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

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SUMMARY RECORD OF THE THIRTIETH (31ST) MEETING OF EXPERT APPRAISAL COMMITTEE (EAC) HELD ON 28TH AUGUST 2025 FOR ENVIRONMENT APPRAISAL OF COAL MINING SECTOR PROJECTS THROUGH VIRTUAL MODE.

## 28<sup>TH</sup> AUGUST 2025 [THURSDAY]

At the outset, Shri. Inder Pal Singh Matharu (I.F.S Retd.) 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.** 

Confirmation of the minutes of the  $30^{th}$  meeting of the EAC (Coal): The minutes of the  $30^{th}$  meeting of the EAC (Coal) held on  $11^{th}$  July 2025 through virtual mode have been confirmed by the EAC.

#### Agenda No. 31.1:

31.1: Expansion of Bijuri underground coal mining project (having production capacity 0.60 MTPA within the ML area of 216.146 Ha) by M/s South Eastern Coalfields Limited located at village: Bijuri, Mauhari, Bhagta, Lohsara; Tehsil; Kotma; District: Anuppur; State: Madhya Pradesh - Revalidation of Environmental Clearance based on ADS Reply – reg.

[Online Proposal no. IA/MP/CMIN/79083/2005; Consultant: CMPDI - NABET/EIA/25-28/RA 0412 issued on 03.07,2025 valid up to 08.04,2028]

**31.1.1:** M/s South Eastern Coalfields Limited has made an online application vide proposal no. IA/MP/CMIN/79083/2005 dated 15.09.2018 along with copy of Form, certified compliance report (as part of ADS reply) and sought for revalidation of Environment Clearance (EC) accorded for Expansion of Bijuri underground coal mining project vide letter no. J-11015/63/2005-IA.II(M) on 24.05.2005 for production capacity of 0.60 MTPA under EIA Notification, 1994. The instant proposal is for obtaining re-validation of EC under EIA Notification, 2006, in compliance of the Gazette Notification S.O. No. 1530(E) dated 06.04.2018 for existing project with ML area of 216.146 Ha.

The proposal was initially considered in 44<sup>th</sup> meeting of EAC (Coal Mining Sector) held on 24-25.04.2019. Proposal was deferred for want of additional information. As per the amendment to EIA Notification, 2006 on 20.04.2022, the proposed project activity is now listed at schedule no. 1(a) "mining of minerals" 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 time to time regarding delegation of projects to SEIAAs".

The ADS reply was submitted by the PP on 14.07.2025 and subsequent ADS were raised on 18.07.2025 and 30.07.2025 which were replied on 26.07.2025 and 02.08.2025, respectively. Now the proposal has been placed in 31st EAC meeting held on 28.08.2025 for appraisal based on ADS reply submitted by the PP.

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

**31.1.2: Previous Approvals in chronological orders:** Project proponent submitted the details of the previous approvals in the chronological order as follows:

S.	<b>Details of Letter</b>	EC/ Expansion EC/	Capacity	Area	Date of	Status of
No.	No.	Amendment in EC/ Validity	(MTPA)	(Ha)	issuance	implementation
		extension/ Transfer of EC				
1	J-	EC expansion under EIA 1994	0.60	216.146	24.05.2005	Implemented
	11015/63/2005-					
	IA.II(M)					

The mine became operational from 1962 onwards. W.r.t the EC dated 247.05.2005, the production details are furnished as below. CTO renewal has been obtained from MPPCB and is valid up to 30.04.2026. Details of production are as follows:

Year	Sanctioned capacity (MTPA)	Actual production (MT)	Excess production the EC sanctioned capacity
2005-06	0.60 (EC)	0.4196	Nil
2006-07	0.60 (EC)	0.4225	Nil
2007-08	0.60 (EC)	0.42265	Nil
2008-09	0.60 (EC)	0.4188	Nil
2009-10	0.60 (EC)	0.391665	Nil
2010-11	0.60 (EC)	0.427975	Nil
2011-12	0.60 (EC)	0.432723	Nil
2012-13	0.60 (EC)	0.4455	Nil
2013-14	0.60 (EC)	0.37811	Nil
2014-15	0.60 (EC)	0.307905	Nil
2015-16	0.60 (EC)	0.226012	Nil
2016-17	0.60 (EC)	0.233956	Nil
2017-18	0.60 (EC)	0.192903	Nil
2018-19	0.60 (EC)	0.297005	Nil
2019-20	0.60 (EC)	0.21603	Nil
2020-21	0.60 (EC)	0.0571	Nil
2021-22	0.60 (EC)	0.1241	Nil
2022-23	0.60 (EC)	0.13915	Nil
2023-24	0.60 (EC)	0.0904	Nil
2024-25	0.60 (EC)	0.0873	Nil

**31.1.3:** Certified Compliance Report: The status of compliance of earlier EC was obtained from MoEF&CC, RO Bhopal vide letter no.3-22/2005(Env) dated 11.07.2025. No non – complied/ partially complied conditions reported in Certified Compliance report of Bijuri Underground Coal Mining Project.

#### **31.1.4: Environmental Site Settings:**

The project area is covered under Survey of India Topo sheet No. 64 I/4 and is bounded by the

geographical coordinates ranging from Latitudes: 23°15′28″N to 23°16′30.4″N; Longitudes: 82°06′04.25″E to 82°07′35.1″E.

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

Mining Lease: PP submitted the following details of the Mine lease: The mine partly falls in two coal blocks, namely Bijuri (968.813 Ha) and Baherabandh (5044.973 Ha). Area involved

for the said project is 216.146 Ha.

S. No.	Notification No. and	Date of	<b>Expiry Date</b>	Remarks
	Area	Notification		
	Bijuri (968.81.	The mine partly falls in two coal		
1	S.O. 2978; 459.318	17.09.1962	16.09.2062	blocks, namely Bijuri and
	На			Baherabandh. Out of the total
2	S.O. 243; 14.164 Ha	11.01.1968	10.01.2068	216.146 ha of Bijuri UG mine
3	S.O. 1236; 495.331	29.04.1987	28.04.2087	project, 81.400 ha lies in
	На			Baherabandh block and 134.746 ha
	Baherabandh (504	4.973 Ha)		lies in Bijuri block. Mining rights
4	S.O 1050; 5044.973	13.04.1991	12.04.2091	of both blocks were vested to
	На			SECL through notifications under
				CBA Act, 1957. The coal seam to
				be extracted by the Bijuri mine
				extends into the adjacent
				Baherabandh block. The balance
				land of 5797.64 ha is kept for
				another SECL mine (Behraband
				UG Coal mine project having 0.60
				MTPA production capacity in
				770.13 ha) and for future mining
				purposes.

Forest Area: There is no forest land involved in said project.

**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.

It is submitted by the PP that no specific condition related to the preparation of a Wildlife Conservation Plan was stipulated in the Environmental Clearance. However, it is pertinent to mention that an integrated Wildlife Conservation Plan covering five mines of SECL, is presently under award of work to ICFRE, Dehradun. The study area of Bijuri UG Mine falls entirely within the scope of this integrated conservation plan. A two year timeline may be granted for the preparation, submission, and subsequent approval of the comprehensive Integrated Wildlife Conservation Plan, which will also address the wildlife conservation requirements pertaining to Bijuri UG Mine.

#### **Other Sensitive Receptors:**

Project site proximity to sensitive area	Distance in km (within 5 km from the ML area)				
i. Habitation	Particulars	Distance (in km)	Direction		
	Bijuri Nagar Palika	0.6	South		
	Dongriya Khalan village	4.1	West		
	Benhibehra village	4.2	North		
	Dola nagar parishad	4.7	South		

Project site proximity to sensitive area	Distance in ki	m (within 5	km from the MI	area)
ii. School	Particulars		Distance (in km)	Direction
	PS Boys Bijuri		0.17	South
	Govt. HSS Girls, Bijuri		0.22	South
	MS Girls Bijuri		0.55	South
	Pvt. HSS Saraswati, Bij	uri	0.55	South
	Pvt. HS Lal Gulab Bijur		0.68	South
	Pvt. HS Sun Rise Public Bijuri		0.88	South
	PS Padari Pani		0.89	South East
	Pvt. HS Jai Ma Sharda,	Bijuri	0.98	South
	Gurukul Academy Bijur	-	1.15	South
	Pvt. HSS Sent Josep M		1.18	South
	Harsh Adarsh Vidya Lo		1.31	South
	Pvt. HS K.P. Convent School Bijuri Govt. HSS Boys, Bijuri		1.31	South
			1.36	South
		Pvt. HS Swami Vivekanand		South East
	Gyan Vikash Shishu Ka	nildhara	1.59	South East
	Harmilap Public School		1.59	East
	Pvt. HSS Ramakrishna Vidyapeeth Kapildhara		2.03	South East
	Pvt. HS Gulab Bijuri Co	olliery	2.05	South
	MS Bijuri Colliery	,	2.08	South
	PS Lohsara		2.09	South
	Pvt. HSS Nav Jyoti Mis	sion, Bijuri	2.18	South
iii. River/ Waterbody	Particulars		e (in km)	Direction
•	Kanai Nallah		1.1	North
	Kewai River (HFL: 500.09m)	5	5.9	West
iv. Forest	Particulars	Distar	ice (in km)	Direction
	Nandlal Patera RF		3	North East
	Sonhari RF		5.2	East
	Haldibari RF		4.6 8.6	South East
	Mahai RF			North East
v. Archaeological Survey of India (ASI) protected site	Nil	-		
vi. Any other	Nil			

No diversions are proposed for the said project, neither any diversion is done previously.

**31.1.5: Method of Mining and Mining Plan:** PP submitted that the Mining Plan including Mine Closure Plan for the project was approved by CoFD SECL Bilaspur on 26.06.2025 for (capacity-0.60 MTPA, Area-216.146 Ha).

The life of mine as per the EC dated 24.05.2005 was 15 years, according to which the said EC was only valid till 23.05.2020. However, the PP submitted that while submitting the application for revalidation on 15.09.2018, the life of mine was submitted to be 12 years (as on 01.04.2018).

- i. Method of Mining to be adopted shall be underground mining with Bord and Pillar method.
- ii. Total geological reserve reported in the mine lease area is 28.23 MT with 25.048 MT mineable reserve. Out of total extractable reserve of 10.065 MT, 0.13 MT are available

for extraction as on 01.04.2025. Percent of extraction is 35.65% (w.r.t geological reserve).

- iii. 1 seam (Seam D) with thickness ranging from 0.15 m 2.65 m is workable.
- iv. Grade of coal is G-7 while gradient is 1 in 13.
- v. Life of mine is 2 years as on 01.04.2025.
- vi. Details of land use

#### a. Pre-mining land use pattern:

S. No.	Land Use	Within ML Area (ha)	Outside ML Area (ha)	Total
1	Agricultural Land (tenancy land)	207.459	0.000	207.459
2	Forest land	0.000	0.000	0.000
3	Waste land	0.000	0.000	0.000
4	Grazing land	0.000	0.000	0.000
5	Surface Water Bodies	0.932	0.000	0.932
6	Other (Government Land)	7.755	0.000	7.755
	Total	216.146	0.000	216.146

#### b. Post mining land use:

S. No.	Туре	Total Area (in ha)	Reclaimed Area (in ha)	Un reclaimed Area (in ha)		
1	UG Working Area	175.842	10.344*	175.842		
2	Mine infrastructure	5.784	5.784	0		
3	Others (Colony, road, other infrastructure)	34.52	0	34.52		
	Total	216.146	5.784	210.362		
*10.344	*10.344 Ha is the area which has been reclaimed with plantation due to subsidence.					

- vii. **Details of transportation of coal:** The coal is proposed to be transported within and outside the mining lease in the following manner:
  - a) In pit: From underground mine face to surface through covered belt conveyors
  - b) Surface to siding: 8.33 km via Tarpaulin Covered Tippers
  - c) Siding to loading: Through Rajnagar RO Railway Siding equipped with closed conveyor belts
  - d) Siding to consumer: By rail
- viii. **Details of reclamation:** 5.784 ha area of mine infrastructure will be reclaimed and afforested post closure. Density of plantation will be 2500 trees per hectare.
- **31.1.6: Baseline data:** As per the 44<sup>th</sup> EAC (Coal mining projects) meeting held on 25<sup>th</sup> April 2019, EIA EMP was not prescribed. Secondary monitoring data collected for April 2024 to March 2025 is as follows:

Period	Secondary monitoring data collected for April 2024 to March 2025:
AAQ parameters at 09	Core Zone
locations (min and	$PM_{10} = 59 \text{ to } 146  \mu\text{g/m}^3,$
max)	$PM_{2.5}=16 \text{ to } 44  \mu\text{g/m}^3,$
	$SO_2 = 7 \text{ to } 16  \mu\text{g/m}^3,$
	$NO_x = 12 \text{ to } 24 \mu g/m^3$
	Buffer Zone
	$PM_{10} = 60 \text{ to } 149  \mu\text{g/m}^3,$
	$PM_{2.5} = 14 \text{ to } 49 \mu\text{g/m}^3,$
	$SO_2 = 7 \text{ to } 16  \mu\text{g/m}^3,$
	$NO_x = 13 \text{ to } 25  \mu\text{g/m}^3$

Period	Secondary monitoring data collected for April 2024 to March 2025:					
Surface water quality	pH: 7.28 to 7.32,					
at 1 location	TDS: 91 to 106 mg/l,					
	Fluoride: 0.32 to 0.38 mg/l.					
	Heavy metals(Se): BDL(QL=0.005)					
	Heavy metals (As): BDL(QL=0.005)					
	Heavy metals (Hg): BDL(QL=0.0005)					
	Heavy metals (Ni): BDL(QL=0.01)					
Ground Water quality	Core Zone:					
at 2 locations	pH: 6.9 to 7,					
	TDS: 623 to 866 mg/l,					
	Fluoride: 1.2 to 1.3 mg/l.					
	Heavy metals(Se): BDL(QL=0.002)					
	Heavy metals (As): BDL(QL=0.002)					
	Heavy metals (Hg): BDL(LOQ=0.001)					
	Heavy metals (Ni): BDL(LOQ=0.002)					
	Buffer Zone:					
	pH: 6.9 to 7.77,					
	TDS: 303 to 423 mg/l,					
	Fluoride: 0.4 to 0.5 mg/l.					
	Heavy metals(Se): BDL(QL=0.005)					
	Heavy metals (As): BDL(QL=0.005)					
	Heavy metals (Hg): BDL(LOQ=0.001)					
	Heavy metals (Ni): BDL(LOQ=0.002)					
Noise levels (Day and	Core Zone					
Night)	44.2 to 71.6 dB(A) for the day time and 36.2 to 59.6 dB(A) for the Night time.					
	Buffer Zone					
	47.1 to 72.5 dB(A) for the day time and 37.4 to 61.5 dB(A) for the Night time.					

**31.1.7: Water Requirement:** PP submitted that the water requirement for the said project is 2428 KLD (Industrial use: 72 KLD and Domestic use: 2356 KLD and excess 1584 KLD is discharged for irrigation purpose to nearby villages). NOC was accorded to Bijuri UG Mine for abstracting groundwater vide NOC no. CGWA/NOC/MIN/ORIG/2023/19141, which was valid till 25.09.2024. The renewal application was submitted on the NOCAP portal and has been duly recommended by the Authority for grant, subject to payment of charges. The payment has since been made, and issuance of the NOC is awaited. Further, PP submitted that no water body is proposed for diversion in the said project.

**31.1.8:** Power Requirement and details of diversion of Hi-Tension/ Transmission Line: Total Power Requirement is 2000 KVA and the same is sourced from State Power Distribution Company Limited. There is no diversion of Hi – tension/ transmission line proposed for the said project.

**31.1.9: 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:

S.	Type of	Source	Quantity	Mode of	Disposal
No.	Waste			Treatment	
1.	Hazardous Waste- Used Oil (schedule 5.1)	Machine operations in UG Mine	0.1 KL (In FY 2024- 25	-	Sale to CPCB Authorized recycler in centralized manner through MSTC Limited

**Note:** Authorization for generation, collection, reception, storage, transport, reuse, recovery, pre-processing, utilization, treatment, disposal or any other use of hazardous or other waste on the premises of Bijuri Underground Coal Mine Project has been obtained from MPPCB vide H-59014 issued on 09.10.2023 which is valid till 29.06.2028.

31.1.10: Details of Public Consultation:

Particulars	Old Public Hearing	Public Notice for revalidation of EC
Details of advertisement given	Advertisements published on 14.09.2003 in Dainik Bhaskar and Dainik Bharati	A Public Notice was issued by Madhya Pradesh Pollution Control Board on 26.04.2023 in one national daily newspaper, The Times of India, New Delhi and in two local daily newspapers Nav Bharat, Bhopal and Nav Bharat, Jabalpur informing the stakeholders about the present coal mining operations and inviting their comments.
Date of PH/ public consultation	14.10.2003	25.05.2023
Venue	Nagar Panchayat Bhawan	NA, Public consultation was done through newspaper publication
Presiding Officer	Sub Divisional Officer, Anuppur	NA, Public consultation was done through newspaper publication
Number of Person Attended Hearing	135	NA, Public consultation was done through newspaper publication
Number of representation received in writing from the district and outside of district	Nil	No representation received (as confirmed by MPPCB vide letter dated 18.07.2023)
Major issues raised	Drinking Water, Infrastructure, Education	Nil

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

This is a running mine and PH was conducted on 14.10.2003. All the issues raised during the public hearing have been implemented and continuous in nature.

S. No.	Physical activity and action plan	Year of implementation (Budg in Lakh) 2025-26 onwards		Total Expenditure (in Rs Lakhs)
		1	2	
1.	Infrastructure creation for drinking water supply	5	5	10
2.	Sanitation	1	1	2
3.	Education	1	1	2
4.	Skill Development	0.5	0.5	1
5.	Basic Health Infrastructure	3	5	8
6.	Road Infrastructure	3	3	6
TOTAL				29

**31.1.11: EMP Budget:** Existing capital cost for environmental protection measures was Rs. 794.6 Lakhs. The capital cost for environmental protection measures is proposed as Rs 131.15 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 240 Lakhs. The employment generation from the proposed project / expansion is Regular employee - 344 nos & Contractual – 33 nos.

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

S.	Description of Item	Capital Cost (In Lakhs)		Recurring cost (in Lakhs)		
No.		Existing	Additional (Proposed)	Total	Existing	Proposed
(i)	Air Pollution Control/ Noise Management	20	15	35	17.03	5

S. Description of Item		Capital C	ost (In Lakhs)		Recurring cost (in Lakhs)	
No.		Existing	Additional (Proposed)	Total	Existing	Proposed
(ii)	Water Pollution Control	509.6	0	509.6	5	25
(iii)	Environmental Monitoring and Management	50	0	50	30.77	110
(iv)	Green Belt & Plantation Development	215	36.15	251.15	0	0
(v)	Others (statutory charges)/ Other heads as proposed in EIA: Plantation under various programs such as Ek Ped Maa Ke Naam, Swacchata hi Seva, etc.  2. Awareness & Capacity Building: Organizing training programs, awareness camps, workshops, etc. for workers and local villagers	0	80	80	48.25	100
Total		794.6	131.15	925.75	101.05	240

- **31.1.12: Plantation:** A total of 10.344 Ha area (25860 saplings) falling within the ML area has been developed with plantation. 5.784 ha area of mine infrastructure will be reclaimed and afforested post closure. Density of plantation will be 2500 trees per hectare.
- 31.1.13: Rehabilitation and Resettlement (R&R) details: There is no R&R issue in respect of Bijuri UG Mine.
- **31.1.14: Project Cost:** Total capital cost of project is Rs. 57.76 Crores. And the capital cost for environmental protection measures is proposed as Rs. 925.75 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 240 Lakhs.
- **31.1.15: Details of pending litigation:** There is no legal issues/ 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. Further, there is no court case on the project pertaining to the environment.
- **31.1.16 Undertaking and Affidavit:** PP has submitted following vide an undertaking:
- That there is no construction/mining done at the site or the construction/mining done at the site or the construction done without any deviation as per the EC obtained (vide J-11015/63/2005-IA II (M) dated 24.05.2005).
- That there is no litigation on the project at NGT or any other court of law under EP Act, 1986, Air Act 1981 or Water Act, 1974.
- The mine partly falls in two coal blocks, namely Bijuri (968.813 Ha) and Baherabandh (5044.973 Ha). Total land notified is 6013.786 Ha. The land has been notified under section 9(i) of CBA 1957 Notification. Of this, only 216.146 Ha is currently utilized for the Bijuri UG Project, while the remaining area is reserved for future expansion and for operations of other mines. The details are as below:

S. No.	Notification No. and	Date of Notification	Expiry Date				
	Area						
	Bijuri Block (968.813 Ha)						
1	S.O. 2978; 459.318 Ha	17.09.1962	16.09.2062				
2	S.O. 243; 14.164 Ha	11.01.1968	10.01.2068				
3	S.O. 1236; 495.331 ha	29.04.1987	28.04.2087				
Baherabandh Block (5044.973 ha)							
4	S.O 1050; 5044.973 Ha	13.04.1991	12.04.2091				

There is no R&R issue in respect of Bijuri UG Mine. The mining area comprising 216.146 hectares is located entirely within the lease area.

- That there is no difference in the documents submitted i.e., Form 1, Mining Plan, and presentation being made to the EAC.
- That the project is being submitted for grant of revalidation of EC under the provisions of MoEF&CC S.O. 1530(E) dated 06.04.2018.

**31.1.17: ADS information in chronology:** The proposal was initially considered in 44<sup>th</sup> EAC meeting held on 24/25<sup>th</sup> April 2019 wherein the committee deferred the proposal for additional information. PP submitted the reply vide letter no.51 dated 14.07.2025 and uploaded the same on the PARIVESH portal. Later the ministry further sought ADS which again submitted vide letter no. 54 dated 26.07.2025. The ministry further sought ADS which was submitted vide letter no. 81 dated 02.08.2025. Details of the same are as follows:

The proponent submitted the ADS reply vide letter dated 14.07.2025, uploaded on PARIVESH on 14.07.2025. Point-wise reply of ADS is as below –

S. No.	ADS Point	Reply/Response of PP
1.	Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,	A Public Notice was issued by Madhya Pradesh Pollution Control Board on 26.04.2023 in one national daily newspaper, The Times of India, New Delhi and in two local daily newspapers Nav Bharat, Bhopal and Nav Bharat, Jabalpur informing the stakeholders about the present coal mining operations and inviting their comments. (Publication copies submitted).
		Subsequently, Regional Officer MPPCB, Shahdol vide his letter dated 18.07.2023 has informed that no grievances or comments were received from the public against the publications. (Letter submitted)
2.	Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority	Mining Plan including Mine Closure Plan for Bijuri Underground Mine, covering an area of 216.146 hectares with capacity of 0.6 MTPA has been approved by CoFD SECL on 26.06.2025. (The approved mining plan has been submitted)
3.	Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.	Compliance status of the conditions stipulated in the environmental clearance from MoEF&CC IRO, Bhopal is submitted.
4.	Valid Consent to operate from the State Pollution Control Board for the present mining operations.	Consent to Operate (CTO) has been obtained from MPPCB which is valid till 30.04.2026 (Copy of Consent to Operate is submitted).
5.	Redressal of issues raised during the public hearing conducted by the SPCB.	A detailed report of redressal of issues which were raised during the public hearing conducted by MPPCB is submitted.
6.	Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment	Coal production data vis-à-vis capacity stipulated in the environment clearance is submitted.

S. No.	ADS Point	Reply/Response of PP		
	clearance.			
7. Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.		A Need Assessment Survey was conducted in November 2023 by a team comprising representatives from SECL Hasdeo Area HQ and mine officials in four villages namely Lohsara, Bijuri, Mauhari and Bhagat falling in/adjacent to the core zone of the project. An in-depth report detailing the survey techniques along with an implementation strategy of the identified CSR works, is submitted.  A report on impact of CSR activities undertaken at an interval		
8.	Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.	of 5 years is submitted.  There is no forest land involved in proposed area of 216.146  Ha.		
9.	Details of court cases and the compliance of the orders, if any.	There are no court cases pending against Bijuri UG Mine of SECL under any act or rule related to Environment under any court of law or Hon'ble NGT. (Copy of the undertaking is submitted)		
10.	Compliance of the Ministry's OM dated 30th May, 2018.	The project proponent has submitted the application for revalidation of EC to MoEF&CC, New Delhi in compliance of the Gazette Notification issued by MoEF&CC, New Delhi on 15.09.2018. The proposal was considered in the EAC meeting held on 24-25.04.2019.		

Subsequently, ADS raised on 18.07.2025 and ADS reply vide letter dated 26.07.2025, uploaded on PARIVESH on 26.07.2025. Point wise reply of ADS is given as below:

S.	ADS dated 18.07.2025	Reply
No.		
1	As per the ADS raised in the 44th EAC meeting held on 24-25th April 2019, there is a forestland of 17.50 Ha. However, the PP has replied that there is no forestland in the said project. Kindly submit a letter from DFO regarding no involvement of forest land in the ML area.	It may kindly be noted that, all SECL proposals, including Bijuri UG Mine discussed in 44th EAC meeting has an erroneous mention of 17.5 hectares of forest land in its Minutes of Meeting. Forestry Clearance of 17.5 hectares is not a part of Bijuri UG Mine.  However, a formal request has been made to Divisional Forest Officer, Anuppur for issuing a letter regarding no involvement of forest land in the mine lease area. (Letter copy is submitted).
2	Kindly submit the status of Schedule  — I species observed in the study area and approved Wildlife Conservation Plan for the said project.	Species such as Hyena, Jackal, and Sloth Bear have been recorded within the study area. Also, a formal request has been made to the Divisional Forest Officer, Anuppur, for providing the current status of Schedule–I fauna observed in the region (Letter copy is submitted).  It is further submitted that no specific condition related to the preparation of a Wildlife Conservation Plan was stipulated in the Environmental Clearance. However, it is pertinent to mention that an integrated Wildlife Conservation Plan covering five mines of SECL, is presently under award of work to ICFRE, Dehradun. The study area of Bijuri UG Mine falls entirely within the scope of this integrated conservation plan.
3	Kindly submit the details of water requirement for the said project and the latest status of CGWA application renewal.	As per the Comprehensive Hydrogeological Report prepared by CMPDIL, the maximum water requirement for Bijuri Underground Mine has been estimated as 4012 KLD.  NOC was accorded to Bijuri UG Mine for abstraction of groundwater vide NOC no.  CGWA/NOC/MIN/ORIG/2023/19141, which was valid up to 25.09.2024. In compliance with the guidelines, an application for renewal of above NOC was submitted on NOCAP portal

S. No.	ADS dated 18.07.2025	Reply
		prior to its expiry. The renewal application was submitted on the NOCAP portal and has been duly recommended by the Authority for grant, subject to payment of charges. The payment has since been made, and issuance of the NOC is awaited.
4	The certified compliance report submitted by the PP is incomplete. Kindly submit the complete certified compliance report of the same.	The certified compliance report as provided by RO, MoEF&CC Bhopal is submitted.
5	Kindly submit the details of sensitive receptors on the coal transportation road, along with the mitigation measures being followed and further proposed to be followed. Kindly submit the geo-tagged photographs of the coal transportation route.	Details of sensitive receptors on the coal transportation road are as follows:  Schools Along Coal Transportation Route:  1. Saraswati Higher Secondary School 2. Government Middle School, Nandgaon 3. Government High School, Dola 4. Government Primary School, Dola  Habitation Areas: 1. Bijuri Town 2. Daldal Village 3. Nandgaon 4. Dola  Mitigation measures being followed and further proposed to be followed:  • Black-topped road constructed along the entire stretch of the coal transportation route to minimize dust generation from vehicle movement.  • All coal-laden tippers optimally loaded and covered with tarpaulin to prevent coal spillage and control of fugitive dust emissions during transportation.  • Regular use of truck-mounted fogging machines along transportation route for effective suppression of airborne dust generated by vehicular movement.  • Mechanical road sweeping carried out at regular intervals for removal of accumulated dust from the road surface to maintain cleanliness and reduce resuspension.  • Fugitive dust emission monitoring shall be done for the transportation route.  • A CAAQMS has also been installed at Bijuri UG Mine and it is also connected to the MPPCB servers.  • The geotagged photographs of the coal transportation
6	Presentation to be presented to the EAC is requested to be submitted.	route are submitted.  Presentation to be presented to the EAC is submitted.

Subsequently, ADS raised on 30.07.2025 and ADS reply vide letter dated 02.08.2025, uploaded on PARIVESH on 02.08.2025. Point wise reply of ADS is given as below:

<u></u>		or reme wise repriser rises is given as evic w.
S.	ADS dated 30.07.2025	Reply
No.		
1	PP may submit the timeline for	An integrated Wildlife Conservation Plan covering five mines
	submitting the approved wildlife	of SECL, Hasdeo Area is presently under award of work to
	conservation plan for the said mine.	ICFRE, Dehradun by August 2025. The study area of Bijuri UG
	-	Mine falls entirely within the scope of this integrated
		conservation plan. A two year timeline may be granted for the
		preparation, submission, and subsequent approval of the
		comprehensive Integrated Wildlife Conservation Plan, which

S.	ADS dated 30.07.2025	Reply		
No.				
		will also address the wildlife conservation requirements		
		pertaining to Bijuri UG Mine.		
2	PP may submit the status of CGWA	NOC accorded to Bijuri UG Mine by CGWA vide NOC no.		
	NoC and the details of the payment	CGWA/NOC/MIN/ORIG/2023/19141 dated 31.08.2023 for		
	made to CGWA for the said	abstraction of groundwater with validity up to 25.09.2024 is		
	proposal.	submitted.		
		A renewal application of the NOC has been submitted to		
		CGWA and the same has been approved for grant of renewal		
		by CGWA subject to payment of charges (Status of application		
		on NOCAP portal is submitted). The necessary payment has		
		been duly made, and corresponding details are submitted.		
3	CTO copy obtained, which is valid	Copy of CTO granted by MPPCB to Bijuri UG mine vide		
	till 30.04.2026 is requested to be	Consent No: AW-62050 dated 17.04.2025 with validity upto		
	submitted.	30.04.2026 is submitted.		
4	As per the EIA report submitted at	EC was granted for Bijuri UG Mine on 24.05.2005 for a rated		
	the time of grant of EC during 2005,	capacity of 0.6 MTPY for extraction of 6.24 MT coal reserve.		
	the life of the mine was 15 years	However, due to unfavourable geo mining conditions, coal		
	which got expired on 23/05/2020.	production of only 5.73 MT could be achieved up to March		
	Now new mine plan with a life of 2	2025 since the grant of EC.		
	years has been submitted. Proponent	It is further submitted that, in compliance with the Ministry's		
	is requested to clarify the validity of	notification issued vide S.O. 1530E dated 06.04.2018, the		
	the EC dated 24/05/2005.	application for revalidation/validity extension of EC for Bijuri		
		UG Mine was made on 15.09.2018; prior to the expiry of mine		
		life on 23.05.2020.		
		In view of remaining extractable reserves, a revised mining		
		plan has been prepared for the balance reserve of 0.13 million		
		tonnes, with 02 years of mine life and 05 years thereafter for		
		mine closure activities.		

**31.1.18: Written Submission:** PP submitted the following during the meeting:

0 11111	o. Witten Submission, 11 basi	inuca me following during me meeting.
S.	Particulars	Reply
No.		1 0
1	Application form copy along with other documents supporting balance mine life as 12 years as on 01.04.2018.	The covering letter, along with Form-I and other supporting documents submitted in 2018 for EC revalidation under EIA Notification, 2006 is submitted.
2	Since the mine lease falls in 2 different blocks, bifurcation is required as to how much area falls in which block. Clarity also required for why the mine lease was selected in two different blocks and not entirely in one block	The mine partly falls in two coal blocks, namely Bijuri and Baherabandh. Out of the total 216.146 ha of Bijuri UG mine project, 81.400 ha lies in Baherabandh block and 134.746 ha lies in Bijuri block. Mining rights of both blocks were vested to SECL through notifications under CBA Act, 1957. The coal seam to be extracted by the Bijuri mine extends into the adjacent Baherabandh block. The balance land of 5797.64 ha is kept for another SECL mine (Behraband UG Coal mine project having 0.60 MTPA production capacity in 770.13 ha) and for future mining purposes.

# Observation and deliberation of the EAC: 31.1.19: The Committee noted the following:

1. The instant proposal is for revalidation of EC accorded by M/s South Eastern Coalfields Ltd for Expansion of Bijuri underground coal mining project vide letter no. J-11015/63/2005-IA.II(M) on 24.05.2005 for production capacity of 0.60 MTPA under EIA Notification, 1994. The revalidation of EC granted is under EIA Notification 2006 (as amended) as per the provision of S.O 1530(E) dated 06.04.2018 read with OM dated 16.02.2021.

- 2. PP applied for revalidation of EC in PARIVESH Portal on 15.09.2018, i.e., well within the window period of 6 months (i.e. before 5.10.2018) and also submitted Form-1 as required under S.O 1530(E) dated 06.04.2018 for the re-validation of EC under EIA Notification 2006 (as amended).
- 3. Committee observed that the said project was earlier apprised in the 44<sup>th</sup> meeting of EAC (Coal Mining Sector) held on 24-25/04/2019 and the same was deferred for want of additional information. PP submitted the same vide letter dated 14.07.2025, 26.07.2025 and 02.08.2025 on PARIVESH 1.0 Portal.
- 4. Committee observed that the coal produced from the said mines is well within the EC capacity, since the EC is granted and there is no excess production.
- 5. Committee deliberated on the certified compliance report obtained by the PP. Committee observed that, the status of compliance of earlier EC was obtained from MoEF&CC, IRO Bhopal vide letter no 3-22/2005(Env) dated 11.07.2025. No non complied/ partially complied conditions reported in Certified Compliance report of Bijuri Underground Coal Mining Project.
- 6. Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment 2018.
- 7. Committee observed that the mine lease area of the said project falls in two different blocks. During deliberation Committee observed that out of the total 216.146 ha of Bijuri UG mine project, 81.400 ha lies in Baherabandh block and 134.746 ha lies in Bijuri block. Mining rights of both blocks were vested to SECL through notifications under CBA Act, 1957. The coal seam to be extracted by the Bijuri mine extends into the adjacent Baherabandh block. The balance land of 5797.64 ha is kept for another SECL mine (Behraband UG Coal mine project having 0.60 MTPA production capacity in 770.13 ha) and for future mining purposes.
- 8. The project does not involve any forestland.
- 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. The project involves Schedule I species and the Wildlife Conservation Plan for the same is yet to be prepared. PP submitted that, an integrated Wildlife Conservation Plan covering five mines of SECL, is presently under award of work to ICFRE, Dehradun. The study area of Bijuri UG Mine falls entirely within the scope of this integrated conservation plan. A two years timeline may be granted for the preparation, submission, and subsequent approval of the comprehensive Integrated Wildlife Conservation Plan, which will also address the wildlife conservation requirements pertaining to Bijuri UG Mine. Committee opined that the Wildlife Conservation Plan shall be implemented within 1 year from the date of grant of EC.
- 10. The Mining Plan including Mine Closure Plan for the project was approved by CoFD SECL Bilaspur on 26.06.2025 for (capacity-0.60 MTPA, Area-216.146 Ha). Method of Mining to be adopted shall be underground mining with Bord and Pillar method.
- 11. Total geological reserve reported in the mine lease area is 28.23 MT with 25.048 MT mineable reserve. Out of total extractable reserve of 10.065 MT, 0.13 MT are available

- for extraction as on 01.04.2025. Percent of extraction is 35.65% (w.r.t geological reserve). Grade of coal is G-7. Life of mine is 2 years as on 01.04.2025.
- 12. PP submitted that, as per the mine plan approved vide letter dated 26.06.2025, the life of mine is 2 years (as on 01.04.2025). Committee deliberated on the said aspect, as the life of mine as per the EC dated 24.05.2005 was 15 years, according to which the said EC was only valid till 23.05.2020. However, the PP submitted that while submitting the application for revalidation on 15.09.2018, the life of mine was submitted to be 12 years (as on 01.04.2018).
- 13. Committee deliberated on the method of transportation of coal being followed in the said project and observed that, from in pit to surface the coal is being transported through series of conveyor belts. From surface to siding the coal is being transported through tarpaulin covered trucks till the distance of 8.33 km. Further, through Rajnagar RO Railway Siding equipped with closed conveyor belts the coal is transported through rail to the final consumers. Committee opined that PP shall take adequate measures to control the pollution being done due to road transportation of coal and PP shall carryout regular maintenance of the potholes on roads, repair and maintenance of roads, scrapping of material fallen on roads, and removal of scraps from mining areas. Along with this, PP shall make sure that all the pollution control equipments are in good working condition and maintenance of those equipments are regularly carried out. Committee also opined that PP shall develop thick plantation with native and fruit bearing species on both the sides of the coal transportation road.
- 14. Committee deliberated on the routine monitoring data of the AAQ parameters of the said mine and observed that all the parameters are within the permissible limits.
- 15. Committee deliberated on the water requirement of the said project and observed that, the water required for the said project is 2428 KLD (Industrial use: 72 KLD and Domestic use: 2356 KLD and excess 1584 KLD is discharged for irrigation purpose to nearby villages). NOC was accorded to Bijuri UG Mine for abstracting groundwater vide NOC no. CGWA/NOC/MIN/ORIG/2023/19141, which was valid till 25.09.2024. The renewal application was submitted cand has been duly recommended by the Authority for grant, subject to payment of charges. The payment has since been made, and issuance of the NOC is awaited. Further, PP submitted that no water body is proposed for diversion in the said project.
- 16. Total Power Requirement is 2000 KVA and the same is sourced from State Power Distribution Company Limited. There is no diversion of Hi tension/transmission line proposed for the said project.
- 17. Committee deliberated on the public consultation done by the PP for the said project and observed that, advertisement for the same was published on 26.04.2023 in one national daily newspaper, The Times of India, New Delhi and in two local daily newspapers Nav Bharat, Bhopal and Nav Bharat, Jabalpur informing the stakeholders about the present coal mining operations and inviting their comments. As per the communication obtained from MPPCB vide letter dated 18.07.2023. However, PP has submitted the action plan for public hearing issues of PH held on 14.10.2003 as per the Ministry's OM dated 30.09.2020. The budget allocated for the same is Rs. 29 Lakhs, which is proposed to be implemented within 2 years. Committee opined that the same shall be implemented efficiently in a time bound manner.

- 18. Further, Committee deliberated on EMP budget submitted by the PP and observed that, the capital cost for environmental protection measures is proposed as Rs. 925.75 Lakhs and the annual recurring cost towards the environmental protection measures is proposed as Rs. 240 Lakhs/Annum. Committee opined that the same shall be efficiently implemented in a time bound manner.
- 19. Committee deliberated on the plantation activities done by the PP till date and observed that, the existing plantation has been developed in 10.344 Ha area (25860 saplings) falling within the ML area. Apart from this, 5.784 ha area of mine infrastructure will be reclaimed and afforested post closure. Committee opined that, the PP shall focus on agro-forestry and fruit bearing species shall be distributed and planted on the periphery of the agricultural farms of the villagers, by developing a plan to compensate the farmers/ villagers for survival of these fruit bearing trees. A Three tier plantation shall also be developed on both the sides of the coal transportation road with 2-meter height of saplings of the native and fruit bearing species.
- 20. Committee observed that no R&R issues are involved in the instant project.
- 21. There is no legal issues / 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. Further, there is no court case on the project.
- 22. Committee opined that the PP shall align its activities with the sustainable development goals.
- 23. The EAC also deliberated on the ADS reply and written submissions of the project proponent and found it satisfactory.
- 24. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed. If any part of data/ information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

**31.1.20:** In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of revalidation of EC dated 24.05.2005 as per provisions of S.O. 1530(E) dated 06.04.2018 read with OM dated 16.02.2021. Grant of revalidation of EC is subject to the compliance of the following specific conditions and standard conditions in addition to the conditions granted in earlier EC:

#### **Specific Conditions:**

- 1. PP shall monitor the subsidence and take necessary measures/ steps for filling the subsidence area as per subsidence plan.
- 2. An Integrated Wildlife Conservation Plan covering five mines (covering the instant Bijuri UG Mine) of SECL, shall be prepared by ICFRE Dehradun and the same shall be implemented within 1 year from the date of grant of EC.
- 3. The budget proposed for Public Hearing is Rs. 29 Lakhs. The budget proposed shall be kept in a separate account and shall be audited annually. Project proponent shall

- implement the action plan to address the issues raised during public hearing within a time frame of 2 years from the date of grant of revalidation of EC. PP shall submit the progress report regarding the implementation of the action plan to concerned RO along with the six-monthly compliance report.
- 4. 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 925.75 Lakhs (Capital) and Rs 240 Lakhs per annum (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.
- 5. Proponent shall carryout regular maintenance of the potholes on roads, repair and maintenance of roads, scrapping of material fallen on roads, and removal of scraps from mining areas. Along with this, PP shall make sure that all the pollution control equipments are in good working condition and maintenance of those equipments are regularly carried out.
- 6. Project proponent shall obtain ground water clearance from CGWA for the water requirement of 2428 KLD.
- 7. The excess mine water (1584 KLD) shall be discharged after proper treatment with prior approval of MPPCB (adequate for use of local villagers for irrigation purpose).
- 8. Total plantation by the end of the mine life shall be done in at least 16.128 Ha of the ML area. Apart from this agro forestry and community plantation shall be carried out on the land purchased for surface rights. Dense plantation shall also be carried out on both the sides of coal transportation roads with at least of 2-meter height saplings in this monsoon of 2025. Plantation shall be done with the mainly native and fruit bearing species. Apart from this, gap plantation shall be done on the forestland involved in the ML area, in consultation with the forest department. The provision of tree plantation and subsequent watering to saplings for five years be made in the 4 number of schools along the coal transportation route.
- 9. Project Proponent shall ensure that all types of plastic waste generated from the mines shall be stored separately in isolated areas and disposed of strictly adhering to the Plastic Waste Management Rules 2016. 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 the Ministry's Notification published by the Ministry on 12/08/2021. A report along with the photographs of the measures taken shall also be included in the six monthly compliance reports being submitted by PP.
- 10. PP should establish an Environment Management Cell at its mines in order to make sure that all the compliances related to environment are being complied efficiently. PP should conduct the monthly review meeting with the environment management cell shall be carried out at mine level and quarterly at with environment management committee of the company. The record of the same shall be maintained.
- 11. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project.
- 12. The Ministry or any other competent authority may stipulate any further condition for

environmental protection.

- 13. 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.
- 14. Project Proponent is under obligation to obtain approvals /clearances under any other Acts/Regulations or Statutes, as applicable, to the project.
- 15. Project Proponent is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.
- 16. Validity of EC is as per the para 9 of EIA Notification 2006 read with its subsequent amendment dated 12th April 2022.
- 17. 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.
- 18. The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of Common Cause Vs Union of India & others.
- 19. The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology in strict compliance of the judgment of Hon'ble Supreme Court. This environmental clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.
- 20. All other conditions stipulated in EC dated 24.05.2005 shall remain the same.

#### **General Instructions:**

- a. 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.
- b. 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.
- c. 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.
- d. 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.
- e. 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.
- f. 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.

## Agenda No. 31.2:

31.2: Kurasia Underground Coal Mine Project (having production capacity of 0.50 MTPA within the ML area of 523.30 Ha), by M/s South Eastern Coalfields Limited, located at villages: Bhukbhuki and Chirimiri (M.Corp); Tehsil: Chirimiri; District: Manendragarh-Chirimiri-Bharatpur (MCB); State: Chhattisgarh – Revalidation of Environmental Clearance based on ADS Reply

[Online Proposal no. IA/CG/CMIN/7727/2005; Consultant: CMPDI NABET/EIA/25-28/RA 0412 issued on 03.07.2025 valid up to 08.04.2028]

**31.2.1:** M/s. South Eastern Coalfields Ltd has made an online application vide proposal no. IA/CG/CMIN/7727/2005 dated 05.09.2018 along with Form 1, Certified compliance report (as part of ADS reply) and sought for revalidation of Environment Clearance (EC) issued to Kurasia Underground Coal Mine Project vide letter no J-11015/190/2005-IA.II(M) dated 09.05.2006 under EIA Notification, 1994 for the production capacity of 0.50 MTPA in the leasehold area of 523.30 Ha. The proposed project activity is listed at Item. No. 1(a) (Mining of Minerals) Under Category "A" of the schedule of the EIA Notification, 2006 and does not attract general condition being appraised at Central Level. The instant proposal is now for obtaining re-validation of EC under EIA Notification, 2006, in compliance of the Gazette Notification S.O. No. 1530(E) dated 06/04/2018, for existing project. The proposal was initially considered in 40<sup>th</sup> meeting of EAC (Coal Mining Sector) held on 26<sup>th</sup> October 2018 and was deferred for the want of additional information sought by the EAC.

The ADS reply was submitted by the PP on 28.05.2025 and subsequently ADS was raised on 02.06.2025 and 13.08.2025. Now the proposal has been placed in 31<sup>st</sup> EAC Meeting held on 28.08.2025 for appraisal based on ADS reply submitted by the PP on 01.08.2025 and 13.08.2025.

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

**31.2.2: Previous Approvals in chronological orders:** Project proponent submitted the details of the previous approvals in the chronological order as follows:

S.	Details of Letter	EC/ Expansion EC/	Capacity	Area	Date of	Status of
No.	No.	Amendment in EC/	(MTPA)	(Ha)	issuance	implementation
		Validity extension/				
		Transfer of EC				
1	J-11015/190/2005-	EC expansion under EIA	0.50	523.30	09.05.2006	Implemented
	IA.II(M)	1994				_

W.r.t the previous approvals, proponent submitted the actual production details of the concerned mine from 1993-94 and submitted that the mine became operational from 1932 onwards. CTO renewal has been obtained from SPCB vide letter 6839/TS/CECB/2024 dated 29.10.2024 for the production capacity of 0.5 MTPA and the same is valid up to 31.01.2026. Details of production are as follows:

Year	EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
1993-94		0.221795	-
1994-95		0.241253	-
1995-96	7	0.241253	-
1996-97	7	0.228660	-
1997-98		0.226092	-
1998-99	<ul><li>→ Mine operated under valid ⊢</li><li>→ CTO from MPPCB for ⊢</li></ul>	0.220209	-
1999-2000		0.242984	-
2000-01	Kurasia Colliery for annual capacity of 0.994 MTPA	0.284264	-
2001-02	capacity of 0.994 MTFA	0.270080	-
2002-03	7	0.283930	-
2003-04	7	0.282802	-
2004-05	7	0.325319	-
2005-06	7	0.376345	-
2006-07	0.50	0.302800	Nil
2007-08	0.50	0.351300	Nil
2008-09	0.50	0.340450	Nil
2009-10	0.50	0.330706	Nil
2010-11	0.50	0.309000	Nil
2011-12	0.50	0.297540	Nil
2012-13	0.50	0.340450	Nil
2013-14	0.50	0.347500	Nil
2014-15	0.50	0.350005	Nil
2015-16	0.50	0.360200	Nil
2016-17	0.50	0.330000	Nil
2017-18	0.50	0.387400	Nil
2018-19	0.50	0.395620	Nil
2019-20	0.50	0.333533	Nil
2020-21	0.50	0.201986	Nil
2021-22	0.50	0.205320	Nil
2022-23	0.50	0.194675	Nil
2023-24	0.50	0.204355	Nil
2024-25	0.50	0.220670	Nil
2025-26 (till April 2025)	0.50	0.014110	Nil

**31.2.3:** Certified Compliance Report: The status of compliance of earlier EC was obtained from Regional office of Chhattisgarh Environment Conservation Board (SPCB) vide letter no

– 2434 dated 09.01.2025 in name of Kurasia Underground Coal mine and subsequently forwarded by the Member Secretary of CECB vide no − 10737 dated 14.02.2025. No non − complied/partially complied conditions reported in Certified Compliance report of EC 0.50 MTPA of Kurasia Underground Coal Mine Project.

#### 31.2.4: Environmental Site Settings:

The project area is covered under Survey of India Topo Sheet No 64 I/8 and is bounded by the geographical coordinates ranging from Latitudes 23<sup>0</sup> 09'31" N to 23<sup>0</sup> 12' 40" N and Longitudes 82<sup>0</sup> 21' 06" E to 82<sup>0</sup> 23' 03" E.

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

Mining Lease: PP submitted the following details of the Mine lease:

S. No.	Notification no. and date	Area (in ha)	Area (in ha) involved in Kurasia UG Mine	Remarks
1	S.O. No. 2767 dated 18.11.1961 under CBA Act, 1957	70.356		Balance land 542.13 Ha. (1065.430Ha - 523.30Ha) includes 469.496 Ha of forestland and 72.634 Ha of non-forest
2	S.O. No. 2839 dated 15.12.1959 under CBA Act, 1957	38.244		land. Part of Residential colonies of Kurasia UG and Duman Hill UG is situated within the balance area of 542.13
3	S.O. No. 1759 dated 07.08.1958 under CBA Act, 1957	499.291	523.30	Ha. Previously Sonawani Incline was running on CTO and was closed on 15.09.2001. No future coal mining activity
4	Mining lease agreement dated 10.10.1985 under MCR, 1960	457.539		is proposed in the area. Stage-I forest clearance is available for 469.496 Ha of forestland within the 542.13 Ha vide letter F. No. 8-115/2005-FC dated 24.04.2006. Reply to the ADS raised against the Stage-I FC Compliance report is under preparation.
	Total	1065.430	523.30	

Date of Block allotment/ lease with its expiry date: Mining Lease under MCR, 1960 is valid up to 27.11.2035. Mining area notified under CBA Act 1957 is having perpetual validity.

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

**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.

In the Kurasia UG, there is presence of Schedule – I species, such as Melursus Ursinus (Sloth Bear) (VU), Urva Edwardsii (Common Mangoose) (LC) Felis Chaus (Jungle Cat) (LC), Naja Naja (Spectacled Cobra) (LC) Daboia Russelli (Russell's Viper) and Ptyas Mucosa (Rat Snake) (LC) are reported in study area. These species are protected under Schedule I of the Wildlife (Protection) Act, 2022. PP submitted that WLCP shall be prepared within 2 years from the date of grant of revalidation of EC, in consultation DFO, Korea/ Manendragarh through Forest Department or through expert agency like ICFRE.

#### **Other Sensitive Receptors:**

Project site proximity to sensitive area	Distance in km (within 5 km from the ML area)									
i. Habitation										
	Particulars	Distance	Direction							
	Residential Colony,	0.4 km	East							
	Duman Hill Colliery									
	Haldibadi	1.5 km	West							
	Chota Bazar	1.7 km	South - West							
	Bada Bazar	1.3 km	South – West							
	Kurasia Colony	0.7 km	South - East							
	Godripada	1.1 km	South							
	Nagar Nigam Colony,	3.2 km	North – West							
	Chirimiri									
	Gelhapani	1.6 km	North							
	Korea Colony	3.2 km	North`							
	Dubchhola	3.3 km	South – West							
	Pondi	3.6 km	North							
	Akharadand	3.8 km	South							
	Piparbaha	4.5 km	South							
ii. School										
	Particulars	Distance	Direction							
	Saraswati shishu mandir	0.4 km	East							
	high school, Domanhill									
	Govt Primary, middle	0.5 km	East							
	and Higher secondary									
	school, Domanhill									
	Kendriya Vidyalaya,	1.4 km	South – West							
	Chirimiri									
	Saraswati shishu mandir	2.8 km	West							
	higher secondary school,									
	Haldibari	1 1 1	Е							
	Neel Chakra Vidyapith	1.1 km	East							
	higher secondary school,									
	Domanhill Ganga high school	2.8 km	South - West							
	amanala, Chirmiri	2.8 KIII	South - West							
	Govt Primary, Middle	2.9 km	West							
	and Higher secondary	2.9 KIII	West							
	school, Haldibari									
	Govt Primary and	2.1 km	North							
	Middle school,	2.1 KIII	1101111							
	Gelhapani									
	Taigaor memorial	0.6 km	East							
	school, Domanhil									
	Govt. Primary and High	4.0 km	South - West							
	School school,									
	Dubchhola									
	Saraswati shishu mandir	4.2 km	South - West							
	higher secondary school,									
	Kurasia									
	Maa Saraswati Shishu	4.7 km	North - West							
	Mandir premnagar West									
	Chirimiri									
	Bahuudeshiya Public	4.92 km	North – West							
	Vidya Mandir West									
	Chirmiri	4.061	3.7 .1							
	Swami Atmanand Govt.	4.96 km	North							
	English medium school,									
	podi									

Project site proximity to sensitive area	Distance in km (within 5 km from the ML area)									
iii. River/ Waterbody										
	Particulars	Distance	Direction							
	Korea Nallah	Passes through mine								
	Gaimara nallah	Passes through mine								
	Gorghela Nallah	2 km	East							
	Banjaridand Tank	5 km	East							
	(Pond)									
iv. Forest										
	Particulars	Distance	Direction							
	Kurasiya RF	0.1 km	North-West							
	Bundiyabahara RF	0.5 km	East							
	Paradol R.F	0.2 km	South- West							
v. Archaeological Survey of	Nil									
India (ASI) protected site										
vi. Any other	Nil									

No diversions are proposed for the said project, neither any diversion is done previously.

**31.2.5: Method of Mining and Mining Plan:** PP submitted that CoFD SECL Bilaspur approved the Mining Plan including Progressive Mine Closure Plan for the project on 22.04.2025 (for capacity-0.50 MTPA, Area-523.30 Ha). At the time of the grant of EC dated 09.05.2006, the life of mine was 19 years.

- ix. Method of Mining to be adopted shall be underground mining with Bord and Pillar method.
- x. Total geological reserve reported in the mine lease area is 9.34 MT with 7.19 MT mineable reserve/extractable reserve. Percent of extraction is 76.98 %.
- xi. 2 seams (Seam No. IV & Seam No. V) with thickness ranging from 1.5 m 3.50 m are workable.
- xii. Grade of coal is G-8. while gradient is 1 in 45.70 (for Seam No. IV) and 1 in 25 (for Seam No. V).
- xiii. Life of mine is 17 years as on 01.04.2024
- xiv. Details of land use

#### a. Pre-mining land use pattern:

S. No.	Land Use	Within ML Area (ha)	Total			
1	Agricultural Land (tenancy land)	5.23	0.000	5.23		
2	Forest land	est land 0.000 0.000				
3	Waste land	0.000	0.000	0.000		
4	Grazing land	0.000	0.000	0.000		
5	Surface Water Bodies	0.000	0.000	0.000		
6	Settlements	0.000	0.000	0.000		
7	Other (Government Land)	518.07	518.07			
	Total	523.30	0.000	523.30		

#### b. Post-mining land use pattern:

S. No.	Туре	Total Area (in ha)	Reclaimed Area (in ha)	Un reclaimed Area (in ha)
1	UG Working Area:	271.48	271.48#	0.00
2	Mine infrastructure	4.12	4.12*	0.00
3	Green belt	144.31	144.31#	-

S. No.	Туре	Total Area (in ha)	Reclaimed Area (in ha)	Un reclaimed Area (in ha)
4	Others (Colony, road, undisturbed area)	103.39	-	103.39
	Total	523.30	419.91	103.39

<sup>\*</sup>Mine infrastructures will be dismantled and reclaimed at the time of closure.

#The reclaimed areas of 271.48 ha and 144.31 ha form part of Kurasia OC within the same EC area of 523.30 ha, for which Environmental Appraisal/NOC was issued on 24.05.1985, and the mine was subsequently closed on 01.04.2018.

- xv. **Details of transportation of coal:** The coal is proposed to be transported within and outside the mining lease in the following manner:
  - e) In pit: From underground mine face to surface through covered belt conveyors
  - f) Surface to siding: Approx. 5 KM via Tarpaulin Covered Tippers
  - g) Siding to loading: Coal is transported from surface bunker to Duman hill siding by Contractual Dumpers/ Tippers through road to Duman Hill Railway Siding equipped with closed conveyor belts.
  - h) Siding to consumer: By rail
- xvi. **Details of reclamation:** Out of 523.30 ha, 419.91 ha area will be reclaimed and afforested post closure. Density of plantation will be 2500 trees per hectare.
- **31.2.6: Baseline data:** As per the 40th EAC (Coal mining projects) meeting held on 26<sup>th</sup> October 2018, EIA EMP was prepared with Baseline data for the period March 2023- May 2023/ Pre-monsoon season.

AAQ parameters at 9 (Core Zone)  Housing Phase 109.7 to 139.3 $\mu$ g/m³, Phase 71 to 85.6 $\mu$ g/m³, SO <sub>2</sub> = 12.9 to 27.8 $\mu$ g/m³, NO <sub>x</sub> = 17.7 to 31.8 $\mu$ g/m³, Phase 25.9 to 53 $\mu$ g/m³, SO <sub>2</sub> = 6.7 to 28.7 $\mu$ g/m³, NO <sub>x</sub> = 5.2 to 25.5 $\mu$ g/m³  Incremental GLC Level  Core zone:  Phase 85.63 $\mu$ g/m³ (Level at core zone). SO <sub>2</sub> = 27.8 $\mu$ g/m³ (Level at core zone). NO <sub>x</sub> = 31.8 $\mu$ g/m³ (Level at core zone).  Buffer Zone  Phase 85.62 $\mu$ g/m³ (Level at core zone). SO <sub>2</sub> = 27.8 $\mu$ g/m³ (Level at core zone). SO <sub>2</sub> = 27.8 $\mu$ g/m³ (Level at core zone). NO <sub>x</sub> = 31.8 $\mu$ g/m³ (Level at 0.3km in SW downwind) Phase 53.01 $\mu$ g/m³ (Level at 0.3km in SW downwind) SO <sub>2</sub> = 28.7 $\mu$ g/m³ (Level at 0.3km in SW downwind) NO <sub>x</sub> = 25.5 $\mu$ g/m³ (Level at 0.3km in SW downwind)	n · 1	1. I A022 N. A022/D
Locations (min and max) $PM_{10} = 109.7 \text{ to } 139.3 \text{ µg/m}^3, \\ PM_{2.5} = 71 \text{ to } 85.6 \text{ µg/m}^3, \\ SO_2 = 12.9 \text{ to } 27.8 \text{ µg/m}^3, \\ NO_x = 17.7 \text{ to } 31.8 \text{ µg/m}^3, \\ PM_{10} = 45 \text{ to } 85.5 \text{ µg/m}^3, \\ PM_{2.5} = 25.9 \text{ to } 53 \text{ µg/m}^3, \\ SO_2 = 6.7 \text{ to } 28.7 \text{ µg/m}^3, \\ NO_x = 5.2 \text{ to } 25.5 \text{ µg/m}^3, \\ NO_x = 5.2 \text{ to } 25.5 \text{ µg/m}^3 \text{ (Level at core zone)}. \\ PM_{10} = 139.55 \text{ µg/m}^3 \text{ (Level at core zone)}. \\ PM_{2.5} = 85.63 \text{ µg/m}^3 \text{ (Level at core zone)}. \\ SO_2 = 27.8 \text{ µg/m}^3 \text{ (Level at core zone)}. \\ NO_x = 31.8 \text{ µg/m}^3 \text{ (Level at core zone)}. \\ PM_{10} = 85.62 \text{ µg/m}^3 \text{ (Level at core zone)}. \\ NO_x = 31.8 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ PM_{2.5} = 53.01 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ SO_2 = 28.7 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} \\ NO_x = 25.5 \text{ µg/m}^3 \text{ (Level at } 0.3 \text{km in SW downwind)} $	Period	March 2023- May 2023/ Pre-monsoon season.
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NO <sub>x</sub> = 17.7 to 31.8 μg/m <sup>3</sup> Buffer Zone  PM <sub>10</sub> = 45 to 85.5 μg/m <sup>3</sup> , PM <sub>2.5</sub> = 25.9 to 53 μg/m <sup>3</sup> , SO <sub>2</sub> = 6.7 to 28.7 μg/m <sup>3</sup> , NO <sub>x</sub> = 5.2 to 25.5 μg/m <sup>3</sup> Incremental GLC Level  Cumulative: Core zone:  PM <sub>10</sub> = 139.55 μg/m <sup>3</sup> (Level at core zone). PM <sub>2.5</sub> = 85.63 μg/m <sup>3</sup> (Level at core zone). SO <sub>2</sub> = 27.8 μg/m <sup>3</sup> (Level at core zone). NO <sub>x</sub> = 31.8 μg/m <sup>3</sup> (Level at core zone).  Buffer Zone: PM <sub>10</sub> = 85.62 μg/m <sup>3</sup> (Level at 0.3km in SW downwind) PM <sub>2.5</sub> = 53.01 μg/m <sup>3</sup> (Level at 0.3km in SW downwind) SO <sub>2</sub> = 28.7 μg/m <sup>3</sup> (Level at 0.3km in SW downwind) NO <sub>x</sub> = 25.5 μg/m <sup>3</sup> (Level at 0.3km in SW downwind)		$PM_{2.5} = 71 \text{ to } 85.6 \mu\text{g/m}^3$
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SO <sub>2</sub> = 6.7 to 28.7 $\mu$ g/m³, NO <sub>x</sub> = 5.2 to 25.5 $\mu$ g/m³ (Incremental GLC Level Cumulative:  Core zone:  PM <sub>10</sub> = 139.55 $\mu$ g/m³ (Level at core zone).  PM <sub>2.5</sub> = 85.63 $\mu$ g/m³ (Level at core zone).  SO <sub>2</sub> = 27.8 $\mu$ g/m³ (Level at core zone).  NO <sub>x</sub> = 31.8 $\mu$ g/m³ (Level at core zone).  Buffer Zone:  PM <sub>10</sub> = 85.62 $\mu$ g/m³ (Level at 0.3km in SW downwind)  PM <sub>2.5</sub> = 53.01 $\mu$ g/m³ (Level at 0.3km in SW downwind)  SO <sub>2</sub> = 28.7 $\mu$ g/m³ (Level at 0.3km in SW downwind)  NO <sub>x</sub> = 25.5 $\mu$ g/m³ (Level at 0.3km in SW downwind)		$PM_{10} = 45 \text{ to } 85.5  \mu\text{g/m}^3,$
Incremental GLC Level		$PM_{2.5} = 25.9 \text{ to } 53  \mu\text{g/m}^3,$
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Core zone:  PM <sub>10</sub> = 139.55 $\mu$ g/m³ (Level at core zone).  PM <sub>2.5</sub> = 85.63 $\mu$ g/m³ (Level at core zone).  SO <sub>2</sub> = 27.8 $\mu$ g/m³ (Level at core zone).  NO <sub>x</sub> = 31.8 $\mu$ g/m³ (Level at core zone).  Buffer Zone:  PM <sub>10</sub> = 85.62 $\mu$ g/m³ (Level at 0.3km in SW downwind)  PM <sub>2.5</sub> = 53.01 $\mu$ g/m³ (Level at 0.3km in SW downwind)  SO <sub>2</sub> = 28.7 $\mu$ g/m³ (Level at 0.3km in SW downwind)  NO <sub>x</sub> = 25.5 $\mu$ g/m³ (Level at 0.3km in SW downwind)		$NO_x = 5.2 \text{ to } 25.5 \mu\text{g/m}^3$
PM <sub>10</sub> = 139.55 μg/m³ (Level at core zone). PM <sub>2.5</sub> = 85.63 μg/m³ (Level at core zone). SO <sub>2</sub> = 27.8 μg/m³ (Level at core zone). NO <sub>x</sub> = 31.8 μg/m³ (Level at core zone). <b>Buffer Zone:</b> PM <sub>10</sub> = 85.62 μg/m³ (Level at 0.3km in SW downwind) PM <sub>2.5</sub> = 53.01 μg/m³ (Level at 0.3km in SW downwind) SO <sub>2</sub> = 28.7 μg/m³ (Level at 0.3km in SW downwind) NO <sub>x</sub> = 25.5 μg/m³ (Level at 0.3km in SW downwind)	Incremental GLC Level	Cumulative:
PM <sub>2.5</sub> = 85.63 $\mu$ g/m³ (Level at core zone). SO <sub>2</sub> = 27.8 $\mu$ g/m³ (Level at core zone). NO <sub>x</sub> = 31.8 $\mu$ g/m³ (Level at core zone). <b>Buffer Zone:</b> PM <sub>10</sub> = 85.62 $\mu$ g/m³ (Level at 0.3km in SW downwind) PM <sub>2.5</sub> = 53.01 $\mu$ g/m³ (Level at 0.3km in SW downwind) SO <sub>2</sub> = 28.7 $\mu$ g/m³ (Level at 0.3km in SW downwind) NO <sub>x</sub> = 25.5 $\mu$ g/m³ (Level at 0.3km in SW downwind)		Core zone:
PM <sub>2.5</sub> = 85.63 $\mu$ g/m³ (Level at core zone). SO <sub>2</sub> = 27.8 $\mu$ g/m³ (Level at core zone). NO <sub>x</sub> = 31.8 $\mu$ g/m³ (Level at core zone). <b>Buffer Zone:</b> PM <sub>10</sub> = 85.62 $\mu$ g/m³ (Level at 0.3km in SW downwind) PM <sub>2.5</sub> = 53.01 $\mu$ g/m³ (Level at 0.3km in SW downwind) SO <sub>2</sub> = 28.7 $\mu$ g/m³ (Level at 0.3km in SW downwind) NO <sub>x</sub> = 25.5 $\mu$ g/m³ (Level at 0.3km in SW downwind)		$PM_{10} = 139.55 \mu g/m^3$ (Level at core zone).
SO <sub>2</sub> = 27.8 $\mu$ g/m³ (Level at core zone). NO <sub>x</sub> = 31.8 $\mu$ g/m³ (Level at core zone). <b>Buffer Zone:</b> PM <sub>10</sub> = 85.62 $\mu$ g/m³ (Level at 0.3km in SW downwind) PM <sub>2.5</sub> = 53.01 $\mu$ g/m³ (Level at 0.3km in SW downwind) SO <sub>2</sub> = 28.7 $\mu$ g/m³ (Level at 0.3km in SW downwind) NO <sub>x</sub> = 25.5 $\mu$ g/m³ (Level at 0.3km in SW downwind)		$PM_{2.5} = 85.63 \mu g/m^3$ (Level at core zone).
NO <sub>x</sub> = 31.8 $\mu$ g/m <sup>3</sup> (Level at core zone). <b>Buffer Zone:</b> PM <sub>10</sub> = 85.62 $\mu$ g/m <sup>3</sup> (Level at 0.3km in SW downwind) PM <sub>2.5</sub> = 53.01 $\mu$ g/m <sup>3</sup> (Level at 0.3km in SW downwind) SO <sub>2</sub> = 28.7 $\mu$ g/m <sup>3</sup> (Level at 0.3km in SW downwind) NO <sub>x</sub> = 25.5 $\mu$ g/m <sup>3</sup> (Level at 0.3km in SW downwind)		
$PM_{10} = 85.62 \ \mu g/m^3$ (Level at 0.3km in SW downwind) $PM_{2.5} = 53.01 \ \mu g/m^3$ (Level at 0.3km in SW downwind) $SO_2 = 28.7 \ \mu g/m^3$ (Level at 0.3km in SW downwind) $NO_x = 25.5 \ \mu g/m^3$ (Level at 0.3km in SW downwind)		$NO_x = 31.8 \mu g/m^3$ (Level at core zone).
$PM_{2.5} = 53.01 \mu\text{g/m}^3$ (Level at 0.3km in SW downwind) $SO_2 = 28.7 \mu\text{g/m}^3$ (Level at 0.3km in SW downwind) $NO_x = 25.5 \mu\text{g/m}^3$ (Level at 0.3km in SW downwind)		Buffer Zone:
$PM_{2.5} = 53.01 \mu\text{g/m}^3$ (Level at 0.3km in SW downwind) $SO_2 = 28.7 \mu\text{g/m}^3$ (Level at 0.3km in SW downwind) $NO_x = 25.5 \mu\text{g/m}^3$ (Level at 0.3km in SW downwind)		$PM_{10} = 85.62 \mu g/m^3$ (Level at 0.3km in SW downwind)
$SO_2 = 28.7 \mu g/m^3$ (Level at 0.3km in SW downwind) $NO_x = 25.5 \mu g/m^3$ (Level at 0.3km in SW downwind)		
$NO_x = 25.5 \mu g/m^3$ (Level at 0.3km in SW downwind)		
Incremental		
HIICI CHICHLAI.		Incremental:
Core zone:		
$PM_{10} = 0.25 \mu g/m^3$ (Level at core zone).		

Period	March 2023- N	lay 2023/ Pre-mo	nsoon season.								
		/m³ (Level at core									
	$SO_2 = 0 \mu g/m^3$ (	Level at core zone	e).								
	$NO_x = 0 \mu g/m^3$	Level at core zone	e).								
		`	,								
	Buffer Zone:										
	$PM_{10} = 0.12 \mu g/m^3$ (Level at 0.3 km in SW downwind) $PM_{2.5} = 0.01 \mu g/m^3$ (Level at 0.3 km in SW downwind)										
		Level at 0.3 km in		)							
		(Level at 0.3 km ii									
Ground water quality at 8		(Lever at 0.5 km ii	is it do in it ind)								
Locations	pH: 7.41 to 7.59	)									
Locations	TDS: 283 to 320 mg/l,										
	Chlorides: 48 to										
	Fluoride: 0.10 to	_									
		(d): BDL(QL=0.00	12)								
		As): BDL(QL=0.00									
	Theavy illetais (2	4s). DDL(QL=0.0	03)								
	Puffor Zono										
	Buffer Zone										
	pH: 6.32 to 8.22										
	TDS: 237 to 536										
	Chlorides: 42.5										
	Fluoride: 0.07 to	-	12)								
		(d): BDL(QL=0.00									
		As): BDL(QL=0.0	05)								
Surface water quality at 8	Core Zone	1									
Locations	pH: 7.27 to 7.91										
	TDS: 451 to 524										
	DO: 4.70 to 6.7										
	Hardness: 270 t	_	22)								
		(d): BDL(QL=0.00									
	Heavy metals (A	As): BDL(QL=0.0	05)								
	D 66 7										
	Buffer Zone	`									
	pH: 6.73 to 8.40										
	TDS: 78 to 655	_									
	DO: 5.5 to 8.9 r	•									
	Hardness: 57 to		22)								
		(d): BDL(QL=0.00									
		As): BDL(QL=0.0	05)								
Noise levels Leq (Day and				15/12 0 1							
Night)	65.1 to 68.5 dB	(A) for the day tim	ne and 54.2 to 56.8	dB(A) for the	Night time.						
	Buffer Zone	(A) 0 d d d	100 4 . 00 4	15(1) 0 1	N.T. 1						
			ne and 32.4 to 38.4								
Traffic Assessment Study		s been conducted	at coal transportation	on road connec	ted to mine						
Findings	site.	0 . 1. 1 .									
	Transportation of	of mineral is being	done by Duman hi	ill railway sidi	ng.						
	E BOIL .	110.05 BOILS	1.	1 1	1 1 0						
			on coal transport r	oad and existi	ng level of						
	service (LOS) is	S:									
	Existing:	***	T 6 (6 :	1 =							
		V (Volume	C (Capacity	Existing	1.00						
	Road	in	in	V/C	LOS						
		PCU/hr.)	PCU/hr.)	Ratio							
	2 Lane of										
undivided   118.85   1500   0.07   A											
	10m										

Period	March 2023- May	2023/ Pre-monso	on season.									
	PCU load after pro	posed project will		sisting) + 7.4 P	CU/hr and							
	level of service (LOS) will be:											
	Proposed:											
	Toposed.		С									
		V (Volume	(Capacity	Proposed								
	Road	in	in	V/C	LOS							
		PCU/hr.)	PCU/hr.)	Ratio								
	2 Lane of											
	undivided											
	10m	126.25	1500	0.08	A							
	(Modification											
	not Required)	ID C 10 ( 1000 )	<u> </u>									
	Note: Capacity as p											
	Conclusion: The lesiding is only done											
	through rail mode.	unough upper and	i iroin siding of	iwaius coai is i	ransported							
Flora and Fauna	<u> </u>	d fauna study carr	ried out during	preparation of	EIA/EMP.							
1014 4114 1 44114	As per the flora and fauna study carried out during preparation of EIA/EM presence of Melursus Ursinus (Sloth Bear) (VU), Urva Edwardsii (Commo											
	Mangoose) (LC) Felis Chaus (Jungle Cat) (LC), Naja Naja (Spectac											
	Cobra)(LC) Daboia Russelli (Russell's Viper) and Ptyas Mucosa (Rat Sna											
	(LC) were observed, which are Schedule I species as per the W											
	(Amendment) 2022.											
	Wildlife Conservation Plan will be prepared in consultation with D											
	Korea/Manendragarh through Forest Department or through expert agency											
	ICFRE. The same will be implemented after obtaining approval of State For department within a period of two years.											
Water Requirement	Source of Water: M											
water Requirement	Ground Water Inter											
	Water Requirement											
			D –NOC issued	l by CGWA vid	e letter no.							
	NOC (Ground Water): Yes (2667 KLD –NOC issued by CGWA vide lette CGWA/NOC/MIN/ORIG/202521533 dt. 25.08.2025 and valid											
	15.11.2026.)											
	Water requirement:											
		Purpose	rpose Projected Dem (m³/day)									
		ial Water Demand										
	1. Green Belt 10											
	2.Dust suppression in Industrial 12											
	premises											
	3. Process Industrial	s and other losse Use	es for 3									
	Total (A) 25											
	B. Domestic/Portable Water Demand											
	1. Housing											
	Total (B)		2642									
	Grand Tot	1 ( ) = >	2667 m	•								

**31.2.7: Water Requirement:** PP submitted that the water requirement for the said project is 2667 KLD (Industrial use: 25 KLD and Domestic use: 2642 KLD). NOC application vide no. 21-4/7613/CT/MIN/2022 has been approved on 18.12.2024 for Kurasia UG Mine for abstracting groundwater. NOC issued by CGWA vide letter no. CGWA/NOC/MIN/ORIG/202521533 dt. 25.08.2025 and valid till 15.11.2026. Further, PP submitted that no water body is proposed for diversion in the said project.

# **31.2.8: Power Requirement and details of diversion of Hi-Tension/Transmission Line:** Total Power Requirement is 4580 KVA and the same is sourced from Chhattisgarh State Power Distribution Company Limited (CSPDCL). There is no diversion of Hi – tension / transmission line proposed for the said project.

**31.2.9: 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:

S. No.	Type of	Source	Quantity	Mode of	Disposal
	Waste		(TPA)	Treatment	
1.	Hazardous Waste-	Machine	0.1 KL (In FY	Stored in steel barrels in	Sale to CPCB
	Used Oil (schedule	operations in	2024-25)	covered shed with pucca	authorized recyclers
	5.1)	UG Mine		platform	
2.	Hazardous Waste-	Machine	0.01 Te. (In FY	Stored in steel barrels in	Sale to CPCB
	Wastes containing	operations in	2024-25)	covered shed with pucca	authorized recyclers
	residues of oil	UG Mine		platform	
	(schedule 5.2)				

**Note:** Authorization for generation, collection, reception, storage, transport, reuse, recovery, pre-processing, utilization, treatment, disposal or any other use of hazardous or other waste on the premises of Kurasia Underground Coal Mine Project has been obtained from CECB vide consent no. 9522 /HSMD/HO/CECB/2021 Raipur, Date 03 /02 /2021 and valid up to 01.02.2026.

**31.2.10: Details of Public Consultation:** 

Particulars	Public Hearing	Public Notice as per MOM dated 26.10.2018 for Revalidation of EC for Kurasia UG Mine				
Details of advertisement given	Public Hearing advertisement published on 1/2.05.2004 in newspapers Deshbandhu, Hari Bhumi, and Dainik Bhaskar	As part of Public consultation, a Public Notice was issued by Chhattisgarh Environment Conservation Board on 25.06.2022 in one national daily newspaper 'Times of India' and in one local daily newspaper 'Patrika', Bilaspur edition informing the stakeholders about the present coal mining operations and inviting their comments.				
Date of PH/ public consultation	14.06.2004	25.06.2022 (Newspaper advertisement)				
Venue	Sub Divisional Office (Revenue) Manendragarh	NA, Public consultation was done through newspaper publication				
Presiding Officer	Sub Divisional Officer (Revenue), Manendragarh	NA, Public consultation was done through newspaper publication				
Number of Person Attended Hearing	20	NA, Public consultation was done through newspaper publication				
Number of representation received in writing from the district and outside of district, please give details:	Nil	Nil				
Major issues raised	Water supply, air pollution, overloading of coal and rainwater harvesting.	No written comments were received as per the letter received from RO CECB vide letter no. 1415/RO/CECB/2022 Ambikapur, dated 10.11.2022				

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

This is a running mine and PH was conducted on 14.06.2004. All the issues raised during the public hearing have been implemented and are continuous in nature.

S. No	Physical activity and action plan				Y	ear of	implen	nentati	on (Bu	dget in	Lakh)	- 2025	-26 onv	vards				Total Expenditure (In Lakhs)
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1	Infrastructure creation for Drinking Water supply	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	80
2	Sanitation	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	8
3	Education	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
4	Skill Development	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
5	Roads & Infrastructure	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	48
6	Health	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	32
7	Art, Culture & Sports	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
8	Livelihood	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	32
	TOTAL	15. 5	15.5	15.5	15.5	15.5	248											

**31.2.11: EMP Budget:** Existing capital cost of project is Rs. 161.17 Crores. The capital cost for environmental protection measures is proposed as Rs. 2252 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 502.8 lakhs. The employment generation from the proposed project / expansion is Regular employee - 500 nos. & Contractual -155 nos.

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

		Ex	isting	Proposed		
S. No.	Description of item	Capital Cost (in lakh)	Recurring Cost annual (in lakh)	Capital Cost (in lakh)	Recurring Cost annual (in lakh)	
(i)	Air Pollution Control/ Noise Management	15.00	10.00	30.00	10.00	
(ii)	Water Pollution Control	607.16	101.41	0.00	101.41	
(iii)	Environmental Monitoring and Management	50.00	255.89	84.00	255.89	
(iv)	Green Belt & Plantation Development	11.05	25.00	2038.00*	25.00	
(v)	Other heads as proposed in EIA/ committed during the EAC	17.13	95.00	100.00#	110.50	
	Total	700.34	487.30	2252.00	502.8	

<sup>\*₹2038</sup> lakh = ₹20.38 Cr (capital plantation cost for entire mine life).

#It also includes commitments such as Ek Ped Maa Ke Naam and post-closure mine infrastructure reclamation works.

- **31.2.12: Plantation:** Existing Presently, plantation has been developed in 156.4 ha area which is about 30% of the total ML area of 523.30 ha with total sapling of 3,91,000 Trees. Proposed green cover will be developed in 263.51 ha which is about 59% of the total ML area. Thus, total of 419.91 ha area (80% of total ML area) will be developed as green cover. Local and native species will be planted with a density of 2500 trees per hectare. In addition to this, gap plantation shall be carried out to strengthen green cover falling in mining area.
- **31.2.13: Rehabilitation and Resettlement (R&R) details:** There is no R&R issue in respect of Kurasia Underground Coal Mine Project.
- **31.2.14: Project Cost:** Cost of the project is Rs. 161.17 crores (as on 31.03.2025). Capital cost for environmental protection measures is proposed as Rs. 2252 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 502.8 lakhs
- **31.2.15: Details of pending litigation:** There is no legal issues / 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. Further, there is no court case on the project pertaining to the environment.
- **31.2.16** Undertaking and Affidavit: PP has submitted following vide an undertaking:
- That there is no construction/mining done at the site or the construction/mining done at the site or the construction done without any deviation as per the EC obtained (vide F. No. J-11015/190/2005-IA.II(M) dated 09.05.2006).
- That there is no litigation on the project at NGT or any other court of law under EP Act, 1986, Air Act 1981 or Water Act, 1974.
- That the mining rights have been granted under Mineral Concession Rules, 1960 by the State Government/under Coal Bearing Areas (Acquisition & Development) Act, 1957 by Central Government as detailed below:

S. No.	Notification no. and date	Area (in ha)	Area (in ha) involved in Kurasia UG Mine	Remarks
1	S.O. No. 2767 dated 18.11.1961 under CBA Act, 1957	70.356		Tehsil-Manendragarh District - Sarguja
2	S.O. No. 2839 dated 15.12.1959 under CBA Act, 1957	38.244	523.30	Tehsil-Manendragarh District - Sarguja
3	S.O. No. 1759 dated 07.08.1958 under CBA Act, 1957	499.291	323.30	Tehsil-Manendragarh District - Sarguja
4	Mining lease agreement dated 10.10.1985 under MCR, 1960	457.539		Tehsil-Manendragarh District - Sarguja
	Total	1065.430	523.30	

- There is no R&R issue in respect of Kurasia Underground Coal Mine Project.
- That there is no difference in the documents submitted i.e., Form 1, Mining Plan, and presentation being made to the EAC.
- That the project is being submitted for grant of revalidation of EC under the provisions of MoEF&CC S.O. 1530(E) dated 06.04.2018.
- **31.2.17: ADS information in chronology:** The proposal was initially considered in 40<sup>th</sup> EAC meeting held on 26.10.2018 wherein the committee deferred the proposal for additional

information. PP submitted the reply vide letter dated 26.05.2025 and uploaded the same on the PARIVESH portal on 28.05.2025. Details of the same are as follows:

S. No.	Points of EAC meeting held on 26.10.2018 - Agenda No. 40.6	Compliance status
(i)	Preparation of EIA/EMP report based on one season baseline data along with the details in respect of the following:-	The EIA/EMP report has been prepared based on generic structure specified in Appendix III of EIA notification 2006 and complying Standard TOR for UG mine. The baseline data was collected during March to May 2023 (non-monsoon period). The EIA/EMP report has been prepared including all the necessary inputs as sought by EAC/MoEF (copy submitted).
(ii)	Public Consultation, including public hearing, shall be conducted through concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal,	To streamline revalidation cases, MOEF has issued an OM dated 16/02/2021, suggesting PP shall invite the suggestions/ objections as wider part of public consultation instead of Public Hearing as per EIA 2006. An undertaking has been submitted by Project Proponent for complying point no. (3) of the OM no. F-No. 22-4/2020-IA.III dated 16.02.2021 (copy submitted). The Public Notice seeking suggestions/ objection/views/comments regarding the project was published on 25.06.2022 in the National Newspaper "Times of India" and in the local newspaper "Patrika". Time period of 30 days from the date of issue of the Notice i.e. from 25.06.2022 was given to submit the suggestions/ objections regarding the revalidation of Kurasia UG. No comments were received within the given time period and a letter from RO CECB, Ambikapur (copy submitted) has been obtained mentioning that no objection has been received from public regarding revalidation of EC for Kurasia UG Mine.
(iii)	Valid Mining Plan and the Progressive Mine Closure Plan duly approved by the competent authority,	Mining plan with mine closure plan was approved in the 287 <sup>th</sup> meeting of CoFD held on 22.04.2025. Copy of minutes of 287 <sup>th</sup> CoFD meeting and the mining plan is submitted.
(iv)	Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.	The site inspection for monitoring of EC conditions (0.50 MTPA) was carried out by the RO, Ambikapur, CECB on 08/01/2025 and Certified Compliance Report (CCR) has been communicated to SECL vide letter no: 10737/Tech/Hq/CECB/2025 Naya Raipur Atal Nagar dated 14/02/2025. The Certified Compliance Report (CCR) is submitted.
(v)	Consent to operate from the State Pollution Control Board for the present mining operations.	CTO has been renewed up to 31.01.2026 vide letter no.6839/TS/CECB/2024 dated 29/10/2024 (copy submitted).
(vi)	Redressal of issues raised during the last public hearing conducted by the SPCB.	Issues raised during the last public hearing has been resolved. Action taken for the compliance of issues raised during the public hearing and present status is submitted.
(vii)	Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.	Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance is submitted.

S. No.	Points of EAC meeting held on 26.10.2018 - Agenda No. 40.6	Compliance status
(viii)	Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.	Need assessment survey for the activities proposed under CSR and the comprehensive plan has been prepared and same has been submitted. The impact assessment report of CSR activities is submitted.
(ix)	Stage-I/Renewal of forest clearance under the Forest (Conservation) Act, 1980, as the case may be, of the forest land involved in the project.	Not applicable as no forest land involved in the project area.
(x)	Details of court cases and the compliance status.	There is no litigation pending on the project at NGT or any other court of law under EP Act, 1986, Air act 1981 or Water Act, 1974. An undertaking for the same is submitted

Subsequently, ADS raised on 02.06.2025 and ADS reply vide letter dated 01.08.2025, uploaded on PARIVESH on 01.08.2025. Point wise reply of ADS is given as below:

S.	ADS Query	Reply/ Status
No.		
1	The proposal was originally considered by the EAC in its meeting held on 26/10/2018 and deferred for want of additional information. The reply to the ADS was submitted on 27/05/2025 after a span of 7 years. Proponent shall justify the reasons for submitting the ADS reply after 7 years.	Proposal for revalidation of EC w.r.t. Kurasia UG mine was submitted to MOEF&CC through PARIVESH portal on 05.09.2018 and considered in the 40th EAC meeting held on 26/10/2018.  EAC deferred the proposal for want of EIA/EMP report with baseline data, Public Consultation including Public Hearing, Approved Mining Plan with Progressive Mine Closure Plan, Certified Compliance Report (CCR) and Need Based Assessment Report, etc.  The delay of approximately 07 years in submission of the reply to the queries raised during the EAC meeting held on 26/10/2018 is regretted and may kindly be considered in light of the following justifications:  1. Impact of COVID-19 Pandemic: COVID-19 pandemic severely affected field operations, availability of manpower, and coordination with various statutory authorities. This also led to significant delay in activities such as the Need Assessment Survey which involved extensive field-level surveys in nearby villages.  2. Procedural developments related to Public Consultation:  EAC has directed PP to conduct Public Consultation, including public hearing, shall be conducted through concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal.  CIL has approached MOEF&CC through MOC for the exemption in conducting Public hearing on 08-09/07/2020. On this basis, MoEF&CC issued an OM F. No. 22-4/2020-IA.III dated 16.02.2021 by exempting fresh Public Hearing/ Public Consultation for mines with Public Notice.  As per the OM dated 16.02.2021, letter for publishing notice in newspaper was submitted to the Member Secretary, CECB Raipur and vide letter no. 349 dated 05.05.2022 and public notice regarding Kurasia UG Mine was issued on 25.06.2022. Letter from RO CECB, Ambikapur has been obtained mentioning that no objection has been received from public regarding revalidation of EC for Kurasia UG Mine vide letter no: 1415 dated 10.11.2022.  3. Issuance of Certifi

S.	ADS Query		Reply/ Status				
No.		In compliance of deliberation of EAC held, request letters were sent to IRO, MOEF&CC, Raipur for site inspection for the issuance of Certified Compliance Report on 02.11.2023 and 27.12.2023. Subsequently, in accordance with the MoEF&CC Office Memorandum dated 08/06/2022, a formal request was made to the CECB for site inspection and issuance of the CCR on 16/07/2024. The site inspection was conducted by the Regional Officer, CECB Ambikapur on 08/01/2025, and Certified Compliance Report (CCR) has been communicated to SECL vide letter no: 10737/Tech/Hq/CECB/2025 Naya Raipur Atal Nagar dated 14/02/2025.					
		4. Finalization of EIA/EMP:  The compilation and finalization of the Approved Mining Plan, EIA/EMP Report, and other required documents involved detailed assessments and procedural clearances, which required coordination with various stakeholders and agencies. These were undertaken with due diligence to ensure technical adequacy and regulatory compliance.  After completing all the procedures for the need assessment survey, IRO inspection, and preparation of the Mining Plan, EIA/EMP, etc.,					
2	It is observed in the EC letter dated 09.05.2006, that no forestland is involved in the said ML area. However, there is reserved forest present in the buffer zone. It is also observed that in the minutes of the 40th EAC meeting in which this proposal was apprised, the committee sought stage – I FC on the forestland involved. It is kindly requested to clarify whether the project involves forestland or not. If not, kindly submit a letter from	the ADS reply was submitted on 28/05/2025.  No forest land is involved in the project area of 523.30 ha. In the EC letter dated 09.05.2006, it is stated that forest land is not involved in the project area. This is also mentioned in the minutes of 40 <sup>th</sup> EAC meeting held on 26/10/2018.  However, a request has been made to DFO Korea Forest Division vide Letter no. 1014 dated 20.06.2025 for providing the details of forest land involved in the Kurasia UG mine. DFO, Korea has issued letter no. 2877 dated 02.07.2025 for providing the details khasra plots within the project area (Copy submitted).  The matter has been discussed with DFO Korea office and as per discussion the details regarding khasra nos. along with area is being collected and the same is being discussed with State revenue department before submission to DFO Korea. Khasra details of the lands is being verified in consultation with Tehsildar office, Chirimiri.					
3	DFO, in this regard.  Kindly submit the details of sensitive receptors on the coal transportation road,	Details of sensitive receptors on the coal transportation road are as follows:  (i) Habitation					
	along with the mitigation measures being followed and further proposed to be	Particulars Residential Colony, Duman Hill Colliery	Distance 0.4 KM	Direction East			
	followed.	Haldibadi Chota Bazar Bada Bazar	1.5 KM 1.7 KM 1.3 KM	West South - West South - West			
		Kurasia Colony Godripada Nagar Nigam Colony, Chirimiri	0.7 KM 1.3 KM	South - West South - East South North - West			
		Gelhapani  Korea Colony	1.9 KM 3.8 KM	North North			
		Dubchhola  Note: There are 7 more habi	3.9 KM	South - West			

S. No.	ADS Query	Reply/ Status					
		40 G 1 1					
		(ii) Schools Particulars	Distance	Direction			
		Saraswati Shishu		East			
		Mandir High School,		East			
		Domanhill					
		Govt Primary, Middle	0.5 KM	East			
		And Higher Secondary		2			
		School, Domanhill					
		Kendriya Vidyalaya,	1.4 KM	South – West			
		Chirimiri					
		Saraswati Shishu	2.8 KM	West			
		Mandir Higher					
		Secondary School,					
		Haldibari	1.1757.5				
		Neel Chakra Vidyapith		East			
		Higher Secondary					
		School, Domanhill	20 VM	South - West			
		Ganga High School Amanala, Chirmiri	2.8 KM	South - West			
		Govt Primary, Middle	2 9 KM	West			
		And Higher Secondary		West			
		School, Haldibari					
		-	2.1 KM	North			
		Middle School,		110101			
		Gelhapani					
		Taigaor Memorial	0.6 KM	East			
		School, Domanhil					
		Govt. Primary And High	4.0 KM	South - West			
		School School,					
		Dubchhola					
			4.2 Km	South - West			
		Mandir Higher					
		Secondary School,					
		Kurasia Maa Saraswati Shishu	47 VM	North - West			
		Mandir Premnagar West		North - West			
		Chirimiri Chirimiri					
			4.92 KM	North – West			
		Vidya Mandir West					
		Chirimiri					
		Note: There are 7 more so	chools in 10 KM buffer	zone of the project			
		(iii) Hospitals					
		Particulars	Distance	Direction			
		Domanhill Dispensary	0.3 KM	East			
		Primary Health Centre,	0.5 KM	East			
		Khadgawa					
		NCPH Dispensary,	2.6 KM	West			
		Haldibadi					
			1.5 KM	South – West			
		Chimiri Di	1 0 VM	C41- W/			
		Chirimiri Dispensary	1.9 KM	South - West			
		Regional Hospital,	1.2 KM	South – East			
		Kurasia					

S. No.	ADS Query	Reply/ Status						
1100		West Chirimiri Colliery Dispensary, Chirimiri Sub Health Centre, 2.90 KM	North – West  North-East					
		Note: There are 2 more health centres and 1 veterinary hospital in 1 KM buffer zone of the project						
		Mitigation measures being followed and further proposed to be followed:						
		<ol> <li>Optimally loaded tarpaulin-covered trucks are used to previsible spillage and dust emission during transport of coal.</li> <li>Dense natural vegetation exists along the coal transportation reacting as a natural barrier to suppress dust dispersion.</li> <li>Work order has been issued for 02 nos of Trolley mounted fogg machines of 100 m throw (Hiring basis) and the same will provided at Coal stock yard and Duman Hill Siding for suppress of dust.</li> </ol>						
		<ol> <li>01 no. of CAAQMS is being installed at a distance of 02 Km in buffer zone of Kurasia UG (at Chirimiri OC) for continuo monitoring of ambient air quality. The CAAQMS will operational by September-2025. In addition, one more CAAQI is proposed for monitoring of Air quality at Kurasia UG Mine.</li> <li>Safety signage and awareness messages are being installed alcoal transportation routes to improve public safety and prome cautious movement.</li> </ol>						
4	Kindly submit the drone video and the geo-tagged photographs of the coal	Screenshot of drone video and geo-tagge transportation is submitted.						
	transportation route.	Due to size constraints drone video is not drone video will be presented at the time of						
5	Kindly submit the status of Schedule – I species observed in the study area and Wildlife Conservation Plan for the said project.	As per the EC dated 09.05.2006, no forest larea.  However, flora and fauna study has been care of the EIA/EMP. During the study, presence Bear) (VU), Urva Edwardsii (Common Modungle Cat) (LC), Naja Naja (Spectacled (Russell's Viper) and Ptyas Mucosa (Rat Swhich are Schedule I species as per the WE	arried out for the preparation e of Melursus Ursinus (Sloth fangoose) (LC) Felis Chaus Cobra)(LC) Daboia Russelli Snake) (LC) were observed,					
		However, a letter has been submitted vide in DFO, Korea Forest Division for obtaining sobserved in the study area and requirement Plan for Kurasia UG Mine. In response to issued letter no. 2877 dated 02.07.2025 which demarcate the EC boundary Area on the Forest of the same (Copy submitted).	status of Schedule – I species nt of Wildlife Conservation this letter, DFO, Korea has herein it has been directed to					
		Wildlife Conservation Plan will be prepare Korea through Forest Department or throug The same will be implemented after obtain department within a period of two years. A is submitted.	th expert agency like ICFRE. ning approval of State Forest					
6	Kindly submit the details of water requirement for the	Water Requirement: -						

S.	ADS Query	Reply/ Statu	18				
No.	said project and the latest status of CGWA application	Purpose	Projected Demand (m³/day)				
	renewal.	A. Industrial Water Demand					
	Kindly make sure that the	1. Green Belt	10				
	factual data mentioned in Form, Mine plan,	2.Dust suppression in Industria premises	1 12				
	presentation and EIA/ EMP Report are in the same order	3. Process and other losses for Industrial Use	<sup>7</sup> 3				
	and do not mismatch. All	Total (A)	25				
	the documents provided by your good self must be						
	legible. Also, along with the	1. Housing	2642				
	corrections mentioned	Total (B)	2642				
	above, please ensure the	Grand Total (A+B)	2667 m <sup>3</sup> /day				
	completeness of the Form	Present Status: Application no. 21					
	and all the documents	16.11.2022 has been approved by CGWA for ground water abstract quantum of 6882 m3/day. Formal NOC is awaited.					
		All factual data provided in the Form, Mand Presentation have been thorough consistency, legibility, and completeness in all respects.	nly cross-verified to ensure				

# 31.2.18: Written Submission:

S. No	Particulars	Reply								
1	PP shall submit the proposed	The total pla	The total plantation cover till the end of mine life is proposed to be							
	plantation program along with	419.91 Ha. P	419.91 Ha. Plantation already carried out up to 2024-25 is 156.40 Ha.							
	budgetary provision.	The proposed	d plantation	on program	along with	budgetary	provision is			
	8 7 1	The proposed plantation program along with budgetary provision is submitted.								
			Gree	n belt		B 1 4				
			devel	pment	Cumulative	Budgetary				
		Period/Year	proposed	plantation	total	provision (in	Remarks			
			Area in Ha.	Nos.	plantation	Crores)				
		Up to 2024-25	156.40	3,91,000	3,91,000	Already done	Plantation completed.			
		2025-26	31.2	78,000	4,69,000	Already done	Completed in Monsoon 2025.			
		2026-27	15.0	37,500	5,06,500	1.34	Proposed			
		2027-28	15.0	37,500	5,44,000	1.34	Proposed			
		2028-29	15.0	37,500	5,81,500	1.34	Proposed			
		2029-30	15.0	37,500	6,19,000	1.34	Proposed			
		2030-31	15.0	37,500	6,56,500	1.34	Proposed			
		2031-32	15.0	37,500	6,94,000	1.34	Proposed			
		2032-33	15.0	37,500	7,31,500	1.34	Proposed			
		2033-34	15.0	37,500	7,69,000	1.34	Proposed			
		2034-35	15.0	37,500	8,06,500	1.34	Proposed			
		2035-36	15.0	37,500	8,44,000	1.34	Proposed			
		2036-37	15.0	37,500	8,81,500	1.34	Proposed			
		2037-38	15.0	37,500	9,19,000	1.34	Proposed			
		2038-39	15.0	37,500	9,56,500	1.34	Proposed			
		2039-40	15.0	37,500	9,94,000	1.34	Proposed			
		2040-41 2041-42	15.0 3.19	37,500	10,31,500	1.34	Proposed			
		Till the end	3.19	7,975	10,39,475	0.28	Final phase			
		of mine life/mine closure	415.79	10,39,475	10,39,475	20.38				

S. No	Particulars		Reply							
2	PP shall submit the revised EMP cost including the	* At the time of closure, 4.12 ha of mine infrastructures will be reclaimed, raising the total reclaimed area to 419.91 ha.  The revised EMP cost, incorporating budgetary provision for the proposed plantation program, is as follows:								
	EMP cost including the budgetary provision for	propose	ed plantation pro	Ex	isting	Pro	posed			
	proposed planation program.	S. No.	Description of item	Capital Cost (in lakh)	Recurring Cost annual (in lakh)	Capital Cost (in lakh)	Recurring Cost annual (in lakh)			
		(i)	Air Pollution Control/Noise Management	15.00	10.00	30.00	10.00			
		(ii)	Water Pollution Control	607.16	101.41	0.00	101.41			
		(iii)	Environmental Monitoring and Management	50.00	255.89	84.00	255.89			
		(iv)	Green Belt & Plantation Development	11.05	25.00	2038.00*	25.00			
		(v)	Other heads as proposed in EIA/committed during the EAC	17.13	95.00	100.00	110.50			
			Total	700.34	487.30	2252.00	502.8			
			lakh = ₹20.38 C							
3	PP shall submit an undertaking for installation of CAAQMS for Kurasia UG mine.		ertaking for the ring System (CA itted.							
4	PP shall obtain a letter from DFO regarding the status of the forestland involved in the current proposal.	It is submitted that no forest land is involved in 523.30 Ha. for Kurasia UG. In this regard, a letter from the DFO, Manendragarh has been obtained and is submitted.								
5	PP shall submit latest status of CGWA application renewal.	approve m3/day CGWA	ed by CGWA for . NOC iss ./NOC/MIN/OR	or ground sued by [G/202521:	water abstra CGWA 533 dt. 25.	Application no. 21-4/7613/CT/MIN/2022 dated 16.11.2022 has been approved by CGWA for ground water abstraction quantum of 6882 m3/day. NOC issued by CGWA vide letter no. CGWA/NOC/MIN/ORIG/202521533 dt. 25.08.2025 and valid till 15.11.2026. Copy of NOC submitted.				

# Observation and deliberation of the EAC: 31.2.19: The Committee noted the following:

- 1. The instant proposal is for revalidation of EC accorded by M/s South Eastern Coalfields Ltd for Kurasia Underground Coal Mine Project vide letter no J-11015/190/2005-IA.II(M) dated 09.05.2006 under EIA Notification, 1994 for the production capacity of 0.50 MTPA in the leasehold area of 523.30 Ha. The revalidation of EC granted is under EIA Notification 2006 (as amended) as per the provision of S.O 1530(E) dated 06.04.2018 read with OM dated 16.02.2021.
- 2. PP applied for revalidation of EC in PARIVESH Portal on 05.09.2018, i.e., well within the window period of 6 months (i.e. before 5.10.2018) and submitted Form-1 as required under S.O 1530(E) dated 06.04.2018 for the re-validation of EC under EIA Notification 2006 (as amended).
- 3. Committee observed that the said project was earlier apprised in the 40<sup>th</sup> meeting of

- EAC (Coal Mining Sector) held on 26.10.2018 and the same was deferred for want of additional information. PP submitted the same vide letter dated 28.05.2025, 02.06.2025 and 13.08.2025 on PARIVESH 1.0 Portal.
- 4. Committee observed that the coal produced from the said mines is well within the EC capacity, and there is no excess production.
- 5. Committee deliberated on the certified compliance report obtained by the PP. Committee observed that, the status of compliance of earlier EC was obtained from Regional office of Chhattisgarh Environment Conservation Board (SPCB) vide letter no 2434 dated 09.01.2025 in name of Kurasia Underground Coal mine and subsequently forwarded by the Member Secretary of CECB vide no 10737 dated 14.02.2025. No non complied/partially complied conditions reported in Certified Compliance report of EC 0.50 MTPA of Kurasia Underground Coal Mine Project.
- 6. Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment 2018.
- 7. Committee observed that the said project is located within the ML area of 523.30 Ha, which is part of the block area of 1065.430 Ha. The remaining area of the said block includes the colonies of the instant Kurasia UG Mine and Duman Hill UG Mine. Also, previously another mine, namely Sonawani Incline was running on CTO and was closed on 15.09.2001. No future coal mining activities are proposed in the said area.
- 8. The project does not involve any forestland.
- 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. The project involves Schedule I species and the Wildlife Conservation Plan for the same is yet to be prepared. PP submitted that, a Wildlife Conservation Plan would be prepared within 2 years from the date of grant of revalidation of EC, in consultation DFO, Korea/ Manendragarh through Forest Department or through expert agency like ICFRE. Committee opined that the Wildlife Conservation Plan should be implemented within 1 year from the date of grant of EC.
- 10. The Mining Plan including Mine Closure Plan for the project was approved by SECL Bilaspur on 22.04.2025 (for capacity-0.50 MTPA, Area-523.30 Ha). Method of Mining to be adopted shall be underground mining with Bord and Pillar method.
- 11. Total geological reserve reported in the mine lease area is 9.34 MT with 7.19 MT mineable reserve/extractable reserve. Percent of extraction is 76.98 %. Grade of coal is G-8. Life of mine is 17 years as on 01.04.2024
- 12. Committee deliberated on the method of transportation of coal being followed in the said project and observed that, from in pit to surface the coal is being transported through conveyor belts. From surface to siding the coal is being transported through tarpaulin covered tippers till the distance of 5 km. Further, coal is transported from surface bunker to Duman hill siding by Contractual Dumpers/ Tippers through road to Duman Hill Railway Siding equipped with closed conveyor belts and then to the final consumer by the railway. Committee opined that PP shall take adequate measures to control the pollution being done due to road transportation of coal and PP shall carryout

regular maintenance of the potholes on roads, repair and maintenance of roads, scrapping of material fallen on roads, and removal of scraps from mining areas. Along with this, PP shall make sure that all the pollution control equipments are in good working condition and maintenance of those equipments are regularly carried out. Committee also opined that PP shall develop thick plantation with native and fruit bearing species on both the sides of the coal transportation road.

- 13. Committee deliberated on the baseline data submitted by the PP and observed that the AAQ parameters of the said mine and observed that all the parameters are within the permissible limits. Committee during the deliberation observed that there is no CAAQMS installed by the PP in the said mines and opined that PP shall install a CAAQMS in the said mine within 2 months from the date of grant of EC and the same shall be connected to the server of CECB and CPCB.
- 14. Committee deliberated on the water requirement of the said project and observed that, the water required for the said project is 2667 KLD (Industrial use: 25 KLD and Domestic use: 2642 KLD). NOC for the same is issued by CGWA vide letter no. CGWA/NOC/MIN/ORIG/202521533 dt. 25.08.2025 and valid till 15.11.2026. Further Committee observed that no water body diversion is proposed in the said project.
- 15. Total Power Requirement is 4580 KVA and the same is sourced from Chhattisgarh State Power Distribution Company Limited (CSPDCL). There is no diversion of Hi tension / transmission line proposed for the said project.
- 16. Committee deliberated on the public consultation done by the PP for the said project and observed that, advertisement for the same was published on 25.06.2022 in one national daily newspaper 'Times of India' and in one local daily newspaper 'Patrika', Bilaspur edition informing the stakeholders about the present coal mining operations and inviting their comments. As per the written communication received from RO CECB vide letter no. 1415/RO/CECB/2022 Ambikapur, dated 10.11.2022, no comments were received from the stakeholders. However, PP has submitted the action plan for public hearing issues of PH held on 14.06.2004 as per the Ministry's OM dated 30.09.2020. The budget allocated for the same is Rs. 248 Lakhs, which is proposed to be implemented within 16 years. Committee opined that the same shall be implemented efficiently in a time bound manner.
- 17. Further, Committee deliberated on EMP budget submitted by the PP and observed that, the capital cost for environmental protection measures is proposed as Rs. 2252 Lakhs and the annual recurring cost towards the environmental protection measures is proposed as Rs. 502.8 Lakhs/Annum. Committee opined that the same shall be efficiently implemented in a time bound manner.
- 18. Committee deliberated on the plantation activities done by the PP till date and observed that, the existing plantation has been developed in 156.4 ha area which is about 30% of the total ML area of 523.30 ha with total sapling of 3,91,000 Trees. Proposed green cover will be developed in 263.51 ha which is about 50% of the total ML area. Thus, total of 419.91 ha area (80% of total ML area) will be developed as green cover. Local and native species will be planted with a density of 2500 trees per hectare. In addition to this, gap plantation shall be carried out to strengthen green cover falling in mining area. Committee opined that, the PP shall focus on agro-forestry and fruit bearing species shall be distributed and planted on the periphery of the agricultural farms of the

villagers, by developing a plan to compensate the farmers/villagers for survival of these fruit bearing trees. A three-tier plantation shall also be developed on both the sides of the coal transportation road with 2-meter height of saplings of the native and fruit bearing species. Committee sought a time bound action plan for the same and PP submitted the following:

Period/Year		opment proposed tation	Cumulative total	Budgetary provision	Remarks
	Area in Ha.	Nos.	plantation	(in Crores)	
Up to 2024-25	156.40	3,91,000	3,91,000	Already done	Plantation completed.
2025-26	31.2	78,000	4,69,000	Already done	Completed in Monsoon 2025.
2026-27	15.0	37,500	5,06,500	1.34	Proposed
2027-28	15.0	37,500	5,44,000	1.34	Proposed
2028-29	15.0	37,500	5,81,500	1.34	Proposed
2029-30	15.0	37,500	6,19,000	1.34	Proposed
2030-31	15.0	37,500	6,56,500	1.34	Proposed
2031-32	15.0	37,500	6,94,000	1.34	Proposed
2032-33	15.0	37,500	7,31,500	1.34	Proposed
2033-34	15.0	37,500	7,69,000	1.34	Proposed
2034-35	15.0	37,500	8,06,500	1.34	Proposed
2035-36	15.0	37,500	8,44,000	1.34	Proposed
2036-37	15.0	37,500	8,81,500	1.34	Proposed
2037-38	15.0	37,500	9,19,000	1.34	Proposed
2038-39	15.0	37,500	9,56,500	1.34	Proposed
2039-40	15.0	37,500	9,94,000	1.34	Proposed
2040-41	15.0	37,500	10,31,500	1.34	Proposed
2041-42	3.19	7,975	10,39,475	0.28	Final phase
Till the end of mine life/mine closure	415.79	10,39,475	10,39,475	20.38	

<sup>\*</sup>At the time of closure, 4.12 ha of mine infrastructures will be reclaimed, raising the total reclaimed area to 419.91 ha.

- 19. There is no legal issues / 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. Further, there is no court case on the project.
- 20. Committee opined that the PP shall align its activities with the sustainable development goals.
- 21. The EAC also deliberated on the ADS reply and written submissions of the project proponent and found it satisfactory.
- 22. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed. If any part of data/ information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

**30.2.20:** In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of revalidation of EC dated 24.05.2005 as per provisions of S.O. 1530(E) dated 06.04.2018 read with OM dated 16.02.2021. Grant of revalidation of EC is subject to the compliance of the following specific conditions and standard conditions in addition to the conditions granted in earlier EC:

### **Specific Conditions:**

- 1. PP shall monitor the subsidence and take necessary measures/ steps for filling the subsidence area as per subsidence plan. PP shall monitor the formation of potholes in the bed of Gaimara Nalla and if necessary proper measures be taken.
- 2. A Wildlife Conservation Plan shall be prepared by ICFRE Dehradun or in consultation with DFO, Korea/ Manendragarh through Forest Department and the same shall be implemented within 1 year from the date of grant of EC.
- 3. The budget proposed for Public Hearing is Rs. 248 Lakhs. The budget proposed shall be kept in a separate account and shall be audited annually. Project proponent shall implement the action plan to address the issues raised during public hearing within a time frame of 16 years from the date of grant of revalidation of EC. PP shall submit the progress report regarding the implementation of the action plan to concerned RO along with the six-monthly compliance report.
- 4. 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 2252 Lakhs (Capital) and Rs 502.8 Lakhs per annum (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.
- 5. Proponent shall carryout regular maintenance of the potholes on roads, repair and maintenance of roads, scrapping of material fallen on roads, and removal of scraps from mining areas. Along with this, PP shall make sure that all the pollution control equipments are in good working condition and maintenance of those equipments are regularly carried out.
- 6. As committed, Project proponent shall install 1 nos of Continuous Ambient Air Quality Monitoring Station within 2 months from the date of grant of EC and the same shall be connected to the server of CECB and CPCB.
- 7. Total plantation by the end of the mine life shall be done in at least 419.91 ha area (79% of total ML area). Apart from this agro forestry and community plantation shall be carried out on the land purchased for surface rights. Dense plantation shall also be carried out on both the sides of coal transportation roads with at least of 2-meter height saplings in this monsoon of 2025. Plantation shall be done with the mainly native and fruit bearing species. Apart from this, gap plantation shall be done on the forestland involved in the ML area, in consultation with the forest department.

Following plantation plan shall be implemented in a time bound manner as committed.

Period/Year	Green belt develo	opment proposed ation	Cumulative total	Budgetary provision	Remarks
	Area in Ha.	Nos.	plantation	(in Crores)	
Up to 2024-25	156.40	3,91,000	3,91,000	Already done	Plantation completed.
2025-26	31.2	78,000	4,69,000	Already done	Completed in Monsoon 2025.
2026-27	15.0	37,500	5,06,500	1.34	Proposed
2027-28	15.0	37,500	5,44,000	1.34	Proposed
2028-29	15.0	37,500	5,81,500	1.34	Proposed
2029-30	15.0	37,500	6,19,000	1.34	Proposed
2030-31	15.0	37,500	6,56,500	1.34	Proposed
2031-32	15.0	37,500	6,94,000	1.34	Proposed
2032-33	15.0	37,500	7,31,500	1.34	Proposed
2033-34	15.0	37,500	7,69,000	1.34	Proposed
2034-35	15.0	37,500	8,06,500	1.34	Proposed
2035-36	15.0	37,500	8,44,000	1.34	Proposed
2036-37	15.0	37,500	8,81,500	1.34	Proposed
2037-38	15.0	37,500	9,19,000	1.34	Proposed

Period/Year		opment proposed tation	Cumulative total	Budgetary provision	Remarks
	Area in Ha. Nos.		plantation	(in Crores)	
2038-39	15.0	37,500	9,56,500	1.34	Proposed
2039-40	15.0	37,500	9,94,000	1.34	Proposed
2040-41	15.0	37,500	10,31,500	1.34	Proposed
2041-42	3.19	7,975	10,39,475	0.28	Final phase
Till the end of mine life/mine closure	415.79	10,39,475	10,39,475	20.38	

<sup>\*</sup>At the time of closure, 4.12 ha of mine infrastructures will be reclaimed, raising the total reclaimed area to 419.91 ha.

- 8. Project Proponent shall ensure that all types of plastic waste generated from the mines shall be stored separately in isolated areas and disposed of strictly adhering to the Plastic Waste Management Rules 2016. 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 the Ministry's Notification published by the Ministry on 12/08/2021. A report along with the photographs of the measures taken shall also be included in the six monthly compliance reports being submitted by PP.
- 9. PP should establish an Environment Management Cell at its mines in order to make sure that all the compliances related to environment are being complied efficiently. PP should conduct the monthly review meeting with the environment management cell shall be carried out at mine level and quarterly at with environment management committee of the company. The record of the same shall be maintained.
- 10. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project.
- 11. The Ministry or any other competent authority may stipulate any further condition for environmental protection.
- 12. 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.
- 13. Project Proponent is under obligation to obtain approvals /clearances under any other Acts/Regulations or Statutes, as applicable, to the project.
- 14. Project Proponent is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.
- 15. Validity of EC is as per the para 9 of EIA Notification 2006 read with its subsequent amendment dated 12th April 2022.
- 16. 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.
- 17. The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of Common Cause Vs Union of India & others.
- 18. The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology in strict compliance of the

judgment of Hon'ble Supreme Court. This environmental clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.

19. All other conditions stipulated in EC dated 09.05.2006 shall remain the same.

#### **General Instructions:**

- a. 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.
- b. 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.
- c. 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.
- d. 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.
- e. 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.
- f. 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.

### Agenda 31.3:

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

[Online Proposal No. IA/MP/CMIN/545832/2025; Consultant: JM Enviro Net Pvt. Ltd: NABET/EIA/2326/RA 0308 valid till 07/08/2026]

- **31.3.1:** The instant proposal is for amendment in Terms of Reference granted to M/s Rama Cement Industries Private Limited, accorded vide F. No. IA-J-11015/52/2014-IA.II(M) dated 09.09.2024 for Marwatola VII Coal Mine (area 1200 Ha having capacity of 1.5 MTPA), located in Villages: Malachua, Rangarh, Amgar, Aurher, Sub District: Pali, District: Umaria, State: Madhya Pradesh.
- **31.3.2: Previous Approvals:** PP submitted that earlier application for ToR for the said project was submitted vide proposal no. IA/MP/CMIN/481561/2024 dated 27.06.2024. The proposal was considered in the 14<sup>th</sup> EAC meeting dated 7<sup>th</sup>-8<sup>th</sup> Aug 2024. ToR has been granted by MoEF&CC vide F. No. IA-J-11015/52/2014-IA. II (M) dated 09.09.2024

The mine is a greenfield project yet to start its operation. Public Hearing has been conducted on 24.05.2025. The project proponent is seeking an amendment to the granted ToR due to change in quantum of forestland and non- forestland area details, keeping the mine lease area intact i.e. 1200 ha.

31.3.3: Details of the amendment sought in ToR issued vide letter no. IA-J-11015/52/2014-IA.II(M) dated 09.09.2024:

IA.II(M) (				T 1101	E /E 2 /2 0.1 A	A mandagant haina asuaht					4
Ref.		er ToR lett			5/52/2014-		Amendment being sought				
		I (M) dated									
Point No.		ubmitted the					PP submitted that the project involves total				
5		.531 ha of						1142 ha of			
ъ.		t area, 992						1000.3379			
Forest	40.88	38 ha is Prote	ected Fore	st, and 26	6.003 ha is	ha	ı is	Protected	Forest, a	ind 25.2	230 ha is
Area	Reve	nue Forest	t. Applic	ation f	or forest	Re	evei	nue Forest.	PP further	submitt	ed that the
	Clear	ance has be	een submi	itted vide	proposal	62	24.6	439 ha area	is propose	d to be di	isturbed.
	no.	FP/MP/MI	N/QRY/48	31237/20	24 dated						
	19.06	5.2024. PP ft	arther sub	mitted tha	at 621.061						
	Ha aı	rea is propos	ed to be d	isturbed.							
Point No.	Total	block area	is 1200	ha: out	of which.	Т	otal	block area i	s 1200 ha:	out of wh	ich. 4.6943
7,		ha is Gov						Govt. Land.			
Subpoint		, and 1059.5				1		1142 ha is l			
No. (vii)		, 1003.0	0 1 110 10 1	01401200							
Point No.	Pre-i	mining (in I	Ha)			Pre-mining (in Ha)					
7,	S.	Land	Withi	Outsi	Total		S.	Land	Within	Outsi	Total
Subpoint	N.	Use	n ML	de	(Ha)	1 1	9. N	Use	ML	de	(Ha)
No. (viii)	0.	Osc	area	ML	(114)		D.	OSC	area	ML	(114)
Details of	0.		(Ha)	area		II `	•		(Ha)	area	
Land			(114)	(Ha)					(114)	(Ha)	
Usage	1.	Agricult	136.30	- (11 <i>a)</i>	136.30		1.	Agricult	134.49	(11 <i>a</i> )	134.49
8-	1.	ural	2		2			ural	19		19
		Land	~					Land	17		
	2.	Forest	1059.5	_	1059.5		2.	Forest	1063.1	-	1063.1
	2.	Land	31		31		۷٠	Land	142		142
	3.	Waste	-	_	-		3.	Waste	172	_	172
	3.	Land		_		~	٠.	Land	-		-
	4.	Grazing	-	_	_		4.	Grazing		-	
		Land	-	-	-		т.	Land	-	-	-
	5. Surface 0.113 - 0.113 5.							Surface		_	
	] ] 3.	Water	0.113	-	0.113	~	٥.	Water	_	-	
		Bodies						Bodies	-		-
	6.	Settleme	0.320	_	0.320		5.	Settleme			
	0.		0.320	_	0.320	11,	J.		0.3320	-	0.3320
	7	nts 2.724 2.724						nts			
	7.	Other	3.734	-	3.734	11	7.	Other	2.0619	-	2.0619
		(Barren/						(Barren/			

Ref.	As per ToR letter no. IA-J-11015/52/2014-IA. II (M) dated 09.09.2024					Amendment being sought				
	Others,					Others,				
	Road)					Road)				
	TOTAL	1200	-	1200		ΓΟΤΑL	1200		1200	
Observati	The proposal is	a green	field pro	ject. It is	Tl	The proposal is a greenfield project. It is				
on and	opencast cum un	derground	l mine. T	otal mine	op	opencast cum underground mine. Total mine				
Deliberati	lease area is 1200	Ha, out	of which	1059.531	lease area is 1200 Ha, out of which 1063.1142					
ons of the	ha is the forest la	and and 6	21.061 ha	a of forest	ha is the forest land and 624.6439 ha of forest					
Committe	land is propose	ed to b	e distur	bed. The	land is proposed to be disturbed.					
e Point	application for forest clearance has been									
No. 16	submitted by the PP vide proposal no									
Sub Point	FP/MP/MIN/QRY/481237/2024 date									
No. (ii)	19.06.2024.									

A recommendation letter has also been received from the Additional Principal Chief Conservator of Forest regarding revised forest area from 1059.531 ha to 1063.1142 ha and nonforest area from 140.469 ha (Govt. Land: 6.516 ha & Pvt. Land: 133.953 ha) to 136.8858 ha (Govt. Land: 4.6943 ha & Pvt. Land: 132.1915 ha) vide F-1/886/2025/FP/MP/MIN/QRY/481237/2024/1852, Bhopal, dated 07.07.2025. However, the total mine lease area i.e. 1200 ha remains same.

**31.3.4: Details of the revised Mine plan & Mine closure Plan (MP&MCP) and the revised pre-feasibility report:** Minor updations/changes in Approved Mining Plan & Mine Closure Plan of Marwatola VII Coal Mine under Para 2.9 (b)-Revision of Mining Plan, Mining Plan Guidelines for Coal & Lignite Mine 2025, dated 31.01.2025, Revision-01, has been done at all respective places in the Mining Plan via board approval on 12.07.2025 and approval regarding the same updations has been submitted to the Coal Controller, CCO, Ministry of Coal, Govt. of India, vide letter dated 28.07.2025.

PP also submitted the revised pre-feasibility report with aforesaid changes. Following are the changes proposed in ToR dated 09.09.2024 with justification/reason for Amendment

S.	Reference	As per ToR dated 09.09.2024	Amendment	Justification/Reason for
No.			required	Amendment
1	Point No. 5	PP submitted that the project	PP submitted	After acceptance of Forest Diversion
	Forest Area	involves total 1059.531 ha of	that the project	Proposal in PSC-1, while carrying out
		forestland. Out of the total	involves total	tree enumeration,
		forest area, 992.64 ha is	1063.1142 ha	Dept. of Forest considered the KML
		Reserved Forest, 40.888 ha is	of forest land.	maps supplied to them in year 2024 in
		Protected Forest, and 26.003	Out of total	place of old maps available at the
		ha is Revenue Forest.	forest area,	time of survey & demarcation and
		Application for forest	1000.3379 ha	verifying land schedule. As per new
		Clearance has been submitted	is	KML maps some variation in original
		vide proposal no.	Reserved	authenticated land schedule was
		FP/MP/MIN/QRY/481237/20	Forest,	observed.
		24 dated 19.06.2024. PP	37.5533 ha is	Accordingly, joint "Mauka
		further submitted that 621.061	Protected	Panchnama" was prepared.
		Ha area is proposed to be	Forest and	According to Panchnama & KML
		disturbed.	25.223 ha is	maps, component wise forest land is
			Revenue	1063.1142 ha due to (OC + UG +
			Forest. PP	Infrastructure)
			further	(588.7026 ha + 438.4703 ha +
			submitted that	35.9413 ha).
			the 624.6439	
			ha area is	

S. No.	Reference	As per ToR d	lated 09.09.2024	Ameno		Justification	n/Reason for dment
NU.				proposed to be disturbed.  Meanwhile, a letter received from the Additional Pr Conservator of For revised forest area from 140.469ha (Govt Land: 6.516 ha & 133.953ha) to 136.8858ha (Govt. Land: 132.1915ha 1/886/2025/FP/MP/MI			ter has also been al Principal Chief Forest regarding a from 1059.531ha and non-forest area Govt. & Pvt. Land: Land: 4.6943ha & 5ha) vide S. No. F- P/MIN/QRY/4812 Bhopal, dated rever, total mine
2	Point No. 7, Sub point No. (vii)	of which, 6.5 Land, 133.953	ea is 1200 ha; out 516 ha is Govt. 3 ha is Pvt. Land, ha is Forestland.	Total area is ha; or which, ha is Land, 132.191 Pvt. Lar 1063.11 is Fores	ut of 4.6943 Govt. 5 ha is nd, and 42 ha	Justification simila	
3		Use, total mi 1200 ha, Agricultural ha, Forest Lan Surface Water 0.113 ha, Settl	Pre-Mining Land ne lease area is out of which Land is 136.302 d is 1059.531 ha, Bodies covering lements are 0.320 s covering 3.734	Accordi Pre-Min Land total lease a 1200 ha which Agricult Land 134.491 Forest I 1063.11 Settleme are 0.33	use, mine rea is, out of tural is 42 ha, ents 320 ha Others	Justification simila	ar at S. No. 1.
Pre N	Tining land use	<u> </u>		Pre Min		use	
S. no.	Land use		Within ML area (ha)	S. no.	Land u		Within ML area (ha)
1	Agricultural	land	136.302	1		ltural land	134.4919
2	Forest land		1059.531	2	Forest		1063.1142
3	Waste land			3	Waste		
4	Grazing land			4	Grazin		
5	Surface Wat	ter Bodies	0.113	5	Surface	e Water Bodies	
6	Settlements		0.320	6	Settlen	nents	0.3320
7	Other (E	Barren/Others,	3.734	7	Other road)	(Barren/Others,	2.0619
	Total		1200.000		Total		1200.00
4	Observatio n and	project. It is	is a greenfield s opencast cum mine. Total mine	The pris a gre project.		Justification simila	r at S. No. 1.

S.	Reference	As per ToR dated 09.09.2024	Amendment	Justification/Reason for
No.			required	Amendment
	Deliberatio	lease area is 1200 Ha, out of	opencast cum	
	ns of the	which 1059.531 ha is the forest	underground	
	Committee	land and 621.061 ha of forest	mine. Total	
	Point No.	land is proposed to be	mine lease	
	16 Sub	disturbed. The application for	area is 1200	
	Point No.	forest clearance has been	Ha, out of	
	(ii)	submitted by the PP vide	which	
		proposal no.	1063.1142 ha	
		FP/MP/MIN/QRY/481237/20	is the forest	
		24 dated 19.06.2024.	land and	
			624.6439 ha of	
			forest land is	
			proposed to be	
			disturbed.	

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

### Observations and deliberation of the Committee:

# 31.3.6: The EAC noted the following:

- 1. The instant proposal is for grant of amendment in the terms of reference accorded to M/s Rama Cement Industries Private Limited, vide F. No. IA-J-11015/52/2014-IA.II(M) dated 09.09.2024 for Marwatola VII Coal Mine (area 1200 Ha having capacity of 1.5 MTPA), located in Villages: Malachua, Rangarh, Amgar, Aurher, Sub District: Pali, District: Umaria, State: Madhya Pradesh.
- 2. The said project is a Greenfield project and the public hearing for the same has been held on 24.05.2025.
- 3. The instant proposal is for seeking amendment in the ToR granted, regarding change in the quantum of forestland and the non-forestland, keeping the total ML area same as 1200 Ha.
- 4. During the deliberation, Committee observed that, as per the recommendation letter received from the Additional Principal Chief Conservator of Forest regarding revised forest area from 1059.531 ha to 1063.1142 ha and non-forest area from 140.469 ha (Govt. Land: 6.516 ha & Pvt. Land: 133.953 ha) to 136.8858 ha (Govt. Land: 4.6943 Pvt. 132.1915 vide F Land: ha) ha 1/886/2025/FP/MP/MIN/QRY/481237/2024/1852, 07.07.2025. Bhopal, dated However, the total mine lease area i.e. 1200 ha remains same.
- 5. Committee further deliberated on the changes made in the mine plan and progressive mine closure plan as per proposed changes in the quantum of type of land. PP submitted that the minor updations/ changes in Approved Mining Plan & Mine Closure Plan of Marwatola VII Coal Mine under Para 2.9 (b)-Revision of Mining Plan, Mining Plan Guidelines for Coal & Lignite Mine 2025, dated 31.01.2025, Revision-01, has been done at all respective places in the Mining Plan via board approval on 12.07.2025 and approval regarding the same updations has been submitted to the Coal Controller, CCO, Ministry of Coal, Govt. of India, vide letter dated 28.07.2025.

- 6. PP also submitted the revised pre-feasibility report w.r.t the changes proposed in the type of land.
- 7. Committee further deliberated on the aspect of the project falling within 0.053 km of a tiger corridor, connecting Bandhavgar National Park and Achanakmar Wildlife Sanctuary, for which, while granting the ToR, Committee asked to seek comments of NTCA for the same. Member Secretary apprised the Committee that, NTCA was approached to provide the comments for the same. As per the comments received from NTCA, it is stated that "Bandhavgarh is a high density tiger area where land tenurial dynamics of the species will result in spill over of tigers within the central Indian meta population complex. As the proposed project site abuts an identified tiger corridor, the project proponent may be advised to seek wildlife clearance as per extant norms."

Therefore, the Committee opined that the PP shall comply with the same before submitting the application for EC.

8. There are no court cases pending on the project.

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

**31.3.7:** In view of the foregoing and after the detailed deliberations, the Committee *recommended* the instant proposal for grant of amendment in the TOR granted vide F. No. IA-J-11015/52/2014-IA.II(M) dated 09.09.2024, as detailed below, subject to stipulation of the following additional specific Terms of Reference (ToR):

Reference		<b>Description</b>					Reco	mmendation	of EAC	
		11015/52/2014								
Point No. 5 –		omitted that the				Agree				
Forest Area		est land. Out o				EAC agreed to the follows:				
		ved Forest, 40								
		3 ha is Reven					ubmitted that th			
		ince has been					est land. Out o			
		P/MIN/QRY/48					ved Forest, 37			
		r submitted tha	t 621.061 H	a area is pro	oposed to be	1	30 ha is Revenu			
		disturbed.					139 ha area is p	proposed to be	e disturbed	"
Point No. 7,	Total block area is 1200 ha; out of which, 6.516 ha is					Agree				
sub-point	Govt. Land, 133.953 ha is Pvt. Land, and 1059.531 ha is					EAC a	agreed to the fo	llows:		
No. (vii)	Forest Land.									
							l block area is			
						Govt. Land, 132.1915 ha is Pvt. Land, and 1063.1142 ha is				
						Forest Land."				
Point No. 7,		ining (in Ha)	T			Agreed.				
sub-point	S.	Land Use	Within	Outside	Total	EAC agreed to the follows:				
No. (viii)	No.		ML area	ML	(Ha)	S.	Land Use	Within	Outside	Total
Details of			(Ha)	area		No.		ML area	ML	(Ha)
Land Usage			126202	(Ha)	12 ( 202			(Ha)	area	
	1.	Agricultural	136.302	-	136.302	1	A 1 1 1	124 4010	(Ha)	124 4010
		Land	1050 521		1050 521	1.	Agricultural	134.4919	-	134.4919
	2.	Forest Land	1059.531	-	1059.531		Land	1062 1142		1062 1142
	3.	Waste Land	-	-	-	2.	Forest Land	1063.1142	-	1063.1142
	4.	Grazing	-	-	-	3.	Waste Land	-	-	-
	Land				0.112	4.	Grazing	-	-	-
	5. Surface 0.113 - 0.113			0.113	5.	Land Surface				
		Water				3.			-	
	6	Bodies	0.220		0.220		Water Bodies	-		-
	6.	Settlements	0.320	-	0.320	6		0.3320		0.3320
						6.	Settlements	0.3320	-	0.5520

Reference		<b>Description</b> 11015/52/2014	-			Recommendation of EAC				
	7.	Other	3.734	-	3.734	7.	Other		-	
		(Barren/					(Barren/	2.0619		2.0619
		Others,					Others,	2.0019		2.0019
		Road)					Road)			
	TOTAL 1200 - 1200						ΓAL	1200		1200
Observation	The p	roposal is a gr	eenfield pro	ject. It is o	pencast cum					
and	under	ground mine. 7	Total mine le	ase area is	1200 Ha, out	EAC agreed to the follows:				
Deliberations	of wh	ich 1059.531 l	na is the for	est land and	l 621.061 ha					
of the	of for	est land is prop	osed to be di	sturbed. Th	e application	"The	proposal is a	greenfield pr	roject. It is	opencast cum
Committee	for fo	for forest clearance has been submitted by the PP vide					e underground mine. Total mine lease area is 1200 Ha, out o			
Point No. 16	propo	proposal no. FP/MP/MIN/QRY/481237/2024 date								
Sub Point	19.06.2024.					forest land is proposed to be disturbed."				
No. (ii)										

### **Additional Specific ToR:**

- 1. Project proponent shall apply for the Wildlife Clearance for the identified tiger corridor abuts to the project site, before submitting the application for EC as per the provisions contained under the Office Memorandum dated 17/05/2022 of MoEF&CC.
- 2. Status of Stage I FC for diversion of 1063.1142 ha shall be submitted as per MoEF&CC O.M. dated 09/09/2011 & its amendment.

### Agenda No. 31.4:

31.4: Talaipalli Coal Mining Project [having the production capacity of 18.72 MTPA (18 MTPA OC: 0.72 MTPA UG) within the ML area of 2113 Ha] by M/s NTPC Mining Limited, located at villages: Talaipalli, Bichinara, Nayarampur, Kudurmoha, Raikera, Chotiguda, Ajigarh and Salehpalli; Tehsil: Gharghoda; District: Raigarh; State: Chhattisgarh – Amendment in Environment Clearance – reg.

[Online Proposal no. IA/CG/CMIN/546232/2025; Consultant: Min Mec Consultancy Private Limited: NABET/EIA/25-28/RA 0399 – valid up to 30.03.2028]

**31.4.1:** M/s. NTPC Mining Limited has made an online application vide proposal no. IA/CG/CMIN/546232/2025 dated 11.08.2025 seeking for amendment in Environment Clearance granted vide letter J-11015/279/2009-IA.II(M) dated 02.01.2013 to NTPC Limited further transferred to M/s NTPC Mining Limited vide letter dated 06.03.2024.

M/s. NTPC mining limited accorded EC for the project Talaipalli Coal Mining Project vide letter no. J-11015/279/2009-IA.II(M) dated 02.01.2013. Details of previous approvals are as follows:

S. No	Details of Letter No.	EC/ Expansion EC/ Amendment EC/ Validity extension/ Transfer of EC	Capacity (MTPA)	Area (Ha)	Date of issuance	Status of Implementation
1.	J- 11015/279/2009- IA.II (M))	EC	18.72	2349.35	dated 02.01.2013	Being implemented
2.	J- 11015/279/2009- IA.II (M)	Revalidation	18.72	2349.35	28.10.2015	Being implemented
3.	J- 11015/279/2009- IA.II (M)	Amendment	18.72	2349.35	06.11.2019	Being implemented

S. No	Details of Letter No.	EC/ Expansion EC/ Amendment EC/ Validity extension/ Transfer of EC	Capacity (MTPA)	Area (Ha)	Date of issuance	Status of Implementation
4	J- 11015/279/2009- IA.II (M)	Transfer from NTPC to NML	18.72	2349.35	06.03.2024	Being implemented

The details of the condition for which amendment is sought and justification for the same is as follows:

Specific/ General Condition No	Details of Conditions as per EC	Amendment Sought	Justification
Para 1, page 1	The mine is captive to company's Lara Super Thermal Power Project (4000 MW) located at a distance of 60 km	The mine is captive to company's Lara Super Thermal Power Project (4000 MW) located at a distance of 60 km. However, the surplus coal after meeting the EUP requirement will be sold / utilized as per the government directives and / or in accordance with the Clause no. 8 of Allotment Agreement and hence the surplus coal may be sold to any consumer from the pit head or nearest railway siding via road or road cum rail mode	Excess production than EUP consumption.     MGR connectivity with IR system on western side
Para 1.5, page 2	An estimated 56,727 TPD of coal would be transported through an MGR system of 180.54 ha of land upto Kotaraliya Railway Siding to the linked Lara Super Thermal Power Station at a distance of 60 km	An estimated 56,727 TPD of coal would be transported through an MGR system of 180.54 ha of land upto Kotaraliya Railway Siding to the linked Lara Super Thermal Power Station at a distance of 60 km when Lara STPP achieves full capacity. Till such time, Lara STPP achieves full capacity, surplus coal production after meeting the EUP requirement will be sold / utilized as per the government directives and / or in accordance with the Clause no. 8 of Allotment Agreement and hence the surplus coal may be sold to any consumer from the pit head or nearest railway siding via road or road cum rail mode	Excess production than EUP consumption.     MGR connectivity with IR system on western side
Para 1.6, page 2	CSR plan has been prepared for Rs. 40 crores	To be omitted	CSR is in the domain of Ministry of Corporate Affairs under Companies Act, 2013 and stipulation of CSR by

Specific/ General Condition No	Details of Conditions as per EC	Amendment Sought	Justification
			MoEF&CC will create ambiguity in multiple reporting and duplication
A. Specific condition no. xxvi	The details of the activities and expenditure made thereon in each of the villages taken up under CSR shall be displayed on the company's website and updated at least once in six months	To be omitted	CSR is in the domain of Ministry of Corporate Affairs under Companies Act, 2013 and stipulation of CSR by MoEF&CC will create ambiguity in multiple reporting and duplication

# PP submitted the following prospective requirement of the coal for Lara STPP

- Coal production for FY 2024-25 was 11.04 MTPA. After meeting Lara STPP & other NTPC Plant requirement. Balance 1.5 MT coal is available at site.
- The installed capacity at NTPC Limited's Lara STPP for stage-I is 1600 MW (2x800 MW) and for stage-II is 1600 MW (2x800 MW). Stage-I is already commissioned while commissioning of its stage II (unit-3 & 4) is expected in September 2027 & March 2028 respectively against an EC of 4000 MW.
- The anticipated coal production and consumption:

Year	Planned production (MTPA)	Consumption at Lara STPP (MTPA)	Balance available (MTPA)
2025-26	11	8	3
2026-27	13	8	5
2027-28	15	11.3	3.7
2028-29	18	14.6	3.4

- It is proposed to transport 2.5 MTPA coal by road from Talaipalli CMP to nearest railway siding at Korichhappar (at a distance of 14 km) and from there to the Power Plants of NTPC Limited, as per requirement, through Indian Railway. Equivalent to 6,850 TPD of coal using 176 trucks trips per day using 39 T trucks (352 trucks (to & fro).
- Balance will be sold/ utilized as per the government directives and/ or in accordance with the Clause no. 8 of Allotment Agreement and sold to any consumer from pit head or nearest railway siding via road/ road cum rail mode.
- The arrangement is required till LARA STPP attains 4000 MW capacity.

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

### 31.4.2: The Committee noted the following during the meeting:

- 1. The instant proposal is for grant of amendment in the Environment Clearance granted to M/s NTPC Ltd vide letter dated 02.01.2013 and further transferred to M/s NTPC Mining Ltd vide letter dated 06.03.2024 for Talaipalli Coal Mining Project (having the production capacity of 18.72 MTPA within the ML area of 2113 Ha), located at villages: Talaipalli, Bichinara, Nayarampur, Kudurmoha, Raikera, Chotiguda, Ajigarh and Salehpalli; Tehsil: Gharghoda; District: Raigarh; State: Chattisgarh.
- 2. Based on the discussion held and the documents submitted, Committee is of the view that there are many shortcomings in the project/ submission.
  - a) EAC deliberated on the DSS KML of the ML area and observed that the project involves forestland of 710.1 Ha. However, the Stage II forest clearance has been obtained for 766.393 Ha. There was no clarity submitted in this regard as to why the forest clearance has been taken for extra 56.293 Ha of forest land and what is the current status of the 56.293 Ha of forestland.
  - b) EAC observed that, as per the application submitted on Parivesh portal, 1,62,510 nos of trees have been cut down. PP needs to submit the permission obtained in this regard.
  - c) The instant proposal is for seeking permission to transport coal to power plants other than Lara Super Thermal Power Project (STPP). However, no clarity was provided as to the power plants to which the remaining coal will be supplied.
  - d) Committee opined that originally the coal was proposed to be transported to Lara Super Thermal Power Project (STPP) only. Accordingly, the public was informed in the public hearing. However, now the coal will be transported to other users as well, about which the public is not aware. Since the coal will be transported by road passing through various villages up to a distance of approx. 14 km, Committee opined that the villagers shall be aware of the same.
  - e) Committee opined, that the PP shall also submit a time bound action plan to mitigate the air pollution and noise pollution of the route and the villages falling in the route through which the remaining coal will be transported.
  - f) There are various discrepancies observed in the agenda documents (Annexure III) submitted by the PP. Committee observed that the quarry area is 1848.38 Ha out of which, backfilling will be done in 1848.38 Ha, while the final mine void will be created in an area of 230.96 Ha with a depth of 60 m. Committee sought clarity in this regard, as to how the entire quarry area is shown as supposed to be backfilled, when there is void proposed for 230.96 Ha.
  - g) In the baseline data submitted by the PP in the Annexure II and Annexure III, the very high incremental GLC values are submitted to be measured at a distance of 20 km, for both core zone and the buffer zone. However, the distance for buffer zone is considered till 10 km. Committee sought clarification in this regard.
  - h) In the baseline data submitted, the details of heavy metals have not been included for the ground water quality and the surface water quality.
  - i) Committee observed that a 14.385 Ha water body is proposed to be removed from the ML area. Committee sought the information for the alternative arrangements that have been made for the villagers in this regard.
  - j) Committee sought the details of the hourly peak traffic and the corresponding carrying capacity of the road proposed to be used for the transportation of coal. Heavy traffic is observed on the village roads on coal transportation route. PP shall suggest the remedial measures for the improvement in level of Service of road.

3. Based on the discussion held and the documents submitted by the PP, Committee expressed its displeasure with the PP for having a very casual approach in submitting the information to the Ministry and wasting the time of the Expert Appraisal Committee, as the PP failed to answer the basic queries of the EAC during the deliberation. Further, the EAC opined that the entire proposal including, the application form on Parivesh Portal, Presentation, etc shall be revisited in totality and accordingly a fresh proposal shall be submitted after addressing all shortcomings including the above.

## **Recommendations of the Committee:**

**31.4.3:** In view of the foregoing and after detailed deliberations, the Committee *returned the proposal in its present form* and asked the proponent to revisit the application form on Parivesh portal, presentation and the agenda documents in totality and submit a fresh proposal after addressing all the shortcomings for consideration by the EAC.

### **Agenda 31.5:**

31.5: Dipka Opencast Coal Mine Project (increase in ML area from 1999.293 Ha to 1999.386 ha with increase in production capacity from 37.5 MTPA to 40 MTPA), by M/s South Eastern Coalfields Limited, located in villages: Dipka; Tehsil: Katghora; District: Korba; State: Chhattisgarh – Prescribing of Terms of Reference – reg.

[Online Proposal no. IA/CG/CMIN/540806/2025; File No. J-11015/487/2007-IA-II(M)] Consultant: CMPDIL: NABET/EIA/25-28/RA 0412 valid till 08/04/2028]

**31.5.1:** M/s. South Eastern Coalfields Limited has made an online application vide proposal no. IA/CG/CMIN/540806/2025 dated 25.07.2025 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no 1(a) Mining of Minerals, Under Category "A" of the schedule of the EIA Notification, 2006 and does not attract general condition and appraised at Central Level.

The Dipka Opencast Coal Mine Project of M/s South Eastern Coalfields Ltd is a brownfield project, located at Dipka Village, Katghora Tehsil, Korba District, Chhattisgarh State and is proposed for increase in ML area from 1999.293 Ha to 1999.386 Ha with increase in production capacity from 37.50 MTPA to 40.00 MTPA.

The above mentioned project was earlier granted ToR for 35 MTPA to 40 MTPA with increase in project area from 1999.293 Ha to 1999.386 Ha, vide letter no. J-11015/487/2007-IA.II(M)pt, dated 08.06.2020. Later, EC for 37.50 MTPA was accorded on 05.09.2022 under clause 7 (ii) as per special dispensation OM Dated 07.05.2022. Accordingly, amendment in ToR with production expansion from 37.50 MTY to 40.00 MTY in a lease hold area of 1999.386 Ha was accorded by the PP vide letter No. J-11015/487/2007-IA-II (M) dated 09.01.2023.

Public Hearing has already been conducted for an area of 1999.386 Ha on 09.06.2023 (for 37.50 MTPA to 40.00 MTPA). Compliance of issues raised during Public Hearing have been submitted to RO CECB, Korba on 15.07.2023 by the PP and subsequently forwarded to MOEF&CC by CECB on 01.08.2023.

As the TOR was issued by MOEF&CC on 08.06.2020 which was valid up to 07.06.2024 as per the Gazette Notification S.O.751 (E) dated 17.02.2020 and further extended to 07.06.2025 as per the Gazette Notification. S.O. 221 (E) dated 18.01.2021.

However, in the mean while regularization of the EC accorded vide letter dated 05.09.2022 was obtained on 20.05.2025 and the ToR accorded for expansion up to the production capacity of 40 MTPA within the ML area of 1999.386 Ha got lapsed.

Now, the application has been submitted by the PP to obtain a fresh ToR for Dipka Opencast Coal Mine Project (increase in ML area from 1999.293 Ha to 1999.386 ha with increase in production capacity from 37.5 MTPA to 40 MTPA), with exemption of Public hearing as PH has already been conducted on 09.06.2023 for the project area of 1999.386 Ha.

As per Ministry's OM dated 08.06.2022, para 6 (iii), it is stated that "The baseline data and Public Hearing shall not be more than three years old at the time of submission of application for consideration of EC."

As the PH for the above mentioned project was held on 09.06.2023, the same shall be valid till 08.06.2026. Similarly, the baseline data submitted by the PP is collected during October – December 2022 and the same is valid till December 2025.

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

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

S.	Details of Letter No.	Expansion	Capacity	Area (ha)	Date of	Status of
No		EC	(MTPA)		issuance	implementation
1)	J-11015/7/93-IA.II(M)	EC	10.00	1551.36	27.07.1993	Project is
		(EPA,1986)				implemented
2)	J-11015/87/2007- IA-II.(M)	EC Expansion	20.00	1461.51	04.10.2004	and the mine is
3)	J-11015/487/2007- IA-II.(M)	Expansion EC	25.00	2000.642	03.06.2009*	under operation.
4)	J-11015/487/2007- IA-II.(M)	Expansion EC	30.00	1999.293	12.02.2013	
5)	J-11015/487/2007- IA-II.(M)	Expansion EC	31.00	1999.293	06.02.2015	
	pt					
6)	J-11015/487/2007- IA-II.(M)	Expansion EC	35.00	1999.293	20.02.2018	
	pt					
7)	J-11015/487/2007- IA-II.(M)	Validity	35.00	1999.293	20.03.2019	
	pt	extension				
8)	J-11015/487/2007- IA-II.(M)	Validity	35.00	1999.293	09.03.2020	
	pt	extension				
9)	J-11015/487/2007-IA-II(M)	Expansion EC	37.50	1999.293	05.09.2022	
10)	J-11015/487/2007-IA-II(M)	Regularization	37.50	1999.293	20.05.2025	

<sup>\*</sup> EC issued in 2009 for 25 MTPA in an area of 2000.642 ha; however, all the subsequent ECs were issued in an area of 1999.293 ha.

With respect to the previous approvals, PP submitted the actual production details of the concerned mine and submitted that the mine became operational from 1988-89 onwards. Consent to Operate (CTO) renewal was granted by CECB vide letter no: 11697/TS/CECB/2025, dated 11.03.2025 and is valid up to 14.03.2026. Details of the same is as follows:

Year	Actual Coal Production in	Planned Coal Production in MTPA as	Excess
	MTPA	per EC	Production
1988-89	0.41	<del>-</del>	0.00
1989-90	1.49	<del>-</del>	0.00
1990-91	2.12	<del>-</del>	0.00
1991-92	2.22	-	0.00
1992-93	2.43	-	0.00
1993-94	3.55	10.00	0.00
1994-95	4.18	10.00	0.00
1995-96	4.63	10.00	0.00
1996-97	5.03	10.00	0.00
1997-98	5.44	10.00	0.00
1998-99	6.99	10.00	0.00
1999-00	8.20	10.00	0.00
2000-01	9.11	10.00	0.00
2001-02	11.95	10.00	1.95
2002-03	12.68	10.00	2.68
2003-04	13.66	10.00	3.66
2004-05	15.39	20.00	0.00
2005-06	17.94	20.00	0.00
2006-07	19.08	20.00	0.00
2007-08	21.50	20.00	1.50
2008-09	22.809	20.00	2.809
2009-10	24.09	25.00	0.00
2010-11	25.00	25.00	0.00
2011-12	25.00	25.00	0.00
2012-13	29.13	30.00	0.00
2013-14	29.20	30.00	0.00
2014-15	31.00	31.00	0.00
2015-16	31.00	31.00	0.00
2016-17	31.00	31.00	0.00
2017-18	34.35	35.00	0.00
2018-19	35.00	35.00	0.00
2019-20	25.18	35.00	0.00
2020-21	34.36	35.00	0.00
2021-22	34.37	35.00	0.00
2022-23	32.14	37.50	0.00
2023-24	33.41	37.50	0.00
2024-25	33.53	37.50	0.00

There are two court cases pertaining to the excess production which are under sub judice as mentioned at para no. 31.5.14. Details of the same also been provided in the EC accorded for regularization vide letter dated 20.05.2025.

# 31.5.3: Environmental Site Settings:

The project area is covered under Survey of India Topo Sheet No. 64 J/11, Scale- 1:50000 and is bounded by the geographical coordinates ranging from  $22^018'59"$  to  $22^019'43"$  N and  $82^030'47"$  to  $82^033'34"$  E.

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

Mining Lease: PP submitted the following details of the mining lease:

S.	Notifications under CBA	Area as per	Area involved in	Remarks
No.	acquisition	Notification	instant proposal	
		(Ha)	(Ha)	
1.	S.O.1562, dated: 11 <sup>th</sup> April 1986	1701.363	1999.386	The remaining land
2.	S.O.3095, dated: 24 <sup>th</sup> November	333.366		140.281 ha
	2004			(2139.667 ha-
3.	S.O.758, dated:15 <sup>th</sup> March 2010	104.938		1999.386 ha) is part
	Total	2139.667	1999.386	of 333.366 ha
4.	Details of LOI (for area outside	0	0	notification in S.
	lease area)			No 2. The balance
	Grand Total	2139.667	1999.386	land is non-forest
				land and being used
				by another project
				(Gevra OC) of
				SECL.

# Land requirement details:

Nature of land involved	Area Existing (Ha)	Additional Area Proposed (Ha)	Total Area required after expansion (Ha)
Non-Forest Land	1590.237	0	1590.237
Forest Land	409.056	0.093	409.149
Total	1999.293	0.093	1999.386

**Forest Area:** The project involves total 409.149 Ha of forest land and the details of the approval already obtained or applied for is as follows:

S. No.	Obtained vide letter No.	Area (Ha)	Stage I/II	Validity
1.	F.No. 8-78/2006-FC, dated -31.01.2022	148.866	Stage-II	Coterminous with the Mining Lease or 20 years (Stage-II FC obtained for 133.707 Ha on 31.01.2022)
2.	F.No. 8-80/2006-FC, dated – 20.10.2006	206.638	Stage-II	Coterminous with the Mining Lease or 20 years (Stage-II FC for 174.925 Ha granted by MoEF&CC on 27.05.2025; Balance area of 22.33 Ha for which FRA was not issued will be included in the future FC proposal of SECL Dipka involving Renki Village)
3.	F.No. 8-8/2006-FC, dated – 03.03.2010	33.84	Stage-II	Coterminous with the Mining Lease
4.	F No 8C/6/591/98- FCW/78, dated:11.01.2001	16.794	Stage-II	Coterminous with the Mining Lease
5.	FNo.8B/115/2001- FCW/869, dated:03.04.2002.	2.918	Stage-II	Coterminous with the Mining Lease
6.	F.No. 8-78/2006-FC(Pt.) dated: 27.05.2025	0.093	Stage-II	Coterminous with the Mining Lease
	Total	409.149	1 DD 1 '44	1.1

Total broken forest land is 175.925 Ha and PP submitted that there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

**Protected Area:** The project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc.

PP further submitted that Wildlife Conservation Plan (WLCP) was prepared by The Tropical Forest Research Institute, Jabalpur in year 2020. Wildlife conservation plan for Schedule I

species Sloth Bear (Melursus ursinus) VU, Common leopard (Panthera pardus) VU, Indian Python (Python molurus) VU, King cobra (Ophiophagus Hannah) VU, Jackal (Canis aureus) LC, Indian Monitor lizard (Varanus benghalensis) NT, Rat snake (Ptyas mucosa Linnaeus) (LC) and Russell's Viper Daboia Russlii (LC) are Scheduled I species (as per WPA 2022) found in study area has been submitted to State Forest Department and approved on 04.11.2022. An amount of Rs.15.47 Crores has been paid to CAMPA for implementation of the plan.

**Other Sensitive Receptors:** 

Project site proximity to sensitive area	Distance in	ı km (wit	hin 5 km fro	m the N	AL area	)
scusiuve area	Habitation (Villa	ige)	Distance (	km)	Di	rection
	Pragati Nagar township		<1		North East	
	Urja Nagar township		4			orth East
	Renki village		2.56			uth west
	Jhabar village		0.55			North
	Dipka		0.67			orth East
	Kalihamuda Vill	age	5.50			North
	Sirki Village	8	Core zoi	ne		Project Are
	Batari Village	;	2.81			North
	Puljar		4.20			North
i. Habitation	Raliya		1.95			uth East
	Ramtarai		1.09			rth West
	Hardi Bazar		0.24			South
	Kekranar		1.86			rth West
	Pakhnapara		3.99			rth West
	Rainpur		3.90			rth West
	Ratija		1.50		North West	
	Andikachar		3.48		South West	
	Nawapara		3.60		South West South East	
	Chhindpur		3.75		South East	
	Schools		Distan			Direction
	St Thomas Public School, Pragati Na		ati Nagar		96	North Eas
	Indus Public school, Batari				50	North wes
	Govt Middle School Jhabar			0.4		South
	DAV public school, Gevra			0.3		North east
	Beacon English Medi					North east
ii. School	Secondary School	am mgne		5.		1 torth cust
	Sarvamangala Second	lary schoo	l Ihahar	0.0	03	North East
	Higher secondary sch			2.		North wes
	Govt.School, Chodha			4.2		South
	Governoon, enouna			1.2		West
	Govt Middle School,	Bhatapara	a, Korai	4.	70	North East
	Water body		istance (Km)			irection
	Lilagarh River		n Nadi pass th			outh West
iii. River/ Waterbody	(HFL- 301.10m)		he Mine area			Julii West
	Kholar Nallah		5 Km		North-East	
	Tanoun I (unum		1		ı	istance
	Particulars	}	Directio	n		In km)
iv. Forest	Chindneni DE		8.20			uth west
11 51050	Chindpani PF		_			
	Burgahan RF		9.45			South
v. Archaeological Survey of	No					
india (ASI) protected site						
vi. Any other	No					

No River/Nalah diversions are proposed for the instant project. previously no diversion has been done as there is no river/nallah passing through the mine lease.

Measures for Lilagarh River: Mining operations are being carried out at a safe distance of 60 m from Lilagarh Nallah, whose banks are protected with stone pitching. Strengthening of the Lilagarh river embankment is also done on regular basis. Rs. 253.64 lakh has been deposited in CAMPA FUND for implementation of Surface drainage/ Catchment area treatment plan prepared by the State Forest Department. Under CSR, pond desilting within a 5 km buffer is undertaken to enhance storage and recharge.

**31.5.4: Method of Mining and Mining Plan:** Mining plan along with progressive mine closure plan for enhancement of coal production from 37.50 MTPA to 40.00 MTPA in area 1999.386 Ha was approved by SECL Board on 24th July 2025 in its 307<sup>th</sup> meeting.

- 1. Method of mining proposed to be carried out is opencast mining. Excavation of Coal is through Surface Miner and the waste/OB handling is with shovel/dumper combination.
- 2. Total mineable reserve as per the mine plan as on 01.04.2006 was 617.00 MT and the balance mineable reserve as on 01.04.2025 is 65.844 MT. Out of the mineable reserve of 65.844 MT, 65.844 MT are available for extraction. Percent of extraction is 100%.
- 3. 4 seams with thickness ranging from 2.19 m 70.15 m are workable.
- 4. Grade of coal is G10/G11, stripping ratio 2.91 cum/Te while gradient is 1 in 9 to 1 in 17.
- 5. Life of mine is 02 years (As on 01.04.2025).
- 6. The project has 3 external OB dumps in an area of 206 ha with 90 m height and 81 Mm<sup>3</sup> of OB & 3 internal OB dumps in an area of 780.093 ha with 534 Mm<sup>3</sup> of OB is envisaged in the project.
- 7. Total quarry area is 1002.146 ha out of which backfilling will be done in 780.093 ha while final mine void will be created in an area of 222.053 ha with a depth of 30m. Backfilled quarry area of 780.093 ha shall be reclaimed with plantation. Final mine void will be converted to water body.
- 8. Land-use details
  - a. Pre-Mining Land Use (within mine lease)

S. No.	Land use	Within ML area (ha.)	Outside ML area (ha.)	Total (ha.)
1.	Agricultural land	1266.328	0.00	1266.328
2.	Forest land	409.149	0.00	409.149
3.	Waste Land	0.00	0.00	0.00
4.	Grazing Land	0.00	0.00	0.00
5.	Surface Water Bodies	9.080	0.00	9.080
6.	Settlements	142.916	0.00	142.916
7.	Others (Specify) Govt. Land	171.913	0.00	171.913
	TOTAL	1999.386	0.00	1999.386

b. Post Mining land use

S No	Pattern of utilization	Total Area (ha.)	Reclaimed Area (ha.)	Un-reclaimed Area (ha.)
1.	Excavation /Quarry Area			
a	Backfilled Area	780.093	780.093	0.00
b	Final void /Water body	222.053	0.00	222.053
2.	External Dump	206.00	206.00	0.00
3.	Built up area (Infrastructure, colony, roads, R & R site)	637.874	0.00	637.874*
4.	Safety zone: Undisturbed area & Green belt	153.366	153.366	0.00
	Total	1999.386	1139.459	859.927

<sup>\*</sup>Area under infrastructure will be utilised by future expansion of Dipka OC project.

### 9. Details of transportation of Coal:

1. In-pit to surface: Through rear dumpers and trucks

S. No	Description	Mode	Lead
A	From coal face to CHP receiving	Through rear dumpers and	3.5 km within ML area
	pit	trucks - Road	
В	Coal face to receiving pit of Belt	Through rear dumpers and	4.3 km within ML area
	conveyor (Surface miner Coal)	trucks - Road	
С	From coal face to coal yard	Through rear dumpers and	1.5 km -2.5 km within ML
	(Surface miner Coal)	trucks - Road	area

2. Surface to siding: Through enclosed conveyor belt / CC Road

S. No	Description	Mode	Lead
A	From Conveyor receiving station	Through conveyor	4.9 km within ML area
	to Silo		
В	From TRS to Silo	Through Belt conveyor	6 km within ML area
С	From coal stock yard to siding	Road mode	4 km within ML area

### 3. Siding to loading:

S. No	Description	Mode	Capacity
A	By Rapid loading system to	Through silo (MGR)	15 MT
	railway wagons		
В	By Rapid loading system to	Through silo (FMC)	25 MT
	railway wagons		
С	Truck loading at Coal yard	Through front end loader	5-8 MT
D	Siding to Wagon	Pay loader	5-8 MT

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

Year	Lead	2023-24	2024-25
Rail	15 Km (Mostly to NTPC seepat, CSPGCL, other powerplants)	26.74 MT	24.27 MT
Road	250 km - other small Consumers	8.16 MT	7.68 MT
Total		34.90 MT	31.95 T

- 5. Details of reclamations: Total afforestation for the instant project shall be done in 1139.459 at the end of mining. This will include:
  - a. Reclaimed external OB dump: 206 ha (out of which 204.26 ha reclamation done)
  - b. Internal dump (in ha): 780.093 ha (out of which 131.16 ha reclamation done)
  - c. Green belt/safety zone (in ha):153.366 ha (6.3 ha plantation done against 23ha greenbelt demarcated)
  - d. Density of tree plantation (in no of plants):2500 plants per ha
  - e. Void in 222.053 ha at a depth of 30m which is proposed to be converted into water body
  - f. Others in ha (such as excavation area along ML boundary, along roads and infrastructure, embankment area): 178.072 ha plantation done as on 28.08.2025 outside mine lease area in nearby villages.

### 31.5.5: Baseline data:

Decations (min and max)   PM <sub>2.5</sub> = 60.6 µg/m³ to 76.5 µg/m³   PM <sub>10</sub> = 106.5 µg/m³ to 131.6 µg/m³   SO <sub>2</sub> = 28.2 µg/m³ to 32.0 µg/m³   NO <sub>6</sub> = 22.5 µg/m³ to 32.0 µg/m³     Buffer Zone   PM <sub>2.5</sub> = 22.4 µg/m³ to 32.0 µg/m³   PM <sub>10</sub> = 48.1 µg/m³ to 83 µg/m³   SO <sub>2</sub> = 6.7 µg/m² to 23.8 µg/m³   NO <sub>6</sub> = 53.3 µg/m² to 23.3 µg/m³   NO <sub>6</sub> = 53.3 µg/m² to 21.1 µg/m³     (Comparison with Regular Environmental monitoring by CAAQMS)   Core Zone   PM <sub>2.5</sub> = 15.91 µg/m³ to 44.92 µg/m³   PM <sub>10</sub> = 56.23 µg/m³ to 101.78 µg/m³   SO <sub>2</sub> = 6.97 µg/m³ to 30.70 µg/m³   NO <sub>6</sub> = 9.86 µg/m³ to 23.25 µg/m³   PM <sub>10</sub> = 13.27 µg/m³ to 55.72 µg/m³   SO <sub>2</sub> = 6.30 µg/m³ to 95.72 µg/m³   SO <sub>2</sub> = 6.30 µg/m³ to 95.72 µg/m³   SO <sub>2</sub> = 6.30 µg/m³ to 44.94 µg/m³   NO <sub>6</sub> = 8.17 µg/m³ to 43.46 µg/m³   NO <sub>6</sub> = 8.17 µg/m³ to 43.46 µg/m³   NO <sub>6</sub> = 8.17 µg/m³ (Level at core zone)   PM <sub>10</sub> = 137.15 µg/m³ (Level at core zone)   SO <sub>2</sub> = 35.60 µg/m³ (Level at core zone)   SO <sub>2</sub> = 35.60 µg/m³ (Level at core zone)   NO <sub>6</sub> = 32.13 µg/m² (Level at 2.43 km in downwind (SSW)   NO <sub>6</sub> = 23.03 µg/m³ (Level at 2.43 km in downwind (SSW)   NO <sub>6</sub> = 23.03 µg/m³ (Level at core zone)   SO <sub>2</sub> = 0.00 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m² (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Level at core zone)   NO <sub>6</sub> = 0.10 µg/m³ (Le	Period	Baseline data collected for the period Oct 2022 to Dec 2022
PM <sub>10</sub> = 106.5 μg/m³ to 131.6 μg/m³ SO <sub>2</sub> = 28.2 μg/m³ to 32.0 μg/m³ NO <sub>4</sub> = 22.5 μg/m³ to 32.0 μg/m³ NO <sub>5</sub> = 22.5 μg/m³ to 32.0 μg/m³ NO <sub>6</sub> = 22.5 μg/m³ to 32.0 μg/m³ NO <sub>6</sub> = 22.4 μg/m³ to 33.5 μg/m³ NO <sub>7</sub> = 67.4 μg/m³ to 83.8 μg/m³ NO <sub>8</sub> = 5.3 μg/m³ to 21.1 μg/m³ (Comparison with Regular Environmental monitoring by CAAQMS) Core Zone   PM <sub>10</sub> = 48.1 μg/m³ to 44.92 μg/m³   PM <sub>10</sub> = 56.23 μg/m³ to 101.78 μg/m³   PM <sub>10</sub> = 56.23 μg/m³ to 101.78 μg/m³   NO <sub>7</sub> = 9.86 μg/m³ to 30.70 μg/m³   NO <sub>8</sub> = 9.86 μg/m³ to 30.70 μg/m³   NO <sub>8</sub> = 9.86 μg/m³ to 53.25 μg/m³   PM <sub>10</sub> = 13.27 μg/m³ to 55.72 μg/m³   PM <sub>10</sub> = 13.27 μg/m³ to 43.46 μg/m³   NO <sub>8</sub> = 8.17 μg/m³ to 43.46 μg/m³   NO <sub>8</sub> = 8.17 μg/m³ to 43.46 μg/m³   NO <sub>8</sub> = 3.17 μg/m³ to 43.46 μg/m³   NO <sub>8</sub> = 3.17 μg/m³ (Level at core zone).   PM <sub>10</sub> = 13.7.15 μg/m³ (Level at core zone).   SO <sub>2</sub> = 33.60 μg/m³ (Level at core zone).   SO <sub>2</sub> = 33.60 μg/m³ (Level at core zone).   SO <sub>2</sub> = 33.60 μg/m³ (Level at 2.43 km in downwind (SSW)   PM <sub>10</sub> = 86.53 μg/m³ (Level at 2.43 km in downwind (SSW)   NO <sub>8</sub> = 23.03 μg/m³ (Level at 2.43 km in downwind (SSW)   NO <sub>8</sub> = 23.03 μg/m³ (Level at core zone).   NO <sub>8</sub> = 1.07 μg/m³ (Level at core zone).   NO <sub>8</sub> = 0.00 μg/m³ (Level at core zone).   NO <sub>8</sub> = 0.13 μg/m³ (Level at core zone).   NO <sub>8</sub> = 0.13 μg/m³ (Level at core zone).   NO <sub>8</sub> = 0.13 μg/m³ (Level at core zone).   NO <sub>8</sub> = 0.13 μg/m³ (Level at core zone).   NO <sub>8</sub> = 0.13 μg/m³ (Level at core zone).   NO <sub>8</sub> = 0.13 μg/m³ (Level at core zone).   NO <sub>8</sub> = 0.13 μg/m³ (Level at core zone).   NO <sub>8</sub> = 0.13 μg/m³ (Level at core zone).   NO <sub>8</sub> = 0.13 μg/m³ (Level at core zone).   NO <sub>8</sub> = 0.13 μg/m³ (Level at 2.43 km in downwind (SSW)   NO <sub>9</sub> = 0.19 μg/m³ (Level at 2.43 km in downwind (SSW)   NO <sub>9</sub> = 0.19 μg/m³ (Level at 2.43 km in downwind (SSW)   NO <sub>9</sub> = 0.19 μg/m³ (Level at 2.43 km in downwind (SSW)   NO <sub>9</sub> = 0.19 μg/m³ (Level at 2.43 km in downwind (SSW)   NO <sub>9</sub> = 0.19 μg/m³ (Level at 2.43 km in downwind (SSW)   NO <sub>9</sub> = 0.19 μg/m³ (Level at 2.43 km in downwind (SSW)   NO <sub>9</sub> = 0.19 μg/m³ (Level at	AAQ parameters at 09	
SO <sub>2</sub> = 28.2 μg/m³ to 35.6 μg/m³     NO <sub>x</sub> = 22.5 μg/m³ to 32.0 μg/m³     NO <sub>x</sub> = 22.5 μg/m³ to 32.0 μg/m³     Pul <sub>10</sub> = 48.1 μg/m³ to 83 μg/m³     SO <sub>2</sub> = 6.7 μg/m³ to 23.8 μg/m³     SO <sub>2</sub> = 6.7 μg/m³ to 23.8 μg/m³     SO <sub>2</sub> = 6.7 μg/m³ to 23.8 μg/m³     NO <sub>x</sub> = 5.3 μg/m³ to 21.1 μg/m³     (Comparison with Regular Environmental monitoring by CAAQMS)     Core Zone	Locations (min and max)	
SO <sub>2</sub> = 22.5 μg/m³ to 32.0 μg/m³		
Buffer Zone   PM2.s = 22.4 μg/m³ to 51.5 μg/m³   PM10 = 48.1 μg/m³ to 83 μg/m³   SO2 = 6.7 μg/m³ to 23.8 μg/m³   NOx = 5.3 μg/m³ to 21.1 μg/m³		
$PM_{10} = 48.1 \ \mu g/m^3 \ \text{to } 51.5 \ \mu g/m^3 \ \\ PM_{10} = 48.1 \ \mu g/m^3 \ \text{to } 83 \ \mu g/m^3 \ \\ SO_2 = 6.7 \ \mu g/m^3 \ \text{to } 23.8 \ \mu g/m^3 \ \\ NO_x = 5.3 \ \mu g/m^3 \ \text{to } 21.1 \ \mu g/m^3 \ \\ (Comparison with Regular Environmental monitoring by CAAQMS) \\ Core Zone \\ PM_{2.5} = 15.91 \ \mu g/m^3 \ \text{to } 44.92 \ \mu g/m^3 \ \\ PM_{10} = 56.23 \ \mu g/m^3 \ \text{to } 101.78 \ \mu g/m^3 \ \\ SO_2 = 6.97 \ \mu g/m^3 \ \text{to } 30.70 \ \mu g/m^3 \ \\ NO_x = 9.86 \ \mu g/m^3 \ \text{to } 23.25 \ \mu g/m^3 \ \\ NO_x = 9.86 \ \mu g/m^3 \ \text{to } 23.25 \ \mu g/m^3 \ \\ SO_2 = 6.30 \ \mu g/m^3 \ \text{to } 25.25 \ \mu g/m^3 \ \\ NO_x = 8.17 \ \mu g/m^3 \ \text{to } 69.84 \ \mu g/m^3 \ \\ NO_x = 8.17 \ \mu g/m^3 \ \text{to } 43.46 \ \mu g/m^3 \ \\ NO_x = 8.17 \ \mu g/m^3 \ \text{to } 43.46 \ \mu g/m^3 \ \\ NO_x = 32.13 \ \mu g/m^3 \ \text{(Level at core zone)}. \ \\ PM_{10} = 13.7.15 \ \mu g/m^3 \ \text{(Level at core zone)}. \ \\ SO_2 = 35.60 \ \mu g/m^3 \ \text{(Level at core zone)}. \ \\ NO_x = 32.13 \ \mu g/m^3 \ \text{(Level at core zone)}. \ \\ NO_x = 32.13 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} \ \\ NO_x = 23.03 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} \ \\ NO_x = 23.03 \ \mu g/m^3 \ \text{(Level at core zone)}. \ \\ PM_{10} = 5.55 \ \mu g/m^3 \ \text{(Level at core zone)}. \ \\ NO_x = 0.13 \ \mu g/m^3 \ \text{(Level at core zone)}. \ \\ NO_x = 0.13 \ \mu g/m^3 \ \text{(Level at core zone)}. \ \\ NO_x = 0.13 \ \mu g/m^3 \ \text{(Level at core zone)}. \ \\ NO_x = 0.13 \ \mu g/m^3 \ \text{(Level at core zone)}. \ \\ NO_x = 1.93 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} \ \\ NO_x = 1.93 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} \ \\ NO_x = 1.93 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} \ \\ NO_x = 1.93 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} \ \\ NO_x = 1.93 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} \ \\ NO_x = 1.93 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} \ \\ NO_x = 1.93 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} \ \\ NO_x = 1.93 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} \ \\ NO_x = 1.93 \ \mu g/m^3 \$		10 χ 22.5 μg/m 10 32.0 μg/m
$PM_{10} = 48.1 \ \mu g/m^3 \  \  \  \  \  \  \  \  \  \  \  \  \ $		Buffer Zone
$SO_2 = 6.7 \ \mu g/m^3 \  \   to \  23.8 \ \mu g/m^3 \  \   to \  21.1 \ \mu g/m^3 \  \   to \  22.25 \ \mu g/m^3 \  \   to \  23.25 \ \mu g/m^3 \  \   to \$		
NO <sub>s</sub> = 5.3 μg/m³ to 21.1 μg/m³		
(Comparison with Regular Environmental monitoring by CAAQMS) Core Zone $PM_{2.5} = 15.91 \text{ µg/m}^3 \text{ to } 44.92 \text{ µg/m}^3$ $PM_{10} = 56.23 \text{ µg/m}^3 \text{ to } 10.178 \text{ µg/m}^3$ $SO_2 = 6.97 \text{ µg/m}^3 \text{ to } 30.70 \text{ µg/m}^3$ $NO_x = 9.86 \text{ µg/m}^3 \text{ to } 23.25 \text{ µg/m}^3$ Buffer Zone $PM_{2.5} = 7.10 \text{ µg/m}^3 \text{ to } 55.5 \text{ µg/m}^3$ $SO_2 = 6.30 \text{ µg/m}^3 \text{ to } 69.84 \text{ µg/m}^3$ $NO_x = 8.17 \text{ µg/m}^3 \text{ to } 92.72 \text{ µg/m}^3$ $NO_x = 8.17 \text{ µg/m}^3 \text{ to } 92.84 \text{ µg/m}^3$ $NO_x = 8.17 \text{ µg/m}^3 \text{ to } 43.46 \text{ µg/m}^3$ $NO_x = 8.17 \text{ µg/m}^3 \text{ to } 43.46 \text{ µg/m}^3$ $NO_x = 8.77.57 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $SO_2 = 35.60 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 32.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ Buffer Zone: $PM_{10} = 86.53 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $SO_2 = 32.80 \text{ µg/m}^3 \text{ (Level at 2.43 km in downwind (SSW)}$ $NO_x = 23.03 \text{ µg/m}^3 \text{ (Level at 2.43 km in downwind (SSW)}$ $NO_x = 23.03 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 1.07 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at core zone)}.$ $NO_x = 0.13 \text{ µg/m}^3 \text{ (Level at 2.43 km in downwind (SSW)}.$ $NO_x = 1.93 \text{ µg/m}^3 \text{ (Level at 2.43 km in downwind (SSW)}.$ $NO_x = 1.93 \text{ µg/m}^3 \text{ (Level at 2.43 km in downwind (SSW)}.$ $NO_x = 1.93 \text{ µg/m}^3 \text{ (Level at 2.43 km in downwind (SSW)}.$ $NO_x = 1.93 \text{ µg/m}^3 \text{ (Level at 2.43 km in downwind (SSW)}.$		16 16
Core Zone  PM2.5 = 15.91 $\mu$ g/m³ to 44.92 $\mu$ g/m³  PM10 = 56.23 $\mu$ g/m³ to 101.78 $\mu$ g/m³  SO2 = 6.97 $\mu$ g/m³ to 30.70 $\mu$ g/m³  NOx = 9.86 $\mu$ g/m³ to 55. $\mu$ g/m³  PM10 = 13.27 $\mu$ g/m³ to 55. $\mu$ g/m³  PM10 = 13.27 $\mu$ g/m³ to 95.72 $\mu$ g/m³  SO2 = 6.30 $\mu$ g/m³ to 69.84 $\mu$ g/m³  NOx = 8.17 $\mu$ g/m³ to 43.46 $\mu$ g/m³  Incremental GLC level  (Maximum value of the 9 receptor locations monitored)  PM2.5 = 77.57 $\mu$ g/m³ (Level at core zone).  PM2.5 = 77.57 $\mu$ g/m³ (Level at core zone).  NOx = 32.13 $\mu$ g/m³ (Level at core zone).  Buffer Zone:  PM10 = 86.53 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM2.5 = 52.57 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) NOx = 23.03 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)  NOx = 23.03 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)  Incremental:  Core zone:  PM10 = 5.55 $\mu$ g/m³ (Level at core zone).  Nox = 0.13 $\mu$ g/m³ (Level at core zone).  Buffer Zone:  PM10 = 5.55 $\mu$ g/m³ (Level at core zone).  PM2.5 = 1.07 $\mu$ g/m³ (Level at core zone).  Nox = 0.13 $\mu$ g/m³ (Level at core zone).  Nox = 0.13 $\mu$ g/m³ (Level at core zone).  SO2 = 0.000 $\mu$ g/m³ (Level at core zone).  Nox = 0.13 $\mu$ g/m³ (Level at core zone).  PM2.5 = 1.07 $\mu$ g/m³ (Level at core zone).  Nox = 0.13 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM2.5 = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)  PM2.5 = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)  PM2.5 = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)  PM2.5 = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)  PM2.5 = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)  NOx = 1.93 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)  NOx = 1.93 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)		$100_x - 3.5 \mu \text{g/m} = 0.21.1 \mu \text{g/m}$
$PM_{2.5} = 15.91 \ \mu g/m^3 \  \  \  \  \  \  \  \  \  \  \  \  \ $		(Comparison with Regular Environmental monitoring by CAAQMS)
$PM_{10} = 56.23 \ \mu g/m^3 \ \text{to } 101.78 \ \mu g/m^3 \ \text{SO}_2 = 6.97 \ \mu g/m^3 \ \text{to } 30.70 \ \mu g/m^3 \ \text{NO}_x = 9.86 \ \mu g/m^3 \ \text{to } 23.25 \ \mu g/m^3 \ \text{NO}_x = 9.86 \ \mu g/m^3 \ \text{to } 23.25 \ \mu g/m^3 \ \text{NO}_x = 9.86 \ \mu g/m^3 \ \text{to } 23.25 \ \mu g/m^3 \ \text{PM}_{10} = 13.27 \ \mu g/m^3 \ \text{to } 55.27 \ \mu g/m^3 \ \text{SO}_2 = 6.30 \ \mu g/m^3 \ \text{to } 69.84 \ \mu g/m^3 \ \text{NO}_x = 8.17 \ \mu g/m^3 \ \text{to } 43.46 \ \mu g/m^3 \ \text{NO}_x = 8.17 \ \mu g/m^3 \ \text{to } 43.46 \ \mu g/m^3 \ \text{NO}_x = 8.17 \ \mu g/m^3 \ \text{(Level at core zone)}.$ Incremental GLC level (Maximum value of the 9 receptor locations monitored)  PM_{20} = 137.15 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 7.57 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 35.60 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 35.60 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 52.57 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 52.57 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} PM_{20} = 23.80 \ \mu g/m^3 \ \text{(Level at } 2.43 \ \text{km in downwind (SSW)} PM_{20} = 23.80 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.55 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.55 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.55 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.55 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.55 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.55 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.55 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.55 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.55 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.07 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.07 \ \mu g/m^3 \ \text{(Level at core zone)}. PM_{20} = 5.07 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} PM_{20} = 1.07 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} PM_{20} = 1.07 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} PM_{20} = 1.07 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} PM_{20} = 1.07 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} PM_{20} = 1.07 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} PM_{20}		
$SO_{2} = 6.97 \ \mu g/m^{3} \ to 30.70 \ \mu g/m^{3} \ NO_{x} = 9.86 \ \mu g/m^{3} \ to 23.25 \ \mu g/m^{3}$ $NO_{x} = 9.86 \ \mu g/m^{3} \ to 55 \ \mu g/m^{3}$ $PM_{10} = 13.27 \ \mu g/m^{3} \ to 95.72 \ \mu g/m^{3}$ $SO_{2} = 6.30 \ \mu g/m^{3} \ to 95.72 \ \mu g/m^{3}$ $SO_{2} = 6.30 \ \mu g/m^{3} \ to 95.72 \ \mu g/m^{3}$ $NO_{x} = 8.17 \ \mu g/m^{3} \ to 43.46 \ \mu g/m^{3}$ $NO_{x} = 8.17 \ \mu g/m^{3} \ to 43.46 \ \mu g/m^{3}$ $NO_{x} = 8.17 \ \mu g/m^{3} \ to 43.46 \ \mu g/m^{3}$ $PM_{10} = 137.15 \ \mu g/m^{3} \ (Level at core zone).$ $PM_{20} = 37.57 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 35.60 \ \mu g/m^{3} \ (Level at core zone).$ $NO_{x} = 32.13 \ \mu g/m^{3} \ (Level at core zone).$ $PM_{10} = 86.53 \ \mu g/m^{3} \ (Level at 2.43 \ km \ in \ downwind \ (SSW)$ $SO_{2} = 23.80 \ \mu g/m^{3} \ (Level at 2.43 \ km \ in \ downwind \ (SSW)$ $NO_{x} = 23.03 \ \mu g/m^{3} \ (Level at 2.43 \ km \ in \ downwind \ (SSW)$ $NO_{x} = 23.03 \ \mu g/m^{3} \ (Level at core zone).$ $PM_{10} = 5.55 \ \mu g/m^{3} \ (Level at core zone).$ $PM_{2.5} = 1.07 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at core zone).$ $SO_{2} = 0.00 \ \mu g/m^{3} \ (Level at 2.43 \ km \ in \ downwind \ (SSW)$ $SO_{2} = 0 \ \mu g/m^{3} \ (Level at 2.43 \ km \ in \ downwind \ (SSW)$ $SO_{2} = 0 \ \mu g/m^{3} \ (Level at 2.43 \ km \ in \ downwind \ (SSW)$ $SO_{2} = 0 \ \mu g/m^{3} \ (Level at 2.43 \ km \ in \ downwind \ (SSW)$ $SO_{2} = 0 \ \mu g/m^{3} \ (Level at 2.43 \ km \ in \ downwind \ (SSW)$ $SO_{2} = 0 \ \mu g/m^{3} \ (Level at 2.43 \ km \ in \ dow$		
NO <sub>x</sub> = 9.86 μg/m³ to 23.25 μg/m³     Buffer Zone     PM <sub>2.5</sub> = 7.10 μg/m³ to 55 μg/m³     PM <sub>10</sub> = 13.27 μg/m³ to 95.72 μg/m³     SO <sub>2</sub> = 6.30 μg/m³ to 69.84 μg/m³     NO <sub>x</sub> = 8.17 μg/m³ to 43.46 μg/m³     NO <sub>x</sub> = 8.17 μg/m³ to 43.46 μg/m³     Core zone:     Core zone:     PM <sub>10</sub> = 137.15 μg/m³ (Level at core zone).     PM <sub>2.5</sub> = 77.57 μg/m³ (Level at core zone).     NO <sub>x</sub> = 32.13 μg/m³ (Level at core zone).     NO <sub>x</sub> = 32.13 μg/m³ (Level at core zone).     PM <sub>10</sub> = 86.53 μg/m³ (Level at 2.43 km in downwind (SSW)     PM <sub>2.5</sub> = 52.57 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 23.03 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 23.03 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 23.03 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.07 μg/m³ (Level at core zone).     PM <sub>10</sub> = 5.55 μg/m³ (Level at core zone).     NO <sub>x</sub> = 0.00 μg/m³ (Level at core zone).     NO <sub>x</sub> = 0.13 μg/m³ (Level at core zone).     NO <sub>x</sub> = 0.19 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.07 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     PM <sub>10</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)     NO <sub>x</sub> = 1.93 μg/m³ (Level at 2.4		
Buffer Zone  PM <sub>2.5</sub> = 7.10 μg/m³ to 55 μg/m³  PM <sub>10</sub> = 13.27 μg/m³ to 95.72 μg/m³  SO <sub>2</sub> = 6.30 μg/m³ to 69.84 μg/m³  NO <sub>x</sub> = 8.17 μg/m³ to 43.46 μg/m³  NO <sub>x</sub> = 8.17 μg/m³ to 43.46 μg/m³  NO <sub>x</sub> = 8.17 μg/m³ to 43.46 μg/m³  PM <sub>10</sub> = 137.15 μg/m³ (Level at core zone).  PM <sub>10</sub> = 137.15 μg/m³ (Level at core zone).  SO <sub>2</sub> = 35.60 μg/m³ (Level at core zone).  SO <sub>2</sub> = 35.60 μg/m³ (Level at core zone).  SO <sub>2</sub> = 35.7 μg/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 52.57 μg/m³ (Level at 2.43 km in downwind (SSW) SO <sub>2</sub> = 23.80 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>x</sub> = 23.03 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>x</sub> = 23.03 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>x</sub> = 20.00 μg/m³ (Level at core zone).  Buffer Zone:  PM <sub>10</sub> = 5.55 μg/m³ (Level at core zone).  SO <sub>2</sub> = 0.00 μg/m³ (Level at core zone).  SO <sub>2</sub> = 0.00 μg/m³ (Level at core zone).  NO <sub>x</sub> = 0.13 μg/m³ (Level at core zone).  Buffer Zone:  PM <sub>10</sub> = 3.53 μg/m³ (Level at core zone).  SO <sub>2</sub> = 0.00 μg/m³ (Level at core zone).  SO <sub>2</sub> = 0.10 μg/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW) NO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)		
$\begin{array}{c} PM_{2.5} = 7.10 \ \mu g/m^3 \ \text{to } 55 \ \mu g/m^3 \\ PM_{10} = 13.27 \ \mu g/m^3 \ \text{to } 95.72 \ \mu g/m^3 \\ SO_2 = 6.30 \ \mu g/m^3 \ \text{to } 96.84 \ \mu g/m^3 \\ NO_x = 8.17 \ \mu g/m^3 \ \text{to } 43.46 \ \mu g/m^3 \\ \hline \\ \text{Incremental GLC level} \\ \text{(Maximum value of the 9 receptor locations} \\ \text{monitored)} \\ & \begin{array}{c} \textbf{Cumulative:} \\ \textbf{Core zone:} \\ PM_{10} = 137.15 \ \mu g/m^3 \ \text{(Level at core zone).} \\ \text{NO}_x = 32.13 \ \mu g/m^3 \ \text{(Level at core zone).} \\ \text{NO}_x = 32.13 \ \mu g/m^3 \ \text{(Level at core zone).} \\ \text{NO}_x = 32.13 \ \mu g/m^3 \ \text{(Level at core zone).} \\ \text{NO}_x = 23.80 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} \\ \text{NO}_x = 23.03 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} \\ \text{NO}_x = 23.03 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} \\ \text{NO}_x = 20.00 \ \mu g/m^3 \ \text{(Level at core zone).} \\ \text{NO}_x = 0.13 \ \mu g/m^3 \ \text{(Level at core zone).} \\ \text{NO}_x = 0.13 \ \mu g/m^3 \ \text{(Level at core zone).} \\ \text{NO}_x = 0.13 \ \mu g/m^3 \ \text{(Level at core zone).} \\ \text{NO}_x = 0.13 \ \mu g/m^3 \ \text{(Level at core zone).} \\ \text{NO}_x = 0.13 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} \\ \text{NO}_x = 1.93 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} \\ \text{NO}_x = 1.93 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} \\ \text{NO}_x = 1.93 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} \\ \text{NO}_x = 1.93 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} \\ \text{NO}_x = 1.93 \ \mu g/m^3 \ \text{(Level at 2.43 km in downwind (SSW)} \\ \text{Total Hardness: 106 to 322 mg/l,} \\ \end{array}$		100χ 7.00 μg/m το 23.23 μg/m
$PM_{10} = 13.27 \ \mu g/m^3 \  \  \  \  \  \  \  \  \  \  \  \  \ $		Buffer Zone
Incremental GLC level (Maximum value of the 9 receptor locations monitored)  Buffer Zone: $PM_{10} = 86.53 \ \mu g/m^3 \ (Level at core zone).$ $PM_{25} = 32.56 \ \mu g/m^3 \ (Level at core zone).$ $PM_{10} = 86.53 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $PM_{25} = 52.57 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 23.03 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 23.03 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 23.03 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 23.03 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 23.03 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 23.03 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.07 \ \mu g/m^3 \ (Level at core zone).$ $NO_x = 0.13 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW)$		
Incremental GLC level (Maximum value of the 9 receptor locations monitored)  PM <sub>10</sub> = 137.15 $\mu$ g/m³ (Level at core zone).  PM <sub>10</sub> = 137.15 $\mu$ g/m³ (Level at core zone).  SO <sub>2</sub> = 35.60 $\mu$ g/m³ (Level at core zone).  NO <sub>x</sub> = 32.13 $\mu$ g/m³ (Level at core zone).  Buffer Zone:  PM <sub>10</sub> = 86.53 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 52.57 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) SO <sub>2</sub> = 23.80 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) NO <sub>x</sub> = 23.03 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)  Incremental:  Core zone:  PM <sub>10</sub> = 5.55 $\mu$ g/m³ (Level at core zone).  SO <sub>2</sub> = 0.00 $\mu$ g/m³ (Level at core zone).  No <sub>x</sub> = 0.13 $\mu$ g/m³ (Level at core zone).  No <sub>x</sub> = 0.13 $\mu$ g/m³ (Level at core zone).  No <sub>x</sub> = 0.13 $\mu$ g/m³ (Level at core zone).  Ruffer Zone:  PM <sub>10</sub> = 3.53 $\mu$ g/m³ (Level at core zone).  No <sub>x</sub> = 0.13 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) No <sub>x</sub> = 0.13 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM <sub>2.5</sub> = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)		
Incremental GLC level (Maximum value of the 9 receptor locations monitored) $ \begin{array}{l} \textbf{Cumulative:} \\ \textbf{Core zone:} \\ \textbf{PM}_{1.5} = 77.57 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \textbf{NO}_x = 32.13 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \textbf{NO}_x = 32.13 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \textbf{NO}_x = 32.13 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \textbf{Buffer Zone:} \\ \textbf{PM}_{10} = 86.53 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)}) \\ \textbf{NO}_x = 23.03 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)}) \\ \textbf{NO}_x = 23.03 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)}) \\ \textbf{NO}_x = 23.03 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \textbf{PM}_{10} = 5.55 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \textbf{PM}_{2.5} = 1.07 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \textbf{NO}_x = 0.13 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \textbf{NO}_x = 0.13 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \textbf{NO}_x = 0.13 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)})} \\ \textbf{PM}_{2.5} = 1.07 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)})} \\ \textbf{NO}_x = 1.93 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)})} \\ \textbf{NO}_x = 1.93 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)})} \\ \textbf{NO}_x = 1.93 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)})} \\ \textbf{NO}_x = 1.93 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)})} \\ \textbf{Total Hardness: 106 to 322 mg/l,} \\ $		
(Maximum value of the 9 receptor locations monitored)  PM10 = 137.15 $\mu$ g/m³ (Level at core zone).  PM2.5 = 77.57 $\mu$ g/m³ (Level at core zone).  SO2 = 35.60 $\mu$ g/m³ (Level at core zone).  NOx = 32.13 $\mu$ g/m³ (Level at core zone).  Buffer Zone:  PM10 = 86.53 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM2.5 = 52.57 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) SO2 = 23.80 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) NOx = 23.03 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)  Incremental:  Core zone:  PM10 = 5.55 $\mu$ g/m³ (Level at core zone).  SO2 = 0.00 $\mu$ g/m³ (Level at core zone).  SO2 = 0.00 $\mu$ g/m³ (Level at core zone).  Nox = 0.13 $\mu$ g/m³ (Level at core zone).  Buffer Zone:  PM10 = 3.53 $\mu$ g/m³ (Level at core zone).  SO2 = 0.00 $\mu$ g/m³ (Level at core zone).  Nox = 0.13 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM2.5 = 1.07 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) SO2 = 0 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) SO2 = 0 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) SO2 = 0 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) SO2 = 0 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) SO2 = 0 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) PM.5 = 1.93 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) NOx = 1.93 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW) NOx = 1.93 $\mu$ g/m³ (Level at 2.43 km in downwind (SSW)	Incremental GLC level	
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$SO_2 = 35.60 \ \mu g/m^3 \ (Level at core zone).$ $NO_x = 32.13 \ \mu g/m^3 \ (Level at core zone).$ $Buffer Zone:$ $PM_{10} = 86.53 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $PM_{2.5} = 52.57 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $SO_2 = 23.80 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 23.03 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $Incremental:$ $Core zone:$ $PM_{10} = 5.55 \ \mu g/m^3 \ (Level at core zone).$ $PM_{2.5} = 1.07 \ \mu g/m^3 \ (Level at core zone).$ $SO_2 = 0.00 \ \mu g/m^3 \ (Level at core zone).$ $No_x = 0.13 \ \mu g/m^3 \ (Level at core zone).$ $PM_{10} = 3.53 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $PM_{2.5} = 1.07 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $PM_{2.5} = 1.07 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $SO_2 = 0 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW)$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$ $NO_x = 1.93 \ \mu g/m^3 \ (Level at 2.43 \ km in downwind (SSW))$	`	
NO <sub>x</sub> = 32.13 μg/m³ (Level at core zone). <b>Buffer Zone:</b> $PM_{10} = 86.53 \mu g/m³ \text{ (Level at 2.43 km in downwind (SSW)}$ $PM_{2.5} = 52.57 \mu g/m³ \text{ (Level at 2.43 km in downwind (SSW)}$ $SO_2 = 23.80 \mu g/m³ \text{ (Level at 2.43 km in downwind (SSW)}$ $NO_x = 23.03 \mu g/m³ \text{ (Level at 2.43 km in downwind (SSW)}$ <b>Incremental:</b> $Core zone:$ $PM_{10} = 5.55 \mu g/m³ \text{ (Level at core zone)}.$ $PM_{2.5} = 1.07 \mu g/m³ \text{ (Level at core zone)}.$ $SO_2 = 0.00 \mu g/m³ \text{ (Level at core zone)}.$ $No_x = 0.13 \mu g/m³ \text{ (Level at core zone)}.$ <b>Buffer Zone:</b> $PM_{10} = 3.53 \mu g/m³ \text{ (Level at 2.43 km in downwind (SSW)}$ $PM_{2.5} = 1.07 \mu g/m³ \text{ (Level at 2.43 km in downwind (SSW)}$ $SO_2 = 0 \mu g/m³ \text{ (Level at 2.43 km in downwind (SSW)}$ $NO_x = 1.93 \mu g/m³ \text{ (Level at 2.43 km in downwind (SSW)}$ $NO_x = 1.93 \mu g/m³ \text{ (Level at 2.43 km in downwind (SSW)}$ $NO_x = 1.93 \mu g/m³ \text{ (Level at 2.43 km in downwind (SSW)}$ $Total Hardness: 106 to 322 mg/l,$	monitored)	
Buffer Zone:  PM <sub>10</sub> = 86.53 μg/m³ (Level at 2.43 km in downwind (SSW)  PM <sub>2.5</sub> = 52.57 μg/m³ (Level at 2.43 km in downwind (SSW)  SO <sub>2</sub> = 23.80 μg/m³ (Level at 2.43 km in downwind (SSW)  NO <sub>x</sub> = 23.03 μg/m³ (Level at 2.43 km in downwind (SSW)  Incremental:  Core zone:  PM <sub>10</sub> = 5.55 μg/m³ (Level at core zone).  PM <sub>2.5</sub> = 1.07 μg/m³ (Level at core zone).  SO <sub>2</sub> = 0.00 μg/m³ (Level at core zone).  No <sub>x</sub> = 0.13 μg/m³ (Level at core zone).  Buffer Zone:  PM <sub>10</sub> = 3.53 μg/m³ (Level at 2.43 km in downwind (SSW)  PM <sub>2.5</sub> = 1.07 μg/m³ (Level at 2.43 km in downwind (SSW)  SO <sub>2</sub> = 0 μg/m³ (Level at 2.43 km in downwind (SSW)  SO <sub>2</sub> = 0 μg/m³ (Level at 2.43 km in downwind (SSW)  SO <sub>2</sub> = 1.93 μg/m³ (Level at 2.43 km in downwind (SSW)  Total Hardness:106 to 322 mg/l,		
$PM_{10} = 86.53 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ PM_{2.5} = 52.57 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ SO_2 = 23.80 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ NO_x = 23.03 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ \hline \frac{Incremental:}{Core \ zone:} \\ PM_{10} = 5.55 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ PM_{2.5} = 1.07 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ SO_2 = 0.00 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ No_x = 0.13 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ \hline \frac{Buffer \ Zone:}{PM_{10} = 3.53 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)} \\ PM_{2.5} = 1.07 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ SO_2 = 0 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ NO_x = 1.93 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ NO_x = 1.93 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ Total \ Hardness: 106 \ to \ 322 \ mg/l,$		$NO_x = 32.13 \mu g/m^3$ (Level at core zone).
$PM_{10} = 86.53 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ PM_{2.5} = 52.57 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ SO_2 = 23.80 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ NO_x = 23.03 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ \hline \frac{Incremental:}{Core \ zone:} \\ PM_{10} = 5.55 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ PM_{2.5} = 1.07 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ SO_2 = 0.00 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ No_x = 0.13 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ \hline \frac{Buffer \ Zone:}{PM_{10} = 3.53 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)} \\ PM_{2.5} = 1.07 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ SO_2 = 0 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ NO_x = 1.93 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ NO_x = 1.93 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ Total \ Hardness: 106 \ to \ 322 \ mg/l,$		Buffer Zone:
$SO_2 = 23.80 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ NO_x = 23.03 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ \hline \frac{Incremental:}{Core \ zone:} \\ PM_{10} = 5.55 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ PM_{2.5} = 1.07 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ SO_2 = 0.00 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ No_x = 0.13 \ \mu g/m^3 \ (Level \ at \ core \ zone). \\ \hline \frac{Buffer \ Zone:}{PM_{10} = 3.53 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)}{PM_{2.5} = 1.07 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)}{SO_2 = 0 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)}{SO_2 = 0 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)}{NO_x = 1.93 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)} \\ \hline Ground \ water \ quality \ at \ 7 \ locations \\ \hline PH: 6.5 \ to \ 7.58, \\ Total \ Hardness: 106 \ to \ 322 \ mg/l, \\ \hline eq:sol_sol_sol_sol_sol_sol_sol_sol_sol_sol_$		
NO <sub>x</sub> = 23.03 µg/m³ (Level at 2.43 km in downwind (SSW)		
$\begin{tabular}{ll} \hline \textbf{Lncremental:} \\ \hline \textbf{Core zone:} \\ \hline PM_{10} = 5.55 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \hline PM_{2.5} = 1.07 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \hline SO_2 = 0.00 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \hline No_x = 0.13 \ \mu g/m^3 \ (\text{Level at core zone}). \\ \hline \\ \hline \textbf{Buffer Zone:} \\ \hline PM_{10} = 3.53 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)}) \\ \hline PM_{2.5} = 1.07 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)}) \\ \hline SO_2 = 0 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)}) \\ \hline NO_x = 1.93 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)}) \\ \hline \\ \hline Ground water quality at 7 \\ \hline locations \\ \hline \end{tabular}$		
$\begin{tabular}{ l l l l l l l l l l l l l l l l l l l$		$NO_x = 23.03 \mu g/m^3$ (Level at 2.43 km in downwind (SSW)
$\begin{tabular}{ l l l l l l l l l l l l l l l l l l l$		Incremental:
$PM_{2.5} = 1.07 \ \mu g/m^3 \ (\text{Level at core zone}).$ $SO_2 = 0.00 \ \mu g/m^3 \ (\text{Level at core zone}).$ $No_x = 0.13 \ \mu g/m^3 \ (\text{Level at core zone}).$ $PM_{10} = 3.53 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)})$ $PM_{2.5} = 1.07 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)})$ $SO_2 = 0 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)})$ $SO_x = 1.93 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)})$ $NO_x = 1.93 \ \mu g/m^3 \ (\text{Level at 2.43 km in downwind (SSW)})$ $PH: 6.5 \ \text{to 7.58},$ $Total \ Hardness: 106 \ \text{to 322 mg/l},$		
$SO_2 = 0.00 \ \mu g/m^3 \ (Level \ at \ core \ zone).$ $No_x = 0.13 \ \mu g/m^3 \ (Level \ at \ core \ zone).$ $Buffer \ Zone:$ $PM_{10} = 3.53 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)$ $PM_{2.5} = 1.07 \ \mu g/m^3 (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)$ $SO_2 = 0 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)$ $NO_x = 1.93 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)$ $PH: 6.5 \ to \ 7.58,$ $Total \ Hardness: 106 \ to \ 322 \ mg/l,$		
$No_x = 0.13 \ \mu g/m^3 \ (Level \ at \ core \ zone).$ $Buffer \ Zone:$ $PM_{10} = 3.53 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)$ $PM_{2.5} = 1.07 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)$ $SO_2 = 0 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)$ $NO_x = 1.93 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW)$ $PH: 6.5 \ to \ 7.58,$ $Total \ Hardness: 106 \ to \ 322 \ mg/l,$		
$\begin{array}{c} \textbf{Buffer Zone:} \\ PM_{10} = 3.53 \ \mu\text{g/m}^3 \ (\text{Level at 2.43 km in downwind (SSW)} \\ PM_{2.5} = 1.07 \ \mu\text{g/m}^3 \ (\text{Level at 2.43 km in downwind (SSW)} \\ SO_2 = 0 \ \mu\text{g/m}^3 \ (\text{Level at 2.43 km in downwind (SSW)} \\ NO_x = 1.93 \ \mu\text{g/m}^3 \ (\text{Level at 2.43 km in downwind (SSW)} \\ \end{array}$ Ground water quality at 7 locations $\begin{array}{c} PH: 6.5 \ \text{to 7.58}, \\ PH: 6.5 \ \text{to 322 mg/l}, \end{array}$		
$PM_{10} = 3.53 \ \mu g/m^3 \ (\text{Level at } 2.43 \ \text{km in downwind (SSW)} \\ PM_{2.5} = 1.07 \ \mu g/m^3 \ (\text{Level at } 2.43 \ \text{km in downwind (SSW)} \\ SO_2 = 0 \ \mu g/m^3 \ (\text{Level at } 2.43 \ \text{km in downwind (SSW)} \\ NO_x = 1.93 \ \mu g/m^3 \ (\text{Level at } 2.43 \ \text{km in downwind (SSW)} \\ \\ Ground \ \text{water quality at } 7 \\ locations \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$		110 <sub>χ</sub> 0.13 μg/III (Level at core zone).
$PM_{2.5} = 1.07 \ \mu g/m^3 (Level at 2.43 \ km in downwind (SSW) \\ SO_2 = 0 \ \mu g/m^3 (Level at 2.43 \ km in downwind (SSW) \\ NO_x = 1.93 \ \mu g/m^3 (Level at 2.43 \ km in downwind (SSW) \\ PH: 6.5 \ to 7.58, \\ Iocations \qquad DH: 6.5 \ to 322 \ mg/l,$		
$SO_2 = 0 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ NO_x = 1.93 \ \mu g/m^3 \ (Level \ at \ 2.43 \ km \ in \ downwind \ (SSW) \\ Ground \ water \ quality \ at \ 7 \\ locations \qquad PH: 6.5 \ to \ 7.58, \\ Total \ Hardness: 106 \ to \ 322 \ mg/l,$		
$NO_x = 1.93 \ \mu g/m^3$ (Level at 2.43 km in downwind (SSW)  Ground water quality at 7 pH: 6.5 to 7.58,  locations Total Hardness:106 to 322 mg/l,		
Ground water quality at 7 pH: 6.5 to 7.58, locations Total Hardness:106 to 322 mg/l,		
locations Total Hardness:106 to 322 mg/l,	Ground water quality at 7	
	locations	
		Chlorides: 43.99 to 138.96 mg/l,
TDS: 242 to 704 mg/l		
Heavy metals (As) $< 0.005$ mg/l		
Heavy metals (Cd) < 0.002 mg/l Heavy metals (Pb) < 0.005 mg/l		
Heavy metals (Pb) $< 0.005$ mg/l		
	Surface water quality at 06	
Locations pH: 7.16 to 7.90	1 2	

Period	Baseline data	a coll	ected for the	perio	od Oct 2022 to 1	Dec 2022					
	DO: 5.6 to 7.:										
	BOD : <2.0 to	2.9	mg/l								
	Heavy metals (As) < 0.005 mg/l										
	Heavy metals	(Cd)	< 0.002 mg/l								
	Heavy metals										
		Heavy metals (Se) < 0.005 mg/l									
Noise levels Leq	Industrial zon		<u> </u>								
(Day and Night)		Industrial zone: 66.5 to 71.3 dB(A) for the day time and 52.9 to 61.2 dB(A) for the Night time.									
(Du) unu i (igno)	00.000	00.5 to 71.5 db(A) for the day time and 52.5 to 01.2 db(A) for the right time.									
	Residential zo	Residential zone:									
			for the day ti	me ai	nd 35.6 to 39.1	dB(A) for the	Night time				
Traffic assessment study					oal transportation						
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	Conclusion: The level of service will improve due to existing/proposed coal will										
	be transported through rail mode.										
		1 6									
	No additional vehicle is proposed. All coal will be dispatched through rapid										
	SILO.										
Flora and fauna	There is pre-	sence	of Schedule	- I	species. Wildl	ife Conservat	ion plan for				
					to state forest d						
					paid to CAMPA						
	plan.				1	pe					
Water		ater	Mine Seenage	Wat	ter /Ground Wat	er & accumul	ated rain				
Requirement	Source of W		water	vval	or Ground wat	ci & accuillul	aicu i aili				
Requirement	Cmay: 1 W		Yes								
	Intersection Premonsoon-4.36m to 8.42m										
	1		Post Monsoon								
	Water		8274 KLD ap	prox.							
	Requirement										
	NOC (Groun		NOC from		GWA obtain		NOC no.				
	Water)	1	CGWA/NOC/	MIN	I/REN/2/2024/9	412 issued on	19.04.2024				
		ļ	which was val	id fro	om 26.02.2023 t	5 25.02.2025.	The renewal				
					om 26.02.2023 t abmitted online						

Period	Baseline data collected for the period Oct 2022 to Dec 2022							
	CGWA NOC was held on 10.03.2025. The status is shown as							
	"Approval" & NOC is awaited							

**31.5.6:** Water Requirement: PP submitted that the total water required for the project is 8274 KLD. Source of water is Mine Seepage Water, tube wells & accumulated rain water.

NOC from CGWA obtained vide NOC no. CGWA/NOC/MIN/REN/2/2024/9412 issued on 19.04.2024 which was valid from 26.02.2023 to 25.02.2025. The renewal application was submitted online on 20.02.2025. EAC for CGWA NOC was held on 10.03.2025. The status is shown as "Approval" & NOC is awaited. NOC renewal is awaited. Further, PP submitted that no water body is proposed to be diverted.

**31.5.7: Power Requirement and details of diversion of Hi-Tension/ Transmission Line:** The power required for the said project is 2x30/36MVA 132/33KVA Central Substation of Dipka Area and distributed through the following 33KV substations, which is sourced from M/s. Chhattisgarh State Power Distribution Company Limited. Further, no Hi-Tension/ Transmission Line is required to be diverted.

**31.5.8: 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	Remarks
1.	Solid	Household	1460	SLRM	SLRM	Domestic Waste
2.	Hazardous	HEMM	20 T/Annum	Through TSDF	Through TSDF	Residue containing oil/oil filters (HW)
3.	Hazardous	HEMM	300 KL/Annum	Authorized recyclers	Authorized recyclers	Used Oil/Spent Oil (HW)
4.	Hazardous	ETP	1 T/Annum	Authorized recyclers	Authorized recyclers	Oil & Grease Skimming Residue (HW)

**31.5.9: Plantation:** 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. Existing green belt has been developed in 6.3 ha area within safety zone with total sapling of 15750 plants out of the total proposed 23 Ha. Total green cover developed within the ML area including the plantation/gap plantations on OB dumps, green belt, plain areas etc. is 532.70 Ha with a total of 23.96 Lakh saplings i.e. 47% of final post closure reclaimed area. Additional plantation will be developed in 606.759 ha i.e. 53 % of the total area to be reclaimed as green cover. Total plantation proposed post closure is 1139.459 Ha.

**31.5.10:** Rehabilitation and Resettlement (R&R): R&R is being done as per revised SECL R&R Policy 2022 and employment is being provided to PAPS as per approved norms.

	DET	TAILS OF RE	&R IN R	ESPEC	Γ OF DII	PKA OCP	OF DIPKA	AREA (A	S ON	01.04.	2025)	
Acquisition year	SI. No.	Village	Area in hectares	No. of land owners	Employment Generated	Employment Provided	Entitled for Employment & opted for cash compensation	Balance Employment to be given	Total PAFs	Given plot at R&R sjte	Opted cash grant	Balance PAF to be settled
	1	Dipka	7.458	25	25	25	0	0	0	0	0	0
	2	Jhabar	64.372	85	90	82	0	8	0	0	0	0
-	3	Malgaon	157.148	162	166	144	2	20	284	89	195	0
1986	4	Jhingatpur	126.935	88	101	94	3	4	134	65	66	3
1960	5	Beltikri	194.391	242	250	231	3	16	351	124	211	16
	6	Sirki	375.678	91	136	124	7	5	388	136	231	21
	7	Renki	26.971	7	7	4	0	3	0	0	0	0
	8	Suwabhondi	164.04	155	173	157	2	14	148	0	138	10
	9	Chainpur	535.526	573	639	582	24	33	385	92	292	1
	10	Ratija	48.844	28	29	28	0	1	0	0	0	0
2004	1	Malgaon	63.795	236	56	27	1	28	341	0	47	294
	2	Amgaon	171.981	R&R of Amgaon village is completed.								
2004	1	Hardi bazar	73.217	901								
&		Hardi bazar	60.108									
2010	2	Suwabhondi	24.373'	250	43	29	0	14	180	0	73	107
		Suwabhondi	14.933									
2010	1	Renki	8.731	138								
	2	Amgaon	21.166			R&R of	Amgaon vill	age is com	pleted.			

**31.5.11: Project Cost:** Total Capital Cost: Rs 2159.16Crores.

**31.5.12: Details of pending litigation:** PP reported that there are 03 court cases w.r.t Environment (Protection) Act. status is as follows:

- 1. Case No. 826/2021 civil appeal was filed by Laxmi Chauhan in the Hon'ble Supreme Court of India under section 22 of the National Green Tribunal Act, 2010 against the NGT verdict on 25.08.2020 by the Principal Bench at New Delhi on Case No: 79 of 2018 filed by Laxmi Chauhan against UOI & others challenging EC issued to Dipka Expansion Project. The case is under subjudice at the Hon'ble Supreme Court of India.
- 2. Case No: 1217/2007 was filed in the court of CJM Korba by CECB against SECL and CGM, Dipka Area against excess production during 2001-2002 without CTO. A petition CRMP 515/2011 was filed by SECL in Chhattisgarh High Court against the case. The SECL petition was dismissed by High Court vide order dated:18.06.2019. The further case proceedings are being taken up by lower court (Katghora) vide no. 886/2015. The case is under subjudice at the court of CJM, Katghora.
- 3. Case No: 26/2009 was filed in the court of Judicial Magistrate First Class, Katghora by CECB against SECL and Shri Debasis Chatterjee (Ex.CGM, Dipka Area) for excess production during FY 2007-08. Judgement was conferred on 14.07.2014 in favour of SECL by acquitting from all charges. A petition CRMP 859/2014 was filed by CECB in Chhattisgarh High Court against the issued order. The case is under subjudice at the High Court of Chhattisgarh.

### 31.5.13: Undertaking/Affidavit:

PP vide an Undertaking submitted that There is no construction done at the site without any deviation as per previous Environmental Clearance obtained vide letter no. J-11015/7/93-

IA.II(M) dated 27.07.1993 (10MTPA): J-11015/87/2003-IA-II(M) dated 04.10.2004 (20 MTPA): J-11015/487/2007- IA-II.(M) dated 03.06.2009 (25 MTPA): J-11015/487/2007- IA-II.(M) dated 12.02.2013 (30 MTPA): dated 06.02.2015 (31 MTPA):dated 20.02.2018 (35 MTPA): dated 20.03.2019 (35 MTPA):dated 09.03.2020 (35 MTPA): dated 05.09.2022 (37.5 MTPA) and dated 20.05.2025 (37.50 MTPA)

There are three court case no. 1217/2007 & 26/2009 in the court Judicial Magistrate First Class, Katghora and Case No. 826/2021 civil appeal was filed in the Hon'ble Supreme Court of India under section 22 of the National Green Tribunal Act, 2010.

The land has been acquired by Govt. of India under Coal Bearing Areas (Acquisition &Development Act. 1957) and vested in South Eastern Coalfields Limited vide notification no.S.O.1562, dated: 11th April 1986, S.O.3095, dated: 24th November 2004, S.O.758, dated: 15<sup>th</sup> March 2010. The land is in possession of the Dipka Opencast expansion Project of South Eastern Coalfields Limited.

There is no difference in the documents submitted i.e. common application form, pre-feasibility report, Mining Plan, and Presentation being made to the EAC.

Further, vide an Undertaking, PP submitted that the information provided in Form-1 in pdf format in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 28th August 2025 have no deviation in respect of the proposal no. IA/CG/CMIN/540806/2025 for grant of TOR for Dipka Opencast Coal Mine project having 1999.386 ha of ML area/Project area and capacity of 40.00 MTPA located at Dipka Village, Katghora Tehsil, Korba District, Chhattisgarh State by South Eastern 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. 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.

# **31.5.14: Written Submission:** PP submitted the following during the meeting:

PP submitted the TOR was issued vide J-11015/487/2007-IA-II(M) dt 08.06.2020 for Dipka Opencast Coal Mine Project 40 MTPA in mine lease area of 1999.386 ha against the proposal submitted vide IA/CG/CMIN/103897/2019 dt. 03.05.2019. Further, the amendment in TOR was issued vide J-11015/487/2007-IA.II (M), dated 09.01.2023. The Public hearing for Dipka OC expansion project 40 MTPA in mine lease area of 1999.386 ha was conducted on 09.06.2023. The proceedings of Public hearing was submitted to MoEF&CC/PP vide letter no. 3259/TS/CECB/2023 Naya Raipur Atal Nagar, Raipur dt. 01.08.2023 by Member Secretary, CECB. PP further requested for exemption of Public hearing in light of above and TOR to be issued without public hearing.

# Observation and deliberation of the EAC: 31.5.15: The Committee noted the following:

1. The instant proposal is for grant of Terms of Reference to M/s South Eastern Coalfields Limited (SECL) for Dipka Opencast Coal Mine Project (increase in ML area from 1999.293 Ha to 1999.386 ha with increase in production capacity from 37.5 MTPA to 40 MTPA), located in villages: Dipka; Tehsil: Katghora; District: Korba; State: Chhattisgarh. The instant project is a brownfield project.

- 2. M/s SECL had earlier accorded the ToR for expansion, for 35 MTPA to 40 MTPA with increase in project area from 1999.293 Ha to 1999.386 Ha, vide letter no. J-11015/487/2007-IA.II(M)pt, dated 08.06.2020. However, later EC for 37.50 MTPA has been accorded on 05.09.2022 under clause 7 (ii) as per special dispensation OM Dated 07.05.2022. Accordingly, amendment in ToR with production expansion from 37.50 MTY to 40.00 MTY in a lease hold area of 1999.386 Ha was accorded by the PP vide letter No. J-11015/487/2007-IA-II (M) dated 09.01.2023. However, the regularisation of EC accorded vide letter dated 05.09.2022 was obtained on 20.05.2025.
- 3. As the TOR was issued by MOEF&CC on 08.06.2020 which was valid up to 07.06.2024 as per the Gazette Notification S.O.751 (E) dated 17.02.2020 and further extended to 07.06.2025 as per the Gazette Notification. S.O. 221 (E) dated 18.01.2021. The ToR as on date has lapsed.
- 4. Committee observed that the public hearing has already been conducted for an area of 1999.386 Ha on 09.06.2023 (for 37.50 MTPA to 40.00 MTPA). Compliance of issues raised during Public Hearing have been submitted to RO CECB, Korba on 15.07.2023 by the PP and subsequently forwarded to MOEF&CC by CECB on 01.08.2023.
- 5. Now the PP has requested for granting the ToR for the said proposal with exemption for conducting the public hearing. Committee opined that since the public hearing has already been conducted, PP shall be exempted from again conducting the PH. However, application for EC shall be submitted within the validity of period of the Public Hearing as per the Ministry's OM dated 08.06.2022.
- 6. Committee deliberated on the implementation status of the EC and observed that, the above-mentioned project is under implementation. Committee also observed that there has been excess production in the years 2001-02, 2002-03, 2003-04, 2007-08 and 2008-09. There are two court cases pertaining to the excess production which are under sub judice.
- 7. 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.
- 8. Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment 2018.
- 9. The instant project is for expansion with increase in the production capacity from 37.5 MTPA to 40 MTPA and increase in the ML area from 1999.293 Ha to 1999.386 Ha. The 0.093 Ha being enhanced is entirely the forestland.
- 10. The project involves total 409.149 Ha of forestland and Stage II forest clearance for the same has been obtained by the PP.
- 11. 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.
- 12. Wildlife Conservation Plan (WLCP) was prepared by The Tropical Forest Research Institute, Jabalpur in year 2020 and the same has been submitted to State Forest Department and approved on 04.11.2022. An amount of Rs.15.47 Crores has been paid

- to CAMPA for implementation of the plan. Committee opined that the implementation status of the same shall be submitted along with the application for EC.
- 13. Mining plan along with progressive mine closure plan for enhancement of coal production from 37.50 MTPA to 40.00 MTPA in area 1999.386 Ha was approved by SECL Board on 24th July 2025 in its 307th meeting. Method of mining proposed to be carried out is opencast mining. Excavation of Coal is through Surface Miner and the waste/OB handling is with shovel/dumper combination.
- 14. Total mineable reserve as per the mine plan as on 01.04.2006 was 617.00 MT and the balance mineable reserve as on 01.04.2025 is 65.844 MT. Out of the mineable reserve of 65.844 MT, 65.844 MT are available for extraction. Percent of extraction is 100%.
- 15. Grade of coal is G10/G11. Life of mine is 02 years (As on 01.04.2025).
- 16. Committee deliberated on the method of transportation being followed for the said project and further proposed to be followed and observed that currently the coal is being transported with a combination of road, conveyor and rail. However, currently approximately 20% of the coal is being transported through road, to small consumers. Committee opined that, PP shall bring down the same to at most 10% of the total production.
- 17. Committee deliberated the baseline data submitted by the PP and observed that the same has been collected during October December 2022. Committee sought a comparative analysis AAQ parameters of the same with the regular environmental monitoring being done. Committee observed that the values of the same are within limits. However, values of PM10 in the buffer zone are found to be on the higher side. Committee opined that PP shall submit a time bound action plan along with the budget to control the air pollution being done due to the mining activities. This plan shall be apart from the measures which are already being implemented by the proponent.
- 18. Committee deliberated on the water requirement of the said project and observed that, the total water required for the project is 8274 KLD. Source of water is Mine Seepage Water, tube wells & accumulated rain water. NOC from CGWA obtained vide NOC no. CGWA/NOC/MIN/REN/2/2024/9412 issued on 19.04.2024 which was valid from 26.02.2023 to 25.02.2025. The renewal application was submitted online on 20.02.2025. The same has been approved and the NoC is awaited. PP also submitted that no water body is proposed to be diverted. Committee observed that, Lilagarh River passes through the ML area and mining operations are being carried out at a safe distance of 60 m from Lilagarh Nallah, whose banks are protected with stone pitching. Strengthening of the Lilagarh river embankment is also done on regular basis. Rs. 253.64 lakh has been deposited in CAMPA FUND for implementation of Surface drainage/ Catchment area treatment plan prepared by the State Forest Department.
- 19. The power required for the said project is 2x30/36MVA 132/33KVA Central Substation of Dipka Area and distributed through the following 33KV substations, which is sourced from M/s. Chhattisgarh State Power Distribution Company Limited. Further, no Hi-Tension/ Transmission Line is required to be diverted.
- 20. Committee deliberated on the plantation activities undertaken by the PP and observed that, existing green belt has been developed in 6.3 ha area within safety zone with total

sapling of 15750 plants out of the total proposed 23 Ha. Total green cover developed within the ML area including the plantation/gap plantations on OB dumps, green belt, plain areas etc. is 532.70 Ha with a total of 23.96 Lakh saplings i.e. 47% of final post closure reclaimed area. Additional plantation will be developed in 606.759 ha i.e. 53% of the total area to be reclaimed as green cover. Total plantation proposed post closure is 1139.459 Ha. In addition to this, plantation of 2.90 lakh saplings in about 130 Ha has been done outside the Mine Lease by the Project during the past 02 years.

- 21. Committee deliberated on the rehabilitation and resettlement issues for the said project and observed that total 146 PAPs are yet to be given the employment and 452 nos of PAFs are yet to be resettled. Committee opined that the same shall be completed at the earliest.
- 22. Committee observed that as per the regularization EC accorded vide letter dated 20.05.2025, it was stipulated to comply with the partially complied conditions of the previously granted ECs in a time-bound manner. As per the reply submitted by the PP in the EDS reply dated 15.08.2025, it is observed that all the conditions are proposed to be complied by September 2025. Accordingly the Committee opined that a site visit to ensure the compliance of the same shall be conducted. The EAC opined that the EC for the said expansion will be considered only after achieving the compliance to the conditions prescribed in the existing EC, followed by obtaining of fresh certified compliance report from the RO of MoEF&CC.
- 23. The project cost for the said project is Rs 2159.16 Crores.
- 24. Committee during the deliberation observed that there are 3 court cases pending on the said project w.r.t Environment (Protection) Act. Case No. 826/2021, which is under subjudice at the Hon'ble Supreme Court of India, Case No: 1217/2007 for excess production and the same is under subjudice at the court of CJM, Katghora and Case No: 26/2009 for excess production, which is under subjudice at the High Court of Chhattisgarh. Committee opined that the PP shall comply with the outcome of the said cases.
- 25. Committee also opined that the PP shall submit a plan to install solar panels on the tinshade of the conveyor belt, along with the application for EC.
- 26. EAC opined that a site visit shall be conducted for the said expansion project and recommendations of the sub-committee site visit report shall be complied with before the application for EC is submitted.

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

**31.5.16:** In view of the foregoing and after detailed deliberation, the Committee *recommended the above-mentioned project* for grant of Terms of Reference by prescribing following specific ToRs for undertaking detailed EIA and EMP study (with exemption in Public hearing) in addition to generic ToR given at Annexure-I, subject to uploading of written submissions.

- 1. Project Proponent shall submit the application for EC within the validity of Public Hearing conducted on 09.06.2023, as per the Ministry's OM dated 08.06.2022.
- 2. Project Proponent shall submit the drone video & photographs of the ML area and transportation route proposed for this project with special focus on the sensitive receptors in the ML area and in the transportation route.

- 3. An integrated hydrological study should be carried out on of the impact of coal mining on the baseflows in the downstream of the mine area, through some NABET accredited institute and submit the action plan on the recommendations of the same along with the application for Environment Clearance.
- 4. Ecological restoration and mine reclamation plan to be prepared with afforestation of local/native species found in the area.
- 5. Project proponent shall submit a plan for installation of solar panels on the tine-shade of the conveyor belt, along with the application for EC.
- 6. The plan for plantation shall separately be made for road side plantation with native species. A plan for distribution of fruit bearing species to the local villagers and farmers shall be developed along with the budgetary provision for compensating them for the survival of those fruit bearing trees.
- 7. Necessary coordination shall be made with concerned SPCB (who is responsible for Compliance of OM dated 14.01.2025) regarding streamlining the implementation of GSR 702 and GSR 703 dated 12.11.2024 through which projects requiring prior EC were exempted from requirement of CTE.
- 8. Certified compliance report for the existing ECs as per MoEF&CC O.M. dated 08/06/2022 shall be submitted.
- 9. 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.
- 10. A Cumulative Environmental Impact Assessment study of all the coal mines situated adjacent to the mine lease area shall be conducted and the same shall be included the in EIA/EMP report. Details of industrial units present in 10 Km radius of the ML area shall be earmarked in map and submitted.
- 11. PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.
- 12. Project Proponent should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total material handled) 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/LPG/CNG-based machinery and trucks for the operation and transportation of coal.
- 13. Details on renewable energy proposed to be installed as energy conservation measures shall be submitted.
- 14. PP shall submit the action plan to adhere to the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.
- 15. Public Hearing for the proposed expansion from 37.5 to 40 MTPA is exempted. However, Project Proponent shall submit the detailed activities proposed with year-wise budgetary provisions (Capital and recurring) as per the Ministry's OM dated 30.09.2020, to address the concerns raised during the Public consultation held on 09.06.2023 including the public hearing. Activities proposed shall be part of the EMP. PP shall also carry out Occupational health survey in the study area and the same shall be included in the EIA/EMP report.

- 16. Project Proponent shall also submit an action plan for strengthening the Government PHCs and CHCs in the study area.
- 17. PP shall submit a letter from the State Forest Department for the impact on the baseline data of the forest area due to the mining activities of the instant project.
- 18. Biodiversity analysis of the core zone and buffer zone of the ML area shall be done through any reputed institutions having NABET accreditation. The study report shall inter-alia include impact of mining on flora and fauna and action plan for complying with the mitigation measures shall be submitted. The Ecology and biodiversity study should include likely impact of land use change in terms of use of forest area for surface infrastructural development in relation to the climate change of that area and what will be the effect after adopting the mitigation measures.
- 19. 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.
- 20. Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.
- 21. 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.
- 22. The socio-economic study shall be conducted with actual survey report and a comparative assessment to be provided from the census data of 2011-part B to be provided in EIA/ EMP report also 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 of 2011 part A to be provided and to link it with the initialization and quantification of need-based survey for CER activities to be followed.
- 23. A detailed traffic study along with presence of habitation in 100 mts distance from both side of road, the impact on the air quality and noise 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.
- 24. 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.
- 25. Project Proponent should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this

- PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.
- 26. Aquatic ecosystem services study shall be carried out through NABET accredited institute for the Lilagarh river to assess the biodiversity of the same and a conservation plan for the same based on the study reports shall be submitted.
- 27. All the certificates viz. Involvement of Forest land, distance from protected area, and list of flora & fauna should be duly authenticated by the Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.
- 28. Details on waste water generation (Industrial and domestic), their treatment (technology, methodology and capacity) and disposal to be submitted.
- 29. Details on renewable energy proposed to be installed as energy conservation measures shall be submitted.
- 30. PP shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of the Environment Management Plan vis-à-vis reduction in the concentration of emission for each APCE.
- 31. 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 date, 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.
- 32. The PP should submit the photographs of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyse the samples.
- 33. An EAC sub-committee site visit shall be conducted for the said expansion project and PP shall submit the compliance of the recommendations of the sub-committee site visit report.

### **Agenda No. 31.6:**

31.6: Integrated Lakhanpur Belpahar Lilari Opencast Project (increase in production capacity from 40 MTPA to 48 MTPA, with decrease in ML area from 4399.246 Ha to 4257.606 Ha), by M/s Mahanadi Coalfields Limited, located in IB Valley Coalfield, Tehsil: Lakhanpur; District: Jharsuguda; State: Odisha - EC for expansion up to 20% of capacity (i.e., 1st phase of 20%) as per the provisions of Ministry's OM dated 11.04.2022. – reg.

[Online Proposal No. IA/OR/CMIN/546648/2025; File No. J-11015/15/2019-IA-II(M)]; Consultant: CMPDIL: NABET/EIA/25-28/RA 0412 valid till 08/04/2028]

**31.6.1:** M/s Mahanadi Coalfields Ltd. has made an online application in Form 1 (A, B & C) vide proposal no. IA/OR/CMIN/546648/2025 dated 07.08.2025 along with copy of EIA/EMP

report, Form and Certified compliance report seeking expansion in Environment Clearance (EC) under the provisions of the EIA Notification, 2006, for the project mentioned above. The proposed project activity is listed at schedule no.1 (a) under Category "A" of the schedule of the EIA Notification, 2006.

The project of M/s Mahanadi Coalfields Ltd is a brownfield project for expansion of production capacity from 40 to 48 MTPA, for the first phase of 20% expansion as per Ministry's OM dated 11.04.2022, with reducing the existing mine lease area of 4399.246 Ha to 4257.606 Ha for establishing coal to ammonium nitrate plant for which ToR obtained from MoEF&CC vide no. IA-J-11011/331/2024/IA-II (I) on 04.03.2025. Now the proposal has been placed in 31st EAC —Coal meeting scheduled on 28.08.2025 for consideration.

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

S. No.	Details of Letter No.		Capacity (MTPA)		Date of issuance	Status of implementation
1	IA-J-11015/15/2019-IA-II(M)	Fresh EC	40	4399.246	15.01.2024	Under
2	IA-J-11015/15/2019-IA-II(M)	EC Amendment	40	4399.246	13.08.2024	Implementation
3	IA-J-11015/15/2019-IA-II(M)	EC Amendment	40	4399.246	30.05.2025	

The mine is under operation since 2023-24 based on the consent from the State Pollution Control Board. CTO renewal has been obtained from the SPCB vide letter no. 14107/IND-I-CON-6945 and is valid up to 31.03.2026

Year	EC Capacity (MTPA)	Actual Coal production (Million tonnes)	Excess production beyond the EC sanctioned capacity (Million tonnes)
2023-24	40	0.699	0
2024-25	40	39.99	0

In pursuance to the OM dated 11.04.2022, certified compliance report of the EC granted for 20% expansion, along with EIA/EMP report, for the additional capacity of 20% was submitted though PARIVESH portal on 07.08.2025 by the project proponent.

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

**31.6.3:** Certified Compliance Report: The certified compliance report was obtained from Regional Office; Bhubaneswar vide letter no: 101-1127/25/EPE/194 dtd. 27.03.2025 in the name of Integrated Lakhanpur Belpahar Lilari Project of M/s. Mahanadi Coalfields Limited. The Action taken report regarding the partially/ non-complied condition was submitted to Regional Officer MoEF&CC, Bhubaneswar vide letter no. MCL/LKPA/Intg. L-B-L OCP/PO/Envt./2025/10 dated 10.04.2025.

S.	Partially	Observati	EC date	Specific/	Response of PP						
No	complied / Non-	on of RO		General							
	compliance	(abridged									
	details	)									
	With reference to the letter no. J-11015/15/2019-IA. II (M) dated 15.01.2024 & amended vide dated										
	13.08.2024										
1	In the project coal	Yet to be	15.01.24	Specific	Assured to comply with timeline						
	transportation	complied	&	Condition							

S. No	Partially complied / Non- compliance details	Observati on of RO (abridged	EC date	Specific/ General		R	esponse of	PP	
	system, through installation of dedicated in-pit belt conveyor for 15 MTPA with silo loading system till railway siding for transportation of 100% of extracted coal		Amende d EC dtd. 13.08.24	1.3	letter d 20 M installa  The pr plan ou Integra  Tab	td. 30.05 TPA S tion by 3 oject is tlined in ted Lakha le.1 Prese Coal in	ilo + C 1.12.2027. following the approvanpur-Belp	the collosed the colled Milahar-I	in EC vide ompletion of Conveyor oal dispatch ning Plan of Lilari OCP.
	through rail is in the construction				No.	MTPA 10.0			r, washery
	phase and maybe not be able to be				ii	20.0	and rail S By Rail S within M	Siding	no. 3, 6 & 7
	completed by 31.07.2025.				iii	6.5	Local sal	e by re	oad
	31.07.2023.				iv	3.5			Rail through within Mine
					Total	40.0			
					Dispate		Y 2024-25.		on and Coal
					Total (	Coal Dispa	atch	32.09	9 MT
					Rail		through	25.7 (80.1	.0%)
					Coal Road S		through	6.38 (19.9	MT (90%)
							sed Dispato		
					Sl. No.	Coal in MTPA	Dispate mediur	n	Status / Timeline
					la la	10.0	Pipe convey Washery (10 MTPA Budget- Rs 396.69 Crs.		In operation
					1b		SILO Phase (Physical Progress- 99.95%, Financial	-I	By 28.02.2026
							Progress-99 Budget- Rs 173.38 Crs.		
					1c		Rail line connectivity SILO is und construction requires land	ler n and	By 31.12.2025
							handover fo State Autho as per Stage FC dated 19.02.2025	rities	
					2	20.0	By conveyo and SILO P	hase	By 31.12.27 <sup>§</sup>
						4.0	Budget – R 473.09 Crs.		Dre
					3	4.0	Local sale b	У	By

. compliance (abridged details )		
	road through ATLS Budget - Rs.77.06 Crs.	.27*
	3.5 To OPGC by Rail through Charla Siding within Mine Lease	
5	2.5 By rail Siding In operation of the second of the secon	
36 M <sup>2</sup>	Coal Transport through Mechanized Syste TPA (90%) Coal Transport through Road Sale: 4 MTF	
constr MTPA opene partici years period	tender notice has been floated fuction of Silo loading system of A capacity on 28.02.2025. The d on 25.04.2025. Six Parties ipated. Work completion time will with an operation and mainter d of 5 years. The price bid has seed for approval.	20.0 e bid have l be 2 nance
has be done system	6.5 MTPA coal dispatch through een curtailed to 4 MTPA which w through Automatic Truck Loan and rest 2.5 MTPA will be dispatch railway siding 6&7.	rill be ading
proponents have not submitted copy of the conservation plan for Lilari Nallah flowing through	Complied. The conservation plan has been submitted to the Regional Office (MoEF&CC) on 01.04.2025. As per the Conservation Plan for Lilari Nallah following Action Plan will be implemented in the year 2025-26 and 2026-	
the ML area to this Regional Office.		Total Elakh
	Trench 9.44 5.05 1	4.49
		59.00 98.60
	Laying Jute 31.50 31.50 6	63.00
	Geotextile         715.89         219.68         93	35.57
6	Riparian Buffer 19.50 19.50 3	39.00
	Quality Monitoring System	30.00
	n	4.00
	0	543.6 5
	Contingencies @ 31.57   14.74   4	46.30
	7 6	79.49

S. No	Partially complied / Non- compliance details	Observati on of RO (abridged	EC date	Specific/ General	Response of PP
					Monitoring,   Evaluation &   Documentation   Cost @ 5%     Grand Total   1138.2   531.30   1669.5   (A+B)   0   0
3	No in-site laboratory facility has been established at the project. However, routine environmental monitoring for air, water, noise, heavy metals, effluent, and drinking water is being conducted by CMPDI.	Partially Complied	15.01.24	Specific Condition 1.6	Being Complied A centralized laboratory has already been constructed in the Basundhara Area (Kulda OCP) with a cost of Rs. 30.35 lakhs. It shall also cater for comprehensive monitoring of air, water, noise, soil, and effluent quality to all mines located in the Ib Valley coalfields of MCL including Integrated Lakhanpur-Belpahar-Lilari OCP. Furthermore, routine environmental monitoring of air, water, noise, heavy metals, effluents, and drinking water is being conducted by CMPDI at regular intervals.
4	It was observed that all coal trucks designated for road sale have a payload capacity of 18-20 tonnes instead of approved 40 tonnes capacity trucks.	Partially complied	15.01.24	Specific Condition 1.7	All the trucks/tippers used for transportation of overburden and coal from the coal face to the stockyard, and siding have a payload capacity of up to 40 tonnes.  The permissible capacity for heavy vehicles on public roads is primarily determined by the gross vehicle weight (GVW) and axle load limits as specified under the Motor Vehicle Act, 1988. These regulations are enforced by the Odisha Motor Vehicle Department to ensure road safety and infrastructure protection.  Generally, trucks designated for road sale area of three axled and the permissible gross vehicle weight is 28.5 Te.  Thus, the coal trucks for road sale have a payload capacity of 18-20 tonnes and are properly covered with tarpaulin sheets.
5	Action plan with implementation schedule to be submitted by the PP to implement the outcome of the socioeconomic study as per the EIA-EMP report.	Partially complied	15.01.24	Specific Condition 1.22	Being Complied Socio-Economic Survey in core zone and buffer zone of 10 Km radius from mine lease area of the project have been carried out during the preparation of EIA-EMP report. The study area comprises 114 villages and 2 Census Towns and 01 Municipal Corporation, with a total population of 234728 persons.  The action taken report and action plan with budget have been submitted with Action Taken Report.  Progressive Actions are being taken as per the outcomes of socio-economic study to resolve the issues related to Drinking Water Supply, Education, Health Facility, Roads,

S. No	Partially complied / Non- compliance details	Observati on of RO (abridged	EC date	Specific/ General	Response of PP
					lighting and illumination, issues of Dust, Noise & Vibration etc.
6	The project proponents are yet to plant 100,000 nos. of Sal trees only with geotagging to identify the SAL trees and develop a nursery of 10 ha Sal trees for free distribution in nearby areas.	Partially complied	15.01.24	Specific Condition 1.26	Compliance under Progress Urban Tree Plantation (UTP) Scheme is jointly implemented by State Forest Department, Odisha and Lakhanpur Area, Mahanadi Coalfields Limited. As part of this plantation scheme, mixed Sal seedlings are being raised in various forest range nurseries of Jharsuguda Forest Division. These raised Sal seedlings are being utilized under the UTP scheme.  A total of 3,50,000 Mixed Sal Seedlings have been developed in various forest range nurseries of Jharsuguda Forest Division.  The Sal plantation is being jointly implemented by State Forest Department and Lakhanpur Area and from 2017-18 to 2024-25, 10,860 saplings have been planted at the UTP sites of Lakhanpur Area.  All upcoming work orders to be issued to the State Forest Department will be stipulated with the condition that 10-20% of the Sal sapling plantation be carried out, and the target of 1 Lakh Sal plantation with geotagging will be completed within 5 years.
7	The project proponents are yet to submit a third-party audit report on compliance of EC condition at an interval of six months, and its report shall be submitted to IRO, MoEF&CC.	Partially complied	15.01.24	Specific Condition 1.30	Being Complied  A work order for Third party audit of compliance of EC conditions of the project at an interval of six months was awarded to CSIR-NEERI vide no. MCL/GM/LKPA/AEO/2024-25/103 dated 13.12.2024 at a cost of Rs. 16.52 Lakhs and the audit has been carried out by CSIR NEERI on 13th and 14th February 2025. The Final Third Party Audit Report has been obtained on 18.08.2025 and submitted to IRO, MoEF&CC on 23.08.2025.
8	The project proponents need to submit an action plan along with implementation schedule for completion of installation of the solar lighting in the surrounding villages as per the stipulation.	Partially complied	15.01.24	Specific Condition 1.32	For installation of Solar lightings in the surrounding villages in buffer zone of 10 km radius from the ML of project, locations in 06 villages have been identified and the Action Plan and the Budget is as follows:    SI. Village Name   Quantity   Amou nt (Rs.)

S. No	Partially complied / Non- compliance details	Observati on of RO (abridged	EC date	Specific/ General	Response of PP
9	The project proponents should submit a time schedule for the provision of bio-toilets to the villages located within the study areas along with an implementation schedule.	Partially complied	15.01.24	Specific Condition 1.33	Piplikani   15 nos.   Solar   Lakhs   Lights     5   Bandhbah   20 nos.   8.00   Solar   Lakhs   Lights     6   Dalgaon   15 nos.   6.00   Solar   Lakhs   Lights     7   Dalgaon   Lakhs   Lights   Lakhs   Lights     8   Dalgaon   Lakhs   Lights   Lakhs   Lights     9   Dalgaon   Lakhs   Lakhs   Lakhs   Lights     10   Dalgaon   Lakhs   La

S. No	Partially complied / Non- compliance details	Observati on of RO (abridged	EC date	Specific/ General		Resp	onse of	PP	
	400000	,			Sr. no.	Locations of Bio-Toilets	Budget in Rs. Lakh	Timeline of work completion Oct-Dec	_
					2	Gumadera, Jhandapada	13.50	2025 Oct-Dec	_
					3	Gumadera, Gwalapada	13.50	2025 Oct-Dec	_
						W. no. 8 Belpahar,	13.30	2025	
					4	Gwalapada W. no. 13 Belpahar,	13.50	Oct-Dec 2025	
					5	Mahijore, Belpahar,	13.50	Oct-Dec 2025	
					6	Mahijore Uparpada Belpahar and	13.50	Oct-Dec 2025	
					7	Dhauramunda Belpahar.	13.50	Oct-Dec 2025	
					Tota	ıl	94.50		
					In ad water Crs. l of J bene:	onstructed in cluding the stith an expenditahanadi Coal SR activities.  dition, toilets at supply with an expenditure of Ratte have a penditure of Ratte and state have a spenditure of Ratte and state have a penditure of Ratte and state have a spenditure of Ratte and state have a penditure of Ratte and state and sta	tudy are: ture of R fields L and bathi an expen structed a nd Sund nilies.  232 Rail	a of the products. 240 Crordinited under crooms with puditure of Result 5 tribal vil dergarh disconstructed	oject, es by er its oiped s. 2.5 lages tricts
10	The submission of the project proponents with regard to their inability to comply with the stipulation to 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		15.01.24	Specific Condition 1.39	Work award dump in the MCL envir OCP the st The suffic rehar any of the v Howe	er Compliance order to New ded on 08.07.2 bing of fly ash/e voids of the along with commental improved a commental words available cient to accommended overburd of the words of the words of the words as the ang plan shall be a control of the complex of the words and the complex of the words are the same plan shall be a control of the same plan shall be a control of the words are the same plan shall be a control of the words are the same plan shall be a control of the words are the same plan shall be a control of the words are the same plan shall be a control of the words are the same plan shall be a control of the words are the same plan	MIT Rou 2025 for so Mixing of running its viab act assess the period of hs. the while modate it den; no for can be a rking ministudy received.	scientific stu of fly ash wi yactive min- ility, safety sment in Int- for completi- working are as own in-site further fly as accommodat- ne.	dy of th 08 es of and LBL on of e just u and sh or ed in , the

S. No	Partially complied / Non-	Observati on of RO	EC date	Specific/ General		R	esponse of	PP	
	compliance details	(abridged )							
	mines in line with the Fly Ash. The Ministry may please look into this aspect for consideration and necessary action								
11		Partially complied	15.01.24 & Amende d EC dtd. 13.08.24	Additiona 1 Condition no. 1	PP has letter di MTPA by 31.1 The pr plan ou Integra Tab SI. No. i ii iii iiv  Total  Table.2 Dispate Total C Coal D Coal D Sale	obtained at 30.05.3 Silo + C 2.2027.  oject is thined in ted Lakhole.1 Presson MTPA 10.0 20.0 6.5 3.5 40.0 Details of the F coal Productional Dispatch through the coal Dispat	following the approve anpur-Belp ent Dispatch  Pipe and ra  By rai within  Local  To OF Charla Lease  of Coal Profy 2024-25.	the coed Minahar-la Arra spatch convey il Siding Mine sale by GC by Siding 39.99 32.09 25.71 (80.1 6.38	oal dispatch ning Plan of Lilari OCP.  Ingement of 6 & 7  Ingenent of
					10		Progress-99. Budget- Rs. 173.38 Crs. Rail line connectivity SILO is und construction requires land handover for State Author as per Stage FC dated	for er and d rm	By 31.12.2025

S. No	Partially complied / Non- compliance details	Observati on of RO (abridged	EC date	Specific/ General		F	Response of PP	
							19.02.2025	
					2	20.0	By conveyor belt and SILO Phase II	By 31.12.27 <sup>s</sup>
							Budget – Rs. 473.09 Crs.	
					3	4.0	Local sale by road through ATLS Budget - Rs.77.06 Crs.	By 30.06.27*
					4	3.5	To OPGC by Rail through Charla Siding within Mine Lease	In operation
					5	2.5	By rail Siding no. 6 & 7 within Mine Lease	In operation*
					36 MT	PA (90%)	port through Mechani port through Road Sal	
					opened participyears period process  * The has beed done system through	capacition of capacition 25 oated. Which an of 5 years of for a curtain through and restored through and restored through and restored through through the curtain thr	otice has been Silo loading systy on 28.02.202 i.04.2025. Six I fork completion to operation and ears. The price bepproval.  A coal dispatch to led to 4 MTPA was Automatic Trues 2.5 MTPA will by siding 6&7.	stem of 20.0 25. The bid Parties have me will be 2 maintenance oid has been through road which will be ck Loading
12	Continuous monitoring of the effluent quality is yet to be installed and linked with SPCB as well as CPCB.	Partially complied	15.01.24	Additiona l Condition no. 7	2 Nos. monito Indradl office a and CI nos. of project Jharsug placed	ring stananush and the cope of CAAQ as per guda for on 01	tinuous Ambient tions has been club and Lakha data has been lind bosites. Further, a MS will be installed by which bid on Go. 08.2025. The abe installed by	installed in anpur tehsil ked to SPCB dditional 02 talled in the f RO SPCB eM has been additional 2
					Bid N procure Water CAMC Contin Monito	Jumber: ement of Quality of 5 yea uous oring Sy	n placed on 21.0 GEM/2025/B/6 703 nos. of Conting Monitoring Surs after 03-year wonline Wate stem will be insument Plants by	446095 for nuous Online ystem with varranty. The r Quality talled at the

S. No	Partially complied / Non- compliance details	Observati on of RO (abridged )	EC date	Specific/ General	Response of PP
13	The project	Dortiolly	15.01.24	Standard	2025.  Being Complied
13	The project proponents need to submit an Action Plan along with the implementation schedule, including the list of activities undertaken/propo sed to be undertaken.	Partially complied	13.01.24	EC condition Statutory Complian ce Stipulatio n no. (a) (iii)	A Site-Specific Wildlife Conservation Plan has approved by PCCF (WL), Odisha vide letter no. 8369 dated 22-07-24 for an amount of Rs. 3250.72 lakhs. Payment of Rs. 3250.72 lakhs have been paid on 30-08-2024. The recommendations of the approved Site-Specific Wildlife Conservation Plan will be implemented in consultation with the State Forest Department.  The Action Plan along with the implementation schedule, including the list of activities undertaken/proposed to be undertaken has been submitted with the Action Taken Report.
					The implementation report will be furnished along with the six-monthly EC compliance report.
14	As per the approved Mine Plan and Mine Closure Plan, there is no provision for Fly Ash dumping. The submissions made by the project proponents, expressing their inability to comply with the stipulation, may please be looked into by the Ministry for further instructions to the project, if any.		15.01.24	Standard EC condition Land reclamati on stipulatio n no. (f) (iv)	Under Compliance Work order to NIT Rourkela has been awarded on 08.07.2025 for scientific study of dumping of fly ash/Mixing of fly ash with 08 in the voids of the running/active mines of MCL along with its viability, safety and environmental impact assessment in Int LBL OCP of MCL. Time period for completion of the study is 6 months.  The voids available while working are just sufficient to accommodate its own in-situ and rehandled overburden; no further fly ash or any other material can be accommodated in the voids of the working mine.  However, as the study recommended, the mining plan shall be revised to utilize fly ash.
15	The project proponents submit that a Greenbelt consisting of a 3-tier plantation with a width not less than 7.5 m would be developed all along the mine lease area.	Partially complied	15.01.24	Standard EC condition Green Belt stipulatio n no. (g) (ii)	Under Compliance The periphery of Integrated Lakhanpur-Belpahar-Lilari OCP is surrounded by OB dumps outside quarry area, Govt. Non-Forest land, Forest land, and Tenancy land. The Govt. Non-Forest land and Forest land are covered with natural vegetation; the OB dumps outside quarry area have been completely biologically reclaimed; and the land possession process for the tenancy land in the periphery of the project area is under process.  The total perimeter of the mine lease area of

S. No	Partially complied / Non- compliance details	Observati on of RO (abridged	EC date	Specific/ General	Response of PP
					the Integrated project is 34 Km out of which natural vegetation exists for a length of 15.20 Km which will be kept undisturbed. The remaining area will be developed as a Greenbelt consisting of 3-tier plantation of width not less than 7.5 m all along the mine lease area by June 2027 for an approximate cost of Rs 6.5 Crs including incentives @Rs. 50/Plant to local villagers for maintenance and nurturing of plants.  A mix of native species such as Aam (Mangifera indica), Neem (Azadirachta indica), Mahua (Madhuca longifolia), Sal (Shorea robusta), Chokandi (Cassia siamea), Karam (Adina cordifolia) etc. will be planted in developing the green belt.

### 31.6.4: Compliance of Ministry's OM dated 11.04.2022

S. No	OM Condition	Compliance
i	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 category of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments.	The last Public hearing was conducted on 06-12-2021 at Kandsar Primary M.E. School, Kusraloi, Lakhanpur in Jharsuguda district, under the chairmanship of Additional District Magistrate.
ii	There should not be change in Category of the project from 'B2' to BV or 'A' due to proposed modernization or expansion.	There is no change in category of the project. It is a Category A project.
iii	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-a-vis the area mentioned in the EC, based on which public hearing has been held earlier.	There is no additional land acquisition. The proposed project does not require any additional land acquisition. However, the mining lease area has been reduced from 4,399.246 ha to 4,257.606 ha for establishing coal to ammonium nitrate plant for which ToR obtained from MoEF&CC vide no. IA-J-11011/331/2024/IA-II (I) on 04.03.2025.
iv	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 EIA/EMP is prepared for expansion up to 50% under 7 (ii) clause of EIA notification 2006 and OM. F.No. IA3-22/10/2022-IA.III[E177258] dated 11.04.2022 from 40.0 MTPA to 60.0 MTPA. The current proposal is for 20% expansion i.e. Phase I from 40.0 MTPA to 48.0 MTPA (20% of 40.0 MTPA).
v	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.	Air Quality Impact prediction has been done for the peak production of 60.0 MTPA. The parameters selected for the modeling are PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NO <sub>x</sub> . The predicted values of the above parameters are well within the permissible limits.
vi	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 green cover area is more than 33%. As per proposed expansion of 60.0 MTPA, Post Closure Land use/ Green Belt area is of 3759.504 ha which is accounting for 88 % area of green cover.

S. No	OM Condition	Compliance
vii	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.	The project proponent have satisfactorily complied the conditions stipulated in the existing EC and satisfactorily fulfilled all the commitments during the earlier public hearing proceedings. The project was inspected by the Regional Office, MoEF&CC, Bhubaneswar on 07.02.2025 and CCR was issued vide letter no.101-1127/25/EPE/194 dtd 27.03.2025. Action taken report with respect to the issued CCR was submitted by the project proponent vide letter no. MCL/LKPA/Intg. L-B-L OCP/PO/Envt./2025/10 dated 10.04.2025.
viii	Public Consultation shall be undertaken [if applicable as per table below] by obtaining response in writing, as per para 7 III (ii) (b) of EIA Notification 2006, except those category of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments.	No new Public Consultation shall be undertaken as there is no additional land required in the proposed project. The proposal has been applied for 20% expansion in first phase only.
ix	Effluent monitoring including air quality monitoring systems as specified in the existing EC, if stipulated, should have been installed.	Routine Environment Monitoring is being carried out for the existing Integrated Lakhanpur Belpahar Lilari OCP (40.0 MTPA). For air, water and noise, the samples are being collected and tested round the year with appropriate frequency at strategic places.  In case, it is found that any of the parameters exceeds the tolerance limits, then corrective measures are suggested by CMPDI to MCL for implementation.
		The monitoring schedule and the environmental quality parameters for which routine environmental monitoring is being done are detailed in the EIA/EMP.

### **31.6.5: Environmental Site Settings:**

The project area is covered under Survey of India Topo Sheet No 64 O/13 & 64 O/14 (RF 1:50,000) and is bounded by the geographical coordinates ranging from Latitude 21°42′25.89″N to 21°47′24.82″N and Longitudes 83°49′38.9″E to 83°49′53″E.

Project falls in the Severely Polluted Area (SPA), as per CEPI assessment 2018 (falls in Ib Valley Area with a CEPI score of 66.35).

Since the project falls in the SPA region therefore, as per the EC letter dtd. 15.01.2024 the following 11 additional conditions were imposed and the compliance status of the same is given below:

No.	Specific Condition	Compliance Status
1	Transportation of materials by	The condition has been amended vide no. IA-J-11015/15/2019-IA-II (M) dated
	rail/conveyor belt with silo	30.05.2025 as follows:
	loading facility shall be	"Transportation of materials by rail/ conveyor belt with silo loading facility shall be
	implemented for 40 MTPA.	implemented for 40 MTPA by 31.12.2027 and thereafter only 10% of the total
		production of coal shall be allowed to be transported through road to the local
		consumers, up to a distance of 100 km only."
		The project is following the coal dispatch plan outlined in the approved Mining Plan
		of Integrated Lakhanpur-Belpahar-Lilari OCP.
		Table A: Present Dispatch Arrangement

).	Specific Condition				<b>Compliance Status</b>		
		S.	Coa	al in	in Dispatch medium		
		No.	MT	ГРА			
		I.	10.0		Pipe conveyor, wash		
		II.	20.0		By rail Siding no. 3,	, 6 & 7 with	in Mine Lease
		III.	6.5		Local sale by road		
		IV.	3.5		To OPGC by Rail th	rough Char	la Siding
					within Mine Lease		
		Total	40.0				
					ough Rail: 33.5 MTPA ough Road: 6.5 MTPA		
		Total	11 anspor	I I IIII	Jugii Kuau. 0.5 MTTT	1 (10.23 /0)	
		Table B:	Details of	Coal	Production and Coal	Dispatch of	the FY 2024-25
			l Coal Pro			39.99 MT	
			l Coal Dis			32.09 MT	
			Dispatch			25.71 MT (	
		Coal	Dispatch	throug	h Road Sale	6.38 MT (1	9.90%)
			T-1	ble C:	Dronogod Diamatak A	ино и <del>с</del> о о	4
		Sl.	Coal	oie C:	Proposed Dispatch A Dispatch medium		Status /
		No.	in		Dispaten mediun	•	Timelines
			MTPA				
		1a	10.0		conveyor, Washery (10	MTPA	In operation
			<u> </u>		et- Rs. 396.69 Crs.		7
		1b			Phase-I (Physical Progress		By 21 12 2025
					%, Financial Progresset- Rs. 173.38 Crs.	<b>フフ.</b> 0U70	31.12.2025
		1c	+		ine connectivity for SI	LO is	By
					construction and requi		31.12.2025
					ver form State Author		
					II FC dated 19.02.202		
		2	20.0		nveyor belt and SILO	Phase II	By
		3	4.0		et – Rs. 473.09 Crs. sale by road through A	TIC	31.12.27 <sup>§</sup> By
			4.0		et -Rs.77.06 Crs.	ILS	30.06.27*
		4	3.5	To O	PGC by Rail through C	harla	In operation
					g within Mine Lease		•
		5	2.5	By ra	il Siding no. 6 & 7 with	nin Mine	In
				Lease			operation*
			40.0				
					ough Mechanized Syst		PA (90%)
					ough Road Sale: 4 MT oated for construction		ling system of 20
					25. Bid opening date is		
					ration and maintenance		
		* The 6.5 M	TPA coal	dispat	ch through road has be	en curtailed	to 4 MTPA which
					atic Truck Loading sys	tem and res	t 2.5 MTPA will b
		dispatched th	nrough rail	Iway s	ding 6&7.		
		However th	e mine is	under	going expansion from	40 to 48 M	TPA for which th
		proposed dis				10 10 70 101	1171, 101 WIIICH U
		Sl. No.		ntity		Mode	
			_	ГРА)			
					By Rail		-
		1.	2	20	Through internal co		
					siding no. 1,2, 3, 6	& 7 within	/adjacent to Mine
			1		Lease		

No.	<b>Specific Condition</b>			Compliance Status			
1,00		3.	1.15	To Odisha Power Generation Corporation (OPGC)			
			1110	by Rail through Charla Siding within Mine Lease			
		4.	1.5	To EMCL washery by road (adjacent to ML			
				boundary) and further to TPP by rail #			
		5.	1.35	To Alps washery by road and further to TPP by rail			
		6.	4	By Road (5-6 km) cum Rail mode at customers rail			
				siding			
		Sub-Total	38				
		(a)					
				By Road			
		7.	10	Local sale by road to the small consumers within 25-30 km			
		Sub-Total	10				
		(b)					
		Grand	48				
		Total (a+b)					
2	Encourage use of cleaner fuels for		n being carri	ed out by GAIL, BEML and CIL for use LNG in 2 nos.			
	trucks, If the roads required to be	_	_	khanpur-Belpahar-Lilari OCP. The trial study has been			
	widened up to nearest railway		the report ha	s been prepared, and the scrutiny of the report is under			
	siding, the same be constructed to	progress.					
	avoid traffic congestion.			er and 02 nos. of EV Dumpers have been carried out in			
				vely evaluating service provisions through the National			
				a, that explicitly encompass excavation, removal,			
				of overburden and coal. Notably, this includes the			
			fleets compri	sing at least 20% electric or battery-operated dumpers			
		and equipment.		- 1- 1 1			
		Further dedicated concrete roads have been constructed for transportation of coal sidings.					
3	Increase green belt cover by 40%			reported that the Integrated Project consists of three			
	of the total land area beyond the			CP, Belpahar OCM, and Lilari OCP. The project			
	permissible requirement of 33%,			024. Currently, rehandling of the existing overburden			
	wherever feasible.			ne's operations. According to the approved mining plan, tares will be progressively reclaimed, which accounts			
				the lease area. Till date, 372.455 ha land has been			
				the mine lease area.			
4	Greenbelt outside the project			t outside the lease through the State Forest Department.			
-				kh saplings) of land have been planted outside the lease			
	plantation, plantation in vacant			st Department in Jharsuguda District at a cost of Rs.			
	areas, social forestry, etc. shall be	18.05 crores.	- 5.000 1 010	2 2 - parameter in vinitougudu Dibitiet de d'e cost of its.			
	implemented.	20.00 010100.					
5	Assessment of carrying capacity	A study has bee	n conducted	for carrying capacity of Road transportation and traffic			
	of mine & road transportation			preparation of EIA/EMP Report and has been submitted			
	shall be done as per the State	to the MoEF&C					
	Plan/instructions.	For the carrying	g capacity of	the mine, the study has been awarded to CMPDI on			
		30.06.2025, for	which time p	period will be one year & three months.			
6	Reuse/recycle of treated			a and stormwater are channelised to the mine sump,			
	wastewater shall be implemented			pression and mining-related activities. Water is not			
	as feasible with latest technology.	_	1 0	ect's Effluent Treatment Plants are equipped with a zero			
	Zero liquid discharge concept	liquid discharge	concept and	are recycled and reused.			
	may be adopted.						
7	PP to install Continuous			f Continuous Ambient Air quality monitoring stations			
	monitoring station for ambient air			anush club and Lakhanpur tehsil office and the data has			
	quality and also continuous			CB websites. Further, additional 02 nos. of CAAQMS			
	effluent quality in ETP shall be			t as per the approval of RO SPCB Jharsuguda for which			
	installed. Data so generated shall			d on 01.08.2025. The additional 2 CAAQMs will be			
	be linked with respective SPCB	installed by Dec					
	and CPCB websites.	A bid has been j	praced on 21	.07.2025 vide Bid Number: GEM/2025/B/6446095 for			
			.02	Continuous Online Water Quality Monitoring System			

No.	Specific Condition	Compliance Status
		with CAMC of 5 years after 03-year warranty. The Continuous Online Water Quality Monitoring System will be installed at the Effluent Treatment Plants by December 2025.
		Further, regular monitoring of ETP effluent at sedimentation tank is being carried out by CMPDI and the monitoring data is being submitted to SPCB and IRO MoEF&CC with half yearly EC compliance report.
8	A detailed water harvesting plan may be prepared by the project proponent for water augmentation and submitted to Regional Office of MoEF&CC.	A study regarding Water Harvesting and Artificial Recharge has been conducted in EIA/EMP of the project and action are being taken as per the plan. Rainwater harvesting is carried out by channelising surface runoff into the mine sump for storing and recharge of ground water. Further 06 nos. of Rainwater Harvesting structures have been constructed at the administrative building of Integrated Lakhanpur-Belpahar-Lilari OCP for ground water recharge of total rooftop area of 2070.8 m², which is reported to recharge groundwater to a quantity of 2393 m³/year.
9	The project proponent shall install STP for generated domestic wastewater and should meet for discharge standard.	A STP of 1.7 MLD is established in the residential colony and soak pits are also constructed. The discharge from STP is being monitored at regular intervals.
10	More stringent norms for management of hazardous waste like oil container, ETP sludge etc shall be adopted. The waste generated should be preferably utilized in co-processing.	Integrated Lakhanpur-Belpahar-Lilari OCP has been granted Hazardous Waste Authorization by State Pollution Control Board, Odisha vide no. IND-IV-HW-1450/5811 dated 24.03.2025 and validity till 31.03.2026. Hazardous wastes are sold to SPCB authorized recyclers till the waste is stored at dedicated impervious Hazardous waste disposal pit under covered shed.
11	Monitoring of compliance of EC conditions may be submitted with third party audit every year.	A work order for Third party audit of compliance of EC conditions of the project at an interval of six months was awarded to CSIR-NEERI vide no. MCL/GM/LKPA/AEO/2024-25/103 dated 13.12.2024 at a cost of Rs. 16.52 Lakhs and the audit has been carried out by CSIR NEERI on 13th and 14th February 2025. The Final Third Party Audit Report has been obtained on 18.08.2025 and submitted to IRO, MoEF&CC on 23.08.2025.

### Mining Lease: PP submitted the following details of the mining lease:

S. No.	Govt. Order/Notifications as the case may be	Area (Ha)	Date of expiry of lease	Area involved in instant proposal (Ha)	Remarks
1	Notification of IB Block-II vested U/s 11(1) of CBA Act dtd 04.09.1981	2123.76	As the land		Out of this total 5669.72 ha block allotment, which is completely acquired
2	Notification of IB Block-VI Part-I vested U/s 11(1) of CBA Act dtd 26.11.1986	400.04	acquired under CBA Act	4257.606	under CBA (A&D) 1957, only 4,257.606 ha has been taken as ML area
3	Notification of IB Block-VI Part-II vested U/s 11(1) of CBA Act dtd 15.12.1988	3145.92	1957, the lease validity is perpetual.		and the remaining land will be considered for future expansion or new projects.
	TOTAL	5669.72		4257.606	

Land requirement details of the project:

Nature of land involved	Existing Area (Ha)	Additional area (Ha)	Total Area required after expansion (Ha)
Non-Forest Land	3440.551	-141.64	3298.911
Forest Land	958.695	0	958.695
Total	4399.246	-141.64	4257.606

**Forest Area:** The project involved total forest land of 958.695 ha. The details of forest land approval already obtained or applied for is as follows:

S.	Obtained vide letter no.	Area (ha)	Stage I/II	Validity
No.				
1.	8- 280/89-FC dated 08-10-1990	233.43	Stage II	
2.	8-104/91-FC dated 02-06-2000	103.52	Stage II	
3.	8-104/1991-FC dated 15-09-2014	19.70	Stage II	Life of the
4.	F.No.8-93/2012-FC dated 19-01-2015	10.453	Stage II	Mine
5.	5-ORA155/2012-BHU dated 10-01-2020	12.319	Stage II	Willie
6.	8- 281/8-FC dated 31-07-1990	162.20	Stage II	
7.	8-280/1989-FC Vol. (170901) Dated 19-02-2025	417.073	Stage II	
	Total Forest land	958.695		

Total broken forest area in the said project is 276.089 ha (as on 31.03.2025) and PP submitted that there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

**Protected Area:** The project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ tiger corridor/ elephant corridor etc.

There is presence of Schedule – I species, seven schedule I species present in core zone Indian grey mongoose, Porcupine, Jungle cat, Golden jackal, Indian Chameleon, Indian cobra and Indian rat snake. Ten schedule I species present in buffer zone Grey wolf, Indian grey mongoose, Indian Porcupine, Sambhar, Golden jackal, Jungle cat, Striped Hyaena, Indian Chameleon, Indian cobra & Russell's viper. A Site-Specific Wildlife Conservation Plan has approved by PCCF (WL), Odisha vide letter no. 8369 dated 22.07.2024 for an amount of Rs. 3250.72 lakhs. Payment of Rs. 3250.72 lakhs have been paid on 30.08.2024.

**Other Sensitive Receptors:** 

Project site proximity to sensitive area	Distance in km (within 5 km from the ML area)					
	S. No. Habitation Distance in km					
i. Habitation	1.	Bandhbahal	1.06		East	
	2.	Belpahar	5.00	]	North	
	3.	Brajrajnagar	6.48	No	rth-East	
	S. No.	School		Distance in km	Direction (w.r.t to mine boundary)	
	1	Jorabaga High School		Within mine lease		
	2	Khandsar Primary School		Within mine lease		
	3	Upper Primary School, Adhapara		0.35	South East	
ii. School	4	Dahaldera Upper Primary School		0.6	West	
II. SCHOOL	5	Bandhbahal High School		0.8	East	
	6	DAV Higher Secondary School, Bandhbahal		1.0	East	
	7	Belpahar English Me	dium School	1.6	North	
	8	Saraswati Shishu Bidya Mandira, Bandhbahal		1.2	East	
	9	Vivekanand Internati Belpahar	on School,	1.2	North	
	10	St. Mary's School, Telenpali		1.8	Southeast	

Project site proximity to sensitive area	Distance in km (within 5 km from the ML area)					
	11	Upper Primary School, Majhi	para	2.3	East	
	S. No.	Name of the Water Bodies			Direction (w.r.t to mine boundary)	
	1	Ib river (HFL: 195.47 m)		.7	East	
::: D:/ W-41 1	2	Lilari Stream	With	in ML	-	
iii. River/ Waterbody	3	Pandren Stream	0	.9	North East	
	4	Hirakud reservoir		.0	South	
	5	Kandhal Stream		.3	East	
	6	Bagdia Stream	1	.7	West	
	S. No.	Name of Forest	Distance		Direction (w.r.t to mine boundary)	
	1.	Kusraloi RF	Adja	acent	South East	
	2.	Remenda RF	Adja	acent	South West	
	3.	Malda RF	8	.3	East	
	4.	Rampur RF		.9	East	
iv. Forest	5.	Khair RF	8	.0	North East	
	6.	Rajpur RF	5	.7	North	
	7.	Bandhbahal PF 8.2			North West	
	8.	Bikramakhol RF 1.5		.5	West	
	9.	Bhanwarkhol RF 6.4		.4 West		
	10.	Kardarha PF	.0	North West		
. Archaeological	No No	IXardarna 1 1		.0	North West	
Survey of India (ASI) protected site						
	Sl. No.	Temples Di		Distance i km	in Direction (w.r.t to mine boundary)	
	1	5			Doullualy	
	1	Shiva Mandir - Soldia Village	;	Within milease		
	2	Shiva Mandir - Soldia Village Jagannath Temple Bandhabah				
			ıal	lease	ne -	
	2 3 4	Jagannath Temple Bandhabah	al GP	lease 0.58	ne - West	
	2 3	Jagannath Temple Bandhabah Kalyan Mandap - Bandhabaha	al GP	lease 0.58 1.15	ne - West West	
vi. Any other	2 3 4	Jagannath Temple Bandhabah Kalyan Mandap - Bandhabaha Maa Samalei Temple Bandhal Maa Bhattarika Temple - Kumbharbandh GP Shiva Temple - Kirarama Vill	al GP bahal	0.58 1.15 1.4	west West West West	
vi. Any other	2 3 4 5	Jagannath Temple Bandhabah Kalyan Mandap - Bandhabaha Maa Samalei Temple Bandhal Maa Bhattarika Temple - Kumbharbandh GP	al GP bahal	lease 0.58 1.15 1.4 2	West West West West South West	
i. Any other	2 3 4 5	Jagannath Temple Bandhabah Kalyan Mandap - Bandhabaha Maa Samalei Temple Bandhal Maa Bhattarika Temple - Kumbharbandh GP Shiva Temple - Kirarama Vill (Sarandamal GP) Jagannath Mandir - Lakhanpu	al GP bahal	1.15 1.4 2	West West West West South West West	
i. Any other	2 3 4 5 6 7	Jagannath Temple Bandhabah Kalyan Mandap - Bandhabaha Maa Samalei Temple Bandhal Maa Bhattarika Temple - Kumbharbandh GP Shiva Temple - Kirarama Vill (Sarandamal GP) Jagannath Mandir - Lakhanpu	al GP bahal age ar GP	1.15 1.4 2	West West West South West West South East	
i. Any other	2 3 4 5 6 7	Jagannath Temple Bandhabah Kalyan Mandap - Bandhabaha Maa Samalei Temple Bandhal Maa Bhattarika Temple - Kumbharbandh GP Shiva Temple - Kirarama Vill (Sarandamal GP) Jagannath Mandir - Lakhanpu	al GP bahal age ar GP	lease 0.58 1.15 1.4 2 2 2	West West West South West West South East	
i. Any other	2 3 4 5 6 7 Other n	Jagannath Temple Bandhabah Kalyan Mandap - Bandhabaha Maa Samalei Temple Bandhal Maa Bhattarika Temple - Kumbharbandh GP Shiva Temple - Kirarama Vill (Sarandamal GP) Jagannath Mandir - Lakhanpu  nines:  Nearby mines	al GP bahal age ar GP	lease 0.58 1.15 1.4 2 2 2	West West West South West West South East	
i. Any other	2 3 4 5 6 7 Other n	Jagannath Temple Bandhabah Kalyan Mandap - Bandhabaha Maa Samalei Temple Bandhal Maa Bhattarika Temple - Kumbharbandh GP Shiva Temple - Kirarama Vill (Sarandamal GP) Jagannath Mandir - Lakhanpu  nines:  Nearby mines  Samleswari OCP	al GP bahal age ar GP	lease 0.58 1.15 1.4 2 2 2	West West West South West  South East  Direction (w.r.t to mine boundary)  North	
i. Any other	2 3 4 5 6 7 Other n Sl. No.	Jagannath Temple Bandhabah Kalyan Mandap - Bandhabaha Maa Samalei Temple Bandhal Maa Bhattarika Temple - Kumbharbandh GP Shiva Temple - Kirarama Vill (Sarandamal GP) Jagannath Mandir - Lakhanpu  nines:  Nearby mines	al GP bahal age ar GP	lease   0.58     1.15     1.4     2       2       2	West West West West South West  South East  Direction (w.r.t to mine boundary)	

No river/ nallah diversions are proposed for the instant project and no diversion has been done previously.

### **Mitigation measures proposed for the sensitive receptors:**

- 1. The project is in process of establishing Silo + Conveyor Arrangement which will ensure ecofriently dispatch of coal.
- 2. All trucks associated with coal dispatch will be strictly monitored for tarpaulin coverage for reducing fugitive emissions.

- 3. Higher capacity trucks of 45-50 te capacity will be deployed for road sale to reduce the fleet size which further reduce emissions.
- 4. Avenue plantation along coal transport routes will be strengthened.
- 5. Mobile fog cannons, high pressurized mist sprinklers & Mechanical Road sweepers will be deployed to arrest fugitive emissions.
- 6. Green barrier development in the vacant spaces between mines and habitation areas.

**31.6.6: Method of Mining and Mining Plan:** Mining Plan (Including Progressive Mine Closure Plan) has been approved by the MCL Board vide letter MCL/SBP/CS/BD-281/Exct/2025/14879, dated 08-07-2025.

- 6. Method of mining proposed to be carried out is opencast mining using combined mining system deploying shovel dumper combination and Surface Miner.
- 7. Total mineable reserve as per the mine plan as on 01.04.2025 was 1334.52 MT and the balance mineable reserve as on 01.04.2025 is 1262.86 MT. Percent of extraction is 94.63%.
- 8. There are 11 seams with thickness ranging from 0.1 m to 32.70 m are workable.
- 9. The average grade of coal is G-12 and stripping ratio is 4.64 cum/t.
- 10. Life of mine is 20 years (As on 01.04.2025).
- 11. The project has external dump within its lease in an area of 22.65 ha with 30 m max height and 3327.198 ha with range of 90-110 m height and 4116.025 Mm<sup>3</sup> of OB is envisaged in the project.
- 12. Total quarry area is 3565.484 ha out of which backfilling will be done in 3327.198 ha while final mine void will be created in an area of 238.286 ha with a depth of 354 m. (At the time of mine closure, the final depth of the quarry is proposed to be reduced to approximately 140–160 meters through progressive backfilling and reclamation measures). Backfilled quarry area of 3327.198 ha shall be reclaimed with plantation. Final mine void will be converted into water body.
- 13. Land-use details

a. Pre-Mining Land Use (within mine lease)

S. No.	Type of Land	Area (in ha)
1	Agricultural	1596.37
2	Forest land	958.695
3	Wasteland NF (Barren)/ other use	1548.319
4	Grazing	85.52
5	Surface water bodies	12.02
6	Settlements (Township + Road)	56.682
Total Min	ing lease area	4257.606

b. Post Mining land use

S.	Category	Plantation*			Land use (in l	na)	
No.			Water Body	Public/ Company Use	Forest* Land (Returned)	Un disturbed	Total
1.	Excavation Area	2540.952	238.286	-	786.246	-	3565.484
2.	Top Soil Dump	41.994	-	-	-	-	41.994
3.	OB dump (Within ML area)	22.650	-	-	-	-	22.650
4.	Safety Zone	24.095	-	-	-	-	24.095

S.	Category	Plantation*		Land use (in ha)			
No.			Water	Public/	Forest*	Un	Total
			Body	Company	Land	disturbed	
				Use	(Returned)		
5.	Road and	171.033	-	259.901	134.039	-	564.973
	Infrastructure						
	area						
6.	Undisturbed	-	-	-	38.410	-	38.410
Total	ML Area	2800.724	238.286	259.901	958.695	-	4257.606

<sup>\*</sup>Note: - Both plantation and forest land return will be the part of plantation. Void will be converted as water body at end of mine life.

#### 14. Details of transportation:

- i. In-pit to surface: By dumpers and tippers
- ii. Surface to siding: By conveyor (2.14 km) & tippers through internal CT roads (3-7 km)
- iii. Siding to loading: By tippers & silo
- iv. Quantity being transported by road/ rail/ conveyor/ ropeway: 33.5 MT is being transported through rail while 6.5 MT through road currently.

Name of the Project	EC capacity (MTPA)	Dispatch through rail in MTPA	Dispatch through road in MTPA	
Integrated Lakhanpur	40 (existing)	33.5	6.5	
Belpahar Lilari Opencast Project	48 (proposed)	38.0	10.0	

### Details of the existing coal transportation arrangement (for 40 MTPA)

S. No.	Coal in	Dispatch medium			
	MTPA				
i.	10.0	Pipe conveyor, washery and rail Siding 6 & 7			
ii.	20.0	By rail Siding no. 3, 6 & 7 within Mine Lease			
iii.	6.5	Local sale by road			
iv.	3.5	To OPGC by Rail through Charla Siding within Mine Lease			
Total	Total 40.0				
Total tra	Total transport through rail: 33.5 MTPA (83.75%)				
Total tra	nsport throug	th road: 6.5 MTPA (16.25 %)			

### Details of the proposed coal transportation arrangement (for 48 MTPA)

S. No.	Quantity (MTPA)	Mode
		By Rail
1.	20	Through internal coal transportation road to rail siding no.
		1,2, 3, 6 & 7 within/adjacent to Mine Lease
2.	10	Through Pipe conveyor to washery
3.	1.15	To Odisha Power Generation Corporation (OPGC) by Rail
		through Charla Siding within Mine Lease
4.	1.5	To EMCL washery by road (adjacent to ML boundary) and
		further to TPP by rail
5.	1.35	To Alps washery by road and further to TPP by rail
6.	4	By Road (5-6 km) cum Rail mode at customers rail siding
Sub-Total (a)	38	
		By Road
7.	10	Local sale by road to the small consumers within 25-30 km
Sub-Total (b)	10	
Grand Total (a+b)	48	

15. Details of reclamations: Total afforestation for the instant project shall be done in 3759.419 ha. Reclamation on external OB dump of 22.65 ha, reclaimed backfilled area in the form of internal OB dumps of 3327.198 ha, greenbelt & safety zone of 62.505 ha, density of plantations shall be 2500 nos of plants per ha. A void of 238.286 ha at maximum depth of 354 m (At the time of mine closure, the final depth of the quarry is proposed to be reduced to approximately 140–160 meters through progressive backfilling and reclamation measures.)

#### 31.6.7: Baseline data:

Period-	Details					
season						
AAQ parameters at 10 Locations (min and max)						
Incremental GLC Level						
Groundwater	For Co	re Zone				
quality at 6	roi co	ite Zone				
Locations	Sl. No.	Parameter	Minimum	Maximum		
	1	pH at 25°C	6.81	6.81		
	2	TDS (mg/L)	148	148		
	3	Total Hardness as CaCO <sub>3</sub> (mg/L)	79.47	79.47		
	4	Nitrate (mg/L)	0.5	0.5		
	5	Chlorides (mg/l)	27.23	27.23		
	6	Fluoride (mg/l)	0.44	0.44		
	7	Calcium(mg/L)	19.09	19.09		
	8	Sulphate(mg/L)	40.12	40.12		
	9	Copper(mg/L)	0.03	0.03		
	10	Manganese (mg/L)	0.04	0.04		
1		1 0 (0)	0.1	0.1		

1	Period-		Details		
13	season	12	Zinc(mg/L)	0.04	0.04
14					
15			( )		
16					
17   Selenium(mg/L)   0.005   0.005     18					
18					
Cr+6) (mg/L)   For Buffer zone					
Sl. No.   Parameter   Minimum   Maximum		18	`	0.05	0.05
1		For Bu	iffer zone		
2   TDS (mg/L)   262   764		Sl. No.	Parameter	Minimum	Maximum
3		1	pH at 25°C	6.86	8.21
			TDS (mg/L)	262	764
A   Nitrate (mg/L)   0.5   19.29		3	- 1	123.18	373.52
Surface quality Locations		4		0.5	19.29
Surface quality at 6   Sl. No.   For Core Zone					
Total Chromium (mg/L)   11.292   112.92   112.92   112.92   112.92   112.92   113.65   135.65   135.65   135.65   135.65   135.65   135.65   135.65   10.003   10.003   10.003   10.003   10.003   10.004   10.04   10.04   11   10.01   12   2.0005   12   2.0005   14   2.0005   14   2.0005   15   2.005   16   2.005   17   2.0005   18   2.005   18   2.005   18   2.005   2.005   18   2.005		6		0.36	0.73
Surface quality at 6   Locations   Surface full type of the content of the cont		7	Calcium(mg/L)	22.27	112.92
10   Manganese (mg/L)   0.04   0.04     11   Iron(mg/L)   0.1   0.1     12   Zinc(mg/L)   0.005   0.005     13   Lead(mg/L)   0.001   0.001     15   Total Chromium (mg/L)   0.001   0.001     16   Arsenic(mg/L)   0.005   0.005     17   Selenium(mg/L)   0.005   0.005     18   Hexavalent Chromium (as		8	Sulphate(mg/L)	33.56	135.65
11		9	Copper(mg/L)	0.03	0.03
12   Zinc(mg/L)   0.04   0.04     13   Lead(mg/L)   0.005   0.005     14   Cadmium(mg/L)   0.001   0.001     15   Total Chromium (mg/L)   0.005   0.005     16   Arsenic(mg/L)   0.005   0.005     17   Selenium(mg/L)   0.005   0.005     18   Hexavalent Chromium (as   0.05   0.05     18   Hexavalent Chromium (as   0.05   0.05     Cr+6) (mg/L)   0.005   0.005     18   Hexavalent Chromium (as   0.05   0.05     Cr+6) (mg/L)   0.005   0.005     18   Hexavalent Chromium (as   0.05   0.05     Cr+6) (mg/L)   0.05   0.05     Cr+6) (mg/L)   0.05   0.05     Cr+6) (mg/L)   0.08   0.05     Cr+6) (mg/L)   0.08   0.05     Cr+6) (mg/L)   0.08   0.05     Cr+6) (mg/L)   0.08   0.08     Cr+6) (mg/L)   0.09   0.08     Cr+6) (mg/L)   0.09   0.09     Cr+6)		10	Manganese (mg/L)	0.04	0.04
13		11	Iron(mg/L)	0.1	0.1
14   Cadmium(mg/L)   0.001   0.001     15		12	Zinc(mg/L)	0.04	0.04
15		13	Lead(mg/L)	0.005	0.005
16		14	Cadmium(mg/L)	0.001	0.001
17     Selenium(mg/L)   0.005   0.005     18		15	Total Chromium (mg/L)	0.01	0.01
Surface quality at 6   SI. No.   Parameter   Minimum   Maxim		16	Arsenic(mg/L)	0.005	0.005
Cr+6) (mg/L)		17		0.005	0.005
Surface quality at 6 Locations         For Core Zone           Sl. No.         Parameter         Minimum         Maxim           1.         pH at 25°C         6.98         7.34           2.         TSS (mg/L)         42         66           3.         BOD (mg/L)         2         2           4.         COD (mg/L)         12         16           5.         TDS (mg/L)         318         526           6.         Total Coliform MPN (Index/100 ml)         48         58           7.         Chlorides (mg/l)         21.39         23.34           8.         Fluoride (mg/l)         0.52         0.86           9.         DO (mg/L)         6.4         6.6           10.         Total Hardness(mg/L)         139.08         154.9           11.         Copper(mg/L)         0.03         0.03		18		0.05	0.05
1.       pH at 25°C       6.98       7.34         2.       TSS (mg/L)       42       66         3.       BOD (mg/L)       2       2         4.       COD (mg/L)       12       16         5.       TDS (mg/L)       318       526         6.       Total Coliform MPN (Index/100 ml)       48       58         7.       Chlorides (mg/l)       21.39       23.34         8.       Fluoride (mg/l)       0.52       0.86         9.       DO (mg/L)       6.4       6.6         10.       Total Hardness(mg/L)       139.08       154.9         11.       Copper(mg/L)       0.03       0.03			e Zone		
2.       TSS (mg/L)       42       66         3.       BOD (mg/L)       2       2         4.       COD (mg/L)       12       16         5.       TDS (mg/L)       318       526         6.       Total Coliform MPN (Index/100 ml)       48       58         7.       Chlorides (mg/l)       21.39       23.34         8.       Fluoride (mg/l)       0.52       0.86         9.       DO (mg/L)       6.4       6.6         10.       Total Hardness(mg/L)       139.08       154.9         11.       Copper(mg/L)       0.03       0.03					Maximum
3.     BOD (mg/L)     2     2       4.     COD (mg/L)     12     16       5.     TDS (mg/L)     318     526       6.     Total Coliform MPN (Index/100 ml)     48     58       7.     Chlorides (mg/l)     21.39     23.34       8.     Fluoride (mg/l)     0.52     0.86       9.     DO (mg/L)     6.4     6.6       10.     Total Hardness(mg/L)     139.08     154.9       11.     Copper(mg/L)     0.03     0.03	Locations				
4.     COD (mg/L)     12     16       5.     TDS (mg/L)     318     526       6.     Total Coliform MPN (Index/100 ml)     48     58       7.     Chlorides (mg/l)     21.39     23.34       8.     Fluoride (mg/l)     0.52     0.86       9.     DO (mg/L)     6.4     6.6       10.     Total Hardness(mg/L)     139.08     154.9       11.     Copper(mg/L)     0.03     0.03			<u> </u>		
5.         TDS (mg/L)         318         526           6.         Total Coliform MPN (Index/100 ml)         48         58           7.         Chlorides (mg/l)         21.39         23.34           8.         Fluoride (mg/l)         0.52         0.86           9.         DO (mg/L)         6.4         6.6           10.         Total Hardness(mg/L)         139.08         154.9           11.         Copper(mg/L)         0.03         0.03			· · ·		
6.     Total Coliform MPN (Index/100 ml)     48     58       7.     Chlorides (mg/l)     21.39     23.34       8.     Fluoride (mg/l)     0.52     0.86       9.     DO (mg/L)     6.4     6.6       10.     Total Hardness(mg/L)     139.08     154.9       11.     Copper(mg/L)     0.03     0.03			. •		
7.       Chlorides (mg/l)       21.39       23.32         8.       Fluoride (mg/l)       0.52       0.86         9.       DO (mg/L)       6.4       6.6         10.       Total Hardness(mg/L)       139.08       154.9         11.       Copper(mg/L)       0.03       0.03			<u> </u>		
8.       Fluoride (mg/l)       0.52       0.86         9.       DO (mg/L)       6.4       6.6         10.       Total Hardness(mg/L)       139.08       154.9         11.       Copper(mg/L)       0.03       0.03			( /		23.34
9.       DO (mg/L)       6.4       6.6         10.       Total Hardness(mg/L)       139.08       154.9         11.       Copper(mg/L)       0.03       0.03			· · · ·		0.86
10.       Total Hardness(mg/L)       139.08       154.9         11.       Copper(mg/L)       0.03       0.03			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
11 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		10. Total	Hardness(mg/L)	139.08	154.97
12. Manganese (mg/L) 0.04 0.04		11. Coppe	er(mg/L)	0.03	0.03
				0.04	0.04
13. Iron(mg/L) 0.1 0.1			<u> </u>		
					0.04
					0.005
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					0.001
			` <b>y</b> /		0.01
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					0.005
1		i 19   Seleni	ummen2/L)	0.005	0.005

Period-	Details							
season								
		(mg/L)	1					
		For Buff						
	Sl. No		Parame	eter			imum	Maximum
	1.	pH at 25					.45	8.23
	2.	TSS (mg	• /				23	46
	3.	BOD (n	<u> </u>				2	2
	<u>4.</u> 5.	COD (n					12	28
	6.	TDS (m	oliform MPN (	(Inday/	/100 ml)		46 31	502 84
	7.		es (mg/l)	(maex/	100 1111)		5.34	38.9
	8.	Fluoride					.53	0.74
	9.	DO (mg	· •				5.4	7
	10.		ardness(mg/L)	١			5.5	290.07
	11.	Copper(	· · ·	<u>'</u>			.03	0.03
	12.		ese (mg/L)				.04	0.04
	13.	Iron(mg					0.1	0.1
	14.	Zinc(mg					.04	0.04
	15.	Lead(m					005	0.005
	16.	Cadmium(mg/L)					001	0.001
	17.	Total Chromium (mg/L)				0	.01	0.01
	18.	Arsenic(mg/L)				0.	005	0.005
	19.	Selenium(mg/L)				0.	005	0.005
	20.	. Hexavalent Chromium (as Cr+6)			r+6)	0	.05	0.05
		45.1 to 64.0 dB(A) for the day time and 34.5 to 60.3 dB(A) for the Night time.						
Joice levels Lea	45.1 to		for the day tir	na and	24.5 to 60.3	dD(A)	for the Nig	ht time
Day and Night)  Traffic assessment	Traffic sections	64.0 dB(A) study involves, along with	ves the assessn h traffic impa	nent of	the current to	raffic sc	enario acro	oss different roa
Noise levels Leq Day and Night) Traffic assessment tudy findings	Traffic sections 8.85 M	64.0 dB(A) study involves, along wit TPA, 4.85	ves the assessn h traffic impa MTPA via the	nent of ct anal	the current to	raffic sc	enario acro	ht time.  oss different roa  ansportation (  , and 4.0 MTP
Day and Night)  Traffic assessment	Traffic sections 8.85 M	study involves, along with TPA, 4.85 cough proposition.	ves the assessn h traffic impa MTPA via the sed new route.	nent of ct anal	the current t ysis for the ing CT road	raffic so additional leading	enario acro nal coal tr to NH-49	oss different roa ansportation of and 4.0 MTP
Day and Night)  Traffic assessment	Traffic sections 8.85 M	64.0 dB(A) study involves, along wit TPA, 4.85	ves the assessn h traffic impa MTPA via the sed new route.	nent of ct analge existing 10.0	the current t ysis for the ing CT road	raffic sc additional leading	enario acro nal coal tr to NH-49 ad sale) -	oss different roa ansportation of and 4.0 MTP
Day and Night)  Traffic assessment	Traffic sections 8.85 M coal thr	study involves, along with TPA, 4.85 rough proportions.	wes the assessn h traffic impa MTPA via the sed new route.	nent of ct analge existing 10.0 (Existing Existing Existi	The current to the sing CT road of MTPA (T	raffic so additional leading otal ro ispatch	enario acro nal coal tr to NH-49. ad sale) – for 40.0 M	oss different roa ansportation of and 4.0 MTP - 6.50 MTPA TPA)
Day and Night) Craffic assessment	Traffic sections 8.85 M coal thr	study involvs, along wit TPA, 4.85 rough propos	wes the assessn h traffic impa MTPA via the sed new route.	nent of ct analyce existing 10.0 (Exi	The current to the sing CT road  O MTPA (Total isting road dots) his washery w	raffic sc additional leading fotal rouse ispatch	enario acro nal coal tr to NH-49 ad sale) – for 40.0 M'	oss different roa ansportation of and 4.0 MTP - 6.50 MTPA TPA)
Day and Night)  Traffic assessment	Traffic sections 8.85 M coal thr	64.0 dB(A) study involves, along wit TPA, 4.85 rough propo- 3.5 MTPA	wes the assessn h traffic impa MTPA via the sed new route.	nent of ct analyse existing 10.0 (Existing Alph)	The current to the sing CT road of the washery	raffic sc additional leading fotal rouse ispatch	enario acro nal coal tr to NH-49 ad sale) – for 40.0 M'	oss different roa ansportation , and 4.0 MTP - 6.50 MTPA TPA)
Day and Night)  Traffic assessment	Traffic sections 8.85 M coal thr  2 3 4 Sl. no. 2 will don	study involves, along wit TPA, 4.85 rough proposition 3.5 MTPA  1.35 MTPA  4.0 MTPA  8.85 MTPA	wes the assessn h traffic impar MTPA via the sed new route.  A  A  d cum Rail trac coal transport in	nent of ct analyse existing and the control of the	The current to the sing CT road of the current to the sing CT road of the substitution	raffic sc addition leading fotal ro ispatch via the e	enario acro nal coal tr to NH-49 ad sale) – for 40.0 M xisting CT m Southeas	oss different roa ansportation of and 4.0 MTP - 6.50 MTPA TPA) road
Day and Night) Traffic assessment	Traffic sections 8.85 M coal thr  2 3 4 Sl. no. 2 will don	study involves, along wit TPA, 4.85 rough proposition 3.5 MTPA 4.0	wes the assessment traffic impact MTPA via the sed new route.  A  A  d cum Rail transport residuals  V (Volume	nent of ct analyse existing a course a	The current to the sing CT road of the washery	raffic sc addition leading fotal ro ispatch via the e oute from	enario acro nal coal tr to NH-49 ad sale) - for 40.0 M' xisting CT m Southeas means part ailway sidi Existing	oss different roa ansportation of, and 4.0 MTP - 6.50 MTPA TPA) road stern end of the of coal transpongs.
Day and Night)	Traffic sections 8.85 M coal thr  2 3 4 Sl. no. 2 will don Existing Road	study involves, along with TPA, 4.85 rough proposes 3.5 MTPA  1.35 MTPA  4.0 MTPA  2 to 4 is Roame through content of the through content of through content of the through content of the through content of	A  d cum Rail traccoal transport rails  V (Volume PCU/ hr.)	nent of ct analyse existing a course a	C (Capaci PCU/hr.)	raffic sc addition leading fotal ro ispatch via the e oute from	enario acro nal coal tr to NH-49 ad sale) – for 40.0 M' xisting CT m Southeas means part ailway sidi Existing V/C Ratio	oss different roa ansportation of, and 4.0 MTP - 6.50 MTPA TPA) road etern end of the of coal transpongs.
Day and Night)	Traffic sections 8.85 M coal thr  2  3  Sl. no. 2 will don  Existing	study involves, along wit TPA, 4.85 rough proposition 3.5 MTPA  1.35 MTPA  4.0 MTPA  8.85 MTP  2 to 4 is Roame through compare through compared to the standard of the standar	wes the assessment traffic impact MTPA via the sed new route.  A  A  d cum Rail transport residuals  V (Volume	nent of ct analyse existing a course a	The current to the sing CT road of the washery	raffic sc addition leading fotal ro ispatch via the e oute from	enario acro nal coal tr to NH-49 ad sale) - for 40.0 M' xisting CT m Southeas means part ailway sidi Existing	oss different roa ansportation and 4.0 MTP  - 6.50 MTPA  TPA)  road  stern end of the of coal transpongs.
Day and Night)  Traffic assessment	Traffic sections 8.85 M coal thr  2 3 4 Sl. no. 2 will don Existing Road CT ro NH toward Raigan NH 49	study involves, along witter, along witter, along witter, along witter, along witter, along proposed and along traffic detailed a	wes the assessment traffic impact MTPA via the sed new route.  A  A  d cum Rail transport residual transport	nent of ct analyse existing a course a	The current to the cu	raffic sc addition leading fotal ro ispatch via the e oute from	enario acro nal coal tr to NH-49 ad sale) – for 40.0 M xisting CT m Southeas means part ailway sidi Existing V/C Ratio 0.49	oss different roa ansportation of, and 4.0 MTP - 6.50 MTPA TPA) road etern end of the of coal transpongs.  LOS  C
Day and Night) Traffic assessment	Traffic sections 8.85 M coal thr  2 3 4 Sl. no. 2 will don Existing Road CT ro NH toward Raigan NH 49 Jharsu	study involves, along witter, along witter, along witter, along witter, along witter, along proposed and along traffic detailed a	A  d cum Rail traccoal transport rails  V (Volume PCU/ hr.)  740  558.45	nent of ct analyse existing a course a	C (Capaci PCU/hr.)	raffic sc addition leading fotal ro ispatch via the e oute from	enario acro nal coal tr to NH-49 ad sale) – for 40.0 M' xisting CT m Southeas means part ailway sidi  Existing V/C Ratio 0.49 0.37	oss different roa ansportation and 4.0 MTP  - 6.50 MTPA TPA)  road  stern end of the  of coal transpongs.  LOS  C  B

Period-	Details						
season	Proposed Troffic details						
	Proposed Traffic details   V (Volume in C (Capacity in Existing L PCU/ hr.)   PCU/ hr.)   V/C Ratio   L						
	CT road	808.92	1500	0.54	С		
	NH -49	795.25	1500	0.53	С		
	towards						
	Raigarh						
	NH 49-towards	525.15	1500	0.35	В		
	Jharsuguda	21125	4.500				
	New proposed	344.35	1500	0.23	В		
	CT Road						
Flora and fauna	Currently section 4 PCUs. After propo	4 having width of 7 sed new road develo	as per IRC: 106-1990 m, 2 lane (two way pment section 4 will nt in core zone Indiar	r) as per IRC-1 have 9 m widt	h-1500 PCUs		
			an Chameleon, India				
			in buffer zone Grey				
	Indian Po	rcupine, Sambhar, G	olden jackal, Jungle	cat, Striped H	yaena, Indian		
		n, Indian cobra & R					
			servation Plan has				
	Odisha vide letter no. 8369 dated 22-07-24 for an amount of Rs. 3250.72 lakh						
W. t. D			have been paid on 3	0.08.2024			
Water Requirement							
	Ground Water Intersection: 6-7 mbgl Water Requirement: 14280 KLD						
	NOC (For surface water):						
	<ul> <li>a. Agreement for withdrawal of 26911 KLD of surface water from Hirakud Reservoir through OPGC pipeline obtained on 04-08-2023 which is valid till 30.11.2025.</li> <li>NOC (Ground Water):</li> <li>a. Lakhanpur OCP-NOC from CGWA has been obtained vide letter no. CGWA/NOC/MIN/ORIG/2020/9248, dtd 09.12.2020 and NOC renewal is awaited from CGWA.</li> <li>b. Belpahar OCM-CGWA approval has been obtained vide NOC no. CGWA/NOC/MIN/REN//1/2025/10603, dtd. 28.01.2025 and valid till 25/11/2026.</li> </ul>						
			entions that till obtain				
			ing of mine pit water				
			obtained project wise				

31.6.8: Water Requirement: PP submitted that the total water required for the project is 14280 KLD. Source of water is Mine Seepage Water, accumulated rainwater & backwater of Hirakud reservoir. Water usage quantity: Industrial use: 10920 KLD; Domestic use: 3360 KLD. NOC from CGWA obtained vide NOC no. CGWA/NOC/MIN/ORIG/2020/9248, dtd 09.12.2020 in of Lakhanpur **OCP** for which renewal is awaited & **NOC** CGWA/NOC/MIN/REN//1/2025/10603, dtd. 28.01.2025 in respect of Belpahar OCP which is valid till 25/11/2026. Potable water requirements are currently met through the Integrated Water Supply Scheme (IWSS) Hirakud Backwater reservoir as per the agreement communicated in letter no. MDD/10690 (WE) dtd 25.09.2023, by Superintendent Engg, Main Dam, Burla (Sambalpur) which is valid till 30.11.2025. Further, PP submitted that no water body is proposed to be diverted.

**31.6.9: Power Requirement and details of diversion of Hi-Tension/ Transmission Line:** Total electricity requirement is 30 MW. Presently Lakhanpur, Belpahar & Lilari opencast

projects existing substations are receiving power at 33 kV, through four numbers single circuit 33 kV overhead line, drawn from 132/33 kV Jorabaga substation of MCL.

**31.6.10: 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 Generated in 2024-25 in TPA	Mode of Treatment	Mode of Disposal
1.	Used Oil	HEMM Workshop	72.00	Storage in containers over impervious floor under well-ventilated covered shed	Auction to recyclers authorized by SPCB
2.	Waste/ Residues containing Oil	HEMM Workshop	0.2	Storage in impervious pits/ containers under well-ventilated covered shed	Handed over to CHTDSF authorized by SPCB
3.	Empty Barrels contaminated with Chemicals/waste	HEMM Workshop	2.5	Storage on impervious floor under well- ventilated covered shed	Auction to recyclers authorized by SPCB
4.	Sludge & Filters contaminated with Oil	HEMM Workshop	10	Storage in impervious pits/ containers under well-ventilated covered shed	Auction to recyclers authorized by SPCB
5.	Tyre waste	HEMM Workshop & Stores	442	Storage on impervious concreted platform under well-ventilated covered shed	Auction to recyclers authorized by SPCB
6.	Battery Waste	HEMM workshop	6.79	Stored in dedicated storeroom and Auction to recyclers, authorized by SPCB	Auction to recyclers authorized by SPCB
7.	Bio medical waste	Soiled cotton, dressings, disposed syringes, medicine	1.00	Stored in dedicated area at the hospital.	Segregation & incineration
8.	Domestic waste	Administrative building & residential area	651.23	MSW collection & landfilling	Auction to recyclers authorized by SPCB
9.	e-Waste	Office buildings	0.50	Stored in dedicated storeroom and Auction to recyclers, authorized by SPCB	Auction to recyclers authorized by SPCB
10	Plastic waste	Workshop & Regional Stores	1.00	Segregated & Stored in dedicated area	Auction to recyclers authorized by SPCB

# 31.6.11: Status of implementation of action plan as per the Public Consultation held on 06.12.2021 for the EC dated 15.01.2024:

Details of advertisement given	Times of India-04.11.2021 (English) Sambad-06.11.2021 (Odia)
Date of public consultation	06.12.2021 at 11.00 AM

Venue	Kandsar Primary M.E school, Kusraloi, Lakhanpur, Jharsuguda district.
D : 1: O.C.	
Presiding Officer	Additional District Magistrate
Number of Person Attended Hearing	239
Number of representations received in writing from the	26 persons had delivered their views and about 226
district and outside of district, please give details:	numbers of written representations were received
	during public hearing and 330 nos. of representation
	received directly by the board.
Major issues raised	Employment, Peripheral Development, R&R and
	Dust generation.

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

Figures in Rs. Lakhs

	1					riguit	s in As. Lu	
S.	Physical targets/Action	Budget in	Expenditure	2025-	2026-	2027-28	2028-29	2029-
No.	plan	Rs. Cr	in 2024-25	26	27			30
1	Employment and R&R activities - Resettlement & cash compensation	49413	2054.4	2821.6	12200	13308.6	9528.4	9500
2	Peripheral Development							
a	Infrastructure for Drinking water provisions	1716	236	250	270	290	320	350
b	Solar Lighting installations	275	25	30	50	50	60	60
С	Conducting health camps & supply of free medicines and other health care products as per need	285	30	30	45	50	65	65
d	Education- Construction & renovation of peripheral schools, additional classrooms, aid for digital platforms etc.	775	100	100	125	125	150	175
e	Development & maintenance of peripheral roads. Routine cleaning and repair of roads.	846	186	200	100	125	100	135
3	Pollution Control includes deployment of addl. fixed sprinklers, mobile fog cannons, mist type mobile sprinklers, mechanical road sweepers, wheel washing units, instant shower systems, Vertical wind barrier, Silo construction activities & construction of CT roads.	71270	1419	3225	6317	52309	4000	4000
	Total	124580	4050.4	6656.6	19107	66257.6	14223.4	14285

Note: The Budget towards employment /R&R (Rs. 49413 Lakhs) and Silo/Conveyor constructions (Rs. 47309 Lakhs) & Road construction (Rs. 20731 Lakhs) are being deducted to obtain the PH budget for Rs. 7127 Lakhs which focus on major environmental targets.

**31.6.12: EMP Budget:** The capital cost of the proposed project is Rs. 243475 Lakhs and the capital cost for environmental protection measures is proposed as Rs 56349.61 Lakhs (including Rs. 47991 Lakhs for R&R). The annual recurring cost towards the environmental protection measures is proposed as Rs. 5837 Lakhs. The employment generation from the proposed project is 5760 (direct employment). The details of cost for environmental protection measures are as follows:

S.		Existing (	In Lakh Rs.)	Proposed (In Lakh Rs.)		
No.	Description of Item	Capital Cost	Recurring Cost	Capital Cost	Recurring Cost	
(i)	Air Pollution Control/ Noise Management	*	3776.83	2930.00	3650.00	
(ii)	Water Pollution Control	1215.60	527.72	3043.60	510.00	
(iii)	Environmental Monitoring and Management	36.00	679.83	136.00	657.00	
(iv)	Green Belt & Plantation Development	2249.01	1045.09	2249.01	1010.00	
(v)	Other heads as proposed in EIA/committed during the EAC #	48021.00		47991.00	10.00	
	TOTAL	51521.61	6029.47	56349.61	5837.00	

<sup>\*</sup>Integrated LBL is an amalgamation of three existing mine, capital cost for air pollution control measures were utilized from individual Lakhanpur OCP & Belpahar OCP

# It includes Rs. 47991 Lakhs for R&R cost

**31.6.13: Plantation:** Existing green belt (green cover) has been developed in 372.455 ha area which is about 8.75 % of the total mine lease area of 4257.606 ha with total sapling of 931138 Trees. Proposed greenbelt (green cover) will be developed in 3386.964 ha which is about 72.98 % of the total mine lease area. Thus, total of 3759.419 ha area (88.3% of ML area) will be developed as green cover. 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 93,98,548 saplings will be planted and nurtured in 3759.419 hectares in 20 years (additionally in post-closure period).

**31.6.14:** Rehabilitation and Resettlement (R&R): A total of 6492 PAFs were involved for R&R during the initial R&R of the project. Total 662 PAFs has been provided settled, 1500 PAFs have been provided cash in lieu of plot, 2387 PAFs have been provided employment and 88 PAFs have been provided cash in lieu of employment. No. of PAFs under scrutiny for resettlement are 367.

Balance is 1488 cases which are undergoing assessment stage.

- **31.6.15: Project Cost:** The capital cost of project was Rs. 243475 Lakhs and the capital cost for environmental protection measures is proposed as Rs. 56349.61 Lakhs as per the existing EIA/EMP report. The annual recurring cost towards the environmental protection measures is proposed as Rs. 5837 Lakhs.
- **31.6.16: Details of pending litigation:** PP reported that there is a violation case related to Belpahar OCM has been registered under Sections 15 and 16 of the Environment (Protection) Act 1986, for production exceeding the approved EC capacity from 1995 to 2004 and 2007-2012. The case, referenced as 2(C) CC No-170 of 2013, is pending trial before the Sub-Divisional Judicial Magistrate, Jharsuguda in Odisha.

MCL challenged the orders of SDJM, Jharsuguda and Additional Session Judge, Jharsuguda before the Hon'ble High Court of Odisha. Hon'ble High Court, Odisha vide order dated 15.01.2014, as an interim measure stayed the order of case no. 2 (C) CC No.170/13 of SDJM, Jharsuguda and dismissed the case CRL MC No. 94/2014 on 26.08.2015.

Now, the case is pending for trial before Sub Divisional Judicial Magistrate (SDJM),

Jharsuguda. Next date of hearing is still awaited.

**31.6.17:** Undertaking/Affidavit: PP vide an affidavit submitted that there is no construction done at the site without any deviation as per previous Environmental Clearance obtained.

A violation case related to Belpahar OCM has been registered under Sections 15 and 16 of the Environment (Protection) Act 1986, for production exceeding the approved EC capacity. The case, referenced as 2(C) CC No-170 of 2013, is pending trial before the Sub-Divisional Judicial Magistrate, Jharsuguda in Odisha.

The land has been acquired by Govt. of India under Coal Bearing Areas (Acquisition & Development Act. 1957) and vested in Mahanadi Coalfields Limited. The land is in possession of the Integrated Lakhanpur Belpahar Lilari Opencast Project of Mahanadi Coalfields Ltd. There is no difference in the documents submitted i.e. Form-1. EIA-EMP, Mining Plan, and Presentation being made to the EAC.

Further, PP submitted that the information provided in Form-1 in pdf format in PARIVESH, to the Ministry/EAC members and PPT presentation during the EAC meeting to be held on 28<sup>th</sup> August 2025 have no deviation in respect of the proposal no. IA/OR/CMIN/546648/2025 dated 18.08.2025 for Environment Clearance for Integrated Lakhanpur Belpahar Lilari Opencast project for expansion from 40 to 48 MTPA for 20% in Phase I, under special dispensation O.M dated 11.04.2022 pub1ished by MoEF&CC under the provisions of the EIA Notification, 2006 and reducing the lease from 4399.246 ha being reduced to 4257.606 ha for establishing coal to ammonium nitrate plant for which ToR obtained from MoEF&CC vide no. IA-J-11011 /331/2024/IA-II (I) on 04.03.2A25.

Further certified through an undertaking 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.

#### **31.6.18: Written Submissions:** During the meeting PP submitted the following:

1. PP shall submit details of the CAMPA Fund deposited as per the Site Specific Wildlife Conservation Plan of the Integrated Lakhanpur-Belpahar-Lilari OCP. Reply: The Site-Specific Wildlife Conservation Plan has been approved by the Principal Chief Conservator of Forests and Wildlife (PCCF), Odisha, and an amount of Rs. 31,09,38,400 has been deposited in the CAMPA portal. Furthermore, an amount of Rs. 1,41,33,600 has been deposited in "The Wildlife Odisha" as per the demand letter No. 4523/4F (Misc.). Dated:12.08.2024.

# 2. PP shall complete the boundary plantation in the mine within 3-5 years and submit the details of the plan.

**Reply:** The periphery of Integrated Lakhanpur-Belpahar-Lilari OCP is surrounded by OB dump, Government non-forest land, Forest land, and Tenancy land. The Government non-forest land and Forest land are covered with natural vegetation, and the land possession process for the tenancy land in the periphery of the project area is underway.

The total perimeter of the mine lease area is 34 km, out of which natural vegetation extends 15.20 km. The remaining area will be developed as a Greenbelt, consisting of

3-tier plantations, with a width of not less than 7.5 m, all along the mine lease area, by **June 2027,** for an estimated cost of Rs 6.5 Cr.

A greenbelt of approximately 3.5 km in length has been developed along the eastern boundary of the mine lease area. The plantation has been undertaken using native species such as *Shorea robusta* (Sal), *Cassia siamea* (Chokandi), *Adina cordifolia* (Karanj), *Madhuca longifolia* (Mahua), etc. The greenbelt development has been carried out along the Regional Store, General Manager's Office, and Central Workshop buildings. The supporting geotagged photographs are attached.

In developing the green belt, a mix of native species, including Aam (Mangifera indica), Neem (Azadirachta indica), Mahua (Madhuca longifolia), Sal (Shorea robusta), Chokandi (Cassia siamea), and Karanj (Adina cordifolia) will be planted.

#### 3. PP shall submit the plagiarism-checked EIA EMP.

**Reply:** The EIA EMP, along with its plagiarism check is submitted.

4. PP shall submit an ATR with all tenders & work orders as deliberated in the partially complied conditions of IRO.

**Reply:** The ATR to the IRO inspection report, along with all tenders and work orders.

## 5. PP shall submit details of NoC obtained from CGWA & a written commitment for NoC under CGWA for Int LBL.

**Reply:** The Integrated Lakhanpur-Belpahar-Lilari Opencast Project is an amalgamation of the Lakhanpur OCP, Belpahar OCM, and Lilari OCP. The NOC from the Central Ground Water Authority have been obtained for the individual projects, i.e. Lakhanpur OCP and Belpahar OCM, while Lilari OCP is an abandoned mine.

The Comprehensive Hydrogeological Report (CHR) for the Integrated Lakhanpur-Belpahar-Lilari OCP is currently under preparation, based on observations from the CGWA. However, as per the CTO dated 25.07.2025 received for the Integrated LBL Project from SPCB, it mentions that until obtaining a NoC under CGWA for the new integrated project, the use and dewatering of mine pit water shall be regulated in compliance with the CGWA clearances obtained project-wise, i.e. Belpahar & Lakhanpur OCP.

For Belpahar OCP, the NOC has been obtained vide NOC no. CGWA/NOC/MIN/REN/1/2025/10603, which is valid up to 25.11.2026.

For Lakhanpur OCP, the first NOC from CGWA was obtained vide NOC no. CGWA/NOC/MIN/ORIG/2020/9248, which was valid from 09.12.2020 to 08.12.2022. A NOC renewal application was submitted on 02.12.2022 before the expiry of the previous NoC.

As per clause no 11 (vi) of the Gazette notification of the CGWA vide dtd. 24.09.2020, if the renewal application is submitted in time and the CGWA/ the respective State/ UT Authority is unable to process the application in time, No Objection Certificate shall be deemed to be extended till the date of renewal of No Objection Certificate. Hence, the NOC is deemed to be valid until the issuance of the NOC from CGWA. The CGWA approved the NOC renewal application on March 15, 2025. The issuance of the renewed NOC is awaited.

After preparation of the CHR (Comprehensive Hydrogeological Report) and issuance of the NOC letter for Lakhanpur OCP, both the NOCs of Lakhanpur & Belpahar will be surrendered, and an application will be submitted for the CGWA NOC of the Integrated Lakhanpur-Belpahar-Lilari OCP.

## 6. PP shall ensure that the void depth shall not exceed 150 m in the post-mining phase scenario as submitted.

**Reply:** The proposed mine will be operated in multiple quarries with sequential mining. The central quarry will be exhausted after around 15 years & remaining void of this pit will be filled by backfilling OB dump from other quarries. In this process of sequential mining, dumping in the mine will be optimized & depth of void will be restricted up to a maximum depth of 150 m only.

# 7. PP shall submit control measures for villages in the buffer zone where air values are high.

**Reply:** The details of existing and proposed air pollution control measures for the buffer zone of the Integrated Lakhanpur-Belpahar-Lilari OCP are as follows:

S. No	Control Measures	Quantity (Existing)	Quantity (Proposed)	Budget Estimate Proposed (Rs. in Cr)	Timeline
1	Mobile water tankers	38	05	10.00	May 2026
3	Mechanical Road Sweeper	03	01	2.00	Mar 2026
5	RLS/SILO/CONVEYOR	10 MTPA	20 MTPA	473.09	Dec 2027

With the additional Air Pollution Control Measures, Air Quality in the core zone, as well as in the buffer zone, will be significantly improved.

# 8. PP shall revisit the coal transportation matrix and justify the increase in road sale. Reply: The coal transportation matrix has been revised in further discussion with different stakeholders. The comparison of existing coal dispatch and the proposed dispatch matrix is provided below:

S. no.	Mode of coal despatch	Existing for 40 MTPA Coal Production  Figures in	Proposed for 48 MTPA Coal Production during EAC meeting Figures in MTPA	Revisited for 48 MTPA Coal Production Figures in MTPA
		MTPA		
1.	Rail despatch through existing Sidings within lease	33.50	31.15	31.15
2.	Road cum Railway despatch		6.85	9.35
	Subtotal (A)	33.50	38.00	40.50
3.	Road despatch	6.50	10.00	7.50
	Subtotal (B)	6.50	10.00	7.50
	Grand Total (A+B)	40.00	48.00	48.00

From the above figures, a total of 9.35 MTPA coal will be dispatched through road cum rail mode.

In case of washery the coal will be transported from the mine by road and thereafter washed coal will be dispatched to the end user through rail.

Further after resurvey, the road distance from the mine to the nearest railway siding of the power plant has been revised from 5-6 km to 2.5 km. This railway siding will further be shifted to the pit head of the Integrated LBL mine by **Aug 2026** making it 100% transport through rail.

Until then, the following control measures will be implemented along the CT routes to mitigate fugitive emissions from coal transportation through roads.

- 1. Deployment of two mobile water sprinkling tankers, fixed sprinklers, two mist cannons, one wheel washing system, one mechanical road sweepers along the coal transportation route and wind barrier along the siding.
- 2. A three-tier plantation of native species will be developed along the routes leading to the washeries
- 3. A three-tier plantation of native species will be developed along the approach roads to the power plant siding, and along the railway siding.
- 4. Widening of road towards railway siding of the Power Plant
- 5. Concreting of roads towards washeries & siding of Power Plant.
- 6. Regular cleaning of the roads to prevent dust accumulation.

# 9. PP shall procure a Mobile Pollution Check Van for monitoring of environmental parameters.

**Reply:** A proposal for the Mobile Pollution Check Van will be initiated, and accordingly, the same will be deployed at the core zone, buffer zone and different transportation roads for monitoring and testing of environmental parameters. The timeline for procurement and deployment of the pollution check van will be **Dec 2026.** 

# 10. PP shall submit a commitment for Amendment in EC for IB washery for which its lease area is to be excluded from the Integrated LBL Project.

**Reply:** The PP will amend the EC for Ib Washery to exclude its lease area from the Integrated LBL Mine lease area within a period of 6 months.

# Observation and deliberation of the EAC: 31.6.19: Committee after deliberations noted the following:

- 1. The instant proposal is for grant of environment clearance to M/s Mahanadi Coalfields Ltd. for Integrated Lakhanpur Belpahar Lilari Opencast Project (increase in production capacity from 40 MTPA to 48 MTPA, with decrease in ML area from 4399.246 Ha to 4257.606 Ha), located in IB Valley Coalfield, Tehsil: Lakhanpur; District: Jharsuguda; State: Odisha. The proposal is for expansion in production capacity by 20% (1st Phase) as per Ministry's OM dated 11.04.2022.
- 2. Ministry has previously granted EC for the said project vide letter dated 15.01.2024 for the production capacity of 40 MTPA within the ML area of 4399.246 Ha by amalgamating the 3 mines namely Lakhanpur, Belpahar and Lilari Opencast mines. Further amended the same vide letter dated 13.08.2024 and 30.05.2025.
- 3. The above EC is under implementation and the proponent has achieved the production capacity of 39.99 MTPA in the FY 2024-25.
- 4. MoEF&CC has issued an OM on 11.04.2022 to facilitate all applications seeking prior EC for modernization/ expansion with increase in production capacity up to 50% within the existing premises/ mine lease area, without any additional land acquisition. Through this OM, Ministry has provided guidelines for availing expansion up to 50% of the original EC capacity without Public Hearing in two stages (0-20% & 20-40%). Public Consultation (written comments) shall be required for third stage i.e., 40-50% expansion.

- 5. The ML area is located within the Severely Polluted Area having CEPI score of 66.35. PP submitted the compliance of the additional conditions as per EC letter dated 15.01.2024 stipulated for the project being in SPA.
- 6. 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. It is observed that there is Hirakund reservoir Ramsar site at a distance of approx. 2.21 km and backwaters of Hirakund reservoir (wetland) at a distance of approx. 0.86 km. Committee also observed that, the PP is also using surface water from the backwaters of the Hirakund reservoir and an agreement for the same has been signed to acquire the water through OPGC pipeline and the same is valid till 30.11.2025. Committee opined that, control measures shall be taken for the protection of the wetland and the ramsar site, in coordination with the State government. An action plan and its compliance in this regard shall be prepared and submitted to the Ministry's RO, along with the six monthly compliance report.
- 7. In the instant proposal the ML area is being reduced from 4399.246 Ha to 4257.606 Ha. The 141.64 Ha of the area being reduces is non-forestland and non-coal bearing zone and the same will be utilized for establishing coal to ammonium nitrate plant of MCL. Committee also observed that the coal block in which the said mine is located is of 5669.72 Ha and the remaining land will be considered for the future expansion of the new projects.
- 8. Total ML area is 4257.606 Ha. This involves the forest land of 958.695 Ha. PP has obtained Stage II forest clearance on the entire forestland involved in the said project. Committee observed that the total broken forestland as on 31.03.2025 is 276.089 Ha and there is no violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.
- 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. A Site-Specific Wildlife Conservation Plan has approved by PCCF (WL), Odisha vide letter no. 8369 dated 22.07.2024 for an amount of Rs. 3250.72 lakhs. Payment of Rs. 3250.72 lakhs have been paid on 30.08.2024. However, as per the certified compliance report obtained by the PP, it is observed that, the implementation of the site specific wildlife conservation plan is under process and PP submitted that the implementation report will be furnished along with the six-monthly EC compliance report. Committee opined that the same shall be submitted along with the next six-monthly compliance report to the Ministry's RO.
- 10. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the MCL Board vide letter MCL/SBP/CS/BD-281/Exct/2025/14879, dated 08.07.2025. Method of mining proposed to be carried out is opencast mining using combined mining system deploying shovel dumper combination and Surface Miner.
- 11. Total mineable reserve as per the mine plan as on 01.04.2025 was 1334.52 MT and the balance mineable reserve as on 01.04.2025 is 1262.86 MT. Percent of extraction is 94.63%. The average grade of coal is G-12. Life of mine is 20 years (as on 01.04.2025).
- 12. Committee further deliberated on the method of transportation proposed for the said project and observed that coal from in-pit to surface is proposed to be transported through dumpers and tippers, from surface to siding the same is being transported through

conveyor and tippers through internal CT roads and further to consumers through railway. For the time being out of the 40 MTPA as per the existing EC, 33.5 MTPA is being transported through rail and remaining 6.5 MTPA is being transported through road. After completion of silo and closed conveyor, 4 MTPA out of the 6.5 MTPA will be transported through road only to the local consumers and remaining 2.5 MTPA will be transported through rail.

For the expansion project of 48 MTPA, PP has submitted that, 38 MTPA will be transported the combination of rail, road and conveyor and remaining 10 MTPA will be transported by road to the local small consumers within a distance of 25-30 km. Out of this 6 km is the stretch of MCL's dedicated coal transportation road and remaining is the public road. Committee opined that PP shall submit the mitigation measures or the same and comply with all the measures submitted. Committee also opined that, PP shall take adequate measures to control the pollution being done due to road transportation of coal and PP shall carryout regular maintenance of the potholes on roads, repair and maintenance of roads, scrapping of material fallen on roads, and removal of scraps from mining areas. Along with this, PP shall make sure that all the pollution control equipments are in good working condition and maintenance of those equipments are regularly carried out. Committee also opined that PP shall develop thick plantation with native and fruit bearing species on both the sides of the coal transportation road.

- 13. Committee deliberated on the baseline data submitted by the PP and observed that, the baseline data has been collected during March May 2025. All the parameters are found to be within limits. However, in the buffer zone, Barihapali village have the values of PM<sub>10</sub>, though within limits but on the higher side. Committee opined that, PP shall take additional adequate measures to bring down the values of PM<sub>10</sub> in the said village and measures to be taken shall be submitted by the PP. Committee also observed that there are 2 CAAQMS already existing in the buffer zone of the said mines. Committee opined that 2 additional CAAQMS shall be installed, one each in the core zone and the buffer zone, by December 2025. Committee also observed that as per the CCR obtained by the PP, Continuous Online Water Quality Monitoring System is yet to be installed. PP committed to install the same by December 2025.
- 14. PP submitted that the total water required for the project is 14280 KLD. Source of water is Mine Seepage Water, accumulated rainwater & backwater of Hirakud reservoir. Water usage quantity: Industrial use: 10920 KLD; Domestic use: 3360 KLD. NOC from CGWA obtained vide NOC no. CGWA/NOC/MIN/ORIG/2020/9248, dtd 09.12.2020 in respect Lakhanpur OCP for which renewal is awaited CGWA/NOC/MIN/REN//1/2025/10603, dtd. 28.01.2025 in respect of Belpahar OCP which is valid till 25/11/2026. Potable water requirements are currently met through the Integrated Water Supply Scheme (IWSS) Hirakud Backwater reservoir as per the agreement communicated in letter no. MDD/10690 (WE) dtd 25.09.2023, by Superintendent Engg, Main Dam, Burla (Sambalpur) which is valid till 30.11.2025. Further, PP submitted that no water body is proposed to be diverted. Committee observed that there is no NoC obtained for the integrated Lakhanpur Belpahar Lilari Opencast Project. The groundwater NoC has been obtained for the 2 mines, namely Lakhanpur and Belpahar. Lilari mine is closed as on date. Committee opined that the PP shall obtain a fresh CGWA NoC in the name of Integrated Lakhanpur Belpahar Lilari Opencast Project.

- 15. Total electricity requirement is 30 MW. Presently Lakhanpur, Belpahar & Lilari opencast projects existing substations are receiving power at 33 kV, through four numbers single circuit 33 kV overhead line, drawn from 132/33 kV Jorabaga substation of MCL.
- 16. Committee deliberated on the PH action plan of the submitted by the PP for the Public hearing held on 06.12.2021 and the expenditure till date. Committee observed that the total budget allocated for the same was Rs. 124580 Lakhs, out of which Rs. 4050.4 Lakhs has already been spent. PP has submitted the PH action plan for the next 5 years with the budget of Rs. 12052.6 Lakhs. Committee opined that the same shall be implemented efficiently in a time bound manner. Committee also observed that the PH budget also included expenditure to be incurred for R&R, Silo/ conveyor and road construction.
- 17. Further, Committee deliberated on EMP budget submitted by the PP and observed that, the capital cost for environmental protection measures is proposed as Rs. 56349.61 Lakhs and the annual recurring cost towards the environmental protection measures is proposed as Rs. 5837 Lakhs/Annum. Committee opined that the same shall be efficiently implemented in a time bound manner.
- 18. Committee further deliberated on the plantation developed by the PP till date and observed that, existing green cover has been developed in 372.455 ha area which is about 8.75 % of the total mine lease area of 4257.606 ha with total sapling of 931138 Trees. Proposed green cover will be developed in 3386.964 ha which is about 72.98 % of the total mine lease area. Thus, total of 3759.419 ha area (88.3% of ML area) will be developed as green cover. 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 93,98,548 saplings will be planted and nurtured in 3759.419 hectares in 20 years. Committee further observed in the CCR obtained by the PP that, greenbelt is yet to be developed. PP submitted that total perimeter of the mine lease area of the Integrated project is 34 Km out of which natural vegetation exists for a length of 15.20 Km which will be kept undisturbed. The remaining area will be developed as a Greenbelt consisting of 3-tier plantation of width not less than 7.5 m all along the mine lease area by June 2027 for an approximate cost of Rs 6.5 Crs including incentives @Rs. 50/Plant to local villagers for maintenance and nurturing of plants. Committee opined that the same shall be developed in a time bound manner.
- 19. Committee deliberated on the rehabilitation and resettlement issues of the ML area and observed that a total of 6492 PAFs were involved for R&R during the initial R&R of the project. Total 662 PAFs has been provided settled, 1500 PAFs have been provided cash in lieu of plot, 2387 PAFs have been provided employment and 88 PAFs have been provided cash in lieu of employment. Nos of PAFs under scrutiny and verification stage for resettlement are 1855. Committee opined that the same shall be expedited at the earliest.
- 20. Committee observed that there is violation case related to Belpahar OCM has been registered under Sections 15 and 16 of the Environment (Protection) Act 1986, for production exceeding the approved EC capacity from 1995 to 2004 and 2007-2012. The case, referenced as 2(C) CC No-170 of 2013, is pending trial before the Sub-Divisional Judicial Magistrate, Jharsuguda in Odisha. The case is pending for trial before Sub Divisional Judicial Magistrate (SDJM), Jharsuguda. Next date of hearing is still awaited. Committee opined PP shall abide by all orders and judicial pronouncements, made from time to time by Sub-Divisional Judicial Magistrate, Jharsuguda in case no. 170 of 2013.

- 21. Committee deliberated on the certified compliance report obtained by the PP from Regional Office; Bhubaneswar vide letter no: 101-1127/25/EPE/194 dtd. 27.03.2025 in the name of Integrated Lakhanpur Belpahar Lilari Project of M/s. Mahanadi Coalfields Limited. Apart from the partial compliances discussed in the points above, Committee opined that PP shall also comply with the same in the following manner and and action taken report for the same has been submitted by the PP to the Ministry's Regional Office as asked by the EAC.
  - a. Project proponent shall take the progressive actions as per the outcomes of socioeconomic study to resolve the issues related to Drinking Water Supply, Education, Health Facility, Roads, lighting and illumination, issues of Dust, Noise & Vibration etc as per the action plan submitted. Compliance of the same shall be submitted to the Ministry's RO within six months.
  - b. Plantation of 1 Lakhs sal trees with geotagging shall be completed within 5 years from the date of grant of EC, in consultation with the State Forest Department.
  - c. Project proponent shall compete the installation of solar lights in the nearby villages in the following manner, as committed:

S. No.	Places	Quantity	Amount (Rs.)	Timeline
1	Soldia	18 nos. Solar Lights, 06 nos. Solar Submarsible Pump	25.40 Lakhs	Completed on Dec 2024
2	Kudaloi	30 nos. Solar Lights	12.00 Lakhs	NOC has been received
3	Mauliberena	04 nos. Solar Lights	1.60 Lakhs	from District administration. Site Visit
4	Piplikani	15 nos. Solar Lights	6.00 Lakhs	for preparation for
5	Bandhbahal	20 nos. Solar Lights	8.00 Lakhs	planning and estimation has been done. The
6	Dalgaon	15 nos. Solar Lights	6.00 Lakhs	proposal is in approval stage and the work will be completed by Jan 2026.
7	Along the road used for transportation of minerals		30.00 Lakhs	October 2025
8	Ground mounted solar power plant of 10 MW		4873	February 2026
	Total		4962 Lakhs	

d. Project proponent shall install bio-toilets as per the following action plan and budget submitted:

S. No.	<b>Locations of Bio-Toilets</b>	Budget in Rs. Lakh	Timeline of work completion
1	Udajahajpada Gumadera,	13.50	Oct-Dec 2025
2	Jhandapada Gumadera,	13.50	Oct-Dec 2025
3	Gwalapada W. no. 8 Belpahar,	13.50	Oct-Dec 2025
4	Gwalapada W. no. 13 Belpahar,	13.50	Oct-Dec 2025
5	Mahijore, Belpahar,	13.50	Oct-Dec 2025
6	Mahijore Uparpada Belpahar and	13.50	Oct-Dec 2025
7	Dhauramunda Belpahar.	13.50	Oct-Dec 2025
Total		94.51	

e. The study report of NIT Rourkela for scientific study of dumping of fly ash/Mixing of fly ash with 08 in the voids of the running/active mines of MCL along with its viability, safety and environmental impact assessment in Int LBL OCP of MCL shall

be completed within 6 months and the same shall be submitted to the Ministry's Regional Office along with the six-monthly compliance report along with the compliance of the recommendations of the same.

- 22. Committee opined that PP shall align its activities with the sustainable development goals.
- 23. The EAC also deliberated on the ADS reply and written submissions of the project proponent and found it satisfactory.
- 24. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

**31.6.20:** In view of the foregoing and after the detailed deliberation, 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 with stipulation of the following specific conditions and general conditions based on project specific requirements:

#### A. Specific Conditions:

- 1. Project proponent shall prepare an action plan within six months of the grant of this EC, in coordination with the state government to implement the control measures for the protection of Hirakund backwaters and the Hirakund reservoir situated at a distance of approx. 0.86 km and approx. 2.21 km respectively from the boundary of the ML area.
- 2. Project proponent shall submit the implementation report of the site specific wildlife conservation plan to the Ministry's Regional Office along with the six-monthly compliance report.
- 3. Out of the 48 MTPA of coal production, 31.15 MTPA shall be transported through rail mode only through the railway siding facility established within the ML area and 9.35 MTPA of coal through the road followed by the railway dispatch situated within the ML area as committed. The transportation of 40.5 MTPA shall be restricted within the mine lease area only as committed. The remaining 7.5 MTPA of coal shall be transported by road through dumpers covered with Tarpaulin to the local consumers up to the distance of 25 30 km till 31/12/2027.
- 4. Project proponent shall augment the dedicated in-pit conveyor with silo loading system from 20 MTPA to 25 MTPA by 31.12.2027. Thereafter, the entire coal of 48 MTPA shall be transported by rail cum conveyor belt only except 10% of the total production of coal, i.e., 4.8 MTPA is allowed to be transported through road through dumpers covered with Tarpaulin to the local consumers up to the distance of 25 30 km.
- 5. Proponent shall carryout regular maintenance of the potholes on roads, repair and maintenance of roads, scrapping of material fallen on roads, and removal of scraps from

- mining areas. Along with this, PP shall make sure that all the pollution control equipments are in good working condition and maintenance of those equipments are regularly carried out.
- 6. Project proponent shall take the following control measures in the Barihapali village, as committed:

S. No	Control Measures	Quantity (Existing)	Quantity (Proposed)	Budget Estimate Proposed (Rs. in Cr)	Timeline
1	Mobile water tankers	38	05	10.00	May 2026
3	Mechanical Road Sweeper	03	01	2.00	Mar 2026
5	RLS/SILO/CONVEYOR	10 MTPA	20 MTPA	473.09	Dec 2027

- 7. Project proponent shall install 2 additional CAAQMS one each in the core zone and the buffer zone, by December 2025, as committed.
- 8. Project proponent shall install Continuous Online Water Quality Monitoring System by December 2025, as committed.
- 9. Project proponent shall take an EC amendment to seek an amalgamated EC for the washery within the ML area, along with the Integrated Lakhanpur Belpahar Lilari Opencast Project.
- 10. After preparation of the CHR (Comprehensive Hydrogeological Report), project proponent shall obtain the ground water clearance for the Integrated Lakhanpur Belpahar Lilari Opencast Project and shall surrender the individual NoCs of Lakhanpur & Belpahar.
- 11. The budget proposed for Public Hearing is Rs. 12052.6 Lakhs. The budget proposed shall be kept in a separate account and shall be 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 revalidation of EC. PP shall submit the progress report regarding the implementation of the action plan to concerned RO along with the six-monthly compliance report.
- 12. 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 56349.61 Lakhs (Capital) and Rs 5837 Lakhs per annum (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.
- 13. Project proponent shall comply with following partially complied conditions of the previous ECs, as committed in a time bound manner:
  - a. Project proponent shall take the progressive actions as per the outcomes of socioeconomic study to resolve the issues related to Drinking Water Supply, Education, Health Facility, Roads, lighting and illumination, issues of Dust, Noise & Vibration etc as per the action plan submitted. Compliance of the same shall be submitted to the Ministry's RO within six months.

- b. Plantation of 1 Lakhs sal trees with geotagging shall be completed within 5 years from the date of grant of EC, in consultation with the State Forest Department.
- c. Project proponent shall compete the installation of solar lights in the nearby villages in the following manner, as committed:

S. No.	Places	Quantity	Amount (Rs.)	Timeline
1	Soldia	18 nos. Solar Lights, 06 nos. Solar Submarsible Pump	25.40 Lakhs	Completed on Dec 2024
2	Kudaloi	30 nos. Solar Lights	12.00 Lakhs	NOC has been received
3	Mauliberena	04 nos. Solar Lights	1.60 Lakhs	from District administration. Site Visit
4	Piplikani	15 nos. Solar Lights	6.00 Lakhs	for preparation for
5	Bandhbahal	20 nos. Solar Lights	8.00 Lakhs	planning and estimation
6	Dalgaon	15 nos. Solar Lights	6.00 Lakhs	has been done. The proposal is in approval stage and the work will be completed by Jan 2026.
7	Along the road used for transportation of minerals		30.00 Lakhs	October 2025
8	Ground mounted solar power plant of 10 MW		4873	February 2026
	Total		4962 Lakhs	

d. Project proponent shall install bio-toilets as per the following action plan and budget submitted:

S. No.	<b>Locations of Bio-Toilets</b>	Budget in Rs. Lakh	Timeline of work completion
1	Udajahajpada Gumadera,	13.50	Oct-Dec 2025
2	Jhandapada Gumadera,	13.50	Oct-Dec 2025
3	Gwalapada W. no. 8 Belpahar,	13.50	Oct-Dec 2025
4	Gwalapada W. no. 13 Belpahar,	13.50	Oct-Dec 2025
5	Mahijore, Belpahar,	13.50	Oct-Dec 2025
6	Mahijore Uparpada Belpahar and	13.50	Oct-Dec 2025
7	Dhauramunda Belpahar.	13.50	Oct-Dec 2025
Total		94.52	

- e. The study report of NIT Rourkela for scientific study of dumping of fly ash/Mixing of fly ash with 08 in the voids of the running/active mines of MCL along with its viability, safety and environmental impact assessment in Int LBL OCP of MCL shall be completed within 6 months and the same shall be submitted to the Ministry's Regional Office along with the six-monthly compliance report along with the compliance of the recommendations of the same.
- 14. Project proponent shall develop total of 3759.419 ha area (88.3% of ML area) plantation by the end on mine life, as committed. A 7.5 m wide greenbelt, consisting of at least 3 tiers around mine boundary shall be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species shall be planted with a density of 2500 trees per hectare. Total no. of 93,98,548 saplings shall be planted and nurtured in 3759.419 hectares in 20 years. Apart from this, PP shall develop a Greenbelt consisting of 3-tier plantation of width not less than 7.5 m all along the mine lease area by June 2027 for an approximate cost of Rs 6.5 Crs including incentives @Rs. 50/Plant to local villagers for maintenance and nurturing of plants.

- 15. Rehabilitation and Resettlement of 1855 PAFs, which are under the scrutiny and verification stage shall be completed at the earliest.
- 16. Project proponent shall abide by all orders and judicial pronouncements, made from time to time by Sub-Divisional Judicial Magistrate, Jharsuguda in case no. 170 of 2013.
- 17. Project Proponent shall strengthen the existing Primary Health Center (PHC) & Community Health Center (CHC) in the study area for better public health. PHCs & CHCs within the core and buffer zone shall 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.
- 18. 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.
- 19. 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.
- 20. Water shed/Natural drainage shall be carefully managed so that flow of water should go down side in the main streams/nallah.
- 21. PP shall carry out Occupational Health study by the Central Institute of Mining and Fuel Research (CIMFR) to aware the employees, preventing injury, and reducing the health issues in the workplace. All the recommendations of the study shall be complied by the proponent and project for next phase of expansion shall be submitted only after the compliance of the same.
- 22. Third-party audit (by NEERI/CIMFR/IIT/NITs) for air & water quality shall be carried out annually to keep a check on the same. PP shall implement the recommendations of the audit and submit the outcome of the audit to the concerned RO of MoEF&CC.
- 23. 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 Greenbelt development. The action in this regard shall be submitted concerned RO in six monthly compliance report

#### A. 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 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

- Project proponent shall obtain requisite consent from State Pollution Control Board for 48 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, SO<sub>2</sub> and NOx. 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.

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

i. PP shall take approval from the CGWA/ Competent Authority prior to commencement of mining operations.

- ii. 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.
- iii. 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-lA.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.
- 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. Industrial effluent and domestic wastewater shall be treated in the Effluent treatment Plant (ETP) and Sewage Treatment Plant (STP). After treatment, treated water shall be reused for plantation.

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

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

#### 5. Mining Plan

- i. Project proponent shall obtain star rating as per the guidelines of Ministry of Coal.
- ii. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- iii. No change in mining method, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).
- iv. Mining shall be carried out as per the approved mining plan (including Mine Closure

- Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- v. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

#### 6. Land Reclamation

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MoEF&CC) from time to time shall be submitted to the Regional Office of MoEF&CC.
- ii. The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be 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" landuse pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
- iv. Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilized with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
- v. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

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

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
- ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified

- from workforce engaged in active mining operations shall be subjected to health checkup 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.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

#### 8. Corporate Environment Responsibility:

- The company shall have a well laid down environmental policy duly approve by the i. 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 environmental/forest/wildlife of the norms/conditions. The company shall have defined system of reporting infringements/deviation/violation environmental/forest/wildlife of the 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 to the head of the organization.

#### 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.

#### **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.	Land use	Within ML area	Outside ML area	Total
No.		(ha)	(ha)	
1.	Agricultural land			
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 though 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 280 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)	5th	10 <sup>th</sup>	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 Belt Area			
6.	Undisturbed area (brought Under plantation)			
7.	Roads (avenue plantation)			
8.	Area around buildings and Infrastructure			
	TOTAL			

<sup>\*</sup>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)					

<sup>\*</sup>As a representative example

(xxxi) 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.

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

	Tubico : 1 ost 14mmig Lana aso 1 autom of 1412/110/cot 1 nea (na)					
S.N.	Land useduring Mining	LandUse(ha)				
		Plantation	Water Body	Public Use	Undisturbed	TOTAL
1	External OB Dump					

S.N.	Land useduring Mining	LandUse(ha)	
2.	Topsoil Dump		
3.	Excavation		
4.	Roads		
5.	Built up area		
6.	Green Belt		
7.	Undisturbed Area		
	TOTAL		

- (xxxii) Flow chart of water balance should be provided. Treatment of effluents from workshop, township, domestic waste water, mine water discharge, etc. should be provided. Details of STP in colony and ETP in mine should be given. Recycling of water to the 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 socioeconomic 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 todeal 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 ML/	Total	Date of FC	Extent of	Balance area	Status of
PROJECT	Forestland		forest land	for which FC is	Appl for.
AREA(Ha)	(Ha)			yet to be	Diversion of
				obtained	forestland
		If more than,			
		provide			
		details of			
		Each FC			

### Annexure - II

# $\frac{\text{LIST OF PARTICIPANTS OF EAC (COAL) IN } 31^{\text{ST}} \text{ MEETING HELD ON } 28^{\text{TH}} \text{ AUGUST}}{2025, \text{THROUGH VIRTUAL MODE}}$

S. No.	Name & Address	Role	28.08.2025
1.	Shri Inder Pal Singh Matharu, IFS (Retd.)	Chairman	Present
2.	Shri Lalit Kapur	Member	Present
3.	Dr. Umesh Jagannathrao Kahalekar	Member	Present
4.	Dr. Santosh Kumar Hampannavar	Member	Present
5.	Shri Savalge Chandrasekhar	Member	Present
6.	Shri K. B. Biswas	Member	Present
7.	Prof. Shyam Shanker Singh	Member	Present
8.	Dr. Vinod Agrawal	Member	Present
9.	Shri Prasoon Gargava, Scientist - F	Representative of Central Pollution Control Board	Absent
10.	Shri Mahi Pal Singh, Chief Engineer	Representative of Central Electricity Authority (CEA)	Present
11.	Shri Harmeet Sahaney	Representative of Indian Meteorological Department (IMD)	Absent
12.	Prof. R M Bhattacharjee	Representative of IIT/ISM Dhanbad	Absent
13.	Shri Sundar Ramanathan	Scientist 'F' & Member Secretary	Present
		MoEF&CC	
1.	Dr. Rajesh Prasad Rastogi	Scientist 'D'	Present

#### **Approval of the Chairman**

#### Re: Final MoM of 31st EAC (Coal Mining) meeting held on 28.08.2025

#### Inderpal Singh Matharu <matharu0204@gmail.com>

Tue, 09 Sep 2025 6:19:35 PM +0530 INBOX

"RAJESH PRASAD RASTOGI" / "Sundar Ramanathan" / "Sundar Ramanathan" / "Sundar Ramanathan" / "Sundar Ramanathan"

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#### Dear Rastogi ji,

I have gone through the final draft MoM of the 31st EAC- Coal held on 28/08/2025 sent by you. In this all the points have been incorporated including the amendments done in Zero draft of it. I agree with the above Final draft of MoM.

Hence I approve the final MoM of the 31st EAC- Coal .

Sincerely yours

Inder Pal Singh Matharu Chairman EAC Coal mining and Thermal power MoEF&CC GoI