



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

To,

The MANAGING DIRECTOR
WEST BENGAL MINERAL DEVELOPMENT AND TRADING
CORPORATION LIMITED
13, NELLIE SENGUPTA SARANI
2ND FLOOR, KOLKATA,,Kolkata,West Bengal-700087

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

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/WB/CMIN/65801/2017 dated 24 Jul 2020. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---|
| 1. EC Identification No. | EC25A042WB110952 |
| 2. File No. | IA-J-11015/80/2017-IA-II(M) |
| 3. Project Type | New |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Gourangdih ABC Coal Mine |
| 7. Name of Company/Organization | WEST BENGAL MINERAL DEVELOPMENT AND TRADING CORPORATION LIMITED |
| 8. Location of Project | West Bengal |
| 9. TOR Date | 29 Sep 2017 |

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

Date: 16/09/2025

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

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

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F. No. IA-J-11015/80/2017-IA-II(M)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Vayu Wing, 3rd Floor,
Jor Bagh Road, Aliganj,
New Delhi – 110003
Dated: 16th September, 2025

To,

Sh. Krishnendu Sadhukhan

Managing Director,

M/s. West Bengal Mineral Development and Trading Corporation Limited,

13, Nellie Sengupta Sarani 2nd Floor, Kolkata, West Bengal-700087.

Email: wbmtdcltd@gmail.com

Subject: Gourangdih ABC Opencast Coal Mining Project (area 356.575 Ha having capacity 2.5 MTPA) by M/s West Bengal Mineral Development and Trading Corporation Limited, located at Villages: Panuria, Kantapahari, Jamgram, Shibdhawra, Banddhawra, Lalbandh, Gourangdih & Bhuiapara; District: Paschim Bardhaman; State: West Bengal – Consideration of Environmental Clearance– regarding – Grant of Environmental Clearance– regarding.

Sir

M/s. West Bengal Mineral Development & Trading Corporation Limited (WBMdTCL) has made an online application vide proposal no. IA/WB/CMIN/65801/2017 Dated 24.07.2020 along with copy of EIA/EMP report, Form-1 (CAF, Part-A, B & C) and subsequent submission of additional information vide letter dated 15/09/2025 by enclosing the Stage I Forest Clearance (FC) for diversion of 109.459 Ha of forest land and sought for Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above.

2. As per the amendment to EIA Notification, 2006 on 20/04/2022, the proposed project activity is listed at schedule no. 1(a) “mining” Under Category “B” of the schedule of the EIA Notification, 2006. However, as per the Ministry’s OM dated 27.09.2022, “*The proposals which have been considered/ appraised once by EAC either for ToR or EC, but final decision has not been taken, shall continue to be appraised at the Central level only, till final disposal for ToR/ EC, even after the amendments in the EIA Notification are issued from to time regarding delegation of projects to SEIAAS*”. Since this proposal has been appraised three times earlier on EAC meetings held on 28-29th September 2020, 13th January 2021 and 1st April 2022, the project is now again placed before the EAC for appraisal at Central Level.

3. The proposal was earlier considered in in 2nd meeting of EAC (Coal) held on 28-29th September 2020 and further reconsidered in 6th EAC meeting held on 13th January 2021 and 28th EAC meeting held on 1st April 2022. Proposal was deferred for want of additional information. Proponent submitted the additional information on 02/12/2024. The proposal was further considered in 20th EAC meeting held on 20th -23rd January, 2025. The written information was submitted on 12.02.2025. The MoM for the same may be seen using the web link: parivesh.nic.in.

Details submitted by the project proponent

4. Gourangdih ABC Opencast Coal Mining Project (area 356.575 Ha having capacity 2.5 MTPA) by M/s West Bengal Mineral Development and Trading Corporation Limited, located at Villages: Panuria, Kantapahari, Jamgram, Shibdhawra, Banddhawra, Lalbandh, Gourangdih & Bhuiapara; District: Paschim Bardhaman; State: West Bengal is a Greenfield project. The project was granted ToR for the said project vide letter no. J-11015/80/2017-IA.II (M), dated 29.09.2017, valid up to 28.09.2022, in line with MoEF&CC, S.O 221 (E) 18.01.2021 (1 year extension as per COVID guidelines)..

5. **Environmental Site Settings:** The project area is covered under Survey of India Topo sheet No.F45C13 (old no. 73 I/13) and is bounded by the geographical coordinates ranging from 23°48'30" N and 23°49'45" N and longitudes 86°57'45 E and 87°00'15 E.

Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment 2018. Nearest CPA is Asansol at an aerial distance of 13 km.

Forest Area: The project involves total 109.459 ha of forestland. Stage – I forest clearance (FC) on the same is yet to be accorded. Forest clearance application was submitted vide Proposal No. FP/WB/MIN/26869/2017 dated 12.07.2017 and the same got rejected. Fresh application for seeking Forest Clearance (FC) has been submitted vide Proposal No. FP/WB/MIN/QRY/452568/2023 dated 11.04.2024 and the same is under process as on date. PP submitted that no forestland is broken and there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

Protected Area: The project is not located within 10 KM of any ESZ/ ESA/ National park/ Wildlife sanctuary/ Biosphere reserve/ Tiger reserve/ Elephant reserve/Tiger corridor/ Elephant corridor etc. The Wildlife Conservation Plan has been approved by PCCF (Wildlife), West Bengal vide letter no. 3362/WL/ 2M-33(Pt-II)/2021 dated 23.11.2022 for the Schedule I & II species (Indian Rock Python, Sloth Bear, Jungle cat, Jackal, Indian fox, Langur, Red jungle fowl, Spectacled cobra, Rat snake, Indian chameleon, Russell's viper) with a budget of Rs. 356.26 lakhs for 27 years.

Other sensitive receptors: There is Ajoy River at a distance of 2.2 km (NW), Noniya Jhor at the distance of 2.4 km (S) and Suriapani Jhor at a distance of 5.2 km (NE) from the project area. However, there is no diversion proposed for any River/ Nallah. There are two existing roads, which will be diverted. One is Asansol-Gourangdih road connecting Runakuraghat, passes over the eastern flank of Gourangdih-C quarry. This road is proposed to be diverted towards further East of the quarry. Another Road is Rupnarayanpur-Gourangdih road, passes over Western portion of the Quarry-A, which is proposed to be diverted towards further west of the quarry. Application for obtaining permission for road diversion has been submitted. Further, there is no presence of ASI protected archaeological site in close proximity to the ML area.

Project Area/ Mine Lease: PP submitted the following details of the ML area:

S. No.	Govt. Order/Notifications as the case may be	Area (ha)
1	G.O. No. 143-CI/O/MIN/GEN-COL/03/2016 dated 23.02.2018 and extended via letters dated 12.11.202 and 05.05.2022	213.27
2	Grant Order No. No.591-CI/O/ MIN/GEN-COL/03/2016 dated 29.09.2022	143.31
Total-1+2		356.58
3	Details of LOI (for area outside lease area)	Nil
Grand Total		356.58

Block was allocated vide vesting order no. 103/6/2016/NA, dated September 29, 2016 by Ministry of Coal.

6. **Details of ToR:** Details of the ToR accorded are as follows:

Date of Application	Details	Date of Accord	ToR Validity
25.08.2017	J-11015/80/2017-IA.II (M)	29.09.2017	28.09.2022 (PP applied for EC and the proposal was appraised by the EAC within the validity period of ToR)

7. **Method of Mining and Mine Plan:** Initially the Mining Plan and Mine Closure Plan was approved by the Ministry of Coal, Government of India vide letter No. 13016/77/2006-CA-I (Part) dated 28-06-2011. Thereafter, Mining Plan and Mine Closure Plan (first modification) was approved on 09.10.2023 vide letter no. WBCPA/APP00239/2023, as required by point. iii of ADS dated 01.04.2022 raised after 28th EAC meeting.

- i. Method of Mining will be Opencast mining.
- ii. The total geological reserves reported are 129.15 MT, out of which mineable reserves are 75.92 MT, and extractable reserves are 69.09 MT. Percentage of extraction will be 53.496 %.
- iii. There are total 8 nos. of seams and thickness of Seams is B-VII-1.46 m, B-VI-8.85 m, B-V- 9.89 m, B-IV- 7.92 m, B-III(T)- 4.92 m, B-III(B)-7.33 m, B-II- 25.07 m, B-I- 2.52 m.
- iv. Grade of coal will be Average F.
- v. Stripping ratio will be 2.91 Cum/t.
- vi. Life of mine is 27 years.
- vii. There are two internal dumps and two external dumps proposed, with the maximum height of 30 m each. There is no OB dump proposed outside the ML area. Backfilling will start from the first year itself.
- viii. Land use details:

A. Pre-mining land use:

S. No.	Land Use	Within ML Area (ha)	Outside ML Area (ha)	Total (ha)
1	Agricultural Land	147.335	-	147.335
2	Forest land (protected forest)	109.459	-	109.459
3	Wasteland	-	-	-
4	Grazing land	-	-	-
5	Surface Water body	10.791	-	10.791
6	Settlements	10.337	-	10.337

S. No.	Land Use	Within ML Area (ha)	Outside ML Area (ha)	Total (ha)
7	Others (specify):		-	
7.1	Barren	60.914	-	60.914
7.2	Road	11.7	-	11.7
7.3	Others. community	0.077	-	0.077
7.4	Freehold ECL	5.962	-	5.962
	Total	356.575	0	356.575

B. Post-mining land use:

S. No.	Type	Total Area (ha)	Reclaimed Area (Ha)	Unreclaimed area (Ha)
1	Excavation/ Quarry area	242.82	201.89	40.93
	(a) Backfilled area	201.89	201.89	
	(b) Excavated Void	40.93		40.93
2	External Dump	47.069	47.069	
3	Safety zone	10.03	10.03	
4	Road & infrastructure	9.21	7.93	1.28
5	Garland drain	0.76		0.76
6	Embankment			
7	Others			
7.1	Top soil dump	4.07	4.07	
7.2	Green belt	10	10	
7.3	Undisturbed area	32.426		32.426
7.4	Settling pond	0.19		0.19
	Total	356.575	280.989	75.586

ix. Details of Transportation:

- a. **In pit:** Dumper
- b. **Surface to siding:** Trucks/ tippers
- c. **Siding to loading:** Loading using payloader
- d. **Quantity being transported by Rail/Conveyor:** 100% by road to consumer or railway siding (7576 Tonnes per day)

Entire coal is proposed to be transported by road to the consumers. However, in case consumers are connected with railway, the coal will be transported by road till siding.

- x. Details of reclamation: Afforestation shall be done progressively covering an area of 280.989 ha. This will include:
 - a. Reclaimed external OB dump: 47.069 ha
 - b. Internal Dump: 153.46
 - c. Green belt: 10.0 ha
 - d. Density of tree plantation: 2500 trees/ ha

- e. Void of 40.93 ha at depth of 28 m in Gourangdih A & 27.35 m depth in Gourangdih C are proposed to be converted into water body.
- f. Others including Safety zone of 10.03 ha, Road & infrastructure of 7.93 ha and Top soil dump of 4.07 ha.
- g. Agriculture land of 48.43 ha will also be reclaimed.

8. **Baseline Data:** The Baseline data has been generated from December 2017 to February 2018:

Period	From 01 Dec 2017 To 28 Feb 2018, Winter Season																																			
AAQ Parameters at 8 Locations (min and max)	PM _{2.5} : 24.6 to 45.3 µg/m ³ PM ₁₀ : 45.9 to 78.0 µg/m ³ SO ₂ : 6.3 to 12.1 µg/m ³ NO _x : 8.3 to 16.7 µg/m ³																																			
Incremental GLC Level	PM ₁₀ : 19.916 µg/m ³ SO ₂ : 26.125 µg/m ³ NO ₂ : 31.49 µg/m ³ PM _{2.5} : 11.458 µg/m ³																																			
Ground water quality at 8 Locations	pH: 6.56 to 6.92, Total Hardness: 44 to 257 mg/l, Chlorides: 14 to 135 mg/l, Fluoride: 0.41 to 1.1 mg/l.																																			
Surface water quality at 8 Locations	pH: 6.9 to 8.2; DO: 6.5 to 7.1 mg/l and BOD: 5 to 30 mg/l, COD: 10 to 69 mg/l																																			
Noise levels Leq (Day and Night) at 8 locations	46.76 to 54.24 dBA for the daytime and 40.61 to 43.99 dBA for the Night time.																																			
Traffic Assessment Study findings	<p>Traffic study has been conducted at PWD road at (2) Natundihi Village, (2) Jamgram and (3) Khoshnagar Village which are approximately 1.5, 3.8 and 4.7 km, respectively from the mine site. Transportation of mineral will be done 100% by road. 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>Natundihi Village</td> <td>93</td> <td>625</td> <td>0.15</td> <td>A</td> </tr> <tr> <td>Jamgram</td> <td>167</td> <td>250</td> <td>0.67</td> <td>B</td> </tr> <tr> <td>Khoshnagar Village</td> <td>130</td> <td>250</td> <td>0.52</td> <td>B</td> </tr> </tbody> </table> <p>Additional PCU load after proposed project will be 38 to 76 PCU's and resultant 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>Natundihi Village</td> <td>130</td> <td>625</td> <td>0.21</td> <td>A</td> </tr> <tr> <td>Jamgram</td> <td>246</td> <td>250</td> <td>0.98</td> <td>E</td> </tr> </tbody> </table>	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS	Natundihi Village	93	625	0.15	A	Jamgram	167	250	0.67	B	Khoshnagar Village	130	250	0.52	B	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Proposed V/C Ratio	LOS	Natundihi Village	130	625	0.21	A	Jamgram	246	250	0.98	E
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Period	From 01 Dec 2017 To 28 Feb 2018, Winter Season				
	Khoshnagar Village	168	250	0.67	B
	<p>Note: Capacity as per IRC:64-1991 Guideline for capacity for roads Conclusion: The level of service will A-E after including additional traffic due to proposed project.</p>				
Flora and fauna	<p>The Wildlife Conservation Plan has been approved by PCCF (Wildlife), West Bengal vide letter no. 3362/WL/ 2M-33(Pt-II)/2021 dated 23.11.2022 for the Schedule I & II species (Indian Rock Python, Sloth Bear, Jungle cat, Jackal, Indian fox, Langur, Red jungle fowl, Spectacled cobra, Rat snake, Indian chameleon, Russell's viper) for budget of Rs. 356.26 lakhs for 27 years.</p>				
Water requirement	<p>Source of Water: Ground Water Ground Water Intersection: Yes Water Requirement: 984 KLD NOC (Ground Water): Letter from Geologist & Member Secretary, SWID, Paschim Bardhaman via Letter no. P2205010022320000001THE dated 09.12.2019. Renewal application submitted on 18.09.2024. The mine is expected to become operational by December 2025, and PP undertake to obtain the renewal permission before starting operations.</p>				

9. **Details of water requirement:** Total Water requirement as submitted by the PP is 984 KLD. The source of water will be groundwater and NoC from the same has been accorded from Geologist & Member Secretary, SWID, Paschim Bardhaman via Letter no. P2205010022320000001THE dated 09.12.2019. Renewal application submitted on 18.09.2024. The mine is expected to become operational by December 2025, and water renewal permission shall be obtained before starting the operations.

10. **Details of power requirement and diversion of transmission line/ Hi-tension line:** The total power requirement for the proposed mine will be about 5275 KW that will be supplied from West Bengal State Electricity Board (WBSEB) through 33 KV overhead line. For power backup, 5790 KVA diesel generator are proposed. No HT Power Line diversion is involved. Existing power lines, most of which are 11 KV single circuit feeders having 2-3 power line pole, will have to be shifted at a very later stage. The diversion shall be done after obtaining the necessary approval from the concerned electricity board.

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:

S. No.	Type of waste	Source	Quantity (TPA)	Mode of Treatment	Disposal
1.	Construction & Demolition Waste	Top soil	744000	Temporary storage & reuse	Haul road
2.	Municipal Solid Waste	Sludge septik tank	2.5	composted to be used as manure	Road
3.	Municipal Solid Waste	STP sludge	17.25	composted to be used as manure	Road

S. No.	Type of waste	Source	Quantity (TPA)	Mode of Treatment	Disposal
4.	Municipal Solid Waste	Municipal solid waste	197.5	Segregated & sent to authorised vendor	Road
5.	Industrial Waste	Oil & grease	0.528	Sold to SPCB/ CPCB authorised vendors	Closed tank
6.	Industrial Waste	OB dump	17400000	Temporary dump& reuse in backfilling	Haul road
7.	Industrial Waste	Settling pond sludge	852.85	Disposed in the OB dump	Road

12. Public Consultation/ Hearing:

Details of advertisement given	English newspaper "The Times of India" and bengali "Ei Samay" on 18.08.2018 for PH on 20.09.2018
Date of public consultation	20.09.2018
Venue	"Agniveena Hall" at the office campus of Barabani Block Office, Dist- Paschim Bardhaman, West Bengal
Presiding Officer	Sri Prasanta Mandal, WBCS (Exe.) Additional District Magistrate
Number of Person Attended Hearing	129
Number of representation received in writing from the District and outside of District, please give details:	Nil
Major issues raised	Proposed pollution and mitigative measures, R&R package, impact on ground water, employment opportunity

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

S. No.	Name of Activity (requirement raised during PH)	Activity Physical targets	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Generation of employment	1. Direct Employment (land	100 100	100 300	65			

S. No.	Name of Activity (requirement raised during PH)	Activity Physical targets	Year 1	Year 2	Year 3	Year 4	Year 5	Total
	ment for local youth	givers) of 265 persons, indirect employment (other PAPs) 400 persons 3. Sponsoring of local youth for training at ITI Purulia. Govt. It has 14 trades (Fitter, Turner, Electrician, Machinist, Machinist Grinder, MMV, Mechanic Diesel, Surveyor, Wireman, Electro Mech., Welder, Carpenter, SMW & Foundryman Technician) with well-equipped modern, sophisticated machinery & equipment. 4. Grant of bicycle for travel to ITI from residence. 5. Villages preferred- from villages of Daskiari, Aliganj, Gouranghadi & Panuria, Kashidangal, Baradang, Kanta Pahari, Alipur, Jamgram & Chotkara.	50 youth sponsored for training at ITI Purulia	50 youth sponsored for training at ITI Purulia	50 youth sponsored for training at ITI Purulia	50 youth sponsored for training at ITI Purulia	50 youth sponsored for training at ITI Purulia	
		Budget (Rs.)	300,000	300,000	300,000	300,000	300,000	1,500,000
2	Management of impact	1. De-siltation of pond, catchment area treatment for	Lying of pipelines (2.14 km)	Lying of pipelines (5.47 km)	Lying of pipelines (2.036)	Lying of pipelines (3.13 km)	-	

S. No.	Name of Activity (requirement raised during PH)	Activity Physical targets	Year 1	Year 2	Year 3	Year 4	Year 5	Total
	due to water table decline	water harvesting, water recharge pit. 2. Laying of pipelines for supplying water to ponds for recharge of surface water ponds for villagers use and irrigation use	for supplying water to ponds for recharge on alternate days in Gaourang dih, Panuria & Kashidanganal	for supplying water to ponds for recharge on alternate days in Daskiari, Aliganj & Chotkara.	km) for supplying water to ponds for recharge on alternate days in Gaourang dih.	for supplying water to ponds for recharge on alternate days in Baradang & Kanta Pahari		
		Budget (Rs.)	14,94,132	38,15,160	14,19,530	21,83,677	-	89,12,499
3	Improvement of road conditions	1. Construction of new roads as specified 2. Maintenance of constructed roads	Construction of a new road from tribal basti at Kashidangan to Jamgram (1 km) and Aliganja village to Panuriya (1.5 km)	1. Village Kantapahari (1.04 km), road construction. 2. Maintenance of roads constructed till previous year (5% of cost)	1. Village Chotkara (0.68 km), road construction 2. Maintenance of roads constructed till previous year (5% of cost)	1. Village Baradang (0.46 km), road construction 2. Maintenance of roads constructed till previous year (5% of cost)	1. Village Jamgram (0.94km), road construction 2. Maintenance of roads constructed till previous year (5% of cost)	
		Budget (Rs.)	3,500,000	1,631,000	1,208,550	960,978	1,681,026	8,981,554
4	Protective measures for management of impact due to blasting	1. Conduct of vibration study every year 2. Monitoring of ground vibration by vibration measuring instrument	1. Conduct of vibration study 2. Purchase of PPV meters (3 nos.)	Conduct of annual vibration study	Conduct of annual vibration study	Conduct of annual vibration study	Conduct of annual vibration study	

S. No.	Name of Activity (requirement raised during PH)	Activity Physical targets	Year 1	Year 2	Year 3	Year 4	Year 5	Total
		3. Scientific study for control blasting, 4. Use of non-electric delay detonator						
		Budget (Rs.)	400,000.00	100,000.00	100,000.00	100,000.00	100,000.00	800,000
5	Probable mitigative measures for overall impact	<p>1. Air & Water pollution control Measures: Dust suppression and prevent generation of dust, mobile water sprinkling, domestic sewage treatment & disposal, Garland drains, Open surface drains, storm water channels, ETP, pollution control at railway siding, etc.</p> <p>2. Air & Water pollution monitoring: Establishment of Micro-meteorological station, Online Ambient air monitoring equipment, cost of annual sampling & testing, etc.</p> <p>3. Occupational Health: Establishment of Fire fighting equipment (portable, fixed-permanent sprinkler in stock yard, CHP, etc), Personal protective equipment &</p>	22,16,15,800	5,64,74,050	5,41,21,050	5,41,21,050	5,41,21,050	44,04,53,000

S. No.	Name of Activity (requirement raised during PH)	Activity Physical targets	Year 1	Year 2	Year 3	Year 4	Year 5	Total
		<p>Periodic medical and health checkups, chest radiograph for ILO classification etc.</p> <p>4. Green Belt: Plantation in Green Belt & undisturbed area.</p> <p>5. Reclamation : Filling up and biological reclamation of de-coaled void, Plantation and biological reclamation of left out OB dump, Purchase of mobile water sprayer, dozers, pumps & pipes, Motor grader, Hydraulic backhoe, implementation of mine closure plan.</p> <p>6. Miscellaneous: Fencing, protection, regeneration & maintenance of Safety zone, Studies & Actions required for compliances and Overheads, etc.</p>						
	GRAND TOTAL	(Rs.)	22,73,09,932	6,23,20,210	5,71,49,130	5,76,65,705	5,62,02,076	46,06,47,053

13. **EMP Budget:** Initially, the capital cost for environmental protection measures was proposed as Rs. 17.27 Crores and the annual recurring cost towards the environmental protection measures was proposed as Rs 6.35 Crores. However, as per deliberation of EAC, the proponent has submitted additional EMP cost for transportation of coal from mine to Barabani & Charanpur railway sidings and EMP measures for Railway Siding. Now, the

revised capital cost for environmental protection measures is proposed as Rs. 22.07 Crores and the annual recurring cost towards the environmental protection measures is proposed as Rs 10.79 Crores. The employment generation from the proposed project is 762 (494 for mining, 268 for ancillary jobs).

The revised EMP cost as submitted by the PP is as follows-

S. No.	Description of Item	Proposed	
		Capital Cost (In Lakh Rs)	Recurring Cost (In Lakh Rs/ year)
1.	Pollution Control & Management	959	268.81
2.	Occupational health	25	19.03
3.	Green Belt Development	47.06	5.79
4.	Reclamation	686.10	324.64
5.	Miscellaneous	10	5.37
6.	Overheads (3%)	-	11.93
7.	EMP measures for transportation of coal from mine to Barabani & Charanpur railway sidings	374.61	317.76
8.	EMP measures for Railway Siding	105.33	125.72
	TOTAL	2207.1	1079.05

14. **Plantation:** Proposed greenbelt will be developed in 10.0 ha which is about 2.8% 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 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 25000 saplings will be planted and nurtured in 7.52 hectares in 1 years. In addition to this plantation shall be carried out in External OB Dump (47.069 ha), Top Soil Dump (4.07 ha), backfill area [43.96 non forest +109.50 (returned to forest after closure) = 153.46 ha], reclaimed roads (7.93 ha) and safety zone (10.03 ha).

15. **Rehabilitation & Resettlement:** The proposed mine area comes under three mouzas namely Panuriya, Gourangdih and Kantapahari covering seven villages. These villages are Shibdhara, Bandhaura, Lalbandh in Gourangdih-A and part of Panuriya, Kantapahari, Gourangdih & Bhuiapara in Gourangdih-C. The population of these villages will be affected by proposed coal mining. The habitation of these villages will be shifted for which separate R&R cost has been estimated. PAFs to be monetarily compensated for loss of dwelling unit are 629, PAFs to be monetarily compensated for loss of land are 377, number of PAFs belonging to either Scheduled Caste or Scheduled Tribe category are 339. R&R plan has been approved for the same.

16. **Project Cost:** Total Costs of the project is Rs 621.71 Crores (as per estimates in Revised Mining Plan of 2011). PP submitted the revised project cost of Rs. 1011 crore as per DPR.

17. **Details of pending litigations:** 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.

18. **Undertaking/ Affidavit:** PP vide an undertaking submitted that this is to certify that the information provided in Form-2 and its annexures in pdf format in PARIVESH, to the Ministry/ EAC members and PPT presentation during the EAC meeting to be held on 23rd January 2025 have no deviation in respect of the proposal no. IA/WB/CMIN/65801/2017 for EC for coal mining having ML area 356.575 ha (~356.6 ha) of Project area and capacity of 2.5 MTPA for Coal Mine Project located at Villages. Panuria, Kantapahari, Jamgram, Shibdhawra, Baddhawra, Lalbandh, Gourangdih & Bhuiapara, Taluk Barabani CD Block, District Paschim Bardhaman, State West Bengal by M/s West Bengal Mineral Development and Trading Corporation. It is 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. 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 EC.

PP vide an affidavit submitted that there is no construction/ mining done at the site by the Project Proponent.

19. **ADS Reply:** The proponent submitted the ADS reply on 24.12.2020, 11.03.2022, 03.09.2024 and 03.12.2024 and uploaded on PARIVESH.

20. **Written Submission:** PP submitted the following information during the meeting:

i. Submission of revised environmental management plan budget for transportation of coal from mine to Barabani and Charanpur Railway Siding.

Reply of PP: The estimated EMP budget has been revised activity wise and submitted.

ii. Submission of latest air quality data for the proposed transportation route.

Reply of PP: The air quality data has been monitored along the villages on the transportation route between 25.01.2025 to 27.01.2025. Comparison of Air quality of previously done baseline data (Dec 2017-Feb 2018 2021) with six months routine environment monitoring data (April-September 2024).

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

		Dec'17- Feb'18		Apr'24 to Sep'24		Coal Mine standards 2000
		Min	Max	Min	Max	
Core Zone	PM ₁₀	51.8	69.5	60.7	245.8	250
	PM _{2.5}	28.4	39.9	18.3	68.4	---
	SO _x	7.8	11.6	BDL*	BDL	120
	NO _x	9.9	13.4	19	34	120

*SO₂ BDL is $<10 \mu\text{g}/\text{m}^3$

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

	Dec'17- Feb'18	Apr'24 to Sep'24	NAAQS 2009	Apr'24 to Sep'24	Coal Mine

				(residential areas)				(mine areas)		standards 2000
		Min	Max	Min	Max			Min	Max	
Buffer Zone	PM ₁₀	45.9	78.0	54.3	194.6	100		123.8	316.4	250
	PM _{2.5}	24.6	45.3	16.3	56.2	60		37.2	74.9	---
	SO _x	6.3	12.1	BDL*	BDL	80		BDL*	BDL	120
	NO _x	8.3	16.7	18	30	80		21	26	120

*SO₂ BDL is <10 µg/m³

iii. Submission of Public hearing action plan and budget as per MoEF&CC OM dated 30.09.2020.

Reply of PP: Public hearing action plan and budget as per MoEF&CC OM dated 30.09.2020 is submitted and the same is furnished above.

Observation and deliberation of the EAC:

21. Committee after deliberations noted the following:

1. The instant proposal is a Greenfield project for grant of EC to Gourangdih ABC Opencast Coal Mining Project (area 356.575 Ha having capacity 2.5 MTPA) of M/s West Bengal Mineral Development and Trading Corporation Limited, located at Villages: Panuria, Kantapahari, Jamgram, Shibdhawra, Banddhawra, Lalbandh, Gourangdih & Bhuiapara; District.
2. ToR for the project was obtained on 29.09.2017.
3. The said project has been earlier appraised in 2nd meeting of EAC (Coal) held on 28-29th September 2020. It was thereafter reconsidered in 6th EAC held on 13th January 2021 and 28th EAC held on 1st April 2022. Proposal was deferred for want of additional information. Now the proposal was again placed for appraisal in the 20th EAC (coal) meeting held on 20th -23rd January 2025.
4. Ministry of Coal allotted the said block to the proponent vide vesting order no. 103/6/2016/NA, dated 29.09.2016. Initially, the Mining Plan and Mine Closure Plan was approved by Ministry of Coal, Government of India vide letter No. 13016/77/2006-CA-I (Part) on 28-06-2011. Thereafter, Mining Plan and Mine Closure Plan (first modification) was approved on 09.10.2023 vide letter no. WBCPA/APP00239/2023 after making the modification in the mine plan as per the observations of the EAC.
5. Total geological reserves as reported are 129.15 MT, out of which mineable reserves are 75.92 MT, and extractable reserves are 69.09 MT. Percentage of extraction will be 53.496 %. Life of mine is 27 years.
6. There are total 8 nos. of seams and thickness of Seams is B-VII-1.46 m, B-VI-8.85 m, B-V- 9.89 m, B-IV- 7.92 m, B-III(T)- 4.92 m, B-III(B)-7.33 m, B-II- 25.07 m, B-I- 2.52 m.

7. Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment 2018.
8. It was apprised by the Member Secretary that instant proposal involves 109.459 ha of forest land for which requisite Stage I FC under the provisions of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 is yet to be obtained. Further, apprised that as per OM dated 09/09/2011, after the EAC has recommended the project for environmental clearance, it would be processed on file for obtaining decision of the Competent Authority for grant of environmental clearance. In the cases, where the Competent Authority approves the proposal for grant of environmental clearance, the proponent will be informed of the same and a time limit of 12 months will be given to submit the requisite Stage – I forestry clearance. On receipt of the same, formal EC letter will be issued by the Ministry.
9. 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.
10. The Wildlife Conservation Plan has been approved by PCCF (Wildlife), West Bengal vide letter no. 3362/WL/ 2M-33(Pt-II)/2021 dated 23.11.2022 for the Schedule I & II species (Indian Rock Python, Sloth Bear, Jungle cat, Jackal, Indian fox, Langur, Red jungle fowl, Spectacled cobra, Rat snake, Indian chameleon, Russell's viper) for budget of Rs. 356.26 lakhs for 27 years.
11. Proposal involves diversion of two existing roads. One is Asansol-Gourangdih road connecting Runakuraghat, passes over the eastern flank of Gourangidh-C quarry. This road is proposed to be diverted towards further east of the quarry. And another is Rupnarayanpur-Gourangdih road, passes over western portion of the Quarry-A, which is proposed to be diverted towards further west of the quarry. Application for obtaining permission for road diversion has been submitted by the proponent. Committee opined that no diversion shall be carried out without obtaining the necessary permission from the competent authority.

No water body is proposed to be diverted and there is no presence of ASI protected archaeological site in close proximity to the ML area.
12. Water requirement for the said project is 984 KLD. NoC for the same has been accorded from Geologist & Member Secretary, SWID, Paschim Bardhaman via Letter no. P2205010022320000001THE dated 09.12.2019. Renewal application submitted on 18.09.2024. The mine is expected to become operational by December 2025. PP submitted that necessary renewal will be obtained before commencing with the mine operations.
13. Total capital cost of the project as submitted by the proponent is Rs. 1011 crores.
14. Committee deliberated on the EMP cost submitted by the proponent and opined that the same should be modified by introducing the protection measures for coal transportation road and the railway siding. Proponent submitted the additional measures with the additional EMP cost for the same. Now, the revised capital cost for environmental protection measures is Rs. 22.07 Crores and the annual recurring cost towards the environmental protection measures is Rs 10.79 Crores.
15. PP collected the baseline data from 01.12.2017 to 28.02.2018. Committee deliberated on the same and asked the PP to submit the updated data from the secondary sources. Proponent submitted the same. Committee observed that there is no significant change

in the monitoring parameters of the previous baseline data submitted by the proponent and the data obtained from the secondary sources.

16. Committee deliberated on the Public Hearing as well as the action plan submitted by the proponent to address the issues raised during public hearing. Committee opined that the same shall be submitted as per the Ministry's OM dated 30.09.2020. Proponent submitted the same and the Committee found it to be satisfactory.
17. Committee deliberated on the plantation plan submitted by the proponent and observed that the proposed greenbelt will be developed in 10.0 ha which is about 2.8% 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 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 25000 saplings will be planted and nurtured in 7.52 hectares in 1 years. In addition to this, plantation shall be carried out in External OB Dump (47.069 ha), Top Soil Dump (4.07 ha), backfill area [43.96 non forest +109.50 (returned to forest after closure) = 153.46 ha], reclaimed roads (7.93 ha) and safety zone (10.03 ha).
18. Committee deliberated on the method of transportation of coal proposed by the proponent and observed that, major transportation is proposed through road to consumers. Only where the consumers are connected through railway, the coal will be transported to railway siding through road and further by rail to the consumers. Committee deliberated on the coal transportation road and observed that PP proposed to firm up 2 route nearest to railway siding for linkage and based on traffic impact assessment, EMP measures shall be proposed after deciding and fixing the route of transportation from mine to railway siding.

Committee deliberated and observed that the two routes firmed up are for Barbani railway siding and Charanpur railway siding. Committee opined that since, Charanpur railway siding is near the project area with less habitation and PWD road and no state highway, the same should be used for transportation of coal through rail.

19. Committee opined that no OB shall be dumped on the forestland.
20. There is no legal issue/violation w.r.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Van (Sanrakshan Evam Samvardhan) Adhiniyam, Wildlife Protection Act, MMDR Act, Factories Act.
21. 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.
22. The EAC also deliberated on the ADS reply and written submissions of the project proponent and found it satisfactory.

Recommendations of the Committee

22. Based on the discussions held and the documents submitted, the EAC **recommended** the proposal of Environment Clearance for Gourangdih ABC Opencast Coal Mining Project (area 356.575 Ha having capacity 2.5 MTPA) by **M/s West Bengal Mineral Development and Trading Corporation Limited**, located at Villages: Panuria, Kantapahari, Jamgram, Shibdhawra, Banddhawra, Lalbandh, Gourangdih & Bhuiapara; District: Paschim Bardhaman; State: West Bengal, under the provisions of EIA Notification, 2006 (as amended), subject to the compliance of the following specific conditions in addition to the general/Standard EC conditions (**Annexure-I**).

23. The MoEF&CC has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the EAC hereby accords Environmental Clearance to **M/s West Bengal Mineral Development and Trading Corporation Limited** for Gourangdih ABC Opencast Coal Mining Project (area 356.575 Ha having capacity 2.5 MTPA), located at Villages: Panuria, Kantapahari, Jamgram, Shibdhawra, Banddhawra, Lalbandh, Gourangdih & Bhuiapara; District: Paschim Bardhaman; State: West Bengal, subject to compliance of the Specific Environmental safeguard Conditions in addition to the standard EC conditions **(Annexure-I)**

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

25. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

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

27. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

28. General Instructions:

- (i) The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC website where it is displayed.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.
- (iii) The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.
- (iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

- (v) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (vi) The Regional Office of this MoEF&CC shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- (vii) Validity of EC is as per the provision of EIA Notification, 2006 and its subsequent amendment.

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

Yours faithfully,

(Sundar Ramanathan)

Scientist 'F'

Tel: 011- 20819378

Email- r.sundar@nic.in

Copy to-

1. The Secretary, Ministry of Coal, Shashtri Bhawan, New Delhi.
2. The Director General of Forest, Ministry of Environment, Forest and Climate Change, New Delhi.
3. The Principal Chief Conservator of Forests, Government of West Bengal, Block LA, 10A Sector-III, Salt Lake City, Kolkata-700098.
4. The Deputy Director General of Forests (C), Integrated Regional Office, Ministry of Environment, Forest and Climate Change, IB-198, Sector-II, Salt Lake City, Kolkata – 700106
5. The Chairman, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
6. The Member Secretary, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi 110 032.
7. The Member Secretary, West Bengal Pollution Control Board, Paribesh Bhawan, 10A, Block-LA, Sector-III, Bidhannagar, Kolkata-700 106.
8. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
9. District Collector, Birbhum District, West Bengal.
10. Guard File/Monitoring File/Website/Record File/ Parivesh Portal

A. Specific conditions

- i. No mining operations shall be undertaken in Forestland, until Stage – II forestry clearance for the forest land of 109.459 Ha is obtained under the provisions of Van (Sanrakshan Evam Samvardhan) Adhiniyam, Act 1980.
- ii. Project Affected Families (PAFs) in seven villages to be monetarily compensated for loss of dwelling unit are 629, PAFs to be monetarily compensated for loss of land are 377, number of PAFs belonging to either Scheduled Caste or Scheduled Tribe category are 339. The affected families shall be rehabilitated as per R & R plan to be approved by the State Government. Compliance status in this regard shall be submitted to the concerned Regional Office of MoEF&CC along with the six monthly compliance report.
- iii. The project proponent shall take all precautionary measures during mining operations for the conservation and protection of Schedule I/ endangered fauna, if any, spotted in the study area. Wildlife conservation plan as approved by the competent authority shall be implemented. PP shall deposit the approved amount of Rs. 356.26 lakhs as proposed for wildlife conservation plan to the Govt. of West Bengal, Forest & Environment Department.
- iv. There are two existing roads, which will be diverted. One is Asansol-Gourangdih road connecting Runakuraghat, passes over the eastern flank of Gourangidh-C quarry and another Road is Rupnarayanpur-Gourangdih road, passes over Western portion of the Quarry-A. Project proponent shall take requisite permission from the concerned competent authority of Govt. of West Bengal before diversion of roads and Compliance status in this regard shall be submitted to the concerned Regional Office of MoEF&CC along with the six monthly compliance report.
- v. There is no diversion proposed for any River/ Nallah. However, project proponent shall obtain requisite NoC from the State Water Resource Department, Government of West Bengal in case of any diversion of River/ Nallah.
- vi. Total water requirement for the proposed project is 984 KLD and the same shall be met from groundwater. PP shall obtain requisite NoC for withdrawal of Groundwater from concerned competent authority prior to the commencement of mining operations.
- vii. Greenbelt shall be developed in 10.0 ha which is about 2.8% 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 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 25000 saplings will be planted and nurtured in 7.52 hectares in 1 years. In addition to this plantation shall be carried out in External OB Dump (47.069 ha), Top Soil Dump (4.07 ha), backfill area [43.96 non forest +109.50 (returned to forest after closure) = 153.46 ha], reclaimed roads (7.93 ha) and safety zone (10.03 ha). In addition to this, Project proponent shall carry out community plantation with incentive by distributing 50,000 plant saplings with 4 feet tall fruit bearing plants to farmers for

- plantation in barren and agriculture lands in the study area every year for 5 years to improve the green cover in and around the mine lease area.
- viii. PP shall conduct Carbon Sequestration Study including carbon emissions from coal mining. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office and also kept on the web portal of the company.
 - ix. The proposed project shall be operated on closed water circuit with a concept of 'Zero Liquid Discharge' (ZLD). 100% water will be recycled and no treated & untreated wastewater shall be discharged outside the boundaries of mine lease area.
 - x. PP shall carry out a survey of the impact of blasting in the nearby area/villages by involving a reputed institute and take remedial measures as proposed by the respective institute. Further, provide compensation if any for any damage caused. PP must give crop compensation to the farmers in case there is decrease in the production due to the mining activities. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office
 - xi. Management of top soil and overburden shall be as per the approved mining plan. No OB dumping should be done outside the ML area. No OB shall be dumped on the forestland.
 - xii. The proposed budget of Rs 46.06 Crores for PH action plan shall be kept in a separate account and audited annually. Project proponent shall implement the action plan to address the issues raised during public hearing within a time frame of 5 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. Further, PP shall provide basic facilities to the nearby schools such as drinking water, sanitation facilities and shall also develop green belt around the nearby schools. Regular watering of saplings planted in the nearby schools will be carried out by Project Proponent to mitigate the air and noise pollution. Further, PP shall organize quarterly awareness programs for school students to educate them on the significance and preservation of trees.
 - xiii. PP shall strengthen the existing Primary Health Center (PHC) & Community Health Center (CHC) in the study area for better public health. As committed by the PP, PHCs & CHCs within the core and buffer zone will be supported with adequate budget over 5 years, for improving facilities for enhancing quality of public health service. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office of MoEF&CC.
 - xiv. Project proponent shall implement the protective measure proposed in Environment Management Plan (EMP) in a time-bound manner. The budget earmarked for the same is Rs. 22.07 Crores (Capital) and Rs 10.79 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.
 - xv. To control the production of dust, three tier plantations shall be done along the coal transportation road. PP shall distribute of trees among the villagers with a bonus of survival (Rs. 50 for each tree). Sprinkling of water shall be done using 2 no of Water sprinklers of 20 kl throughout the coal transportation road. Total 10 no of fog cannon shall be installed throughout the coal transportation road. Dust shield shall be provided

along the transportation road crossing the village area (3000 meter). Dust sweeping machine shall be used during summer and winter season. Washing of tires shall be done in a concrete platform of the loaded dumpers before approaching the transport road.

- xvi. To control the production of dust at the source, the crusher and in-pit belt conveyors shall be provided with mist-type sprinklers. PP shall install fixed fog cannon (mist sprayer) and fixed sprinkler all along the haul road/ CHP, and OB dump till Railway siding is completed. The sufficient number of fog cannons with 40 mts jet length shall be installed within 6 months from the commencement of mining operations. It should be ensured that air pollution level confirm to the standards prescribed by the MOEF&CC/CPCB. Also PP shall install Mist Cannon Dust Suppression Systems (80-100 mtrs.) at Coal Stock Yard to suppress the dust particles.
- xvii. Raw coal shall be stored in covered storage facility. Fixed-type high pressure sprinkler shall be installed in this storage yards.
- xviii. 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.
- xix. 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.
- xx. 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.
- xxi. Third-party audit (by NEERI/CIMFR/IIT/NITs/any reputed govt. organizations or institute) for air & water quality shall be carried out annually to keep a check on the same. PP shall implement the recommendations of the audit and submit the outcome of the audit to the concerned RO of MoEF&CC.
- xxii. 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.
- xxiii. 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.
- xxiv. 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.

- xxv. 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.
- xxvi. Two numbers of Continuous Ambient Air Quality monitoring system shall be set up to monitor common/criteria pollutants such as PM₁₀, PM_{2.5}, SO₂, NO_x within the lease area in consultation with concerned SPCB. 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.
- xxvii. 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:

1. Statutory Conditions:

- i. The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. Solid/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.
- iv. The maximum production or peak production at any given time shall not exceed the limit as prescribed in the EC.
- v. Validity of EC is as per life of the mine mentioned in EC letter or 30 years as per EIA Notification, 2006 and its amendments therein.

2. Air Quality Monitoring and Mitigation Measures

- i. Project proponent shall obtain requisite consent from State Pollution Control Board for 2.5 MTPA coal mining.
- ii. Adequate ambient air quality monitoring stations shall be established in the core zone

as well as in the buffer zone for monitoring of pollutants, namely particulates, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board.

- iii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- iv. Effective control measures such as regular water sprinkling/rain gun/ Fog cannon /mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- v. Major approach roads shall be black topped and properly maintained.
- vi. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- vii. PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.
- viii. The raw coal, shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire
- ix. PP shall submit an action plan for using and developing Renewable Energy for its consumption in its utilities/machinery/equipment instead of using electricity from Grid/generated from Thermal Power Plants. PP shall explore to install additional solar power generation units.

3. Water Quality Monitoring and Mitigation Measures

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- iii. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah 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 (STP) of adequate capacity shall be installed for treatment of domestic wastewater.
- vii. An integrated surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations and coal washery 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. Construction of Sewage Treatment Plant (STP)/Effluent treatment Plant (ETP) with latest technology should be completed within 2 years and treated water shall be reused for plantation.

4. Noise and Vibration Monitoring and Prevention

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

5. Mining Plan

- i. Project proponent shall obtain star rating as per the guidelines of Ministry of Coal.

- ii. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- iii. No change in mining method, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC).
- 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. Environmental conditions of mining place 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.

6. Land Reclamation

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MOEF&CC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- ii. The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- iii. The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the “during mining”/”post mining” land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
- iv. 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. 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.

- vi. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

7. Public Hearing and Human Health Issues:

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
- ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time
- iii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.
- v. Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
- vi. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.
- vii. PP should conduct epidemiology study for analysis of the distribution, patterns and determinants of health and disease conditions in defined populations.

8. Corporate Environment Responsibility:

- i. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders
- ii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.

- iii. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
- iv. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

9. Miscellaneous:

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