</p> <p>A mathematical model shall be developed for the local site rather than using the standard model available in software for both air &amp; water quality modelling</p>	<p>Typical meteorological year (TMY) has been generated for the Pre-monsoon period (March to May) based on the resources viz IMD 30 years Normalized Data, recorded data from nearest IMD Station, Modelled Data (ERA5, Envitrans etc.) and real time Monitoring by Automated MET Station.</p> <p>As per the sources referred and real-time Monitoring, the pre-dominant wind direction during Pre-Monsoon Period is from South-Eastern Direction (S-SE, E-SE, SE).</p> <p>Monitoring Locations were fixed as per the pre-dominant wind direction, proximity to the proposed project and other pollution generating sources.</p> <p>Monitoring Density (13 Locations) finalized as per IS 5182-14 (2000): Methods for Measurement of Air Pollution, Part 14, Sec 10.7.2.</p> <p>Air Dispersion Modelling by using Gaussian plume mathematical equation was done by considering in-situ Met, Terrain and LULC data and nearby contributing source on AERMOD Platform.</p>
21	<p>PP should submit the detailed plan in tabular format (year-wise for the life of the mine) for afforestation and green belt development in and around the mining lease.</p> <p>The PP should submit the number of saplings to be planted, details of native species, the area to be covered under afforestation &amp; green belt, the location of the plantation, the target for survival rate and the budget earmarked for the afforestation &amp; 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 &amp; green belt mentioning the latitude and longitude of the area to be covered during each 5 years.</p> <p>The capital and recurring expenditures to be incurred need to be submitted. The seedling of height not less than 2 meters is to be selected and accordingly cost of the plantation needs to be decided. In addition to this, the plantation in the safety zone at lease boundary the plantation should be planned in</p>	<p>The Proposed afforestation and greenbelt plantation include:</p> <ul style="list-style-type: none"> <li>• 112.45 Ha. Greenbelt all along the project boundary and other dust emitting sources viz. CHP, CTR, W/S etc. In addition, 16.43 Ha. embankment area adjacent to Barki River will also be reclaimed with plantation.</li> <li>• 907.61 Ha. of dump area will be reclaimed through block plantation and 198.02 Ha. of dump area will be transformed into agroforestry. 32.12 Ha. of industrial area will be reclaimed with plantation at the post mining stage.</li> <li>• The overall reclamation activities will be carried over 1266.63 Ha. of project area with an estimated cost of 108.44 Crs. This cost includes the capital cost of plantation and 5 years' maintenance post plantation. Survival rate of 80% shall be maintained through inspections with forest Dept.</li> </ul> <p>Proposed reclamation will be done through native species and the 2 m height saplings will be planted.</p>

S. no.	Observations by EAC	Reply
	such a way that it should be completed within 3 years only.	
22	PP should submit the quantity of surface or groundwater to be used for this project. The complete water balance cycle needs to be submitted. In addition to this PP should submit a detailed plan for rainwater harvesting measures to be taken. The capital and recurring expenditures to be incurred need to be submitted.	Water requirement for industrial and domestic purposes the proposed mining operation includes land reclamation, workshop activities, dust suppression, coal handling plants (CHP), greenbelt development, firefighting and drinking purposes at office and colony. The peak water demand for both industrial and domestic purposes has been estimated for stage-wise mine operation as per the prevailing guidelines of CPHEEO and yardsticks developed by CMPDI.
23	In the case of groundwater abstraction/intersection. The PP shall comply with the Ministry's OM dated 23/05/2019. Compliance status needs to be presented before EAC at the time of appraisal	Point-wise compliance with the Ministry's OM dated 23/05/2019. Compliance status is submitted.
24	<p>In the case of road transportation PP should clearly show the transport route of the mineral and protection and mitigative measures to be adopted while transporting the mineral. The impact from the centre line of the road on either side should be brought out supported by the line source modelling and isopleth.</p> <p>Further, the frequency of testing of Poly Aromatic Hydrocarbon needs to be submitted along with the budget. In case transportation is through village road then 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 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.</p> <p>The ground-level concentration of various pollutants in worst-case and control-case scenarios needs to be submitted. The cumulative impact of other activities needs to be considered in the EIA/EMP Report.</p>	<p>During the initial two years of mine operation, coal will be transported via a dedicated route to the Shivpur railway siding, located approximately 8 kilometres from the project site.</p> <p>Air quality impact prediction (AQIP) was carried out for the criteria pollutants i.e., PM<sup>10</sup>, PM<sup>2.5</sup>, SO<sub>2</sub> and NO<sub>x</sub>. The model was executed for three scenarios, which includes without control, existing control and proposed control measures.</p> <p>The incremental concentrations of PM<sub>10</sub> and PM<sup>2.5</sup> resulting from coal transportation without any control measures range from 0.26 to 8.38 µg/m<sup>3</sup> and 0.04 to 1.25 µg/m<sup>3</sup>, respectively. Whereas, with the implementation of existing and proposed control measures, the incremental concentrations of PM<sub>10</sub> and PM<sup>2.5</sup> are reduced to ranges of 0.12 to 2.52 µg/m<sup>3</sup> and 0.02 to 0.63 µg/m<sup>3</sup>, respectively. It is also important to note that the predicted levels of PM<sup>10</sup> and PM<sup>2.5</sup> at all baseline monitoring stations near the coal transportation route consistently remain within the established regulatory limits.</p> <p>Polycyclic Aromatic Hydrocarbons (PAHs), specifically benzene and benzo[a]pyrene (BaP), will be tested bi-monthly. The annual budget allocation for these tests is ₹14,50,800.00.</p> <p>AERMOD 11.2.0 was used to determine the incremental concentration of particulate matter on agricultural land adjacent to the coal transportation route.</p>

S. no.	Observations by EAC	Reply
		<p>The figure above demonstrates that only the northern side of the agricultural land will experience incremental concentrations ranging from 0.5 to 4 µg/m<sup>3</sup>. No agricultural areas are affected by incremental concentrations in the range of 4 to 5 µg/m<sup>3</sup>. However, it is planned to monitor crop productivity during the coal transportation period, with compensation to be offered if a reduction in productivity is detected compared to the fiscal year 2023-24.</p> <p>The emission factors are used from the AP42, USEPA (1998) and Coal S&amp;T Project done by CMPDI. The details of emission factor and calculations formula are discussed in the “Traffic Study for Coal Transportation through Road”.</p>
25	<p>PP should bring out that what are the specific diesel consumption ~ (Litres/Tonne of total excavation &amp; 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 e-vehicles/LNG/CNG-based mining machinery and trucks for mining operations and transportation of coal.</p>	<p>Key measures incorporated in the mine planning of Chandragupt OCP for optimizing the energy consumption and minimizing specific diesel consumption are:</p> <ol style="list-style-type: none"> <li>1. Transportation of Coal and OB are the major sources of diesel consumption during the mine operation. Therefore, diesel dependence during coal handling is completely eliminated by proposing belt conveying system from mine to CHP and CHP to siding and Rapid loading system at sidings. Furthermore, OB dumping is planned through concurrent backfilling into mine voids and thus optimizing the lead distance for OB handling.</li> <li>2. Coal winning is proposed through surface miners and thus eliminating drilling, blasting and shovel operations.</li> <li>3. Few Electrical HEMM have been proposed including electric drills and shovels.</li> </ol> <p>It will be ensured that, subject to availability and techno-economic viability, up to 20% of the fleet will be classified as LNG/CNG and e-vehicles in the upcoming Chandragupt OCP HEMM procurement and outsourcing tenders.</p> <p>In addition, this project is going to adopt key energy conservation measures like 8 MW solar power plant for captive consumption, E-vehicles in the LMV category etc</p>

S. no.	Observations by EAC	Reply
26	<p>To support the transportation road, PP shall carry out the traffic study for one month along with the mitigation measures to control air pollution.</p>	<p>Traffic density study was carried out in April 2024 to assess the Level of Service for the proposed increase in coal transportation on the existing roadway.</p> <p>The V/C ratio and Level of Service (LoS) were assessed at four sections: D1, 12, 2C, and BC. Two scenarios were analyzed: the existing traffic conditions based on field observations and a predicted scenario with the proposed additional coal transportation. The analysis indicates that for sections D1 and 2C, the projected increase in heavy commercial vehicles (HCVs) for coal transportation will not alter the Level of Service compared to the existing conditions. In contrast, sections 12 and BC will experience a change in Level of Service from A to B and from B to C, respectively. Nonetheless, the Level of Service for all sections remains within the categories of either good or very good.</p> <p>The Existing Air Pollution Control Measures includes fixed water sprinkler at Shivpur siding, Wind Barrier at Shivpur Siding, fixed sprinkling System on CTR near Honhe Village, Wind Barriers along Coal Transportation Road near Honhe, PQC type existing Coal Transportation Road, water tankers of 28 KL capacity, 12 KL and 20 KL capacities and transportation of Coal through covered tipping trucks.</p> <p>The Proposed Control Measures includes development of Three-tier plantation along coal transportation route near Honhi Village and at Shivpur Railway Siding, fog cannon at proposed coal transportation road, Wheel Washing System and transportation of coal through 42 tonne dumper.</p>
27	<p>PP shall submit the action plan for all types of waste to be generated during mining operations including e-waste, battery waste, hazardous waste etc. Further, the action plan for compliance with the Ministry's OM dated 18/07/2022 needs to be submitted.</p>	<p>The quantification and action plan for all types of waste to be generated during mining operations including e-waste, battery waste, hazardous waste along with action plan for compliance with the Ministry's OM dated 18/07/2022 is submitted.</p>
28	<p>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 the Public Hearing. The capital and recurring expenditures to be incurred need to be submitted.</p>	<p>Capital and revenue cost of implantation of EMP measures has been enhanced from Rs. 144.50 Crs and Rs. 2.65 Crs/year to Rs. 190.33 Crs and 4.71 Crs/year respectively. The detailed activity wise breakup along with the timeline of implementation is detailed at pt no 14 above.</p> <p>Action Plan of compliance of issues raised in the public hearing have been revised in line with observations received from the EAC committee with major focus on education, health facilities, drinking water, pond rejuvenation, enhancement of green cover and skill</p>

S. no.	Observations by EAC	Reply
		development. The estimated expenditure on PH compliance (both Capital and Revenue) has been revised from 1180.07 Lakh to 1923.80 Lakhs which is 1.98% of the total project cost.
29	PP should 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 persons to be engaged for the implementation of an environmental management plan (EMP). The capital and recurring expenditures to be incurred need to be submitted. The composition of the Environment Management Cell needs to be provided.	The details of the manpower to be engaged for this project with their roles responsibilities/designations is submitted. The capital and recurring expenditures to be incurred along with the composition of the Environment Management Cell is submitted.
30	Member Secretary also informed that after the meeting a letter was received wherein certain suggestions and shortcomings in the instant proposal were highlighted w.r.t ADS point no 1,5, 10, 13, and 18. In addition to these, observations were also made in the EIA Report and its updating with ADS/EDS points, regarding the canal diversion report, depth of void, clarification from PCCF for distance of mine lease from PAS, recommendation of DFO on WLCP, cost-benefit analysis for canal diversion, etc. The Committee is of the view as the observation was received after the meeting the same could not be deliberated and The Ministry may forward the issues raised with reference to this proposal in the letter dated 29/02/2024 to PP and PP shall provide a point-wise reply to the same in the next EAC meeting.	Point-wise reply of suggestions and shortcomings in the instant proposal is submitted for kind perusal.

**18.2.17: Written Submission:** Project Proponent has submitted the following in writing:

Points	Written submissions made
Revised post-mine closure plan	PP submitted the revised post mining land use plan for Chandragupt OCM, wherein, reducing the mine void to be converted into water from 194.77 Ha to 46.31 Ha and increasing the plantation from 26.68 Ha to 175.14 Ha.
Undertaking for diversion of coal transportation route/ rehabilitation of houses near the transportation	PP submitted an undertaking that: <ol style="list-style-type: none"> <li>1. Steps shall be taken to explore an alternative coal transport route for the project to protect local community along Binglat.</li> <li>2. Rehabilitating the houses of Binglat near coal transportation route.</li> <li>3. Rehabilitating the houses of Binglat near coal transportation route.</li> </ol>



Points	Written submissions made																																														
route of Binglat village																																															
Revised timeline for Environmental Control Measures	PP submitted the revised timeline for implementation of Environmental Control Measure, which is as follows:																																														
<b>Capital Cost of Environmental Control Measures in Lakh</b>																																															
<b>A. Air Pollution Control Measures</b>																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">SN</th> <th style="width: 45%;">Pollution Control Measure</th> <th style="width: 10%;">Capital Cost</th> <th style="width: 20%;">Earlier Timeline</th> <th style="width: 20%;">Revised Timeline</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>7 no. Mobile Mist type Sprinkling system within Quarry and Dump</td> <td>381</td> <td>4 nos. for initial 5 years and 7 nos. from 6th Year</td> <td><b>4 nos. from start of Mine Operation and 7 nos. from 6<sup>th</sup> Year</b></td> </tr> <tr> <td>2</td> <td>Black topping road of 1 km from Mine to T Junction Binglat</td> <td>200</td> <td>1<sup>st</sup> year of mine operation</td> <td><b>Prior to Mine Operation.</b></td> </tr> <tr> <td>3</td> <td>Black topping of Coal transportation Haul road from Mine (Section 1,2 &amp; 3) to CHP</td> <td>100</td> <td rowspan="2">3rd year of mine operation</td> <td rowspan="2">3rd year of mine operation</td> </tr> <tr> <td>4</td> <td>Fixed Mist type sprinkling system on Haul Road for length of around 2.5 km</td> <td>200</td> </tr> <tr> <td>5</td> <td>Closed crushing and Automated sprinkling system</td> <td>Covered under CHP Cost</td> <td rowspan="3">3rd Year of mine operation</td> <td rowspan="3">3rd Year of mine operation</td> </tr> <tr> <td>6</td> <td>4 no. of Fixed Fog canons for Dust Suppressions at CHP</td> <td>26</td> </tr> <tr> <td>7</td> <td>Permanent Wind screens at CHP around 500 m</td> <td>50</td> </tr> <tr> <td>8</td> <td>1 no. of Mobile fog canon along CTR from Mine to Amrapali Entry Point</td> <td>45</td> <td rowspan="2">From 1st year to 3rd year of mine operation</td> <td rowspan="2"><b>Prior to Mine Operation</b></td> </tr> <tr> <td>9</td> <td>Permanent Wind screens on CTR near Binglat village from High level bridge to T-junction around 500 m</td> <td>50</td> </tr> </tbody> </table>						SN	Pollution Control Measure	Capital Cost	Earlier Timeline	Revised Timeline	1	7 no. Mobile Mist type Sprinkling system within Quarry and Dump	381	4 nos. for initial 5 years and 7 nos. from 6th Year	<b>4 nos. from start of Mine Operation and 7 nos. from 6<sup>th</sup> Year</b>	2	Black topping road of 1 km from Mine to T Junction Binglat	200	1 <sup>st</sup> year of mine operation	<b>Prior to Mine Operation.</b>	3	Black topping of Coal transportation Haul road from Mine (Section 1,2 & 3) to CHP	100	3rd year of mine operation	3rd year of mine operation	4	Fixed Mist type sprinkling system on Haul Road for length of around 2.5 km	200	5	Closed crushing and Automated sprinkling system	Covered under CHP Cost	3rd Year of mine operation	3rd Year of mine operation	6	4 no. of Fixed Fog canons for Dust Suppressions at CHP	26	7	Permanent Wind screens at CHP around 500 m	50	8	1 no. of Mobile fog canon along CTR from Mine to Amrapali Entry Point	45	From 1st year to 3rd year of mine operation	<b>Prior to Mine Operation</b>	9	Permanent Wind screens on CTR near Binglat village from High level bridge to T-junction around 500 m	50
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Points	Written submissions made				
10	2 no. of Continuous Ambient Air Quality Monitoring System	130	1st year of mine operation	<b>Prior to Mine Operation</b>	
<b>Sub Total (A)</b>		<b>1182</b>			
<b>B. Water Pollution Control Measures</b>					
Sn	Pollution Control Measure	Capital Cost	Earlier Timeline	Tentative Timeline	
11	ETP of 300 KLD Capacity consisting of Oil and Grease Trap and Settling ponds with recycling arrangement	100	To be Completed during 1 <sup>st</sup> year of mine operation	<b>Prior to Mine Operation</b>	
12	STP (1 MLD) with Primary and Biological treatment systems to be provided at Colony and office premises	250	To be Completed during 3rd year of mine operation	To be Completed during 3rd year of mine operation	
13	Toe Wall and Garland Drain with Sequential Settling ponds to treat run-off from OB Dump and other industrial Premises	402	As per the Mine development plan	As per the Mine development plan	
14	Construction of Sequential Settling ponds to treat mine seepage	250			
15	Protection of Surface water bodies including diversion of Chotki Stream and construction of Embankment	425	As per the Nala diversion plan and mine development plan	As per the Nala diversion plan and mine development plan	
16	Rooftop Rain water Harvesting at Office and residential buildings	80	To be completed by the 3rd year of mine operation	To be completed by the 3rd year of mine operation	
17	Treated Drinking Water Supply to Colony and Office	80			
18	Installation of Piezometers with	60	To be Completed during 1 <sup>st</sup>	<b>Prior to Mine Operation</b>	

Points	Written submissions made			
	Telemetry for monitoring of ground water level		year of mine operation	
	<b>Sub Total (B)</b>	<b>1647</b>		
	<b>C. Land Reclamation</b>			
19	Progressive reclamation of degraded land	10844	As per the progressive reclamation plan	As per the progressive reclamation plan
20	Conservation Plan of Schedule-I species (WLMP)	5360.96	To be taken up as per the approved Wildlife Management Plan	To be taken up as per the approved Wildlife Management Plan
	<b>Sub Total (C)</b>	<b>16204.96</b>		
	<b>Grand Total (A)+(B)+(C) in Rs. Lakhs</b>	<b>19033.96</b>		
NoC of CGWA	PP obtained NOC from CGWA vide Ref No: CGWA/NOC/MIN/ORIG/2024/21001 Dated: 19.11.2024, valid till 18.11.2026 for extraction of 6420 KLD.			

**Deliberations and Observations of the Committee:**

**18.2.18: The Committee noted the following:**

1. The instant proposal is a greenfield project for grant of Environment Clearance (EC) for Chandragupt Opencast Coal Mine Project of M/s Central Coalfields Limited, located at Villages: Ursu, Bhadaikhap, Sejhua, Bukru, Chatti Bariatu, Jordag, Nawa Khap, Pachanra & Peto; District: Hazaribagh & Chatra; State: Jharkhand.
2. This proposal has been earlier appraised in 48th EAC meeting held on 28.08.2023 and 8th EAC meeting held on 28.02.2024 and the proposal was returned in its present form. Now the proposal is again placed in 18<sup>th</sup> EAC meeting held on 27.11.2024 before the EAC for appraisal wherein proponent has submitted point wise reply to the observations of EAC.
3. The EAC took into consideration the project site through KML file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH. Project site is located in Hazaribagh District, which is a Severely Polluted Area as per CEPI Assessment 2018. However, the project site is not situated in the SPA specified areas of Hazaribagh and PP has submitted a letter from Jharkhand State Pollution Control Board dated 05.10.2023 in this regard. Hence, Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment 2018.

4. The total mine lease area is 1495 Ha and it involves forestland of 699.38 Ha. Stage I FC for the forestland was accorded on 27/05/2024. Further, the project is not located within 10 km of any ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ tiger corridor/elephant corridor etc. PP also submitted a letter from PCCF dated 16.04.2024, wherein it is mentioned that “*Chandragupt OCP, CCL does not fall under any notified Corridor, Sanctuary and ESZ.*”
5. PP submitted that 21 nos of Schedule-I species have been identified to be present in the study area, as per the baseline study and authenticated list of flora and fauna. A detailed wildlife management plan for the study area with budgetary provisions of Rs. 5360.96 Lakhs has been prepared and submitted to DFO for approval. Consequently, the revised wildlife management plan as per the suggestions of DFO was again submitted to DFO vide GM (AC)/PO(Chandragupt)/ 24-25/257, dated 24.08.2024 for approval of CWLW. The DFO has approved the WLCP and has forwarded the same to RCCF for further processing.
6. Terms of Reference was granted on 13.09.2021. ToR is valid till 12.09.2025.
7. The Committee deliberated on the Carbon Sequestration Study done by the proponent and is of the opinion that the PP should continue the Carbon Sequestration Study monitoring through MoEFCC institution (eg: ICFRE) for next 3 years including carbon emissions from coal mining.
8. Committee deliberated on the Ecological Assessment Study conducted for River/ Streams passing through the ML Area. The Committee is of the opinion that a biodiversity conservation plan in the riparian zone should be prepared and implemented in this regard.
9. The Committee deliberated on the water requirement for the said project and diversion of any river/ nallah, if proposed. PP submitted that the water requirement during construction phase is 200 KLD and during the operational phase is 6760 KLD (peak requirement). Source of water proposed to be used is groundwater for which PP has obtained NOC vide Ref No: CGWA/NOC/MIN/ORIG/2024/21001 Dated: 19.11.2024, valid till 18.11.2026 for extraction of 6420 KLD. PP also submitted that Chotki River is proposed for diversion and a detailed study for the same has been done by IIT Roorkee, wherein DPR of stream diversion was prepared and submitted to Water Resource Dept. of Jharkhand. Diversion of Chotki stream was recommended by the Chief Engineer (WRD), Ranchi vide letter no C.E./.../645/2022/230 dated 25.04.2023 and forwarded the proposal for issuance of NoC. However, the issuance of NoC is awaited due to the departmental process for “Approval of guidelines for Nala Diversion” is currently in progress.

The Committee is of the opinion that, the Chotki river should be diverted only after receiving the NoC from Water Resource Department of Jharkhand and no other river or nallah should be diverted.

10. Committee deliberated on the method of transportation proposed for Coal. The Committee is of the opinion that the construction of CHP must be completed within 3 years of grant of EC. Committee also deliberated on the dedicated coal transportation

road which shall be used for transportation of coal. It was observed that there are a few houses besides the transportation road. Committee is of the opinion that, these houses shall be either rehabilitated or, if possible the particular road shall be diverted. PP submitted that, the houses besides the road will be rehabilitated and also submitted an undertaking in this behalf. The Committee also opined that plantation should be done on the transportation route and fog canons must be installed for dust suppression.

11. The Committee deliberated on the Public Hearing and observed that the PH was conducted in two districts, as the project area falls in 2 different districts, i.e., Hazaribagh District and Chatra District. PH in Hazaribagh district was conducted on 21.02.2023 and PH in Chatra District was conducted on 23.02.2023 and major issues raised during the PH in both the districts were related to pollution and damage to environment, degradation of forest land, employment, land authentication, R&R, education, Health, general amenities, loss of livelihood and skill development.

The Committee deliberated on the Court Case pending on the project at Hon'ble High Court of Jharkhand, which alleges a defective Public Hearing held for the project. PP submitted that the first hearing of the same is yet to happen and they shall abide by the order of the court.

12. The Committee deliberated on dumping of OB and is of the opinion that no OB dumping shall be done outside the ML area.
13. Committee deliberated on the plantation activities proposed by the PP. PP submitted that the proposed greenbelt and safety zone will be developed in 112.45 ha which is about 8 % of the total project area. A 7.5 m wide greenbelt, consisting of at least 3 tiers around mine boundary will be developed as greenbelt & Safety zone and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 1600 trees per hectare in Greenbelt. Total no. of 1,80,000 saplings will be planted and nurtured in 112.45 hectares in 05 years. Total plantation will be also be carried out in 1266.63 Ha backfilled area, dismantled infra and others. The Committee is of the opinion that the final void area as proposed should be reduced and plantation should be accordingly increased. PP submitted that the void of 194.77 Ha, which was supposed to be converted into a water body as per the approved mine plan will be reduced to 46.31 Ha and remaining 148.46 Ha land will be developed with plantation. Committee also suggested for the concurrent plantation plan to be implemented from 1<sup>st</sup> year onwards.
14. Committee is of the opinion that crop compensation shall be given to the farmers in case there is decrease in the production due to the mining activities.
15. Committee is of the opinion that the proponent must develop an inhouse Environment Management Cell with qualified personnel to make sure the implementation of all the mitigative measures and conditions for the safeguards of the environment.
16. Committee deliberated on the revised budget associated with EMP and Public Hearing and suggested to revise the timeline of the proposed environmental control measures. PP made the necessary changes and submitted the same as part of written submission.

17. The Capital Cost of project is Rs. 973.50 Crores. Cost for implementing EMP is submitted to be Rs. 190.33 crores as capital cost and Rs. 4.71 crore as recurring cost per year.
18. Committee also deliberated on the measures proposed towards the SDGs 2030 and suggested installation of Solar Roof Top Panels and Solar Street Lights as one of the measures towards it.
19. The Committee deliberated on the baseline data and incremental GLC due to the proposed project and observed that AAQ levels are within NAAQS.
20. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components.
21. The EAC also deliberated on the written submission of the project proponent and found it satisfactory.

#### **Recommendations of the Committee:**

**18.2.19:** 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. No mining operations shall be undertaken in Forestland, until Stage – II forestry clearance for 699.38 Ha has been obtained under the provisions of Van (Sanrakshan Evam Samvardhan) Adhiniyam, Act 1980.
- ii. Project proponent shall abide by the final order of the litigation (W.P.(C) No.5493 of 2023) pending before the Hon'ble High Court of Jharkhand.
- iii. PP shall divert Chotki Nallah only after obtaining NoC from the Water Resource Department of Government of Jharkhand.
- iv. PP shall divert the Chotki Nallah in a manner that its construction for diversion shall be covered in one go without extended period and works plan shall be designed to complete the diversion avoiding Monsoon season (i.e effective working months of non-monsoon season). Embankment height shall be maintained on both side of nallah with sufficient free board upto 3 mts from its HFL.
- v. PP shall maintain 50 mts width of embankment all along the diverted stream/nallah (Chotki) and shall carry out dense plantation with fruit bearing native species.
- vi. The diversion of Chotki Nallah shall be monitored by RO and complete report with the drone video and satellite imagery shall be submitted to concerned Regional Office of MoEF&CC along with the six monthly compliance report.

- vii. PP should complete the construction of CHP within 02 years from the date of grant of EC and no further extension in this regard will be granted. Till such time, coal shall be dispatched through dedicated coal transportation route to nearby Shivpur railway siding by covered trucks which is about 8 kms away from the mine lease area.
- viii. No river/ nallah other than Chotki nallah shall be diverted.
- ix. Plantation must be done on both the sides of coal transportation road and fog canons must be installed for dust suppression before the commencement of the mining operation.
- x. PP should continue the Carbon Sequestration Study monitoring through ICFRE for next 3 years including carbon emissions from coal mining. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office and also kept on the web portal of the company.
- xi. PP shall conduct the Ecological Assessment Study for River/ Streams passing through the ML Area through a reputed Government Institution and must prepare and implement a biodiversity conservation plan in the riparian zone. Study report and the plan in this regard must be submitted to the concerned RO. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office and also kept on the web portal of the company.
- xii. Greenbelt and safety zone will be developed in 112.45 ha which is about 8 % of the total project area. A 7.5 m wide greenbelt, consisting of at least 3 tiers around mine boundary will be developed as greenbelt & Safety zone and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 1600 trees per hectare in Greenbelt. Total no. of 1,80,000 saplings will be planted and nurtured in 112.45 hectares in 05 years.
- xiii. PP should either explore the possibility to divert the coal transportation road or rehabilitate the houses in Binglat (near the coal transportation route), as committed.
- xiv. PP must give crop compensation to the farmers in case there is decrease in the production due to the mining activities. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office
- xv. No OB dumping should be done outside the ML area.
- xvi. PP must install rooftop solar panels and encourage the use of renewable sources of energy.
- xvii. The budget proposed for PH is Rs 19.23 Crores. The budget proposed shall be kept in a separate account and audited annually. Project proponent shall implement the action plan to address the issues raised during public hearing within a time frame of 3 years from the date of grant of EC. PP shall submit the progress report regarding the implementation of action plan to concerned RO along with the six monthly compliance report.
- xviii. PP shall implement the protective measure proposed in Environment Management Plan (EMP) in a time-bound manner. The budget earmarked for the same is Rs 190.3396 Crores (Capital) and Rs 4.71 crores (recurring) and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year.
- xix. Main haul road in the mine shall be provided with permanent water sprinklers, and other roads shall be regularly wetted with water tankers fitted with sprinklers. Also PP shall install Mist Cannon Dust Suppression Systems (80-100 mtrs.) at Coal Stock Yard to suppress the dust particles.

- xx. Garland drains (2mX3m) of adequate size shall be provided at the toe of the benches to arrest discharge and runoff with silt and sediments surging into areas adjoining the periphery of Overburden dump, which will be regularly cleaned before the onset of monsoon every year.
- xxi. Check dams shall be constructed at required locations within drains to arrest eroded materials and settling ponds shall be constructed to treat mine discharge water inside the mine block.
- xxii. Water harvesting pond shall be created separately to recharging the ground water and usage of project affected families.
- xxiii. Proper profiling of working benches of pits and dumps shall be done to channelize water in garland drains & sumps.
- xxiv. Waste generated from the domestic use shall be treated in STP and the treated water will be utilized in plantation & greenbelt development. Wastewater from the HEMM washing/ workshop will be treated in ETP. After treatment, water will be reused in washing of HEMM, dust suppression and greenbelt development
- xxv. PP shall make use of advanced computer simulation techniques for design and execution of blasting operation in the mine. PP shall make use of Electronic Delay Detonators for optimal blasting in coal and OB rock to minimize the environmental impacts of blasting such as ground vibration, fly rocks and excessive dust generation.
- xxvi. PP shall create a “Public Grievance Redressal and Monitoring System” for resolving any issues related to the pollution of mines and complaint has to resolve as soon as possible not beyond 30 days. In this regard, adequate awareness to be spread among the public to address their grievance to company with simple and easy manner and for which company needs to devise the mechanism. The same shall be reported to IRO within 3 months. A logbook to be maintained by PP on “Public Grievance Redressal and Monitoring System.
- xxvii. PP shall install fixed fog cannon (mist spayer) and fixed sprinkler all along the haul road/ CHP, and OB dump till Railway siding is completed. The sufficient number of fog cannons (not less than 10 nos.) with 40 mts jet length shall be installed within 6 months. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB.
- xxviii. PP shall deposit the approved amount as proposed for wildlife conservation plan to the Govt. of Jharkhand, Forest & Environment Dept. and further consult with State Biodiversity Authority for its CSR activity.
- xxix. PP shall conduct third party audit of compliance of EC condition at an interval six months and its report shall be submitted to IRO, MoEF&CC.
- xxx. The status of mine closure activities must be included in every six months compliance report submitted to the state pollution control board and RO of MoEF&CC.
- xxxi. PP to install solar lights along the road used for transportation of minerals 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.
- xxxii. Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.
- xxxiii. Hon’ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India &Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in



the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEF&CC.

- xxxiv. PP shall conduct feasibility studies for assessment of voids for backfilling of ash and mixing of ash with overburden, taking up backfilling ash and OB mixing activities during operations as well as post closure of mines in line with the Fly Ash Utilization Notification, 2021.
- xxxv. Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, 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. The prevention measures for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- xxxvi. PP to install solar lights along the road used for transportation of minerals to avoid the accidents at night and also carry out its maintenance.
- xxxvii. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
- xxxviii. PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non-compliance or infringement should be reported to the concerned authority.
- xxxix. Wildlife conservation plan as approved by the competent authority shall be implemented. Additional, budget shall be added in the plan, in case additional measures suggested by state wildlife department. The final Wildlife conservation plan duly approved by the CWLW shall be submitted to RO, MoEF&CC within a time frame of three months from the date of grant of EC and the budget approved by the concerned authority shall be deposited in government account.
- xl. PP shall ensure that all types of plastic waste generated from the plant shall be stored separately in isolated area and disposed of strictly adhering to the Plastic Waste Management Rules 2016 (as amended). In pursuant to the Ministry's OM dated 18/07/2022. PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic (SUP) in order to ensure compliance of Ministry's Notification published by the Ministry on

12/08/2021. A report along with photograph on the measures taken shall also be included in the six monthly compliance report being submitted by PP.

- xli. Four numbers of Continuous Ambient Air Quality monitoring system shall be set up to monitor common/criteria pollutants from the flue gases such as PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> within the lease area in consultation with OSPCB. The monitoring of other locations (at least three locations outside the lease area covering upwind and downwind directions at an angle of 120° each) shall be carried out manually.
- xlii. PP shall ensure that diesel operated vehicles will be switched over to E-Vehicles in a time bound manner, replace the passenger vehicles to E-vehicle in phased manner. Further, for local movement of officials Contract of Vehicles deployment shall be awarded to Project affected people and all efforts for adopting heavy E-vehicles like Bulkers for ash transportation for short distance subject to availability of such E-vehicle and adequate charging infrastructure in the surrounding area shall be provided. PP shall submit the action taken report to concerned RO with amount spent, photographs (before & after), number of e-vehicles deployed etc. in six monthly compliance report.
- xliii. Digital processing of the entire lease shall be through remote sensing techniques should be done regularly once in 3 years for monitoring land use pattern and report submitted to MOEF and its Regional Office at Bhubaneshwar.
- xliv. R&R shall be not less than the norms prescribed in National R&R Policy 2007/State R&R Policy/CCL Policy whichever is higher.
- xliv. 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. Standard Conditions:**

- (a) Statutory compliance
  - (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
  - (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
  - (iii) The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be

implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six- monthly compliance report (in case of the presence of Schedule-I species in the study area).

- (iv) 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.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (vi) Solid/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.
- (b) Air quality monitoring and preservation
  - (i) Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
  - (ii) The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
  - (iii) Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM<sub>10</sub>/PM<sub>2.5</sub>) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
  - (iv) The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it

is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.

- (v) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
  - (vi) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid airborne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
  - (vii) Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.
- (c) 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 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
  - (ii) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J- 20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
  - (iii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
  - (iv) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
  - (v) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.

- (vi) Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.
  - (vii) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).
  - (viii) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.
  - (ix) The water pumped out from the mine, after siltation, shall be utilized for industrial purposive. Watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
  - (x) The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.
  - (xi) The project proponent shall take all precautionary measures to ensure 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.
- (d) Noise and Vibration monitoring and prevention

- (i) Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
  - (ii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
  - (iii) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.
- (e) Mining Plan
- (i) Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
  - (ii) Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
  - (iii) No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.
  - (iv) Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.
- (f) Land reclamation
- (i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
  - (ii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered

with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27<sup>th</sup> August, 2009 and subsequent amendments.

- (iii) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the “during mining”/”post mining” land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
  - (iv) Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilized with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
  - (v) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.
- (g) Green Belt
- (i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
  - (ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.
- (h) Public hearing and Human health issues

- (i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six-monthly basis.
  - (ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.
  - (iii) Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
  - (iv) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
  - (v) The project proponent shall follow the mitigation measures provided in this Ministry's OMNo.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'.
- (i) Corporate Environment Responsibility
- (i) The project proponent shall comply with the provisions contained in this Ministry's OM dated 30/09/2020, as applicable, regarding Corporate Environment Responsibility.
  - (ii) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholder's/stake holders.



- (iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- (iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- (v) Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- (j) Miscellaneous
  - (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
  - (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
  - (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
  - (iv) The project proponent shall monitor the criteria pollutants level namely; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (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 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’.

- (vii) 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.
- (viii) The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
- (xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- (xvi) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter

**Agenda No. 18.3**

**18.3: Expansion of Suliyari Coal Mine (in existing area of 1298 Ha having expansion in capacity from 5.0 MTPA to 7.0 MTPA in two phases of 20% each) by M/s AP Mineral Development Corporation, located at Villages: Belwar, Bijauri, Dhirali, Dongri, Jhalri, Majholipath, Mohanban, Phatpaani; District: Singrauli; State: Madhya Pradesh – EC under para 7(ii) of EIA Notification, 2006 –reg.**

**[Online Proposal No. IA/MP/CMIN/496827/2024; Consultant: VARDAN ENVIRONET, NABET/EIA/2326/RA 0284, valid up to 04.05.2026]**

**18.3.1:** M/s. Andhra Pradesh Mineral Development Corporation Limited (APMDC) has made an online application vide proposal no. IA/MP/CMIN/496827/2024 Dated 08.11.2024 along with copy of EIA/EMP report, Form and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for capacity enhancement from 5.0 MTPA to 7.0 MTPA in two phases of 20% each as per the MoEF&CC O.M. dated 11/04/2022. The proposed project activity is listed at schedule no. 1(a)(i)-Mining of Minerals with Coal Under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

The project of M/s. Andhra Pradesh Mineral Development Corporation Limited (APMDC) is a brownfield project or expansion in production capacity from 5 MTPA to 7 MTPA in two phases of 20% each as per the provisions of Ministry’s OM dated 11/04/2022, in the existing ML area of 1298 Ha. The project is located at Villages: Belwar, Bijauri, Dhirali, Dongri, Jhalri, Majholipath, Mohanban, Phatpaani; District: Singrauli; State: Madhya Pradesh.

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

**18.3.2: Details of Previous Approvals in chronological orders:**

Sl. No	Details of Letter No.	EC/Expansion EC/Amendment in EC/Validity extension/Transfer of EC	Capacity	Area (Ha.)	Status of implementation
1.	J-11015/35/2018-IA. II(M) dated 12.04.2021	Environmental Clearance	5.0	1298	Implemented

**18.3.3: Production details of the existing EC:** W.r.t the previous approval, PP submitted the actual production details of the concerned mine and submitted that the mine became operational from September 2021 and coal production was started in March 2022 onwards. CTO renewal has been obtained from the SPCB vide consent no. AW-59436 dated 26.12.2023 and is valid up to 31.12.2024.

Details of the coal production are as follows:

Year	Actual Production in MTPA	Planned Coal production in MTPA as per Environmental Clearance	Excess Production
2021-22	0.02	5.0	-
2022-23	1.94	5.0	-
2023-24	5.00	5.0	-

**18.3.4: Certified Compliance Report:** PP submitted that the status of compliance of earlier EC was obtained from Regional Office, Bhopal vide letter no. 3-3/2021(Env) Dated 04.07.2024 in the name of M/s. Andhra Pradesh Mineral Development Corporation Limited (APMDC). The Action taken report regarding the partially condition was submitted to Regional officer, Bhopal MoEF&CC, vide letter no. APMDC/SCM/ENV/2024-25/444 dated 09.09.2024. Regional officer, MoEF&CC (RO), Bhopal evaluated the same and has issued letter File No. 3-3/2021(Env) dated 28.10.2024.

As per the CCR dated 04.07.2024, it is observed that, out of 106 conditions, 54 conditions were observed to be complied, 5 conditions were not applicable to the proponent, 29 conditions were partly complied, 1 condition was noted, 1 condition is compiled subject to needful amendment in EC and 16 conditions were agreed to comply. Apart from there were 12 general observations in the same CCR. RO Bhopal vide letter File No. 3-3/2021(Env) dated 28.10.2024, further issued a Report on the Action Taken Report submitted by the PP on 09.09.2024 vide letter no. APMDC/SCM/ENV/2024-25/444.

**18.3.5:** Instant proposal is for capacity enhancement from 5.0 MTPA to 7.0 MTPA in two phases of 20% each as per the MoEF&CC O.M. dated 11/04/2022 under para 7(ii)a of EIA Notification, 2006. PP submitted the following compliance to the Ministry's OM dated 11.04.2022:

S. No.	Provision under para 7(ii)	Compliance
1.	The project should have gone through the public hearing process, at least once, for its existing EC capacity on which expansion is being sought, except those categories of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments.	The public hearing was conducted on 30.08.2019 at playground of Govt. High School, Majhaulipath, Jhalari village in Sarai tehsil, Singrauli district, for the existing EC capacity of 5.0 MTPA on which expansion is being sought to 7.0 MTPA (40% enhancement)
2.	There should not be change in Category of the project from 'B2' to 'B1' of 'A' due to proposed modernization or expansion.	The mine at present is in Category 'A' and shall remain in the same category after proposed expansion.
3.	There is no additional land acquisition or forest land diversion involved for 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.	There is no change in the mine lease area i.e. 1298 Ha. The EC was granted for 5.0 MTPA in 1298 Ha area and the proposed expansion will be done within 1298 Ha mine lease area.
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.	The proposed expansion is for 40%, to be carried out in two phases of 20% each as per the guidelines of MoEF&CC dated 11.04.2022. The pre-feasibility report has been prepared for 40% submission.
5.	Predicted environmental quality parameters arising out of proposed expansion/	Predicted environmental quality parameters arising out of proposed expansion shall be

S. No.	Provision under para 7(ii)	Compliance
	modernization shall be within the prescribed norms and the same shall be maintained as per prescribed norms.	within the prescribed norms and the same shall be maintained as per prescribed norms.
6.	The proposed expansion should not result in reduction in the greenbelt area as stipulated in the earlier EC, or if the existing ratio of greenbelt is more than 33%, after expansion it should not reduce below 33%.	The proposed expansion does not include any addition/ surrender of land and the lease area remains same as 1298 Ha. The greenbelt development and other plantation will be as per EC dated 12.04.2021
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 the 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.	he compliance to EC conditions is being carried out and the latest certified compliance report from the IRO is given in Annexure-VI (A) of EIA report.
8.	Public Consultation shall be undertaken [if applicable] by obtaining response in writing, as per para 7 III (ii) (b) of EIA Notification 2006, except those categories of projects which have been exempted as per para 7 III(i) of EIA Notification 2006 and its amendments.	The proposed expansion is for 40%, to be carried out in two phases of 20% each as per the guidelines of MoEF&CC dated 11.04.2022, for which public consultation is not required.
9.	Effluent monitoring including air quality monitoring systems as specified in the existing EC, if stipulated, should have been installed.	The regular monitoring of air and water is being carried out at site as per conditions.

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

### 18.3.6: Environmental Site Settings:

The project is covered under Survey of India Topo Sheet No. 64 I/5 and is bounded by the geographical coordinates ranging from Latitude 23°5'28" N to 23°58'15" N and Longitude 82°18'52" E to 82°20'58" E. As per CEPI Assessment 2018, the project does not fall in the Critically Polluted Area (CPA) and Severely Polluted Area (SPA).

**Forest Area:** The project involves total 259.239 Ha of forestland. Details of the approval pertaining to it are as follows:

Sl. No.	Obtained vide letter No.	Area (ha)	Stage I/II
1.	F No. 8-02/2020-FC dated: 15.12.2020	259.239	Stage I
2.	F No. 8-02/2020-FC dated: 15.06.2022	259.239	Stage II
<b>Total</b>		<b>259.239</b>	

PP submitted that there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

**Project 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. and there is no violation of WLP Act. However, Schedule – I species [such as, *Melursus ursinus* (Sloth Bear), *Elephas maximus indicus* (Elephant), *Manis crassicaudata* (Pangolin), *Canis lupus callipes* (Indian Wolf), *Mellivora capensis* (Honey Badger), *Panthera pardus* (Leopard), *Tetracerus quadricornis* (Four-horned antelope), *Gazella bennettii* (Chinkara), *Tragulus meminna* (Mouse Deer), *Crocodylus palustris* (Mugger, Crocodile), *Varanus bengalensis* (Bengal Monitor Lizard), *Python molurus* (Python), *Pavo cristatus* (Indian Peafow), *Aquila rapax* (Tawny Eagle), *Gyps bengalensis* (White Rumped Vulture), *Nisaetus cirrhatus* (Crested Hawk Eagle), *Anthracoceros coronatus* (Pied Hornbill), *Ciconia episcopus* (White stork), *Neophron percnopterus* (White Scavenger Vulture) and *Sarcogyps calvus* (King Vulture)] were observed in the study area and accordingly, Wildlife conservation Plan has been prepared. A Site Specific Wildlife Conservation Plan (SSWCP) w.r.t. Suliyari Coal Block has been approved by Chief Wildlife Warden (CWLW) cum PCCF (WL), Madhya Pradesh vide letter no dated 16.09.2019.

**Mine Lease details:** PP submitted the following Allotment Order and Mine Lease details:

Sl. No.	Govt. Order/Notifications as the case may be	Area (ha)
1.	F. No. 103/10/2016/NA dated 29.09.2016	1298
<b>Total</b>		<b>1298</b>

**18.3.7: Details of ToR:** ToR has not been accorded for the instant proposal under consideration. However, the proponent has submitted the EIA/EMP report for capacity enhancement from 5.0 to 7.0 MTPA as per standard ToR of coal mining sector available on Parivesh.

**18.3.8: Mine Plan & Mine Closure Plan and Method of Mining:**

- i. The Mine Plan and Mine Closure Plan of Suliyari Coal Block has been approved by MoC vide letter no. F.No.34011-14-2017-CPAM dated 08.07.2019 for 5.0 MTPA. For expansion up to 150% no specific approval is required as per MoC circular dated 29.5.2020, in view of which APMDC board has given an approval for expansion from 5.0 to 7.0 MTPA on dated 05.02.2024.
- ii. Total geographical reserves are reported to be 142.36. Out of which mineable reserves are 113.08 MT and extractable reserves are 107.43 MT. Percentage of extraction is 86.71%.
- iii. There are total 15 major coal seams. With thickness of seams to be worked on will be between 0.5m to 5.82m.
- iv. Coal to be extracted will be of G7 grade.
- v. Stripping ratio is 7.29:1.
- vi. Balance life of mine as on 01.04.2024 is 18 years.
- vii. Opencast method of mining is proposed.
- viii. Land use details:
  - a. Pre-mining Land use details:

S. No.	Land Use	Within ML Area (ha)
1.	Agricultural Land	251.860
2.	Forest land	259.239
3.	Barren Land	688.851
4.	Township	51.990
5.	Surface Water Bodies	46.060
<b>Total</b>		<b>1298</b>

b. Post Mining Land use details:

Sl. No.	Type	Total Area	Reclaimed Area	Un-reclaimed area
1.	Excavation/Quarry Area:			
	(a) Backfilled areas	998.048	890.069	107.979
	(b) Excavated Void	173.848	13.778	160.070
2.	External Dump			
3.	Safety Zone	78.864	52.643	26.221
4.	Road and Infrastructure	19.327		19.327
5.	Road Diversion	4.439		4.439
6.	Diversion/Below River/Nala/Canal	23.474		23.474
<b>Total</b>		<b>1298</b>	<b>956.49</b>	<b>341.51</b>

ix. **Transportation of Coal:** In pit: Dumpers/Trucks

- a) Surface to siding: Dumpers/Trucks
- b) Surface to loading: Road/Rail
- c) Quantity being transported by Road/Rail/Conveyor: 7.0 MTPA

PP submitted that there are no changes proposed in the means of transportation of coal.

- x. Details of reclamation: The Mine Plan and Mine Closure Plan of Suliyari Coal Block has been approved by MoC vide letter no. F.No.34011-14-2017-CPAM dated 08.07.2019 and there is no deviation proposed in the same. As per the approved Mine Closure Plan, the total excavated area is 200.107 Ha, 80.23 Ha and total reclaimed area is 10.51 Ha, as of now.

The afforestation plan shall be done progressively covering an area of 704.63 ha at the end of mining. This will include plantation over backfilled area of internal OB dump of 638.209 Ha, total plantation in greenbelt post mine closure will be 704.63 Ha. Density of tree plantation will be 2500 tree/ Ha. 160.070 Ha of void area is proposed to be converted into water body of 30 m depth. 23.474 Ha will be water body (Nala diversion), 49.987 Ha (Safety Zone/Rationalization area-26.221 ha, Road diversion-

4.439 ha & Road & infrastructure area-19.327 ha) will be left for Public/Company use and 251.86 Ha of land will be used for agriculture and horticulture.

**18.3.9: Baseline Data:** Baseline Data was generated from December 2023 to February 2024 (Winter Season):

Period	December 2023 to February 2024 (Winter Season)
AAQ parameters for 10 Locations (min and max)	PM <sub>10</sub> – 63.20 to 89.10 µg/m <sup>3</sup> PM <sub>2.5</sub> – 31.20 to 77.30 µg/m <sup>3</sup> SO <sub>2</sub> – 12.40 to 23.05 µg/m <sup>3</sup> NO <sub>x</sub> – 15.80 to 35.80 µg/m <sup>3</sup> CO – 0.34 to 0.82 mg/m <sup>3</sup>
Incremental GLC Level	<b>For Phase I:</b> PM <sub>10</sub> – 8.1378 µg/m <sup>3</sup> PM <sub>2.5</sub> – 5.19135 µg/m <sup>3</sup> SO <sub>2</sub> – 0.29406 µg/m <sup>3</sup> NO <sub>x</sub> – 0.42303 µg/m <sup>3</sup> CO – 0.0000067 mg/m <sup>3</sup> <b>For Phase II:</b> PM <sub>10</sub> – 10.2424 µg/m <sup>3</sup> PM <sub>2.5</sub> – 6.45412 µg/m <sup>3</sup> SO <sub>2</sub> – 0.35077 µg/m <sup>3</sup> NO <sub>x</sub> – 0.49017 µg/m <sup>3</sup> CO – 0.0000084 mg/m <sup>3</sup>
Ground water quality for 10 Locations	pH – 7.12 to 7.47 Total Hardness – 172 to 197 mg/l Chlorides – 19.67 to 72.5 mg/l Fluoride – 0.61 to 0.81 mg/l
Surface water quality for 10 Locations	pH – 7.35 to 7.90 DO – 5.9 to 6.5 mg/l BOD – 13.0 to 18.0 mg/l COD – 44.0 to 58.0 mg/l
Noise levels Leq (Day and Night)	41.85 to 62.60 dBA for the day time and 36.52 to 55.20 dBA for the Night time.



Period	December 2023 to February 2024 (Winter Season)																														
<p>Traffic assessment study findings</p>	<p>Traffic study has been conducted at Bhalyatola to Jhaleri (Near Dhirauli – Road - 1) &amp; Belwar to Majhalipath (Near to Belwar – Road -2) which is approximately approx. 1.5 km from the mine site respectively.</p> <p>Existing PCU for Road-1 are 595 PCU/hr and for Road-2 are 727 PCU/hr respectively and existing level of service (LOS) for both road are “A”.</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>Road - 1</td> <td>595</td> <td>15000</td> <td>0.04</td> <td>A</td> </tr> <tr> <td>Road - 2</td> <td>727</td> <td>15000</td> <td>0.05</td> <td>A</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 745 PCU/hr for Road-1 and 877 PCU/hr for Road-2 and level of service (LOS) will be remain “A” for the both roads.</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>Road - 1</td> <td>745</td> <td>15000</td> <td>0.05</td> <td>A</td> </tr> <tr> <td>Road - 2</td> <td>877</td> <td>15000</td> <td>0.06</td> <td>A</td> </tr> </tbody> </table> <p>Note: Capacity as per IRC 64-1990 Standards Guideline for capacity for roads.</p> <p><b>Conclusion:</b> Due to the mine expansion project (increase of production by 40%) the traffic density will increase marginally as the entire mineral will be transported through the PWD Road, however the value of LOS will remain same as “Excellent”.</p>	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	Road - 1	595	15000	0.04	A	Road - 2	727	15000	0.05	A	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Proposed V/C Ratio	LOS	Road - 1	745	15000	0.05	A	Road - 2	877	15000	0.06	A
Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS																											
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<p>Flora and fauna</p>	<p>Presence of Schedule I fauna and endangered Flora if any: Schedule – I species were observed in the study area and accordingly, Wildlife conservation Plan has been prepared. A Site Specific Wildlife Conservation Plan (SSWCP) w.r.t. Suliyari Coal Block has been approved by Chief Wildlife Warden (CWLW) cum PCCF (WL), Madhya Pradesh vide letter no. dated 16.09.2019.</p>																														
<p>Water Requirement</p>	<p>Source of Water: Borewell and Mine water</p> <p>Ground Water Intersection: Yes</p> <p>Water Requirement:</p> <p>Existing: 1510 KLD</p> <p>Proposed: 2500 KLD</p>																														

Period	December 2023 to February 2024 (Winter Season)
	<p>NOC (Ground Water): Ground water withdrawal permission has been obtained from Central Ground Water Authority (CGWA) vide NOC no. CGWA/NOC/MIN/REN/1/2022/7166 which is valid from 13.03.2022 to 12.03.2024.</p> <p>Further, a fresh renewal application has been submitted vide application no. 21-4/843/MP/MIN/2019 dt. 07.03.2024, in accordance with the CGWA notification dt. 14th Sept. 2020. As per the Gazette notification “if the application for renewal is submitted in time and the CGWA/the respective state/UT authority is unable to process the application in time, NOC shall be deemed to be extended till the date of renewal of NOC”.</p>

**18.3.10: Details of Water Requirement:** PP submitted that the existing water requirement is 1510 KLD and water requirement on the proposed expansion is 2500 KLD. The source of water is submitted as borewell and mine water. Ground water withdrawal permission was obtained from Central Ground Water Authority (CGWA) vide NOC no. CGWA/NOC/MIN/REN/1/2022/7166 which is valid from 13.03.2022 to 12.03.2024. Further, the PP has submitted the application for renewal of NOC vide application no. 21-4/843/MP/MIN/2019 dated 07.03.2024. PP also submitted that Hurdul Nallah passing through the ML area is proposed to be diverted in consultation with the Water Resource Department of the State Government as per the EC dated 12/04/2021.

**18.3.11: Details of Solid and Hazardous Waste:** The details of Solid and Hazardous waste generation along with its mode of treatment/ disposal is furnished as below:

Sl. No	Type of Waste	Source	Quantity (TPA)	Mode of Treatment	Disposal
1	Municipal Solid waste	Domestic waste from site office, Canteen etc.	148	Authorized Vendors	Disposed off as per the solid waste management rule, 2016
2	Plastic Waste	Site office, Canteen etc.	1.0	CPCB/SPCB Authorized recycling Vendors	As per the Plastic Waste Management Rules, 2016
3	Electronic Waste	Computers, switches, cables etc.	0.05	Authorized Vendors	As per E- Waste (Management) Rules, 2022
4	Used Batteries	Vehicles at sites	1.0	Authorized Vendors	As per Batteries Management rules 2022, sold to authorize vendors for recycling/refurbishment.

Sl. No	Type of Waste	Source	Quantity (TPA)	Mode of Treatment	Disposal
5	Biomedical Waste	Primary Health Center	0.01	As per BMWR, 2016	Yellow & Red
6	Used Oils, Waste Oil, Empty Oil barrels	DG Set, Workshop	1.26	Authorized Vendors	Handed over to CPCB/SPCB authorized vendor

**18.3.12: Details of Public Hearing:** There is no fresh Public Hearing conducted, as the proposal has been submitted under clause 7(ii) of EIA Notification 2006. However, details of the Public Hearing held for EC dated 12.04.2021 are as follows:

Advertisement for the Public Hearing was given in Hindustan Times (English daily newspaper), New Delhi edition dated 30.07.2019, Dainik Bhaskar (Hindi daily newspaper), Singrauli edition dated 30.07.2019, Navbharat (Hindi daily newspaper), Singrauli edition dated 30.07.2019, Patrika (Hindi daily newspaper), Satna edition dated 30.07.2019. Public Consultation was held on 30.08.2019 at playground of Govt. High School, Majhaulipath, Jhalari village in Sarai tehsil, Singrauli district, Madhya Pradesh under the chairmanship of Shri Rituraj (IAS), ADM Singrauli. 1400 people attended the PH and total 102 representations were received from and outside the district, out of which 2 representations were received before the PH and 100 written representations were received during the PH. Major issues raised during the PH were Land Acquisition and R&R, Employment to locals, Plantation, Conservation of biodiversity, Pollution Control, Drinking water supply etc.

Compliance status of the PH action plan is as follows:

Compliance status of the implementation of the Action Plan on the issue raised during PH					
Sr. No.	Issue/demand raised by the Public	Commitment given by Project Proponent	Brief description & Time frame	Fund allocation (Rs.)	Current Status
1.	Land Acquisition and R&R	Rehabilitation and Rehabilitation-2018 has been prepared by Sub Divisional Officer Land Acquisition Officer Devsar and	<ol style="list-style-type: none"> <li>Land Acquisition: It is under advance stage and 30% of the land is in procession and balance land acquisition is likely to complete by 31.12.2019.</li> <li>Providing amenities in R&amp;R colony as per approved R&amp;R Plan by 30.06.2020.</li> <li>Payments of R&amp;R</li> </ol>	Total funds required for acquisition of private lands are 716.89 crores, out of which APMDC has already deposited Rs 695.55 crores to the district administration. Remaining amount will be deposited during the course of taking possession of land in stages and will be completed by scheduled time. Note: Additionally, the required Govt. land falling within project area will be	<ol style="list-style-type: none"> <li>Land acquisition for 742.20 ha. has been completed.</li> <li>Land Compensation has been awarded for Rs 716.89 Cr. and deposited in the Govt. Account.</li> <li>Compensation of Rs 695.55 Cr. has been disbursed by LAO to the</li> </ol>

Compliance status of the implementation of the Action Plan on the issue raised during PH					
Sr. No.	Issue/demand raised by the Public	Commitment given by Project Proponent	Brief description & Time frame	Fund allocation (Rs.)	Current Status
		<p>approved by Commissioner Rewa Division Rewa, in line with the guidelines laid down by the State Government (Rehabilitation Policy of Madhya Pradesh Government-2002 'A') and Government of India (Rehabilitation Policy of Government of India- 2007) for rehabilitation of displaced people from time to time.</p> <p>Special provisions have been made for the protection of the displaced / affected people in the R&amp;R policy. According to the policy, all rehabilitation benefits will be given to the displaced and affected families of the project.</p>	<p>benefits including the construction of houses etc. will be completed by 30.06.2020.</p>	<p>acquired by APMDC by paying the suitable compensation as estimated towards the same by the State Govt. Developing R&amp;R colony has been entrusted to M/s AEL (MDO of the coal Block) and amount of Rs 20 crores will be released in stages. Amount will be disbursed to the PDF's at the time of taking possession of land and house.</p>	<p>concerned landowners and balance is in process.</p> <p>Remaining amount Rs. 21.34 will be disbursed from district administration during allocation of land.</p> <p>4. Basic amenities i.e.- School, Anganwadi, Hospital building, Water treatment plant of capacity 2x800 KLD, Water supply, Roads, Culverts, Drains, Substation with electricity supply and Haat Bazzar (Shops) etc. has been developed in the R&amp;R colony at village Khanua, Tehsil Sarai Distt Singrauli.</p> <p>5. Payments of R&amp;R benefits including the construction of houses etc. have been provided as per R&amp;R Plan.</p>
4.	Employment to locals	Under the provisions of R&R Policy-2018 approved by Commissioner	There are 1100 PDF's in the age group of 18-55 years for whom suitable employment shall be given @ one from displaced house within the three years of taking	Rs 50 Cr has been allocated for the purpose.	187 Numbers of displaced persons have been given employment by the Project proponent and more than

Compliance status of the implementation of the Action Plan on the issue raised during PH					
Sr. No.	Issue/demand raised by the Public	Commitment given by Project Proponent	Brief description & Time frame	Fund allocation (Rs.)	Current Status
		Rewa, Division Rewa, the displaced will be given job / employment in the company according to their ability.	possession of the land. Employment will be provided as per the requirement of the project or else Rs 5 Lakhs per eligible for employment for one time settlement.		Rs. 30 Cr have been disbursed to PDF.
5.	Plantation, Green belt Development.	About 17.60 lakh trees will be planted in the mine area in a time bound manner.  Plantation of trees of local species will be done only after deliberations of forest department and Gram Panchayat.	Will be taken up as per the green belt development plan/progressive plantation scheme given in EMP and conditions stipulated by MoEF&CC/ MPPCB.	Included in cost for EMP (capital and recurring). (Refer Table 6.7 of the approved EIA/EMP report). 10 lakhs (capital cost).	Plantation is being carried out in phase wise manner; Initial phase plantation is being carried out near admin building and nursery will be developed for sapling. Native Species such as Amaltas, Sal, Arjun, Ashoka are planted near admin building and safety zone.  Year wise plan for plantation has been submitted to RO, MoEF&CC, Bhopal.  The nursery has been developed in 1.5 ha and approx. 1.70 lacs sapling are ready for plantation.  A total of 56.79 lakh amount has been spent till date for greenbelt plantation and preparation of nursery.
6.	Compensatory Afforestation	A total of 15,940 trees are proposed to be cut/felled from the forest land within the coal block. In lieu of the same, 259.239 ha of non-forest revenue land has been identified as	CA scheme has been prepared and submitted to DFO.	The required amount (99351319/-) will be deposited soon after getting stage-I FC / after issue of demand by Forest department.	CA scheme approved by the DFO and the required amount for CA (99351319/-) & the supervision charges (35,70,422/-) had been deposited in CAMPA account on 12.01.2021.  Further, APMDC vide letter dated 24.07.2024 requested DFO, Singrauli to provide

Compliance status of the implementation of the Action Plan on the issue raised during PH					
Sr. No.	Issue/demand raised by the Public	Commitment given by Project Proponent	Brief description & Time frame	Fund allocation (Rs.)	Current Status
		Compensatory Afforestation (CA) land in Koraval circle of Chitrangi tehsil in Singrauli district. About 4.14 lakh trees will be planted under CA scheme.			the status of implementation of the CA cost.
7.	Conservation of biodiversity	Plantation will be done after discussion with forest department and Gram Panchayat to ensure planting of local species of trees.	Local species will be planted as per the directions given by forest department and gram panchayat from time to time till post mining phase.	Included in cost for EMP (capital and recurring). 10 lakh (capital cost) as per approved EIA/EMP report	Plantation is being carried out in phase wise manner; Initial phase plantation is being carried out near admin building. Native Species such as Amaltas, Sal, Arjun, Ashoka are planted near admin building and safety zone. The nursery has also been developed in 2.5 ha and approx. 1.70 lacs sapling are ready for plantation.  A total of 56.79 lakh amount has been spent till date for greenbelt plantation and preparation of nursery.
8.	Wildlife conservation	There are no notified elephant corridors within a 10 km radius of the study area. But elephants move from their habitat from one forest area to another forest area. Also there are several Schedule-I species viz. Peacock, Python, Bengal monitor lizard, Wolf, Leopard, Pangolin, Sloth	As per approved wild life management plan, action will be taken for conservation of wild life as indicated in the plan.	Rs. 35.45 crores is allocated for implementation of wild life management plan.	Wildlife conservation in this regard already prepared with an estimated cost Rs 35.45 Crores Approved by Chief Wildlife Warden, cum PCCF (WL), MP vide letter No. क्रमांक/व.प्रा./माचि./ 6538 date 16.09.2019.  The amount (35.45 Cr.) for wildlife conservation plan and the supervision charges (35,70,422/-) had been deposited in CAMPA account on 12.01.2021.

Compliance status of the implementation of the Action Plan on the issue raised during PH					
Sr. No.	Issue/demand raised by the Public	Commitment given by Project Proponent	Brief description & Time frame	Fund allocation (Rs.)	Current Status
		<p>bear etc. are found in the study area. Thus, "Site-specific Wildlife Conservation Plan" has been prepared, and submitted to the state government's forest department for certification.</p>			APMDC vide letter dated 24.07.2024 requested DFO, Singrauli to provide the status of implementation of the wildlife conservation plan and the spent amount.
9.	Air Pollution Control	<p>The following measures will be taken to control air pollution arising from mining operations:</p> <ol style="list-style-type: none"> <li>1. The haul roads will be compacted, and water sprinkling will be done.</li> <li>2. Air pollution control through phase wise plantation and green belts development.</li> <li>3. Dumps will be strengthened by planting grass / trees.</li> <li>4. Spraying of water during drilling.</li> <li>5. Coal Excavation by Surface Miner.</li> </ol>	<p>Air Pollution control measures will be taken up as suggested in the EMP and conditions stipulated by MoEF&amp;CC/MPPCB.</p>	<p>Included in cost for EMP (Capital and recurring).</p> <p>50 lakh (capital cost) and 30 lakh (Recurring cost) as per approved EIA/EMP report.</p>	<p>Fixed type of water sprinklers (17 nos. in approx. 500 m stretch approach road) are installed at site. Each jet sprinkler covers an avg. radius of 16 meters for water sprinkling, 360 degrees around its sprinkling area. Thus, covering a handling area of about 1.37 ha around coal stockyard of 10 ha, which was earmarked as per the mining plan. Currently, tankers with water sprinkling arrangements (13 nos.) and mist/fogging machines (1 nos.), dust sweeping machines (1 nos.) are also deployed at site for dust mitigation.</p> <p>1 no. CAAQMS has already been installed on site and the same is connected with MPPCB and CPCB.</p> <p>Additional CAAQMS with a value of INR 50 lakhs has</p>

Compliance status of the implementation of the Action Plan on the issue raised during PH					
Sr. No.	Issue/demand raised by the Public	Commitment given by Project Proponent	Brief description & Time frame	Fund allocation (Rs.)	Current Status
		Provision of covered conveyor belts and housed unloading / transfer points.			been ordered for installment. Documentary evidence for CAAQMS is provided to RO, MoEF&CC, Bhopal.
10.	Water Pollution	Industrial water demand during initial years (construction phase) will be met from Hurdul Nala. Thereafter, industrial water demand will be met from treated mine discharge water. Surplus treated mine water will be discharged into Hurdul nala only after ensuring permissible water quality standards.	Water Pollution control measures will be taken up as suggested in the EMP and conditions stipulated by MoEF&CC/MPPCB.  Treated water will be discharged into Hurdul nala only after ensuring permissible water quality standards.	Included in cost for EMP (capital and recurring).  50 Lakh as capital cost, as per approved EIA/EMP report.	Industrial Water Demand being met from treated mine water. ETP is also provided, and the treated wastewater is used for horticulture and road sprinkling. (Amount Rs. 30 Lakhs has been already spent.)  Regular water monitoring is being done by a NABL/MoEF&CC accredited lab and the report submitted to RO, MoEF&CC and MPPCB with half yearly compliance.
11.	Drinking Water supply	RO plant will be provided in the nearby villages	There are 4 nearby villages for which treated and filtered	Requirement of funds will be met from the Revenue Expenditure of CSR budget	Drinking water supply through pipeline has been provided for R&R Colony



Compliance status of the implementation of the Action Plan on the issue raised during PH					
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	through pipeline	under CSR activities.  By APMDC	drinking water will be supplied.	(@2% of average net profits made in the preceding three years) by APMDC	of Khanua-Khas. (A total of <b>1.09 Cr. has been spent on establishing of the R.O plant).</b>
12.	Stabilization of external dump	One temporary external OB dump is proposed for the project for initial 3 years.  Grass turfing will be done to stabilise the dump slopes. After 3 years of mining operation, the waste from the external dump shall be re-handled to the backfilled areas. Phase-wise plantation shall be done in the backfilled areas to ensure stabilization of the backfilled surface.	Stabilization of temporary OB dump shall be done till complete re-handling of the dump into de-coaled voids/backfilled surface.	Cost included in Progressive Mine Closure cost.	Grass seeding has been done on OB dump and temporary grass has also been grown on a portion of it. OB is being backfilled progressively.  Additionally, Garland Drains have been constructed to improve slope stability of OB in case of water seepage. Standardized and safe methods have been adopted for creation of bench profiles. Phase wise topsoil is being matted over the backfilled area.
13.	Carrying capacity study for Singrauli region	On receiving the outcome of the carrying capacity (to be carried out by MoEF&CC for Singrauli region), whatever suggestions and orders will be mentioned, those will be duly followed in	As stipulated by the Competent authority	As applicable	In Suliyari Coal Mine, no such condition related to carrying capacity is reflected. However, carrying capacity study has already been carried out for adjacent block considering the worst-case scenario of all operational mines.

Compliance status of the implementation of the Action Plan on the issue raised during PH					
Sr. No.	Issue/demand raised by the Public	Commitment given by Project Proponent	Brief description & Time frame	Fund allocation (Rs.)	Current Status
		the Suliari project.			

**18.3.13: EMP Cost:** Existing capital cost of project was Rs. 1873.75 Crores. The capital cost of the proposed project is Rs 386.20 Crores (total cost 2259.95 Crores) and the capital cost for environmental protection measures is proposed as Rs 791 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 395 Lakhs. The employment generation from the proposed expansion for Phase-I is 1620 persons and for Phase-II is 1800 persons.

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

Sl. No.	Description of Item	Existing (In Lakh)		Proposed (In Lakh)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
1.	Pollution Control Equipment's	50	30	500	100
2.	Effluent treatment /Oil & Grease traps	50	-	-	10
3.	Sewage treatment Plant (50 KLD)	50	-	80	10
4.	Pollution monitoring	Nil	07	0	55
5.	Occupational safety	10	03	100	20
6.	Green belt development / Progressive afforestation	10	16	111	100
7.	Socio-economic welfare measures in nearby villages	-	50	-	50
8.	Any other misc. cost for complying EC conditions	-	05	-	50
<b>Total</b>		<b>170</b>	<b>111</b>	<b>791</b>	<b>395</b>

**18.3.14: Power Requirement and details of Hi-Tension/ Transmission Line:** Power requirement for the project after expansion is submitted to be 4.4 MW, which will be sourced from 132/33 KV substation located in Dongri Tal-II Coal Block. PP also submitted that A 132 KV High Tension Line passes through the mine area. It will be diverted along the safety zone within the mine. In this regard, APMDC has already deposited an amount of 1.965 lacs to MPPTCL (Madhya Pradesh Power Transmission Co. Ltd.) towards modification/shifting of 132 KV Dongratal-Rajmilan line vide letter no. APMDC/COAL/SUL/L.A./2019-20/297 dated 19.10.2019.

**18.3.15: Plantation:** Existing green belt has been developed in 10.51 ha area which is about 0.80 % of the total project area of 1298 with total sapling of 31369 nos. of Trees. The proposed

greenbelt will be developed in 694.12 ha. Which is about 53.47 % of the total project area. A 7.5 m wide greenbelt, consisting of at least 3 tiers around boundary of mine lease area and vacant places will be developed as greenbelt and green cover as per CPCB/MoEF&CC. Local and native species are being planted with a density of 2500 trees per hectare. Total no. of 1761562 saplings will be planted and nurtured in 694.12 ha area in life of mine.

Year wise Plantation Details									
Mine Life Part (yrs.)	Year	Cumulative Plantation Area (Current) (ha)	Total Plantation Area (ha)	Backfilled Area & others' Proposed Plantation (ha)	Safety Zone Proposed Plantation (ha)	Total Plants Proposed to be Planted (nos.)	Cumulative Plants Proposed to be Planted (nos.)	Sal Plantation Proposed (ha)	Cumulative Sal Plantation Area (ha)
1	2021-2022	0	0	0	0	0	0	0	0
2	2022-2023	0.66	0.66	9.97	0.53	1646	1646	0.20	0.20
3	2023-2024	10.51	9.85			24616	26262		
4	2024-2025	53.83	43.32	40.89	2.43	108300	134562	17.90	18.10
5	2025-2026	106.98	53.15	50.74	2.41	132875	267437	8.68	26.78
6	2026-2027	142.47	35.49	33.01	2.48	88725	356162	11.04	37.82
7	2027-2028	180.32	37.85	35.10	2.75	94625	450787	11.14	48.96
8	2028-2029	215.39	35.07	35.07		87675	538462	11.17	60.13
9	2029-2030	250.43	35.04	35.04		87600	626062	10.51	70.64
10	2030-2031	285.49	35.06	35.06		87650	713712	10.52	81.16
11	2031-2032	320.49	35.00	35.00		87500	801212	10.50	91.66
12	2032-2033	360.60	40.11	40.11		100275	901487	12.03	103.69
13	2033-2034	400.39	39.79	39.79		99475	1000962	11.94	115.63
14	2034-2035	440.65	40.26	40.26		100650	1101612	12.08	127.71
15	2035-2036	479.37	38.72	38.72		96800	1198412	11.91	139.62
16	2036-2037	527.69	48.32	48.32		120800	1319212	15.00	154.62
17	2037-2038	557.01	29.32	29.32		73300	1392512	9.02	163.64
18	2038-2039	586.29	29.28	29.28		73200	1465712	9.01	172.65
19	2039-2040	615.47	29.18	29.18		72950	1538662	8.85	181.50
20	2040-2041	644.74	29.27	29.27		73175	1611837	7.00	188.50
21	2041-2042	673.95	29.21	29.21		73025	1684862	5.00	193.50
22	2042-2043	703.17	29.22	29.22		73050	1757912	4.00	197.50
23	2043-2044	<b>704.63</b>	1.46	1.46		3650	<b>1761562</b>	2.50	<b>200.00</b>

**18.3.16: Project Cost:** Capital Cost of Project is Rs. 2259.95 Crores (Existing Cost: Rs 1873.75 Crores & Proposed Expansion Cost: Rs. 386.20 Crores). 2% of their net profit over the preceding three years will be spent towards CSR activities. Cost of implementing EMP for proposed expansion will be Rs. 791 Lakhs as Capital cost & Rs. 395 Lakhs/year as Recurring cost.

**18.3.17: R&R Issues:** The project involves expansion with increase in production capacity within the existing mine lease area and no land acquisition is involved for expansion. However, the project involves 1386 Project Affected Families and the R&R package is proposed to be 292.60 Crores.

**18.3.18: Undertaking/ Affidavit:** PP submitted an Undertaking that there is no construction/ mining done at the site or the construction done without any deviation as per previous EC obtained, there is no litigation pending on the project either at Hon'ble NGT or any other court law, the Suliaryi Coal Mine has been allocated to M/s Andhra Pradesh Mineral Development Corporation Limited (APMDC) by Government of India, Ministry of Coal, New Delhi vide order no. F. No. 103/10/2016/NA dated 29.09.2016 through auction, the land acquisition is under process and R&R is being carried out as per the Acts, rules and prevailing guidelines, there is no difference in the documents submitted i.e., Form-1, EIA/EMP Report with all annexure and presentation being made to the EAC as per EIA Notification dated 14.09.2006, as amended thereof, the coal mining projects having an area >500 Ha falls under the category 'A' of Sr. No. '1' (Mining of Minerals), Project or Activity 1(a)(3). Thus, Suliaryi Coal Mine project having an area of 1298 Ha which is >500 ha. Hence, it falls under Category 'A'. The company further undertakes that the contents of this declaration are true and correct to best of my knowledge and belief, that nothing has been concealed.

PP further submitted an Undertaking stating that, the information provided in CAF, Form-A&B in pdf format in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 27.11.2024 have no deviation in respect of the Proposal no. IA/MP/CMIN/496827/2024 for Environmental Clearance (EC) of "Suliaryi Coal Mine Project of Opencast mining with 7.0 MTPA (Expansion from 5.0 MTPA to 7.0 MTPA in Two Phases of 20% Each) production capacity over ML area 1298 ha, there are no data entry errors in the information uploaded in PARIVESH system including names/email-id/mobile numbers/address of the project proponent, authorized person, etc. It is also certified that the supporting portal are correct and duly authenticated by the documents uploaded on PARIVESH portal are correct Authorized Signatory, in case of any deviation in data found in any of the documents, the Authorized Signatory shall be held responsible and furthermore, the above said project shall be rejected for grant of Environmental Clearance (EC).

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

#### **Deliberations and Observation of the Committee:**

**18.3.20: The Committee noted the following:**

- i. Suliyari Mines originally accorded EC vide J-11015/35/2018-IA. II(M) dated 12.04.2021, for production capacity of 5 MTPA over an area of 1298 Ha. The project has been implemented and the mine is under operation.
- ii. The instant proposal is for grant of Environment Clearance to Suliyari Coal Mine by M/s. Andhra Pradesh Mineral Development Corporation Limited (APMDC) located at Villages: Belwar, Bijauri, Dhirali, Dongri, Jhalri, Majholipath, Mohanban, Phatpaani; District: Singrauli; State: Madhya Pradesh for expansion of production capacity from 5 MTPA to 6 MTPA and has applied under 7(ii)(a) of EIA Notification 2006 (as amended) keeping the land area same as 1298 Ha.
- iii. The EAC took into consideration the project site through kml file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH. The project does not fall in the Critically Polluted Area (CPA) and Severely Polluted Area (SPA) as per CEPI Assessment 2018.
- iv. 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. A Site Specific Wildlife Conservation Plan (SSWCP) w.r.t. Suliyari Coal Block has been approved by Chief Wildlife Warden (CWLW) cum PCCF (WL), Madhya Pradesh vide letter dated 16.09.2019. PP also submitted a letter from Forest Division Officer dated 29.12.2020, confirming the distance of project site from Sanjay Tiger Reserve, Kaimur Wildlife Sanctuary, Guru Ghasidas National Park and Samirpingla Wildlife Sanctuary. However, as per the DSS KML, the Committee observed that, there is a wildlife sanctuary and a tiger reserve visible near the ML area. Further as per the EC accorded, Sanjay Gandhi Tiger reserve ESZ boundary is at a distance of 7.8km from the project site. The Committee is of the opinion that the PP must submit a clarification in this regard including permission if any obtained if any from NBWL.
- v. The project involves total 259.239 Ha of forestland. PP obtained Stage – I FC on the same vide F No. 8-02/2020-FC dated 15.12.2020 and obtained Stage – II FC on the same vide F No. 8-02/2020-FC dated 15.06.2022. Committee observed that there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.
- vi. Committee deliberated on the Mine Plan & Mine Closure Plan submitted by the PP. PP submitted that the earlier Mine Plan and Mine Closure Plan of Suliyari Coal Block has been approved by MoC vide letter no. F.No.34011-14-2017-CPAM dated 08.07.2019 for 5.0 MTPA. For expansion up to 150% no specific approval is required as per MoC circular dated 29.5.2020, in view of which APMDC board has given an approval for expansion from 5.0 to 7.0 MTPA on dated 05.02.2024. Hence, the PP has submitted the Mine Plan and Mine Closure Plan for proposed expansion in capacity, approved by the APMDC Board.
- vii. Committee deliberated on the Certified Compliance Report obtained by the PP from the Ministry's Regional Office. Committee observed that the factual status of compliance to the EC conditions inter-alia development of prior green belt development in mine lease area, installation of ultrasonic flow meter, green belt development in R&R

colony and implementation of drainage plan etc., was not explicitly furnished in the report dated 28/10/2024.

- viii. The Committee deliberated on the plantation activities been undertaken by the PP. The Committee is of the opinion that the plantation should be increased by the PP. The budget of the same to be increased and atleast 2,00,000 nos of new saplings should be planted in the next monsoon season.
- ix. The Committee further deliberated on the diversion of Hurdul nallah proposed to be diverted by the PP as part of the EC dated 12/04/2021. In this regard, study if any undertaken by the proponent for diversion of this nallah needs to submitted.
- x. In the presentation made by the PP, Committee observed that the hardness of groundwater and surface water is reported to be 172 to 197 mg/L and 342 to 383 mg/L respectively. Committee found this data to be inaccurate as hardness of surface water is reported to be more than that of groundwater. Besides, TDS levels in the surface water is reported to be more than the ground water samples.
- xi. The Committee also observed that the Presentation submitted to the Committee was different to what was presented during the meeting and there were some discrepancies observed in the data uploaded and submitted.

#### **18.3.21: Recommendations of the Committee:**

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. Action taken report on the observations reported by the Regional Office in its monitoring report dated 24/07/2024 shall again be submitted by the proponent by explicitly stating the compliance status for all the prescribed EC conditions to the concerned RO, MoEF&CC to obtain their views/comments and the same shall be further submitted to the EAC for consideration in place of the report dated 28/10/2024.
- ii. A fresh report for groundwater and surface water quality analysis shall be submitted by the PP covering all the parameters.
- iii. As per specific condition no. xxvii of EC dated 12.04.2021, study if any, conducted for diversion of Hurdul nallah, shall be submitted with requisite documents. Along with that PP shall submit the NoC obtained from the State Water Resources Department if any for diversion of Hurdul Nallah.
- iv. PP shall submit the NoC from MP Rural Road Development Authority (MPRDA) if any for diversion of a public village road as proposed by the PP.
- v. Clarification and permission obtained from NBWL regarding the distance of Tiger reserve ESZ boundary, Wildlife Sanctuary and Tiger Reserve shall be submitted.
- vi. PP shall submit the third party monitoring report (by **NEERI/ CIMFR/ IIT**) for air quality carried out at identified locations both ambient and process area, along with the results and recommendations to assess the efficacy and adequacy of pollution control measures.

- vii. Carrying capacity study report of the Singrauli area carried out during 2023 inter-alia includes the above mentioned coal mine of M/s. APMDC. In this regard, copy of the carrying capacity study report along with timebound action plan to comply with the recommendations and conclusion (section 5.2) of the said report shall be submitted.

#### **Agenda No. 18.4**

**18.4: Bina Expansion Opencast project (from area 1790.377 Ha to 2079.221 Ha and capacity 10.5 MTPA to 17.5 MTPA) by M/s Northern Coalfields Ltd., located at Villages: Waidhan, Banbansi, Barwani, Bharuwa, Chanduyar, Jai Sila, Kohraul, Govind Ballabh Pant Sagar & Mishra; District: Singrauli & Sonabhadra; State: Madhya Pradesh & Uttar Pradesh – Prescribing of ToR – reg.**

**[Online Proposal No. IA/UP/CMIN/495647/2024; Consultant: CMPDI NABET/EIA/22-25/SA0223, valid up to 08.04.2025]**

**18.4.1:** M/s. Northern Coalfields Limited has made an application online vide proposal no. IA/UP/CMIN/495647/2024 dated 24/10/2024 along with the application in prescribed format (Form-I), copy of pre-feasibility report, Mine Plan and Mine Closure Plan 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 of the EIA Notification, 2006 and being appraised at Central Level.

The project of M/s. Northern Coalfields Limited 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 17.5MTPA & increase in project area from 1790.377 ha to 2079.221 ha.

The project was earlier appraised in the 14<sup>th</sup> EAC Meeting held on 5<sup>th</sup>-7<sup>th</sup> August 2024 and the same was returned in the present form due to discrepancies involved in the project. PP has submitted a fresh proposal by addressing the observations of EAC held in its meeting held on 5-7<sup>th</sup> August, 2024. The proposal was further placed before the EAC in its 18<sup>th</sup> meeting held on 27/11/2024 for consideration.

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

#### **18.4.2: Details of previous approvals in chronological orders:**

S. No.	Details of Letter No.	EC/ Expansion EC/ Amendment in EC/Validity extension/Transfer of EC	Capacity (MTPA)	Area (Ha)	Status of implementation
1.	No.J-11015/29/2004-	Expansion EC from 4.5 MTPA to 6.0 MTPA	6.0	1798	Implemented

S. No.	Details of Letter No.	EC/ Expansion EC/ Amendment in EC/Validity extension/Transfer of EC	Capacity (MTPA)	Area (Ha)	Status of implementation
	IA.II(M) dated 02.08.2006				
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	Implemented
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	Implemented
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	Implemented
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	Being implemented
6.	No.J-11015/49/2011-IA.II(M) dated 02.07.2024	Amendment in EC	10.5	1790.377	Being implemented

**18.4.3: Production Details of the existing EC:** 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. The CTO renewal was obtained by the PP



from MPPCB on 23.10.2023, valid up to 30.11.2024 and from UPPCB on 18.11.2022 valid from 01.01.2023 to 31.12.2024.

#### 18.4.4: 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. As per CEPI Assessment 2018, the project does not fall in the Critically Polluted Area (CPA). However, the project falls in Severely Polluted Area (SPA).

**Forest Area:** The total forestland involved in the project is 1369.046 Ha. 1080.202 Ha of forestland forms part of the existing ML Area and upon expansion 288.844 Ha of forestland will be added in the ML area.

Details of the approval for the same are as follows:

S. No.	Obtained vide letter no.	Area	Stage I/ II	Validity
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	Broken before FC Act, 1980.	Not provided.
2.	8B/ UP/ 05/ 11/ 2004/ FC; dated: 01.06.2006.	21.61	Stage II FC accorded by MoEF&CC	30 years from date of accord.
3.	8-58/ 2005- FC dated: 13.08.2007	371.312	Stage II FC accorded by MoEF&CC	30 years from date of accord.
4.	8-69/2018-FC dated: 16.04.2024	288.844	Stage II FC accorded by MoEF&CC	30 years from date of accord.
<b>Total</b>			<b>1369.046</b>	

PP submitted that the forest land of 687.280 Ha, was broken up way before FC Act, 1980 came into force. Hence, there is no requirement for forest clearance on this land. This land was acquired by Central Government under Section (9) of the Coal Bearing Areas (Acquisition and Development) Act, 1957. After that, as per provision of Section 10 of CB(A&D) Act, 1957, the total land including forest land was vested with the Central Government free from all encumbrances. Subsequently, Central Govt vested the land under Section (11) of CB(A&D) Act, 1957 to Coal India Limited (Formerly known as National Coal Development Corporation Ltd, Ranchi) which is the parent company of Northern Coalfields Limited vide order dated 23.09.1975. Therefore, there is no violation of 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.

**Mine Lease Details:** PP submitted the following Mine Lease details:

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
<b>Total</b>	<b>2079.221</b>	<b>2079.221</b>	-	-

**18.4.5: Mining Plan and Mine Closure Plan:** The mining plan & mine closure plan for the project was approved for 17.5 MTPA over an area of 2079.221 Ha by NCL Board vide ref. no. NCL/Board/9/2024/187 dated 21<sup>st</sup> August 2024.

- i. Method of Mining to be adopted shall be Opencast. 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 158.42 MT mineable reserve. Balance mineable reserve as on 01.04.2024 is 136.32. Out of balance mineable reserve of 136.32MT, 129.50MT are Extractable reserves. Balance extractable reserves available for extraction as on 01.04.2024 is 129.50 MT. Percent of extraction is 58.10 %.
- iii. Three number of seams namely Purewa Top, Purewa Bottom and Turraseams 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 m<sup>3</sup>/t.
- iv. Life of mine is 10 years.
- v. The Project has 3 no. of external OB dumps in an area of 79.27 Ha with maximum height of 60 m and 14.25 Mm<sup>3</sup> of OB and 2 no. of internal OB dumps in an area of 1060 Ha with 1418.39 Mm<sup>3</sup> of OB is envisaged in the project. 1118.39 Mm<sup>3</sup> of OB will be utilized by backfilling. These dumps are technically and biologically reclaimed. Backfilled OB will also be utilized in proposed OB to Sand Processing plant as a waste utilization initiative. 295 Mm<sup>3</sup> of OB will be backfilled in the voids of adjoining mines. In Post closure stage, about 300 Mm<sup>3</sup> of OB sourced from adjacent mines will be utilized for backfilling of void up to R.L. of 360 m (above mean sea level). This backfilled void will be technically & biologically reclaimed with plantation.

vi. Total quarry area is 1096 ha out of which backfilling will be done in 1060ha. Total Backfilled quarry area of 1060 ha shall be reclaimed with plantation. There will be no mine void left post closure of the mine.

vii. Details of Land usage:

**A. Pre-mining:**

S. 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
<b>Total</b>		<b>2079.221</b>	<b>-</b>	<b>2079.221</b>

**C. Post-mining:**

S. No.	Type	Total Area	Reclaimed Area	Un-reclaimed/ Undisturbed Area
1	Excavation/Quarry Area			
	(a) Backfilled areas	1060.000	1060.000	-
	(b) Excavated Void/mine batter	36.000	36.000	-
2	External Dump	79.270	79.270	-
3	Safety Zone	206.550	202.300	4.250
4	Road & Infrastructure	450.000	340.000	110.000
5	Garland Drains	0.500	-	0.500
6	Green belt	200.000	200.000	-
7	Settling pond	4.000	-	4.000
8	Water Reservoir near pit (Eco-park)	10.000	-	10.000
9	Undisturbed/Mining right for UG	30.901	30.901	-
10	Embankment	2.000	-	2.000
	<b>Total</b>	<b>2079.221</b>	<b>1948.471</b>	<b>130.75</b>

viii. Details of Transportation:

In-pit	i. Through rear dumper/ trucks ii. ROM Coal from face to receiving pit of CHP (there is existing CHP of 4.5 MTPA and a new CHP of 9.5 MTPA is under construction).
Surface to siding	i. From receiving pit of CHP to Silo for rail rake loading (14 MTPA capacity). ii. 1.2 MTPA crushed coal (by surface miner) will be sent to Belt Pipe Conveyor receiving point while 2.3 MTPA crushed coal (by surface miner) will be sent to wharf wall for rail rake loading.
Siding to loading	i. By Rail & Belt Pipe Conveyor to end consumer. ii. Small fraction of coal will be transported by road to small consumers.
Quantity being	Quantity transported:

transported by Road/ Rail/ conveyer/ ropeway			
	Year	Rail	Road
	2023-24	7.57	2.93

In addition to existing CHP, 9.5 MTPA CHP with silo is under construction at Bina Project which will be operational from FY 2024-25.

- ix. The Status of implementation of progressive mine is that out of total excavated area of 850 Ha, the area backfilled after excavation is 610 Ha, the total area reclaimed is 432.30 Ha. There is no deviation from the approved PMCP.
- x. Reclamation: 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 Ha, Greenbelt of 200 Ha. Density of the plantation will be 2500 no. of plants per Ha. No void will be left out at the end of mine life. 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 as excavation area long ML boundary, along roads and infrastructure, embankment area and in township located outside the lease etc. Also, Chandrasekhar Azad Eco Park with water reservoir has been developed.
- xi. The Status of implementation of progressive mine is that out of total excavated area of 850 Ha, the area backfilled after excavation is 610 Ha, the total area reclaimed is 432.30 Ha. There is no deviation from the approved PMCP.

**18.4.6: Baseline Data:** Baseline study has been carried during March 2024 to June 2024.

Period	15.03.2024 to 15.06.2024
AAQ parameters at 10 Locations	PM <sub>2.5</sub> = 27.9 µg/m <sup>3</sup> to 71.8µg/m <sup>3</sup> PM <sub>10</sub> = 47 µg/m <sup>3</sup> to 122.1Mg/m <sup>3</sup> Residential PM <sub>2.5</sub> = 102.8 µg/m <sup>3</sup> to 161.2µg/m <sup>3</sup> PM <sub>10</sub> = 177.4 µg/m <sup>3</sup> to 256.3 µg/m <sup>3</sup> Industrial SO <sub>2</sub> = 11.8 µg/m <sup>3</sup> to 43.9 µg/m <sup>3</sup> NO <sub>x</sub> = 17.4 µg/m <sup>3</sup> to 50.7 µg/m <sup>3</sup>
Incremental GLC Level	Air Quality prediction modelling shall be carried out during EIA Study.
Ground water quality at 4 Locations	pH: 7.22to 7.63 mg/l., Total Hardness: 214 to 602 mg/l, Chlorides: 55.2 to 121.96mg/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: 7.5to7.8 mg/l and BOD: 2.4 to 2.8 mg/l
Noise levels Leq (Day and Night)	Core Zone: 69.8 dB(A) to 74.5dB(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.
Water Requirement	Source of Water: Strata Seepage Mine Water Ground Water Intersection: Yes Water Requirement: 4814 KLD NOC (For surface water):Yes NOC (Ground Water): NOC has been granted. Renewal is under process.

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 NoTC – 7073 issued at 09.11.2022 and valid up to 08.11.2024.

**18.4.7: Details of Water Requirement:** Total water requirement proposed by the PP post expansion is 4814 KLD. The source of water will be intake well in GBP reservoir, Mine Seepage Water and accumulated rainwater. Permission from SE (Commercial), UPSEB vide letter no. 649-Cu-II/NTPC/79 has been obtained for surface water and NOC from CGWA vide no. CGWA/ NOC/ MIN/ ORIG/ 2021/ 13979, dated 08.12.2021 has also been obtained, valid from 08.12.2021 to 07.12.2023 and application for the renewal of the same was submitted on 25.11.2023. The same is under process.

PP also submitted that there is no diversion proposed for the Nallah flowing along the ML boundary.

**18.4.8: Details of Power Requirement:** PP has submitted the Power Requirement for the project is 6.2 MW, which will be sourced from Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited. There is no diversion proposed

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

S. No.	Name of Waste	Source	Qty (TPA)	Mode of Disposal	Mode of Transport
1	Solid waste (domestic wastes)	Colony	2044	Door to door collection, segregation and further processing.	Road
2	Plastic waste	Colony	100	Disposal through SLRM plant.	Road
3	E-waste	Office	0.05	Through Surveying off to qualified parties as per e-Waste (Management Rules), 2016	Road
4	Batteries waste	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 Biomedical waste treatment facility.	Road
6	Hazardous wastes (as per Hazardous Waste Management Rules) a. Residue containing oil b. Sludge from Wastewater Treatment c. Used Oil or spent Oil	HEMM Workshop	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

**18.4.10: R&R Plan:** PP submitted that all the R&R activities have been completed and no R&R issue is pending for the existing project.

**18.4.11: Project Cost:** Total Cost of project is 1361.58 Crores as per the 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.

**18.4.12: 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.

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

- i. **Status of NGT OA 164/2018:** The original application was in respect of pollution in Singrauli area due to various industries. Presently, case is pending at Principal Bench of Hon'ble NGT for hearing on the objections/ compliances filed by respective respondents (incl. Bina Extn. OCP) w.r.t. the report of Oversight Committee. The case was listed again on 01.10.2024. Respondents were granted four weeks to file the reply, by way of affidavit. The case is to be listed again on 28.01.2025.
- ii. **Status of NGT OA 817/2022:** The Case was listed by Hon'ble NGT Principal Bench on 16.11.2022. Bina Project had filled a review petition which was rejected by NGT vide its order dated 11.08.2023. It was again challenged in Hon'ble Supreme Court. Hon'ble Supreme Court in its order dated 15.09.2023 has directed the appellant to provide some information in the form of an Affidavit, which was submitted by the appellant on 06.12.2023. The case was listed again on 16.07.2024. Civil Appeal before Hon'ble Supreme Court against the order of the Tribunal is still pending.
- iii. **Status of NGT OA 643/2023:** The original application was in respect of pollution in nearby area of Bina Project. The Case was listed by Hon'ble NGT Principal Bench on 02.01.2024. Action taken report was submitted by the respondent in the form of an Affidavit on 19.02.2024. Presently, the case is pending at Principal Bench of Hon'ble NGT for hearing on the objections/ compliances filed by the respondent. The case was listed on 12.09.2024. Hon'ble NGT directed UPPCB to verify the compliance status as mentioned in the objections. The case is to be listed again on 10.12.2024.
- iv. **Status of Case No. 1798 2014 CJM Sonbhadra:** A case vide no. 1798/2014 under section 15/16 of EPA Act 1986 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.

**18.4.14: Undertaking:** The PP submitted an undertaking that, the information provided in Form-1 in physical form and/or in pdf format in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 27.11.2024 have no deviation in respect of the proposal no. IA/UP/CMIN/495647/2024 dated 09.09.2024 for Grant of Terms of Reference (ToR) to Bina Expansion Opencast Project (area 2079.221 ha having capacity of 17.5 MTPA) located at 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 and there are no data entry errors in the information uploaded in PARIVESH system including names/email-id/mobile numbers/address of the project proponent, authorized person, etc. It is also certified that the supporting documents uploaded on PARIVESH portal are correct and duly authenticated by the Authorized Signatory and in case of any deviation in data found in any of the documents, the Authorized Signatory shall be held responsible and furthermore, the above said project shall be rejected for grant of ToR.

PP further through an affidavit, submitted that there is no construction done at the site without any deviation as per previous Environmental Clearance obtained vide letter no. J-11015/49/2011-IA.II (M) dated 02.07.2024 (10.5 MTPA); J- 11015/49/2011-IA.II(M) dated 06.03.2024 (10.5 MTPA); 3-11015/49/2011-1A.II(M) dated 29.07.2022 (10.5 MTPA); J-11015/49/2011-IA.II(M) dated 12/02/2021 (9.0 MTPA); J 11015/49/2011-1A.II(M) dated 06/08/2014 (7.5 MTPA) and J-11015/29/2004-IA.II(M) dated 02/08/2006 (6.0 MTPA) and a A case vide no. 1798/2014 under section 15/16 of EPA Act 1986 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, Accordingly, a discharge petition was filed on 20.09.2014 at court of CJM Sonebhadra currently under consideration. Also, case vide O.A. no. 164/2018; 817/2022; 643/2023 are currently under consideration at Hon'ble NGT (PB

**18.4.15: ADS Reply:** PP submitted the following reply to the observations of EAC in its meeting held on 5-7<sup>th</sup> August, 2024.

Observation of EAC	Reply submitted by the PP
<p>Status of transfer of 7.623 Ha of the forestland to Khadia OCP</p>	<p><b><u>Chronology of processing the application for transfer of 7.623 ha forest land is as under:</u></b></p> <ul style="list-style-type: none"> <li>• The Project Proponent (Bina OCP) had submitted the application for transfer of 7.623 ha forest land to MP Forest Department vide proposal no. Bina/Forest/ MP Forest/23/17 dt 21.06.2023.</li> <li>• PP requested to APCCF/NO (LM) vide no. Bina/Env/MP Forest/24/03 dt 04/01/2024.</li> <li>• PP made representation to DFO Singrauli vide dtd 12/01/2024 for consideration of proposal.</li> <li>• APCCF/NO(LM) gave directives to DFO Singrauli.</li> <li>• Site inspection done by SDO Forest on 24/02/2024.</li> <li>• DFO Singrauli forwarded the proposal to CCF Rewa vide no. 1722 dtd 11/03/2024.</li> <li>• CCF Rewa forwarded the proposal to APCCF/NO (LM), Bhopal vide no. 2441 dtd 03.04.2024.</li> </ul> <p><b><u>Developments since last EAC dtd 07-08-2024:</u></b></p> <ul style="list-style-type: none"> <li>• APCCF, Govt of MP raised 5-point query on the proposal vide letter dtd 09.07.2024 to DFO Singrauli. PP submitted the reply to APCCF/NO(LM) vide letter dtd 08/08/2024.</li> <li>• Since then, the proposal has been recommended by MP Forest Department and forwarded to the State Government of MP on 12<sup>th</sup> August 2024 for further process and approval.</li> <li>• State Govt. of MP has agreed on the proposal on 19.11.2024.</li> </ul>

Observation of EAC	Reply submitted by the PP
	<p><b>Submission:</b> It is to submit that the subject forest land measuring 7.623 ha is already having Stage-II Forest Clearance as a part of 378.935 ha. The same was enclosed with the ToR Application. Further, the project proponent hereby undertakes that the transfer of 7.623 ha forest land to Khadia OCP will be submitted along with compliance report of ToR for obtaining Environment Clearance</p>
<p>The Mining Plan along with mine closure plan for Expansion of the Bina Expansion OCP is yet to be approved by the Competent Authority</p>	<p>The mining plan along with mine closure plan of Bina Expansion OCP (17.5 MTPA) has been approved by NCL Board vide ref no. NCL/Board/9/2024/187 dtd 21<sup>st</sup> August 2024.</p>

**18.4.16: Written Submission:** PP submitted the written submission during the meeting, pertaining to total excavated area & external dump area, total forest area involved and details of coal reserves of Bina Expansion OCP, which is as follows:

- i. As on 01.04.2024, total "Excavated area and External dump area" is 929.27 ha (excavated area 850 ha, external dump area 79.27 ha). Out of 929.27 ha, 904.20 ha is broken forest land area and remaining is non-forest land area.
- ii. As on 01.04.2024, total broken forest land area of 904.20 ha includes excavated area in forest land and existing external dumps in forest land.
- iii. Total excavated area is 850 Ha which includes non-forest land as well as forest land.
- iv. Total Forest area involved is 1369.046 Ha in Bina Expansion OCP.
- v. PP uploaded pointwise response to the concerns raised in the public representation pertaining to the instant proposal under consideration.

#### Observations and deliberations of the EAC

**18.4.17:** The Committee noted the following:

- i. The instant 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 M/s 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 Opencast Project was accorded 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 project involves forestland of 1369.046 Ha. Out of which the forest land of 687.280 Ha, was broken up way before FC Act, 1980 came into force. Hence, there is no requirement for forest clearance on this land. This land was acquired by Central Government under Section (9) of the Coal Bearing Areas (Acquisition and Development) Act, 1957. After that, as per provision of Section 10 of CB(A&D) Act, 1957, the total land including forest land was vested with the Central Government free from all encumbrances. Subsequently, Central Govt vested the land under Section (11) of CB(A&D) Act, 1957 to Coal India Limited (Formerly known as National Coal Development Corporation Ltd, Ranchi) which is the parent company of Northern Coalfields Limited vide order dated 23.09.1975. Therefore, there is no violation of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980. 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.

However, the Committee is of opinion that in addition to above, comments of Forest Division may be sought on the same.

- v. 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. PP submitted that in this regard, a CEPI Action Plan has been formulated in consultation with the State Pollution Control Board and quarterly report of CEPI action plan is being submitted to SPCB on regular basis. PP submitted the CEPI Action Plan formulated in this regard. Committee further asked the PP to include additional mitigation measures to control the pollution as per the MoEF&CC OM dated 30/10/2019.
- vi. The Committee deliberated on the Mining Plan along with mine closure plan for Expansion of the Bina Expansion OCP. The same has been presented to the Committee.
- 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 m<sup>3</sup>/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.

- xii. 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 Ha, Greenbelt of 200 Ha. Density of the plantation will be 2500 no. of plants per Ha. No void will be left out at the end of mine life. 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 as excavation area long ML boundary, along roads and infrastructure, embankment area and in township located outside the lease etc. Also, Chandrasekhar Azad Eco Park with water reservoir has been developed.
- xiii. 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. PP submitted that Tippa Jharia is predominantly a rain-fed nallah having lean flow mainly due to sub-surface contribution during non-monsoon period. The nallah bed is much below excavation area, so, it gives natural protection against any backflow of water into the mine working.
- However, PP submitted that following additional protection measures in this regard will be taken:
- Earthen embankment of with a height of 2 m will be constructed all along the edge of surface boundary of the mine to preserve nallah's natural catchment. In the central stretch of excavation boundary where the distance is on lower side, the embankment will be supported with stone pitching on inside slope.
  - Measures for controlled blasting will be put in place. These include- use of electronic delay detonators, restriction on charge per delay & total charge so that PPV will be kept within the threshold limit as per DGMS norms.
- xiv. 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 vide 649-Cu-II/NTPC/79.
- xv. Committee deliberated on the plantation activities proposed for the project. 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. PP further submitted that Miyawaki plantation will be done. The Committee is of the opinion that plantation must be increased and a concurrent plantation plan must be prepared.
- xvi. Committee deliberated on the dumping of OB and observed that PP will fill the voids of adjacent mines of its own with the OB being extracted from this particular mine. The Committee asked the PP to restrict the OB dumping outside the ML area. PP submitted that they shall restrict the OB dumping to the ML area of Bina only. The area of OB dump will remain same and the height of OB Dump will increase.
- xvii. Total Cost of project is 1361.58 Crores as per the 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.
- xviii. Four (04) litigations are pending on the project as discussed in para 18.4.13.
  - xix. The committee is of the opinion that the PP must align its activities with the Sustainable Development Goals 2030.
  - xx. As per Decision support system, EAC noted that several schools are located inside the project area, which needs to be relocated with prior permissions from the concerned authority.
  - xxi. The Committee received the comments on the said project through an anonymous mail. All those comments had been deliberated during the appraisal.
  - xxii. The committee also deliberated on the written submission by the PP and found it satisfactory.
  - xxiii. EAC opined that a site visit should be conducted by the Sub-committee of EAC to see the various issues pertaining to the instant project before consideration of EC proposal. The findings of the subcommittee report shall be incorporated in the final EIA/EMP report and the same shall be reported along with the ToR compliance.

#### **18.4.18: 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, **subject uploading the written submission on PARIVESH Portal** to M/s Northern Coalfields Ltd., in addition to generic ToR given at Annexure-II for opencast mines for preparation of EIA/EMP report for Bina Expansion Opencast Project, located at Villages: Waidhan, Banbansi, Barwani, Bharuwa, Chanduyar, Jai Sila, Kohraul, Govind Ballabh Pant Sagar & Mishra; District: Singrauli & Sonabhadra; State: Madhya Pradesh & Uttar Pradesh

#### **A. Specific ToR:**

- i. Public consultation (Public Hearing and Written submission) shall be conducted in Singrauli district of Madhya Pradesh & Sonabhadra district of Uttar Pradesh as per the provisions of EIA Notification, 2006 and as amended. Project proponent shall submit an action plan as per the provisions contained under MoEF&CC OM dated 30/09/2020 to address the concerns raised during public consultation.
- ii. Project proponent shall submit the proposal for Environment Clearance only after successful transfer of 7.623 Ha of forestland to the Khadia OCP.
- iii. Project proponent shall monitor the presence of Poly Aromatic Hydrocarbons in the Ambient air and the analysis data shall be submitted.
- iv. Project proponent shall submit a time bound action plan for complying with the additional environmental safeguards as per the MoEF&CC OM dated 30/10/2019 as the ML area is located in SPA. Further, specific action plan to control the PM levels in the ML area within the NAAQS shall be submitted as the PM level is reported to be 177.4 µg/m<sup>3</sup> to 256.3 µg/m<sup>3</sup>.

- v. A Cumulative Environmental Impact Assessment study of all the existing and proposed projects in the 10-km radius of the proposed project shall be conducted and the same shall be included in the EIA/EMP report. Details of industrial units present in 10 Km radius of the ML area shall be earmarked in map and submitted.
- vi. PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.
- vii. Project proponent shall commission a study on Hydrology and Hydrogeology of the project site as well as the study area of the project site through a reputed institute/Government organization. The study report along with the action plan for implementing the recommendations of the report shall be submitted along with the EIA/EMP report.
- viii. Biodiversity analysis of the study area to be done through any reputed Government institutions. The study report along with the action plan for implementing the recommendations of the report shall be submitted along with the EIA/EMP report.
- ix. PP is not allowed to divert the existing Nallah/Rivers or water bodies present in mine lease area. Detailed protection plan for streams/ nallah may be submitted with budgetary outlays.
- x. PP should submit rejuvenation plan for seasonal water courses/ seasonal water bodies and financial commitments need to be submitted for the protection of river. PP shall carry out regular monitoring of Ground water level and quality and measures to be taken.
- xi. Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA) only for mining activity.
- xii. PP should submit the quantity of surface or groundwater to be used for this project. The complete water balance cycle needs to be submitted. In addition to this PP should submit a detailed plan for rainwater harvesting measures to be taken. The capital and recurring expenditures to be incurred need to be submitted.
- xiii. In case of ground water abstraction/intersection, PP shall comply with the Ministry's OM dated 23/05/2019. Compliance status needs to be presented before EAC at the time of appraisal.
- xiv. PP has to plan and implement the mechanized common coal evacuation system including in-pit conveyor belt with silo loading for transportation of coal till railway siding. No transportation of coal by trucks/dumpers shall be proposed in EIA/EMP.
- xv. PP shall submit action plan for using e-vehicles/LNG/CNG based mining machineries and trucks for mining operation and transportation of coal.
- xvi. PP shall provide plan to implement the in-pit belt conveyor system to stop the road transportation.
- xvii. 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 Aromatic 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.

- xviii. To support the transportation road, PP shall carry out the traffic study for one month along with the mitigation measures to control air pollution.
- xix. PP shall submit the action plan for installation of additional CAAQMS in the ML area and in the study area.
- xx. Wind rose pattern in the area should be reviewed and accordingly location of AAQMS shall be planned by the collection of air quality data. 12 nos of Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area.
- xxi. Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report. Further, detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
- xxii. PP shall have ETP for treatment of surplus clear mine water passing after settling tank. It should not be directly discharged into natural drainage of the area.
- xxiii. 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.
- xxiv. Clarification from PCCF that mine does not fall under corridors of any National Park and Wildlife Sanctuary and does not involve any violation of forest area and wild sanctuary.
- xxv. PP shall not plan any non-essential infrastructure of mining operation on non-coal bearing forest area.
- xxvi. PP 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.
- xxvii. PP shall prepare a wildlife conservation plan in consultation with the local forest department.
- xxviii. PP has to plan and implement the safety barrier all along the stretch Tippa-Jharia Nallah with barrier height of 6m from the HFL in consultation with the irrigation department.
- xxix. PP shall explore the possibilities of utilization of OB material for different purposes (in construction of roads, manufacture of artificial sand, aggregates, use for farmers etc.) and accordingly Plan shall be included in EIA/EMP Report.
- xxx. Details of toe-wall and garland drain to be constructed along the OB dump.
- xxxi. PP shall submit the plan for installation of wind barrier sheet & fixed sprinkler all along the railway siding and deployment of mobile water tanker for dust suppression.
- xxxii. The PP should submit the number of saplings to be planted in 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 completed within 2 years only. PP should submit a concurrent plantation plan.

- xxxiii. PP to submit the status of any pending court cases or disposed of cases related to Civil court, High court, Supreme court and in any tribunal.
- xxxiv. PP shall submit the action plan for all types of waste to be generated during mining operations including e-waste, battery waste, hazardous waste etc. Further, the action plan for compliance with the Ministry's OM dated 18/07/2022 needs to be submitted.
- xxxv. PP shall submit the action plan to adhere the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.
- xxxvi. 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.
- xxxvii. PP shall submit all mandatory permissions from the concerned department of Railway, National & State Highway /PWD, Water Resources Department and concerned Electricity Department.
- xxxviii. PP shall submit certified compliance report of previous EC conditions from Regional Office of MoEF&CC as per OM dated 08/06/2022.
- xxxix. 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.
  - xl. PP should submit the real-time aerial footage & video of the mining lease area including transportation route, streams passing through ML area, and plantation status.
  - xli. PP shall submit the action plan with an appropriate budgetary provision for addressing the issues arising during the public hearing.
  - xlii. PP shall submit an action plan for relocating the schools located inside and adjacent to the project site with approval of the state Education department.
  - xliii. A site visit of the EAC subcommittee shall be conducted and its recommendations will form part of the TOR.
  - xliv. 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.

- xlv. 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. PPs shall update the same to the EAC.

### **Agenda No. 18.5**

**18.5: Amelia Coal Mine Project (area 1180.2 Ha having capacity 5.6 MTPA) by M/s THDC India Limited located at Villages: Pidarwah; District: Singrauli; State: Madhya Pradesh – Regarding grant of Amendment in EC for time extension of coal transportation through road and diversion of Nallah within lease area, based on ADS Reply**

**[Online Proposal No. IA/MP/CMIN/438322/2023; Consultant: Srushti Seva Pvt. Ltd., NABET/EIA/21-24/SA-0229, valid up to 12.05.2025]**

**18.5.1:** The instant proposal is for amendment in Environment Clearance granted to M/s THDC India Limited vide letter no. J-11015/310/2006-IA.II(M), dated 27.03.2008, further transferred and amended vide letter dated 03.08.2021 for Amelia Coal Mine Project (area 1180.2 Ha having production capacity of 5.6 MTPA) located at village Pidarwah, District Singrauli of State Madhya Pradesh.

#### **18.5.2: Details of previous approvals including EC in which amendment is sought:**

S. No.	Details of letter No.	EC/Expansion EC/Amendment in EC/Validity extension/Transfer of EC	Capacity (MTPA)	Area (Ha)	Date of issuance	Status of implementation
1	J-11015/310/2006-1A.II(M)	EC granted to M/s MPSMDCL based on approved Mining Plan (dtd. ) for an opencast & an underground mine	8.4	1619.10	27.03.2008	Cancellation of Coal Block as per Hon'ble Supreme Court judgement dated 25.08.2014 & order dated 24.09.2014. Before the operations could commence the block was deallocated. It was reallocated to M/s THDCIL by MOC vide F.No. 103/11/2016-NA dated 17.01.2017
2	J-11015/310/2006-1A.II(M)	Transfer with amendment of EC granted to M/s THDCIL as per Revised Mining plan for an opencast mine only duly approved by MOC on 13-03-2020	5.6	1180.20	03.08.2021	Mine started operations in November 2022 after obtaining the statutory approvals. Hence being implemented.

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

**18.5.3: Implementation status of the EC for which amendment is sought:** In compliance of the EC, it is submitted that the mine became operational from November 2022 onwards and the actual production details since inception of the concerned mine is given in the table below. CTO renewal has also been obtained from MPPCB and is valid up to 31-08-2025.

Year	Actual Coal Production in MTPA	Planned Coal production in MTPA as per Environmental Clearance	Excess Production
2022-23	0.31	5.6	NIL
2023-24	1.25	5.6	NIL
2024-25	2.17	5.6	NIL

**18.5.4:** The PP has made an online application vide proposal no. IA/MP/CMIN/438322/2023 dated 27.07.2023 for amendment in EC dated 27.03.2008 and subsequently transferred and amended vide EC dated 03.08.2021. The said proposal was submitted for amendment in “specific condition xi”, to seek the permission for diversion of nallah. The same was appraised in 50<sup>th</sup> EAC meeting held on 27<sup>th</sup> September 2023 and 11<sup>th</sup> EAC meeting held on 8<sup>th</sup> & 9<sup>th</sup> May 2024. The said proposal was deferred for want of further additional information. PP submitted the proposal along with the reply to the additional information sought by the EAC in its meeting held on 27<sup>th</sup> September 2023 and 11<sup>th</sup> EAC meeting held on 8<sup>th</sup> & 9<sup>th</sup> May 2024. In addition this, PP also sought for amendment in “specific condition v” and “specific condition vii” pertaining to extension in timeline for road transportation of coal.

Details of the same are as follows:

Specific/ General Condition No	Details of the Conditions as per EC	Amendment Sought	Justification
Specific Condition v	Transportation of coal through Coal Handling Plant shall be through mechanized covered trucks for 2 years and proposed railway siding should be constructed within 2 years of mine operations.	Extension in time for Road transportation of coal may be allowed beyond 2 years (mine started its operation in November, 2022) till June 2026	With all construction activities for installation of conveyor system nearing completion, the construction of the Ground Bunker, Silo and other components (Railway siding) has already begun. Evacuation of coal by Conveyor transport along-with dispatch by rail is expected to be completed in 610 days from 1/10/2024 i.e. by June 2026. As directed, a traffic Assessment study has been carried out, Impact Assessment study for road transportation with numerical modelling has also been completed (showing insignificant impact with control measures in place). Based on the aforesaid studies, an Environmental Management Plan (EMP) especially for continuing road transportation in the existing route has been prepared. During this extended period, as indicated in the EMP, all the pollution control measures for mitigating air pollution (as being taken presently – in 2 years period as per EC) will continue to be operated and maintained. In addition, as mentioned in the aforesaid EMP, the measures will be further strengthened/augmented.



Specific/ General Condition No	Details of the Conditions as per EC	Amendment Sought	Justification
Specific Condition vii	Mining shall be carried out by Surface miners for the project and also Silo Loading through inpit conveyors should be installed to stop road transportation in 2 years of mine operations.	Extension in time for Road transportation of coal may be allowed beyond 2 years of mine operation (started in November 2022) till June 2026	Mining of Coal is being carried out by Surface Miners and as such no crushing is involved in the CHP. With all construction activities for installation of conveyor nearing completion, construction of the Ground Bunker, Silo and other components has begun. Evacuation of coal by Conveyor transport along-with dispatch by rail is expected to be completed in 610 days from 1/10/2024 i.e. by June 2026. As directed, a traffic Assessment study has been carried out, Impact Assessment study for road transportation with numerical modelling has also been completed (showing insignificant impact with control measures in place). Based on the aforesaid studies, an Environmental Management Plan (EMP) especially for continuing road transportation in the existing route has been prepared. During this extended period, as indicated in the EMP, all the pollution control measures for mitigating air pollution (as being taken presently – in 2 years period as per EC) will continue to be operated and maintained. In addition, as mentioned in the aforesaid EMP, the measures will be further strengthened/augmented.
Specific Condition xi	As committed no channelization/diversion will be undertaken and regular water quality monitoring will be done to ensure the quality of water	Based on the detailed scientific study carried out by IIT- BHU for diversion of nala and the approval accorded by concerned Department of Govt. of M.P., it may be permitted.	The proposed diversion of nala has been mentioned in the approved Mining Plan. In order to undertake safe mining activity and conservation of coal (about 38.53 Mt is blocked under nala), it is necessary to divert Kanchanmuda Nala and the same will be undertaken as per approvals accorded by concerned State Government Authority and also following the recommendations which have already been taken.

**18.5.5: Details of Court Cases:** There is no court case pending on the project.

**18.5.6: ADS Reply:** PP submitted the following compliance of ADS of 50<sup>th</sup> EAC Meeting held on 27<sup>th</sup> September 2023.

S. No.	ADS Point	Reply of PP
1.	PP shall submit the proper justification for the amendment of EC considering the coal reserves	<ul style="list-style-type: none"> <li>Considering the case that nala is not diverted and a barrier of 50-60 meter is left as per EC condition for plantation of Sal trees along both sides of stream, the mine will be bifurcated into 2 opencast quarries (Eastern</li> </ul>

S. No.	ADS Point	Reply of PP																									
	available (in million tonne) near or below the streams with technology intervention.	<p>and Western quarries) instead of single quarry operation as per Approved Mining Plan.</p> <ul style="list-style-type: none"> <li>Extractable reserves in the scenarios (with nala diversion &amp; without nala diversion) are as follows:</li> </ul> <table border="1"> <thead> <tr> <th colspan="2">Scenario 1 (With Nala diversion)</th> <th colspan="3">Scenario 2 (Without Nala diversion)</th> </tr> <tr> <th>Combined quarry as per AMP</th> <th></th> <th>Eastern Quarry</th> <th>Western Quarry</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Coal (Mtes)</td> <td>139.48</td> <td>29.19</td> <td>71.76</td> <td>100.95</td> </tr> <tr> <td>OB (Mcum)</td> <td>511.55</td> <td>92.59</td> <td>342.39</td> <td>434.98</td> </tr> <tr> <td>Stripping Ratio (Cum/Te)</td> <td>3.67</td> <td>3.17</td> <td>4.77</td> <td>4.31</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>It may be observed from above that there will be blockade/loss of 38.53 Mtes of coal beneath the nala barrier which amounts to 7 years of coal requirement for Khurja 2X660MW captive power plant).</li> <li>It may be observed from above that there will be blockade/loss of 38.53 Mtes of coal beneath the nala barrier which amounts to 7 years of coal requirement for Khurja 2X660MW captive power plant).</li> </ul>	Scenario 1 (With Nala diversion)		Scenario 2 (Without Nala diversion)			Combined quarry as per AMP		Eastern Quarry	Western Quarry	Total	Coal (Mtes)	139.48	29.19	71.76	100.95	OB (Mcum)	511.55	92.59	342.39	434.98	Stripping Ratio (Cum/Te)	3.67	3.17	4.77	4.31
Scenario 1 (With Nala diversion)		Scenario 2 (Without Nala diversion)																									
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Stripping Ratio (Cum/Te)	3.67	3.17	4.77	4.31																							
2.	PP should explore alternate technology/ methods for exploration of such coal reserves to extract coal without diverting the stream.	<p>Possible method of working to extract 38.53 MTes of coal blocked beneath barrier against nala was explored with following observations:</p> <ul style="list-style-type: none"> <li>The average depth of lowermost seam VII (Considered for opencast mining) beneath the barrier is about 60 meter.</li> <li>Considering the surface barrier against nala and angle of draw for underground mining the coal reserves blocked for Opencast mining will largely remain blocked for underground mining also.</li> <li>As the underground working will be between opencast high wall slopes at both ends mine safety may be compromised.</li> <li>One possible method of working blocked coal reserves is using Highwall Mining method but for limited span (about 200m) with opencast high wall slopes at both ends will be a sub-optimal working with low extraction (~15-20%) rate.</li> <li>More than 30 Mtes of coal reserves will remain blocked even after extraction of coal through underground/High wall mining methods.</li> </ul>																									
3.	Biodiversity study of Kanchanmuda Stream/Nallah (source to destination) considering all dependent flora and fauna	Biodiversity study of Kanchanmuda Stream has been carried out through Biodiversity Expert Dr. Manas Badge. PP submitted a report prepared by Dr. Badge.																									
4.	Proper Catchment area study including carrying capacity of river and stream passing	<ul style="list-style-type: none"> <li>Catchment area study including carrying capacity of river and stream passing has been carried out considering hydrological and watershed data.</li> </ul>																									

S. No.	ADS Point	Reply of PP
	be done with hydrological and watershed data.	<ul style="list-style-type: none"> <li>The Catchment Area Study concluded that the estimated bifurcation ratio of 4:16 indicates that the geological structure has not affected the drainage pattern of Kanchanmuda watershed. The drainage pattern developed may be due to elevation difference and more erosional activity. The proposed Amelia diversion is based on elevation difference. For erosional activity the adequate lining of channel will be undertaken.</li> <li>Carrying Capacity of a river basin refers to the maximum amount of water available naturally as stream flow, ground water, soil moisture etc., to meet ecological and social (domestic, irrigation and livestock) demand in a river basin.</li> <li>Considering above factors, the carrying capacity of Kanchanmuda watershed has been estimated to the tune of 12.091 MCM/year which is discharged into Kanchan River.</li> <li>There will not be any impact on carrying capacity of Kanchanmuda watershed due to proposed diversion of eastern and western streams with appropriate capacity diversion channel. The design and dimension of proposed diversion channel is duly approved by Water Resource Department, Madhya Pradesh.</li> <li>PP also submitted the copy of catchment area study and carrying capacity study</li> </ul>
5.	Environment Impact Study for Nallah in the situation of diversion of catchment area be studied with loss of biodiversity and ecosystem. The Catchment area study should include flow rate of water in the stream, volume of water being diverted and major impact on habitation living therein.	<ul style="list-style-type: none"> <li>PP submitted the copy of Environment Impact study for Kanchanmuda Nala with loss of Biodiversity and Ecosystem.</li> <li>The flow estimation carried out during catchment area study is separately provided. It is observed that the Flow Rate of Kanchanmuda watershed during 1970 to 2021 is varying from 3.58 to 21.02 MCM/year based on annual rainfall of 304.80 mm and 1785.30 mm respectively. Average being 11.724 MCM/year. It may be concluded that annual flow rate is dependent on annual rainfall in watershed area.</li> </ul>
6.	Drone video of the ML area mainly covering the source and destination of Kanchanmuda Stream/Nallah.	The drone survey of the ML area is carried out in first week of December 2023. PP submitted the summary of the survey. The size of data collected through Drone Survey being heavy, the same was displayed during appraisal of the compliance to Honorable EAC (Coal Mining). If desired the data will be submitted to MoEF & CC through pen drive.
7.	PP should submit the Contour plan for the drainage system	PP submitted the Contour plan of the drainage system.
8.	PP should also mention the exact number of rivulets passing through the ML area flowing within the 5km of Buffer zone of ML area.	<ul style="list-style-type: none"> <li>There are various seasonal rivulets of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> &amp; 4<sup>th</sup> order exist within 5 km radius of the mining lease.</li> <li>Total number of rivulets within 5 km radius from ML is 652 while 100 number of rivulets passes through ML area.</li> <li>PP also submitted a map showing rivulets of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> &amp; 4<sup>th</sup> order around 5 km radius of ML area.</li> </ul>
9.	The PP should study the impact of water management	It is concluded that the water management of diverted channel has been designed in such a way that the total water generated in mine

S. No.	ADS Point	Reply of PP
	due to channelization/diversion.	and external area will be channelized to downstream of Kanchanmuda stream and there will not be any loss of water either peak flow or annual yield of the stream confluence into Kanchan River.  Report submitted on Impact of water Management due to Channelization / Diversion for impact of water management due to channelization/diversion.
10.	PP should explore the possibility to save the stream flowing through the ML area and adjacent to the lease area.	PP submitted a detailed note on the possibility to save the stream flowing through the ml area and adjacent to the lease area.

PP submitted the following compliance of ADS of 11<sup>th</sup> EAC meeting held on 8<sup>th</sup> & 9<sup>th</sup> May 2024:

S. No.	ADS Point	Reply of PP
1.	Biodiversity study of the stream / rivulet and its surrounds should be done through reputed / Government Institute /IIT/WII/ICFRE with its mitigation measures particularly the aquatic flora and fauna to clearly bring out impact of the proposed diversion.	The report / observation of IIT (BHU) on Biodiversity study of the stream / rivulet and its surrounds is submitted along with relevant certificate. The key suggestions of the report is as under: <ul style="list-style-type: none"> <li>• Continue long term monitoring of flora and fauna in the project area to track changes due to mining activities and ensure effective mitigation measures.</li> <li>• Implement species – specific conservation measures, especially for any vulnerable or threatened species identified in the region.</li> <li>• Enhance community engagement and educational programs to promote biodiversity conservation among local stakeholders/</li> <li>• Strengthen habitat restoration initiatives post mining, ensuring the re – establishment of native vegetation and ecological balance.</li> </ul>
2.	Hydrology study of the stream / rivulet proposed to be diverted be done by Government Institute / NIH.	The report / observation of IIT (BHU) on Hydrology study of the stream / rivulet proposed to be diverted is enclosed along with relevant certificate is submitted. The conclusion of the report is as under: “Upon through evaluation the hydrology report has been found to adhere to all relevant standards, comprehensively addressing the critical aspects of their respective fields. <ul style="list-style-type: none"> <li>• The hydrology report offers accurate flow rate assessments, water quality analysis, and appropriate measures for managing water systems and protectiong ecological health.</li> <li>• Hydrology report prepared by M/s. Srushti Seva Private Limited reflects a robust methodology, ensuring that the environmental impact of mining activities is well – monitored and managed.</li> </ul>
3.	PP should submit detailed progress of planting done so far, along with geotagged photos.	MoU between THDCIL and MP Rajya Van Vikas Nigam Ltd. (MPRVVNL) has been signed for fencing and plantation along the mine lease boundary (safety zone 7.5 m wide) and for which Rs. 2.38 Cr has been released to MPRVVNL.  Avenue plantation along road side is being done. Development of Nursery is being carried in Phased manner, initially 2 ha area has been allotted and fenced for the germination of local species.

S. No.	ADS Point	Reply of PP
		A site photographs is submitted.
4.	PP shall submit the inspection report Certified by RO and its ATR.	The same is submitted.
5.	Post mining maintenance plan, especially de-siltation, for diverted nallah.	<ul style="list-style-type: none"> <li>The mining operation has started in November 2022 and the mine is in development stage having a life of 28 years.</li> <li>The post mining maintenance plan for desiltation of diverted nala will be implemented in due course.</li> </ul>
6.	Details of downstream impact with respect to ground water recharge and water use by people residing in the downstream area be provided and certified by the local authorities.	<ul style="list-style-type: none"> <li>There are no villages lying in the downstream of the project as can be seen from the attached Map 1. However, ground water levels are being monitored regularly along with its quality to assess impacts (if any).</li> <li>Mine has started its operation from November 2022 and till date no such impacts has been recorded/reported.</li> </ul>
7.	PP shall explore the possibility of reducing the depth of mine void.	<ul style="list-style-type: none"> <li>As per the approved mining plan, total quarry area is 899.68 ha out of which backfilling will be done in 710.03 ha (79%) while final mine void will be created in an area of 189.65 ha (21%) with a depth of 170 m. Backfilled quarry area of 710.03 ha shall be reclaimed with plantation. Final mine void will be converted into water body.</li> <li>As directed, depth of mine void can be reduced by re-handling internal OB dump and filling into the void for which appropriate planning and subsequent action will be taken in due course during implementation.</li> <li>As per the statutory requirement necessary modification in the mining plan as well as mine closure plan will be solicited at that point of time.</li> </ul>
8.	Details w.r.t Environment Management Cell to oversee the implementation of environmental safeguard, ensure compliances and reporting to concerned authorities shall be provided.	<ul style="list-style-type: none"> <li>Dedicated team as Environmental Management Cell with suitable qualified personnel has been set up under the control of a Senior Executive, who reports directly to the Head of the company. Details of Environment Management Cell is submitted.</li> <li>Environmental monitoring has been carried out with association of NABL/MOEF&amp;CC accredited agency. The procedural guidelines are being followed considering the respective guidelines and data generation &amp; record of the environmental monitoring data is being maintained and are being shared with MPPCB.</li> </ul>
9.	PP to align project with SDG goals.	<p>The Sustainable Development Goals (SDGs) are a set of 17 global goals established by the United Nations to address a wide range of global challenges.</p> <p>The project is aligned with the SDG goals. Detailed report is submitted.</p>
10.	PP shall clarify if the plan to divert the stream was disclosed in the public hearing and if so, what were the comments of the participants. Further, the PP shall obtain the comments of various stake holders and local people on diversion of Kanchanmuda Nala by publishing the advertisement in at least two newspapers.	<p>Nala diversion proposal form part of the approved Mine Plan and the same was submitted to MoEF&amp;CC as an EIA Annexure. During Public Consultation all points were highlighted before all the stakeholders including Locals.</p> <p>Subsequently after EAC appraisal EC was recommended by MoEF&amp;CC. The EC letter was published in two newspapers, as well.</p>
11.	Proposal of diversion of Nala must be a part of approved mining plan.	The proposal for the diversion of the nala has been incorporated into the approved Mining Plan (Ref: Mining Plan Section 3.3, page no. 47).

S. No.	ADS Point	Reply of PP
12.	It is observed that the district mentioned in earlier EC is Sidhi while the PP has submitted the district name as Singrauli, PP may clarify.	Madhya Pradesh, which was created on 24th May '2008 by division of Sidhi district, which covers a region comprising of the eastern part of the district. The address of the mine is Amelia Opencast Coal Mine with Production Capacity of 5.6 MTPA in ML area of 1180.2 Ha located in village Pidarwah, Tehsil Singrauli, District Singrauli (Madhya Pradesh).
13.	Site visit by the subcommittee as recommended in the 50th meeting shall be conducted.	The pointwise compliances have been addressed above, and requested to consider the proposal in upcoming agenda. In the meanwhile the compliance report against EC condition is being submitted to IRO MoEF & CC Bhopal for taking up inspection. In this regard it is humbly submitted that the proposed site visit as recommended in the 50th meeting may kindly be taken up at a later date.

**18.5.7: Undertaking/ Affidavit:** The proponent through an Affidavit submitted that there is no construction done at the site or the construction done without any deviation as per previous EC obtained vide letter No. 110015/310/2006-IA.II(M), dated 3rd August 2021. There is no litigation on the project either at NGT or any other court of Law. The land has been allotted to THDC India Ltd. The land is in our possession and R&R is under process. There is no difference in the documents submitted i.e., Form 1. Mining Plan, EIA/EMP report and presentation being made to the EAC. Reason for submitting the project at MoEF&CC for Amendment in Specific EC Condition No. v, vii, & xi that, the proposal for extension in time for evacuation of coal by road and diversion of Kanchan Muda Nala and its tributaries.

**Observations and deliberation of the Committee:**

**18.5.8: The EAC noted the following:**

- i. The instant proposal is for amendment in EC transferred to M/s THDC India Limited vide letter no. J-11015/310/2006-IA.II(M), dated 03.08.2021 for Amelia Coal Mine Project (area 1180.2 Ha having production capacity of 5.6 MTPA) located at village Pidarwah, District Singrauli of State Madhya Pradesh.
- ii. The Environment Clearance for the said block was earlier granted to M/s MPSMDCL vide letter dated 27.03.2008. It was then de-allocated vide the order of Hon'ble Supreme Court and was reallocated to M/s THDCIL by MOC vide F.No. 103/11/2016-NA dated 17.01.2017.
- iii. The Proponent has submitted this proposal for amendment in "specific condition no. v", "specific condition no. vii" & "specific condition no. xi" vide proposal no. IA/MP/CMIN/438322/2023 dated 14.10.2024.
- iv. The Committee deliberated on the Biodiversity Study and Hydrology Study submitted by the proponent. The Committee observed that the Hydrology report submitted by the PP is prepared by the NABET accredited consultant and further vetted by IIT (BHU). The Committee is of the opinion that the study report must be prepared by some reputed Government Institute/ IIT and on the basis of that, further appraisal in this regard shall be done.
- v. The Committee is of the opinion that a budget for mitigation measures to be adopted as per the recommendations of revised Hydrology Study Report must be submitted.

- vi. The Committee also opined that, as the length of diversion is substantially more, the opinion on diversion of the said nallah will only be given after the site visit by the sub-committee of EAC.
- vii. The Committee did not find the ADS reply satisfactory and further, did not deliberate on the amendment sought for extension in timeline for transportation of coal through road.
- viii. The Committee noted that there was a public representation against the instant proposal under consideration. MOEF&CC may send the issues stated in the representation to the proponent for submitting the point wise response.
- ix. The PP shall furnish fresh CCR report from RO of MoEFCC on compliance of EC conditions along with ATR.

#### **18.5.9: Recommendations of the Committee:**

In view of the foregoing and after detailed deliberations, the committee *deferred* the proposal and asked the proponent to resubmit the ADS reply after addressing the above-mentioned observations. It was also recommended that sub-committee of EAC may undertake a site visit for considering the amendment proposal pertaining to diversion of nallah.

#### **Agenda No. 18.6**

**18.6: Kasta East Coal Mine (area 1409.026 Ha having capacity targeted/ peak 1.89/2.835) by M/s Jitusol Developers Private Limited located at Villages: Gohalia, Barra, Binodpur, Kaithi, Sira, Khajuria, Sahapur; District: Birbhum: State: West Bengal –Amendment in ToR –reg.**

**[Online Proposal No. IA/WB/CMIN/497581/2024; Consultant: Min Mec Consultancy Pvt Ltd, NABET/EIA/2225/IA 0096, valid up to 29.03.2025]**

**18.6.1:** The instant proposal is for amendment in Terms of Reference granted to M/s Jitusol Developers Private Limited vide letter no. TO24A0605WB5604342N, dated 22.7.2024 for Kasta East Coal Mine (area 1409.026 Ha having capacity targeted/ peak 1.89/2.835 MTPA) located at Villages: Gohalia, Barra, Binodpur, Kaithi, Sira, Khajuria, Sahapur; District: Birbhum: State: West Bengal.

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

**18.6.2:** PP has made an online application vide proposal no. IA/WB/CMIN/497581/2024 dated 24.10.2024 for amendment of ToR Specific Condition no. 1.31 of ToR letter dated 22.07.2024.

**18.6.3: Details of previous approvals:** It is a Greenfield project and the proposal is for amendment in TOR accorded vide letter dated 22.07.2024.

S.No.	Details of Letter No.	ToR/ Expansion EC/ Amendment in ToR/ Validity extension/ Transfer of ToR	Capacity (MTPA)	Area (Ha)	Date of Issuance	Present status
1	TO24A0605W B5604342N	ToR	Targeted capacity: 1.890 MTPA,  Peak capacity 2.835 MTPA	1409.026	22/7/2024	Preparation of EIA/EMP is under progress.

**18.6.4: Details of amendment sought along with the justification furnished by the PP is as below:**

Specific/ General Condition No.	Details of Conditions as per ToR	Amendment Sought	Justification
1.31	PP shall ensure that the mine plan should be in line with the submission of PP that there would be no diversion of the railway line. PP shall obtain the necessary permission for working near the railway line as the case may be from the concerned authority	PP shall obtain necessary permission for diversion of railway line before 5 <sup>th</sup> year as per approved mining plan as the case may be from the concerned authority. PP shall also keep the safety distance as per applicable rules and as suggested by railways.	Mining Plan and Mine Closure Plan was approved with proposed diversion of railway line. Shifting of railway line is required from 5 <sup>th</sup> year onwards. Bhimgara-Palasthali section of Eastern Railways passes through the Block, which is non-operational. A letter sent to Eastern Railway for permission of dismantling/diversion of railway track vide letter dated 26/09/2022 requesting a proposal for diversion of the Railway route. Ministry of Railway vide letter dated 2/1/2024 mentioned "As per MoR Policy: Railway land cannot be transferred to the private parties". Ministry of Coal has issued an O.M addressing to MOR dated 15/3/2024 for proposal for Diversion of Railway track. In absense of clear guidelines for railway diversion application was made for ToR with NO proposal for diversion of railway line and accordingly ToR accorded by MoEF&CC. In the meeting held on dated 11.9.2024 with Nominated Authority, MOC Director (Tech)/NA advised allottee to represent the matter to MoEF&CC once again.

**18.6.5: Details of Court Cases:** There are no court cases pending on the project.

**18.6.6: Undertaking/ Affidavit:** The proponent through an affidavit submitted that the information provided in Form-1 (Part A&B) in .pdf format in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 27.11.2024 have no deviation in respect of the proposal no IA/WB/CMIN/497581/2024 for Amendment in ToR for coal mining having 1409.026 ha of ML area and capacity of 1.89 MTPA (Targated) / 2.835 MTPA (Targated) for Kasta East Coal Mine Project located at village Arjjunshuli, Barra, Bhurachak, Binodpur, Gohalia, Kankartala, Kaithi, Khajuria, Mundira, Nabasan, Nalgara, Palpai, Parsundi, Rasa, Sahapur, Shira, Taluk: Khoyrasol, District Birbhum, State West Bengal



by M/s. Jitusol Developers Private Limited. Further certified that there are no data entry errors in the information uploaded in PARIVESH system including names/email-id/mobile numbers/address of the project proponent, authorized person, etc. It is also certified that the supporting documents uploaded on PARIVESH portal are correct and duly authenticated by the Authorized Signatory and in case of any deviation in data found in any of the documents, the Authorized Signatory shall be held responsible and furthermore, the above said project shall be rejected for grant of amendment in Terms of Reference (ToR).

#### **Observations and deliberation of the Committee:**

##### **18.6.7: The EAC noted the following:**

- i. The instant proposal is for amendment in ToR issued to M/s Jitusol Developers Private Limited vide letter no. TO24A0605WB5604342N, dated 22.7.2024 for Kasta East Coal Mine (area 1409.026 Ha having capacity targeted/ peak 1.89/2.835 MTPA) located at Villages- Gohalia, Barra, Binodpur, Kaithi, Sira, Khajuria, Sahapur; District- Birbhum in the State of West Bengal.
- ii. It is a Greenfield Project and the compliance of ToR conditions is under process.
- iii. The Proponent has submitted this proposal for amendment in “specific condition no. 1.31” of ToR granted vide letter dated 22.07.2024. This particular condition states that “PP shall ensure that the mine plan should be in line with the submission of PP that there would be no diversion of the railway line. PP shall obtain the necessary permission for working near the railway line as the case may be from the concerned authority.” While granting ToR, such condition was stipulated in line with the submission of PP that no diversion of railway line will take place for mine operations.
- iv. The Committee sought clarification from PP in this regard, as to why this aspect was not brought to the notice of EAC while the appraisal of ToR. PP submitted the following justification in this regard:
  - Bhimgara-Palasthali section (branches off from Bhimgara Junction on Andal-Siuri-Santhia branch line) of the Eastern Railway passes through the Block from east to west and that railway track has not been in use in the past but recently it has become operational upto Hazaratpur railway station siding on east of Kasta East Coal Mine and the coal from the WBPDC coal mine (located on north of Kasta East Coal Mine) is evacuated from this siding. Barra Gram and Raswan are the two railway stations, on this non-operational section, located within the block. A letter had been sent to Eastern Railway for permission of dismantling/diversion of railway track vide letter No. JDPL/HZH/RASA-PVT SDG/ Coal Block SDG/22-23 dated 26/09/2022 requesting a proposal for diversion of the Railway route.
  - Senior Divisional Engineer (Co-Ordn.), Eastern Railway has, after obtaining remarks from the concerned divisional authorities, forwarded the request to the Principal Chief Engineer for necessary action.
  - Ministry of Railway vide letter dated 2/01/2024 mentioned “As per MoR Policy: Railway land cannot be transferred to the private parties. Only vacant surplus Railway land can be transferred to the State/Central Government for their own use”.

- Meanwhile, the Ministry of Coal has issued an Office Memorandum addressing to Ministry of Railway dated 15.03.2024 for proposal for Diversion of Railway tracks/lines within coal blocks areas stating that *"The necessity for effective land utilization for coal mining purposes, it is urged to formulate a comprehensive policy allowing for the diversion of railway tracks/lines lying within the coal blocks. This policy should include provisions for providing lands to allottees, including private entities, under commercially viable terms, thereby facilitating efficient coal mining operations and contributing to our country's energy security and economic growth"*.
- Subsequently the Mining Plan and Mine Closure Plan was also approved on dated 15/03/2024 with proposed diversion of railway line.
- In absence of clear guidelines for railway diversion, an application was made for Terms of Reference (ToR) with no proposal for diversion of railway line and accordingly ToR was accorded by MoEF&CC.
- In the meeting held on dated 11.09.2024 with Nominated Authority, Ministry of Coal, to review the Non-Operational Coal Mines, our project Kasta East was reviewed and minutes of meeting issued on 30.09.2024. The MOM (at serial no. 67) states that *"The allottee informed that they have received the provisional grant for ML on 18.01.24, and Mining Plan has been approved on 15.03.2024. As for EC, the allottee informed that ToR has been granted on 22.07.24. However, there was a condition in the ToR with reference to a railway track passing through the block. The allottee mentioned that in absence of clear guidelines, they have decided to revise the mine plan with changes in the existing provision with respect to railway track. Director (Tech)/NA advised allottee to represent the matter to MoEF&CC once again"*.
- As per the approved Mine Plan and Mine Closure Plan, the benches created in the 2 box cuts will be advanced towards each other and also towards dip side. The benches of both the box cuts will merge in the 5th year to result into formation of single pit after which pit will advance towards dip side till the end of mine."
- Since the shifting of railway line is required in the later stage of mining operation i.e. from 5th year onwards, hence, till merger of 2 box cuts there will be no diversion of railway line. PP will obtain the permission from Indian Railways to dismantle the non-operational railway line in our block in those 5 years. We shall operate the two mine pits on north and south of the railway line, maintaining the statutory safe distance, till the time permission is received from Indian Railways. This operation in two pits, even if continued beyond 5 years, will not cause any increase in the impact on the environmental parameters such as air quality, water, noise, ecology, socio-economics etc but will lead to blockage of coal resources. Hence, diversion of the non-operational railway line is in best interest of conservation of minerals.

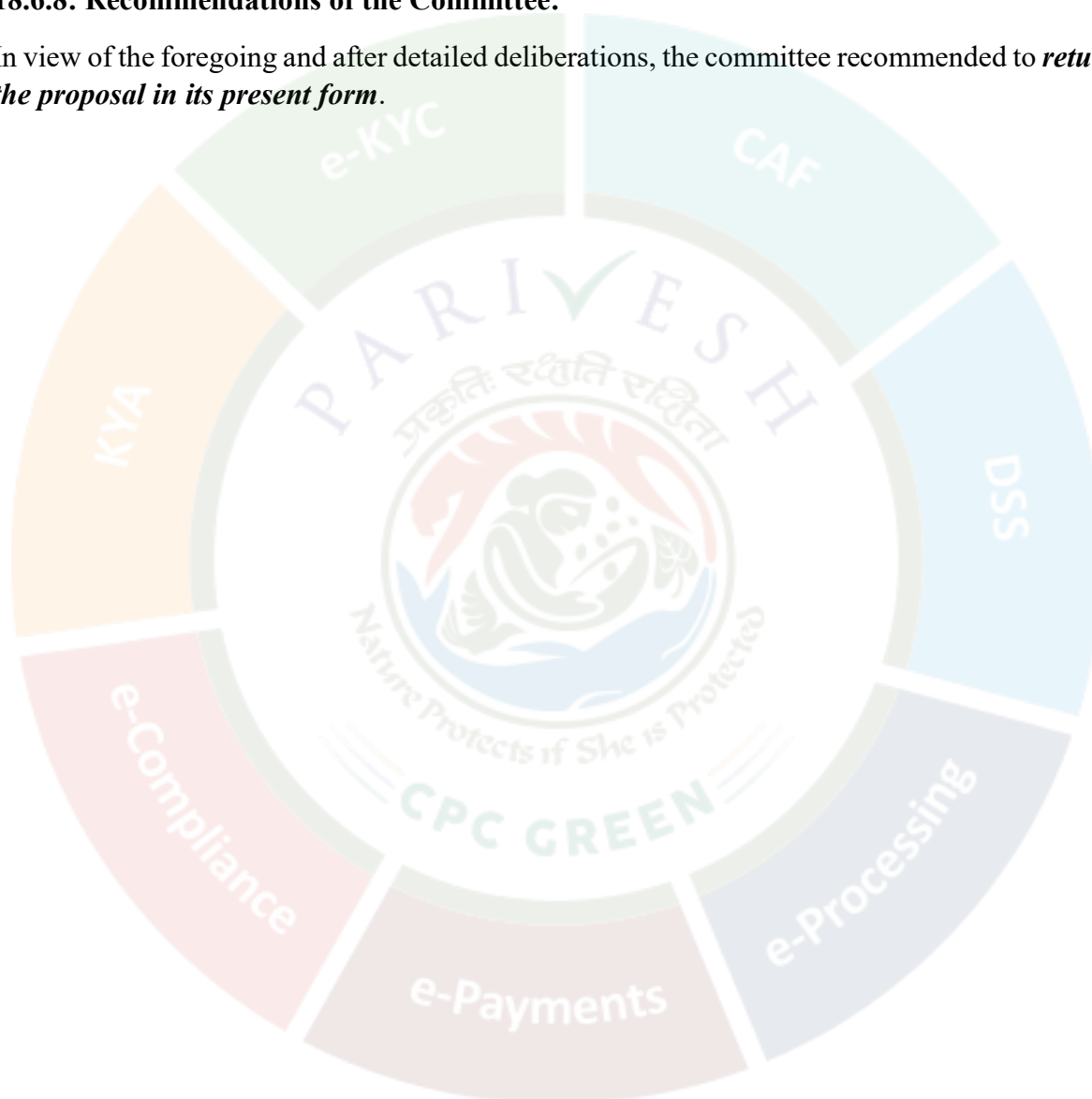
In view of the above PP sought amendment in the Specific Condition no. 1.31 of the ToR dated 22.07.2024.

- v. After detailed deliberation the Committee observed that the proposal was submitted for ToR without proposing the diversion of railway line due to absence of clear guidelines for railway diversion. Committee also observed that Ministry of coal vide OM dated 15.03.2024, has made a proposal to Railway Board for Diversion of Railway

tracks/lines located within coal blocks areas. As the matter is between Ministry of Coal and Railway Board, the Committee is of the opinion, that amendment for this condition is not necessary at this point on time and the same shall be considered at the time of appraisal of proposal for grant of Environment Clearance, as till that time Railway Board may formulate policy in this regard or give its comments on the OM of Ministry of Coal.

**18.6.8: Recommendations of the Committee:**

In view of the foregoing and after detailed deliberations, the committee recommended to **return the proposal in its present form.**



**ANNEXURE-I**

**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 mayalso 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<sub>x</sub>, NO<sub>x</sub> 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.
- (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 28° 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 <sup>st</sup> Year )	5 <sup>th</sup> Year	10 <sup>th</sup> Year	20 <sup>th</sup> Year	24 <sup>th</sup> 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 <sup>st</sup> year										
2.	3 <sup>rd</sup> year										
3.	5 <sup>th</sup> year										
4.	10 <sup>th</sup> year										
5.	15 <sup>th</sup> year										
6.	20 <sup>th</sup> year										
7.	25 <sup>th</sup> year										
8.	30 <sup>th</sup> year										



9.	34 <sup>th</sup> year (end of minelife)										
10.	34-37 <sup>th</sup> Year (Post-mining)										

\*As a representative example

(xxxix) 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.

**Table 3: 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					

(xxxix) 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 maximum 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.
- (xl) Inbuilt mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xli) 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/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 - II**

**LIST OF PARTICIPANTS OF EAC (COAL) IN 18<sup>th</sup> MEETING HELD ON 27<sup>th</sup> NOVEMBER, 2024 THROUGH VIRTUAL MODE**

S. No.	Name & Address	Role	27.11.2024
1.	Dr. Sharad Singh Negi (I.F.S. Retd.)	Chairman	Present
2.	Shri Inder Pal Singh Matharu, IFS (Retd.)	Member	Present
3.	Shri Lalit Kapur	Member	Present
4.	Dr. Umesh Jagannathrao Kahalekar	Member	Present
5.	Dr. Santosh Kumar Hampannavar	Member	Present
6.	Shri Savalge Chandrasekhar	Member	Present
7.	Shri K. B. Biswas	Member	Present
8.	Prof. Shyam Shanker Singh	Member	Present
9.	Dr. Vinod Agrawal	Member	Present
10.	Dr Nazimuddin, Scientist - F	Representative of Central Pollution Control Board	Absent
11.	Shri Mahi Pal Singh, Chief Engineer	Representative of Central Electricity Authority (CEA)	Present
12.	Shri Harmeet Sahaney	Representative of Indian Meteorological Department (IMD)	Absent
13.	Prof. R M Bhattacharjee	Representative of IIT/ISM Dhanbad	Present
14.	Shri Sundar Ramanathan	Member Secretary	Present
<b>MOEF&amp;CC</b>			
1.	Dr. Rajesh Prasad Rastogi	Scientist 'D'	Present

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**APPROVAL OF CHAIRMAN EAC**

**Re: Zero Draft Minutes of the 18th EAC (Coal Sector) meeting held on 27th November 2024\_ Request for valuable comments**

sn sharad negi <sharadnegi1957@gmail.com>

Sun, 08 Dec 2024 10:00:02 AM +0530 •

To "Sundar Ramanathan" <r.sundar@nic.in>

Cc "RAJESH PRASAD RASTOGI" <rp.rastogi@gov.in>

Reading 1 / 10

Draft MoM as proposed is approved

On Sunday, December 8, 2024, Sundar Ramanathan <r.sundar@nic.in> wrote:

■

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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

