

**MINUTES OF 41<sup>st</sup> MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENT APPRAISAL OF COAL MINING PROJECTS HELD DURING 13 - 14 MARCH, 2023 THROUGH VIDEO CONFERENCING.**

**Confirmation of the Minutes of 40<sup>th</sup> Meeting of the EAC (Coal):** The minutes of the 40<sup>th</sup> Meeting of the EAC (Coal) held during 16 - 17 February, 2023 has been confirmed by the Chairman.

**Opening Remarks of the Chairman:** At the outset, the Chairman welcomed the Expert members & other participants and requested to start the proceeding as per the agenda adopted for this meeting.

**Consideration of Proposals:** The 41<sup>st</sup> meeting of the Expert Appraisal Committee (EAC) for coal mining projects was held during 13-14 March, 2023 through physical mode. The EAC considered proposals as per agenda adopted for the meeting. List of participant attended the meeting is annexed. The details of deliberations held & decisions taken in the meeting are as under.

**Agenda No. 41.1**

**Integrated project of Parsa East and Kanta Basan (PEKB) Opencast Coal Mine (Capacity 18 MTPA) with expansion in Pit Head Coal Washery from 15 MTPA to 18 MTPA in total mine lease area of 2682.856 ha of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd. located in villages Salhi, Hariharpur, Ghatbarra, Parsa, Kente, Parogiya and Basan, Tehsil Ambikapur, District Sarguja (Chhattisgarh) – Reconsideration of Environment Clearance for Coal Washery under Clause 7(ii) of Ministry OM dated 11<sup>th</sup> April, 2022 - reg.**

**[Online Proposal No. IA/CG/CMIN/409149/2022; File No. J-11015/03/2008-IA.II (M)]**

**41.1.1** The proposal is for Environment Clearance for Coal Wahsery under Clause 7(ii) of Ministry OM dated 11<sup>th</sup> April, 2022 for project Integrated project of Parsa East and Kanta Basan (PEKB) Opencast Coal Mine (Capacity 18 MTPA) with expansion in Pit Head Coal Washery from 15 MTPA to 18 MTPA in total mine lease area of 2682.856 ha of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd. located in villages Salhi, Hariharpur, Ghatbarra, Parsa, Kente, Parogiya and Basan, Tehsil Ambikapur, District Sarguja (Chhattisgarh)

**41.1.2** The EAC, during deliberations noted the following:

- The proposal was last considered in 38<sup>th</sup> EAC meeting held during 14-15 December 2022 and deferred based on certain observations to be fulfilled. Now the Project Proponent has submitted the compliance of observation raised in 38<sup>th</sup> EAC vide letter dated 20.02.2023 on Parivesh Portal:

<b>Sl. No.</b>	<b>Observation</b>	<b>Submission</b>
(i)	PP shall submit the Certified compliance report from Ministry's IRO	IRO, Raipur in its site visit held during on 16-17 January 2023 verified status of compliance

	for the amendment in EC letter dated 23.12.2021 and EC letter dated 14.02.2022 for further consideration.	of conditions stipulated in the amendment in EC letter dated 23.12.2021 for reject transportation and EC letter dated 14.02.2022 for expansion of mine from 15 to 18 MTPA ROM coal production. Certified compliance report from Ministry's IRO, Raipur issued vide letter dated 20.01.2023 enclosed.
(ii)	PP shall submit the details of expenditure incurred for addressing the issues raised during last Public Hearing which includes the utilization of the fund till date with few photographs except that of work done under Corporate Social Responsibility (CSR).	Expenditure incurred for addressing the issue during Public Hearing, including the utilization of fund till date, along with Photographs of the work done other than CSR activities was presented.
(iii)	PP shall submit undertaking that work completed under compliance of Public Hearing is not included in its CSR fund expenditure.	Undertaking regarding the work completed under compliance of Public Hearing is not included in its CSR fund expenditure has been submitted
(iv)	PP shall submit the revised mining plan including the plan for the Mine as well as for washery with the current capacity.	<p>The revised Mining plan including the plan for the Mine as well as for washery with proposed expansion capacity is prepared in line with office memorandum of Ministry of Coal issued vide F. No. 34011/28/2019-CPAM dated 29<sup>th</sup> May 2020 which do not require approval from MoC for expansion upto 150% from earlier approved capacity (copy of the same enclosed).</p> <p>Board Resolution of M/s RVUN Board approving the revised Mining Plan for expansion of mine and washery from 15 MTPA to 21 MTPA has been submitted.</p> <p>Further, Ministry of Coal has instructed and given concurrence for enhancement of capacity by 40% vide its letter dated 25<sup>th</sup> October 2021.</p>
(v)	PP shall submit the Action Taken Report to Ministry's IRO for the non-compliance, partial compliance and other observation raised by IRO.	The Action Plan for compliance of the partial compliance raised by IRO submitted to Ministry's IRO on dated 27 <sup>th</sup> January 2023, presented during the meeting.
(vi)	PP shall submit the details of mode of	PP has setup an in-pit coal conveying system

	<p>transportation from mine pit to Coal washery and from washery to railway siding and impact of road transportation with its fleet size.</p>	<p>for conveying of coal from bottom of the pit for feeding directly to the CHP and thereafter coal beneficiation plant through covered belt conveyor system. The in-pit receiving station is connected with reclaim / chain-feeders connected to the tail-end of the existing conveyor belts which will be extended incrementally with the progress of the mine. Washed coal from the washery complex is again fed to CHP conveyor for stacking reclaiming or onward loading and dispatch through rail leading silos.</p> <p>All the conveyor system envisaged are designed to be closed with hood covers to avoid air pollution. A 75 Km pit head railway siding is established connected to Surajpur - Ambikapur branch line of Bilaspur division of SECR for transportation of coal to the linked thermal power stations of RVUNL. Thus, eliminating need of road transportation of coal.</p> <p>Further, EC amendment was granted for a period of three years for reject transportation after a detailed traffic survey and pollution load assessment, wherein road capacity was within permissible limit including pollution load.</p>
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- The project proponent has submitted the following status of compliance of OM dated 11.04.2022 for expansion of Parsa East & Kanta Basan Pit Head Coal washery from 15 MTPA to 21 MTPA:

<b>Sl. No.</b>	<b>Condition as per OM</b>	<b>Compliance</b>
(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 categories of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments.	Public Hearing for expansion of Mine from 10 MTPA to 15 MTPA was conducted involving entire mining lease area of 2682.856 Ha on 11 <sup>th</sup> September 2016 for which Environment Clearance was issued vide letter No. J-11015/03/2008-IA.II (M) dated 10 <sup>th</sup> August 2018.
(ii)	There should not be change in Category	There is no change in category of the Project

	of the project from 'B2' to 'B1' or 'A' due to proposed modernization or expansion.	Parsa East & Kanta Basan Opencast Coal Mine & Pit Head Coal Washery is 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.	No additional land is required for expansion of coal washery as land is already acquired as part of mining lease area of 2682.856 ha. Public Hearing for expansion of Mine from 10 MTPA to 15 MTPA was conducted involving entire mining lease area of 2682.856 Ha on 11th September 2016 for which EC was issued vide letter No. J-11015/03/2008-IA.II (M) dated 10th August 2018.
(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.	Present application is being submitted for 20% expansion of coal washery from 15 MTPA to 18 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.	Cumulative values of air quality for the proposed expansion for PM10 are 60.00 µg/m <sup>3</sup> and PM2.5 is 35.95 µg/m <sup>3</sup> are under the prescribed norms. The sewage generated after proposed expansion will be continuing to treated in STP and STP treated water will be reused; hence the environmental quality parameters will be within the prescribed norms.
(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%.	Greenbelt plan including plantation as part of progressive mine closure plan shall be undertaken in line with mine closure plan. There shall be no impact on existing greenbelt due to proposed expansion.
(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	Certified compliance report of the EC issued vide letter No. J-11 015/03/2008-IA.II(M) dated 10 <sup>th</sup> August 2018 for existing 15 MTPA Opencast Coal Mine & Coal washery was issued by IRO, Raipur vide its letter no. EC-866/RON/2018- NGP/483 dated 19th January 2022 covering all these points. ATR report against the noncompliance of EC conditions has been submitted to the IRO Raipur on 20.09.2022 for further process.

	be more than one year old at the time of submission of application.	
(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 categories of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments.	Public Hearing for expansion of Mine from 10 MTPA to 15 MTPA was conducted involving entire mining lease area of 2682.856 Ha on 11 <sup>th</sup> September 2016 for which EC was issued vide letter No. J-11015/03/2008-IA.II (M) dated 10 <sup>th</sup> August 2018. We are applying for 40% capacity expansion which is exempted from public hearing as per office memorandum dated 11 <sup>th</sup> April 2022.
(ix)	Effluent monitoring including air quality monitoring systems as specified in the existing EC, if stipulated, should have been installed.	All the Environmental Monitoring systems including air quality monitoring systems as specified in existing EC are in place and same has been acknowledged in the Certified compliance report of the IRO, Raipur, vide its letter no. EC-866/RON/2018-NGP/483 dated 19 <sup>th</sup> January 2022.

- The following EC has been obtained for Parsa East & Kanta Basan project:
  - a. EC for 10 MTPA OC Mine & Coal Washery (10 MTPA) vide letter no. J-11015/03/2008-IA-II (M) dated 21.12.2011.
  - b. EC for expansion of OC Mine & Coal Washery from 10 MTPA to 15 MTPA vide letter no. J-11015/120/2014-IA.II (M) dated 10.08.2018 in mine lease area of 2682.856 ha.
  - c. EC for expansion of OC Mine from 15 to 18 MTPA (Stage I 20%) with Coal Washery (15 MTPA) vide dated 14.02.2022.
  - i. PH was conducted on 11.09.2016 for the capacity of 15 MTPA under EIA Notification, 2006.
  - ii. EC amendment for reject transportation through road for a period of 3 years vide letter no. J-11015/03/2008-IA.II (M) dated 23.12.2021.
  - iii. Consent to Operate (CTO) has been obtained for Mine & Washery of 15 MTPA valid from 1<sup>st</sup> December, 2021 to 30<sup>th</sup> November, 2024 granted by the Chhattisgarh Environment Conservation Board, Raipur vide letter dated 25.11.2021.
  - iv. FC for Forest land of 1898.328 ha has been obtained vide MoEF&CC letter no. 8-31/2010-FC dated 15<sup>th</sup> March 2012.
  - v. No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project.
  - vi. Court cases pending area-
    1. **Civil Appeal no(s). 4395 of 2014** Rajasthan Rajya Vidyut Utpadan Nigam Ltd vs Sudiep Shrivastava & Others pending before the **Hon'ble Supreme Court of India**  
**Case Status** - Mr. Sudiep filed an appeal before the NGT Delhi, against order dated 28.03.2012 by the Forest Department, Chhattisgarh. Further against the judgment passed by

NGT, RVUNL preferred a civil appeal (CA. no. 4395 of 2014) before the Hon'ble Supreme Court of India.

**Orders/Directions** - On 13.09.2022 both the matters were listed together and upon mentioning of Sudiep Shrivastava the Court issued notice to Ministry of Coal as a party in DK Soni matter. No direction was passed in FC matter.

**2. Writ Petition No. 371 of 2019** Dinesh Kumar Soni Vs. Union of India & Others pending before the **Hon'ble Supreme Court of India**

**Case Status** - Writ Petition related to PEKB raising issues of

(i) Formation of JV for MDO Operation is against coal block de-allocation judgement

(ii) washery rejects to private party is causing loss to RVUNL, and in turn, to the public of Rajasthan

(iii) Coal supplied by PEKB coal Block is at very high price than CIL price

(iv) EC dated 21st December 2011 is not being complied with.

**Orders/Directions** - The matter is tagged along with the CA No. 4395/2014 and on the last date of hearing i.e. 13.09.2022 Ministry of Coal is made a party for furnishing its response on the issue involved in the Writ Petition.

**3. Appeal No. 185 of 2018** Sudiep Shrivastava vs Union of India & Ors. pending before **National Green Tribunal, New Delhi**

**Case Status** - The present appeal is filed challenging the Environment Clearance dated 10.08.2018 granted by MOEF for expansion of PEKB from 10 MTPA to 15 MTPA.

**Orders/Directions** - List after the decision of the Hon'ble Supreme Court in Civil Appeal No(s). 4395 of 2014. *Adjourned sine die*.

**4. Writ Petition (C) No. 1346/2016** Forest Right Committee Ghatbarra vs Union of India & Ors. pending before **The Hon'ble High Court of Chhattisgarh**

**Case Status** - The present petition is filed to challenge the order dated 08.1.2016 passed by the District Level Forest Rights Committee (DLC) Sarguja, office of Collector (Tribal Welfare) Ambikapur, District Sarguja.

**Orders/Directions** - Pleadings are complete and the matter is at the stage of final hearing. No next date is fixed in the matter and shall come up for hearing in due course. Post completion of all pleadings, the court of Registrar-1 of Supreme Court has referred this matter to main bench on 23/11/2016 for final arguments. Presently case is pending before supreme courts after some hearings.

**5. Writ Petition (C) No. 1346/2016** Forest Right Committee Ghatbarra vs Union of India & Ors. pending before **The Hon'ble High Court of Chhattisgarh**

**Case Status** - Matter is regarding Forest Rights of the Community over the forest land.

**Orders/Directions** - Pending on account of Adjournment

**41.1.3** *The EAC, after detailed deliberation observed that the instant proposal is integrated project wherein coal mine and washery both exist within mine lease area; but this time PP has applied the project for expansion of coal washery only from 15 MTPA to 18 MTPA i.e. 20% (Stage-1) under Ministry's OM dated 11<sup>th</sup> April, 2022. EAC reviewed the certified compliance report of the previous EC and its amendments regarding coal transportation. Based on discussion, the EAC advised PP to*

complete all pending work such as 3<sup>rd</sup> Silo system, Installation of 9 MW capacity of Solar plant, Construction of multispecialty hospital, bio toilets to villagers located in the study area in a time bound manner preferably within a year. EAC also emphasized to complete the plantation primarily with Sal tree and to develop Sal nursery within six months. During discussions, PP informed that coal rejects/middling is being transported upto 90% through railway siding in place of road. The committee appreciated this effort and advised PP to carry on this and take CTO accordingly.

During the discussion EAC advised to setup digital inspection and monitoring module for the already allocated Budget for purpose of environmental protection and for environmental management plan. The outcome of digital module shall be submitted to IRO in every six months.

Based on the document submitted and discussion held in the EAC meeting, the EAC **recommended** the Environmental Clearance under Ministry's OM dated 11.04.2022 (Stage I - 20% expansion) for Integrated project of Parsa East and Kanta Basan (PEKB) Opencast Coal Mine (Capacity 18 MTPA) with expansion in Pit Head Coal Washery from 15 MTPA to 21 MTPA in total mine lease area of 2682.856 ha of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd. located in villages Salhi, Hariharpur, Ghatbarra, Parsa, Kente, Parogiya and Basan, Tehsil Ambikapur, District Sarguja (Chhattisgarh) under the provisions of EIA Notification, 2006 and its amendments therein, along with the compliance of the following terms & conditions / specific conditions for environmental safeguards:-

- (i) EC is subject the outcome/judgement of Hon'ble Supreme Court i.e. Civil Appeal no(s). 4395 of 2014, Writ Petition No. 371 of 2019, Appeal No. 185 of 2018 Writ Petition (C) No. 1346/2016 and Writ Petition (C) No. 1346/2016.
- (ii) PP to obtain the CTO for Coal washery capacity of 18 MTPA after grant of EC. As committed by PP, CTO shall also be granted to transport 90% of coal reject through railway siding.
- (iii) PP to obtain the mine plan approval after companies Board's Resolution from the Ministry of Coal, as admissible for the proposed capacity.
- (iv) PP shall comply all the conditions stipulated by Ministry's EC dated 14.02.2022 and its amendment dated 23.12.2021 and complete the non-compliance within a year. Action Taken Report w.r.t 3<sup>rd</sup> Silo system, Installation of Solar plant, Construction of multispecialty hospital, bio toilets to villagers and plantation needs to be submitted within a year.
- (v) Thick green belt of 50 m width to be provided around the washery to mitigate/check the dust pollution. A 3-tier avenue plantation having 33% plantation of total area should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads. A detailed action plan with budgetary provision should be submitted within 6 months to IRO. Areal images in this regard needs to be submitted in six monthly reports to IRO.
- (vi) The technology so chosen for ETP within washery should confirm to 'Zero Liquid Discharge'. No treated & untreated wastewater shall be discharged outside the boundaries of project area.
- (vii) Heavy metal content in raw coal, and washed coal shall be analyzed once in a year and

*records maintained thereof and it should be reported in IRO, report.*

- (viii) PP to undertake the recruitment of a full-fledged qualified manpower with Environmental Engineer/Env. Science degree background in Environment Management Cell etc. at coal washery plant for compliance of EC conditions.*
- (ix) PP shall develop 2 water harvesting pond in nearby villages of suitable area in consultation with Gram Panchayat within 1 year.*
- (x) Solar street light to be installed with its proper maintenance along the road of incoming raw coal to avoid accident in nearby villages and a record must be furnished to IRO with six monthly compliances.*
- (xi) PP shall install atleast 5 more numbers of fog cannon at periphery of the washery with enhanced capacity in order to suppress the dust.*
- (xii) Raw coal, washed coal and rejects shall be stored in covered silos or in dome shaped storage facility. Fixed type high pressure sprinkler shall be installed in this storage yards.*
- (xiii) No village road shall be used for transportation of coal and no road transport route shall be adopted, which is passing through any sensitive location such as schools, hospitals etc. PP shall take legal undertaking from its consumers accordingly.*
- (xiv) PP must also carry out plantation drive (fruit bearing trees, local species etc) with its proper maintenance in nearby villages by seeking consent of gram panchayat and villagers in coming monsoon and a proper record must be furnished to IRO with six monthly compliances.*
- (xv) The PP must provide the workers proper PPE and must also trained them and a record of training must be furnished to IRO.*
- (xvi) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly.*

## **Agenda No. 41.2**

**Bhaskarpara Open Cast (0.76 MTPA) cum Underground (0.24 MTPA) Coal Mine with Production Capacity of 1.0 MTPA within mine lease area of 932.00 ha by M/s. Prakash Industries Ltd. located at villages Ammakhokha and Dallabhahara, Tehsil Bhaiyathan, District Surajpur (Chhattisgarh) – For Environmental Clearance - reg.**

**[Proposal No. IA/CG/CMIN/417722/2023: File No. J-11015/90/2021-IA.II (M)]**

**41.2.1** The proposal is for Environmental Clearance for project “Bhaskarpara Open Cast (0.76 MTPA) cum Underground (0.24 MTPA) Coal Mine with Production Capacity of 1.0 MTPA within mine lease area of 932.00 ha by M/s. Prakash Industries Ltd. located at villages Ammakhokha and Dallabhahara, Tehsil Bhaiyathan, District Surajpur (Chhattisgarh)”



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

- (i) The project area is covered under Survey of India Topo Sheet No F44E11 & F44E15 (64 I/11 & 64 I/15) and is bounded by the geographical coordinates ranging from 23°21'20" N to 23°22'42" N and longitudes 82°45'05" E to 82°48'09" E.
- (ii) Bhaskarpara Coal Block/ project is proposed for commercial use for various purposes.
- (iii) No Joint venture cartel has been formed.
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13<sup>th</sup> January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation, 479 (Direct and Indirect) employment will be provided from the project.
- (vi) The project is reported to be beneficial in terms of Socio and economic benefits
- (vii) Terms of Reference granted on - vide F. No. IA-J-11015/90/2021-IA-II(M) dated 31<sup>st</sup> January, 2022.
- (viii) Total mining lease area as per block allotment is 932 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the Coal Controller Organization, Ministry of Coal on 18<sup>th</sup> Nov, 2022.
- (ix) The land usage pattern of the project is as follows:

**Pre-mining land use details**

**(Area in Ha)**

S.No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agricultural Land	370.737	24940.1	25310.837
2	Forestland	515.581	7652.6	8168.181
3	Wasteland	3.624	8574.6	8578.224
4	Grazing Land	-	-	-
5	Surface Water Bodies	2.387	3365.3	3367.687
6	Settlements	-	1567.4	1567.4
7	Others(Specify)	38.520	-	38.520
8	Old Excavation Area (East Quarry)	-	-	-
9	Old Excavation Area (West Quarry)	-	-	-
10	Old OB Dumps	-	-	-
11	Roads & Mine Infrastructure	1.15	-	1.15
12	R&R Colony	-	-	-
13	Staff Colony	-	-	-
14	Green Belt	-	-	-
15	Balance Area	-	-	-
	<b>Total Project Area</b>	<b>932.00</b>	<b>46100</b>	<b>47032</b>

**Post Mining**

**(Area in Ha)**

S.	Land use	Land use (ha)
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No.		Plantation	Water Body	Public Use	Undisturbed	Total
1	External OB Dump	94.93	-	-	-	94.93
2	Top Soil Dump	-	-	-	-	-
3	Excavation	-	-	-	-	-
4	Roads	-	-	1.125	-	1.125
5	Built-up Area	-	-	6.290	-	6.290
6	Green Belt	312.796	-	-	-	312.796
7	Undisturbed Area	22.719	-	-	333.180	355.899
8	Safety Zone / Rationalization Area	13.33	-	-	-	13.33
9	Diversion/Below River /Nala/Canal	-	-	1.940	-	1.940
10	Water Body	-	144.570 +1.120	-	-	145.69
11	Staff Colony	-	-	-	-	-
	<b>Total Area=</b>	443.775	145.69	9.355	333.180	932.000

- (x) Total geological reserve reported in the mine lease area is 46.91 MT with 27.75MT mineable reserve. Out of total mineable reserve of 46.91 MT, 24.17 MT are available for extraction. Percent of extraction is 51.524 %.
- (xi) Total 5 No. of seams with thickness ranging from 0.50 m – 4.11 m are workable. Grade of coal is G8, stripping ratio 1:8.50, while gradient is 2° to 3° in southern south western part of the block and 9° to 10° in eastern central part.
- (xii) Method of mining operations envisages by conventional system using Pay loader – Dumper in conjunction with drilling and blasting. The OB would be removed using conventional shovel dumper method with drilling & blasting. Drilling & blasting will be conducted in scientific way using environment friendly technology.
- (xiii) Life of mine is 28 years.
- (xiv) The project has 2 No's of external OB dumps in an area of 94.93 ha with 8-10 m height and 48.33 Mm<sup>3</sup> of OB. 2 No's of internal OB in an area of 312.796 ha with 112.41 Mm<sup>3</sup> of OB is envisaged in the project.
- (xv) Total quarry area is 457.366 ha out of which backfilling will be done in 312.796 ha; while final mine void will be created in an area of 144.570 ha with a depth of 30 m. Backfilled quarry area of 312.796 ha shall be reclaimed with plantation. Final mine void will be converted water body for public use.
- (xvi) Transportation of coal has been proposed by 35T capacity tipping trucks to stock yard and Coal buyers will carry coal from Stock Yard to respective destinations by road. Consumers will have access to carry the coal produced from the mine to their plants by road to consumers

over relatively shorter distances.

- (xvii) Reclamation Plan in an area of 421.056 ha, comprising of 94.93 ha of external dump, 312.796 ha of internal dump and 13.33 ha of green belt. In addition to this, an area of ha, included in the safety zone/rationalization area, has also been proposed for green belt development.
- (xviii) 515.581 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 515.581 ha of forest land for non-forestry purposes has been applied for Stage-I FC vide MoEF &CC letter No.: FP/CG/MIN/149564/2021 dated 26<sup>th</sup> Nov, 2021.
- (xix) Please mention any National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10km boundary of the project – None
- (xx) Wildlife conservation plan for schedule-I species has been submitted to Forest department, Chhattisgarh for approval of existing wildlife flora and fauna. Principal Chief Conservator of Forests (PCCF) cum Chief Wildlife Warden, Nava Raipur (CG), vide approval Order No. Wildlife/Management-550/106, New Raipur dated 23-05-2022.
- (xxi) The ground water level has been reported to be varying between 1 m to 12.1 m during pre-monsoon and between 1.52 m to 16.46 m during post-monsoon. Total water requirement for the project is 490 KLD.
- (xxii) NOC obtained from Central Ground Water Authority vide No. CGWA/ NOC/ MIN/ORIG/2022/16171 dated 31<sup>st</sup> August, 2022 for ground water drawl of 490 KLD.
- (xxiii) Public hearing for the project of 1.0 MTPA capacity in an area of 932 ha was conducted on 09-11-2022 at Government High School campus, Village-Kewara, Tehsil-Bhaiyathan, Dist. Surajpur, Chhattisgarh under the Chairmanship of Sub Divisional Magistrate (SDM), Bhaiyathan and Regional Officer, CECB, Ambikapur. Major issues raised in the public hearing include Employment to local youth, Urge to plant trees and plants on both sides of the road, Proper compensation for land, Development of PAF villages under CSR activities, Effect due to blasting etc. Appropriate action to address the issues raised in the Public Hearing have already been taken/proposed to be taken areas under:

**Budget Allocated Towards To Address Public Hearing Issues As Per The Corporate Environment Policy MoEF&CC OM No. Dated 30/09/2020**

Sr. No.	Activity	Budget in Rs. Lakhs			
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
1.	Provision of drinking water to all the 7 villages	16.00	8.00	8.00	<b>32.00</b>
2.	Development of existing Anganwadis in all the 7 villages	10.00	7.00	5.00	<b>22.00</b>
3.	Development of existing inner village roads with the participation of the District administration in all the 7 villages	40.00	40.00	20.00	<b>100.00</b>
4.	Strengthening the education sector in Government schools in all the 7 villages	10.00	10.00	5.00	<b>25.00</b>

Sr. No.	Activity	Budget in Rs. Lakhs			
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
5.	Fully equipped Ambulance will be purchased and maintained by PIL	20.00	5.00	5.00	<b>30.00</b>
6.	Avenue plantation along the village roads with approximately 10,000 plants will be planted.	8.00	8.00	8.00	<b>24.00</b>
<b>Total</b>		<b>104.00</b>	<b>78.00</b>	<b>51.00</b>	<b>233.00</b>

(xxiv) Manik nala is flowing within the ML boundary of lease. The nala will be diverted in consultation with the Water Resource Department of the State Government. Necessary approval will be obtained before undertaking any activity towards Nala diversion. However, it is pertinent to mention here that the concern Executive Engineer of District Surajpur (C.G.) has already made a visit on 04th January, 2023 for its preliminary inspection to prepare an Agenda note for its approval from the appropriate authorities for diversion of Nala.

(xxv) No court cases, violation cases are pending against the project of the PP – No cases are pending

(xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the mine was started from the year onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations. The coal production, realized from the project, from 1993-94 onwards, is as under: Not Applicable

(xxvii) The project involves 1290 persons of affected families. R&R of the PAPs will be done as per schedule II & III “Rehabilitation & Resettlement Package as per the Provisions as per Central RFCT LARR Act 2013 & Chhattisgarh Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Survey and Census of Affected Families and Preparation of Rehabilitation and Resettlement Scheme) Rules, 2018 Published Vide Notification No. F-4-123/Seven-1/2016, Dated 03.02.2018”.

(xxviii) Total cost of the project is Rs. 28000 lakhs. Cost of production is approx Rs 1800/- per tone for OC and approx Rs 3000/- per tone for UG, CSR cost is Rs.10 per tonne, R&R cost is Rs.105.3234crores. Environment Management Cost is Capital Rs. 3.65 Crores & Recurring Rs. 1.50 Crores.

**41.2.3** The Committee, during detail deliberation noted the following:-

- i. Terms of Reference for Bhaskarpara OCP with capacity of 1 MTPA in MLA of 932 ha was granted vide letter dated 31.01.2022.
- ii. Mining plan including Progressive Mine Closure Plan has been approved by the Coal Controller Organization, Ministry of Coal on 18.11.2022.
- iii. Manik nala is flowing within the ML boundary, which will be diverted in consultation with the Water Resource Department of the State Government as per the mine plan after 5 years.
- iv. NOC for withdrawal of 490 KLD of ground water has been obtained from CGWA vide No. CGWA/NOC/MIN/ORIG/2022/16171 dated 31.08.2022

- v. Public hearing was conducted on 09.11.2022 at Government High School campus, Village Kewara, Tehsil Bhaiyathan, District Surajpur, Chhattisgarh under the Chairmanship of Sub Divisional Magistrate (SDM). Major issues raised in the public hearing include Employment to local youth, trees plantation & and coverage on both sides of the road, Proper compensation for land, Development of PAF villages under CSR activities, Effect due to blasting etc.
- vi. 515.581 ha of forest land has been involved within the total mine lease area of 932 ha. The project proponent has applied for Stage-I FC vide MoEF & CC letter No. FP/CG/MIN/149564/2021 dated 26.11.2021.
- vii. The life of mine is 28 years.
- viii. This report incorporates the baseline data monitored for three months (01st October 2021 to 31st December 2021) representing post-monsoon season. Secondary data was collected from various Government, Semi-Government organizations, scopus indexed or high impact factor journals and publications
- ix. PP has submitted the EMP budget of Rs. 405 Lakhs allocated towards environmental protection measures and Rs 150 Lakhs per annum as recurring cost as follows:

<b>Capital Expenditure</b>			
<b>Sr. No</b>	<b>Particulars</b>	<b>Proposed Expenditure</b>	<b>Recurring Cost</b>
	Pollution Control		
1	Baseline data generation for Environmental components and preparation of EMP, various studies including CAAQMS	330.0	150.0
2	Hydrogeological studies		
3	Report for implementation of Rain water harvesting methods		
4	Water sprinkler (Static)		
5	Oil & grease trap in workshop		
6	Construction of garland drains, check dams, storm water drains etc.,		
	Pollution monitoring		
7	Pollution monitoring instruments like Spectrophotometer, Sound level meter, HS, OVS, Electronic Balance and firefighting arrangements	25.0	
	Plantation and Green Belt		
8	Fencing, Protection, regeneration and maintenance of Safety Zone, Concertina fencing	50.0	
9	Roadside Plantation		
	<b>Total Cost</b>	<b>405.0</b>	<b>150.0</b>

- x. Following Budgets have been allocated to address the Public Hearing issue:

<b>Sr. No.</b>	<b>Activity</b>	<b>Budget in Rs. Lakhs</b>			
		<b>1<sup>st</sup> Year</b>	<b>2<sup>nd</sup> Year</b>	<b>3<sup>rd</sup> Year</b>	<b>Total</b>
1.	Provision of drinking water to all the 7 villages	16.00	8.00	8.00	32.00

2.	Development of existing Anganwadis in all the 7 villages	10.00	7.00	5.00	22.00
3.	Development of existing inner village roads with the participation of the District administration in all the 7 villages	40.00	40.00	20.00	100.00
4.	Strengthening the education sector in Government schools in all the 7 villages	10.00	10.00	5.00	25.00
5.	Fully equipped Ambulance will be purchased and maintained by PIL	20.00	5.00	5.00	30.00
6.	Avenue plantation along the village roads with approximately 10,000 plants will be planted.	8.00	8.00	8.00	24.00
<b>Total</b>		<b>104.00</b>	<b>78.00</b>	<b>51.00</b>	<b>233.00</b>

**41.2.4** *The EAC, after deliberations observed that instant proposal is Greenfield in nature and project site has four quarries on the forest land. It was observed that peak production for opencast coal mine is 0.76 MTPA and 0.24 incase of underground, thereby totaling 1 MTPA except for 2 years i.e. 2025-26 and 2026-27 wherein Opencast production shall be of 1 MTPA (Peak). Total 515.581 ha of forest land is involved for diversion on which forest clearance is now pending for stage-1 FC. The Committee emphasized on optimization of forest land for coal mining use only and no other activity except coal mining on the forest land. As per the Kml file two reservoirs found near the mine boundary, namely Kursidhi located at South and Brijeshwar at North sides. The Manik nala and the Kalua nala are tributaries of Rehar River. The Manik Nala flowing in the North West direction of the mine lease area, which is proposed to be diverted in the 6<sup>th</sup> year of mining operations after obtaining in-principle approval from water resource department, Chhattisgarh. The Committee found that there is likely impact on reservoir after Nala diversion; therefore, EAC opined that PP should ensure that storage capacity two existing earthen reservoirs may not get changed after diversion after 6 years. EAC mandatorily asked PP to complete the plantation all around the existing earthen reservoirs in consultation with Gram Panchayat and on the both sides of the part of Nallah to be diverted as well as part of Nallah unaltered in the Mine lease area. As a part of water conservation measures, the Committee emphasized PP to create at least 2 more artificial water bodies for Ground water recharge within or outside the mine lease area, as appropriate locations. The Committee also mentioned that the OB dump shall be properly terraced at safe distance and it was advised to provide Garland drain all along the toe of the dump keeping in mind to restrict the flow of mine water & Seepage from OB dump into Stream or Nallah.*

*Since no railway siding is available at present, the Committee suggested PP to explore 50% transportation of Coal through Railway siding after 3<sup>rd</sup> year of Mining. The covered trucks with tarpaulin having the capacity of 40 tonne and above shall be used for the Coal transportation.*

*Further, it was observed that EIA/EMP report and data collected for preparation of the report has been done by Vimta Labs however, since NABET has prohibited to do presentation for six months to the consultant. Accordingly, PP has engaged the new consultant (Pragathi Labs & Consultants Pvt. Ltd.) having NABET accreditation. The current consultant has submitted the undertaking for owning*

*contents and data of EIA/EMP report.*

*In view of the above, the EAC after deliberation **recommended** for grant of Environmental Clearance for Bhaskarpara Open Cast (0.76 MTPA) cum Underground (0.24 MTPA) Coal Mine with Production Capacity of 1.0 MTPA within mine lease area of 932.00 ha by M/s. Prakash Industries Ltd. located at villages Ammakhokha and Dallabhahara, Tehsil Bhaiyathan, District Surajpur (Chhattisgarh), under the provisions of EIA Notification, 2006 and its amendments therein with specific conditions for environmental safeguards mentioned below:*

**Specific condition:**

- i. The PP to obtain CTE/ CTO from SPCB for production capacity of 1.0 MTPA for opencast and underground as proposed by PP subject to the submission of Forest Clearance.*
- ii. Peak production for opencast coal mine is 0.76 MTPA and 0.24 incase of underground, thereby totaling 1 MTPA except for 2 years i.e. 2025-26 and 2026-27wherein Opencast production shall be of 1 MTPA (Peak).*
- iii. PP shall submit Stage I Forest Clearance for 515.581 ha forest land involved in the project for non-forestry activities prior to grant of Environment Clearance.*
- iv. PP shall have to take measure to maintain water storage as available in earthen reservoirs/bunds namely Kursidhi located at South and Brijeshwar located at North side, with the adequate flow water from diverted nala as well as with proper plantation all around the periphery of reservoir in consultation with Gram Panchayat.*
- v. As recommended by EAC, the Manik Nala flowing in the North West direction of the mine lease area shall be diverted in the 6th year of mining operations only after obtaining in-principle approval from water resource department, Chhattisgarh. PP should ensure that storage capacity two existing earthen reservoirs may not get changed after diversion after 6 years.*
- vi. PP shall adequate measures and complete the plantation on the both sides of Nallah to be diverted as well as part of Nallah remains same in the Mine lease area.*
- vii. PP shall create at least 2 more artificial water bodies for Ground water recharge within or outside the mine lease area.*
- viii. PP should dump the overburden (OB) at a safe distance of 100m from Manik Nala as well as the PP shall provide Garland drain all along the toe of the dump keeping in mind to restrict the flow of mine water & Seepage from OB dump into Stream or Nallah. No OB shall dumped on forest land.*
- ix. PP shall transport the coal with the covered truck capacity of 40 tonne and above for first three years after commissioning, after 3rd year of mining PP shall explore 50% transportation of Coal through Railway siding.*
- x. Project proponent to plant native trees with broad leaves along the transportation route in three years to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.*

- xi. *PP shall construct a pucca road to maintain the safety of people residing nearby along the transportation route with plantation on either side of the road. No village road shall be used for coal transportation.*
- xii. *PP shall install fixed fog cannon (mist sprayer) and fixed sprinkler all along the haul road till CHP and OB Dump area and accordingly sufficient number of fog cannons (not less than 10 nos.) with 40 mts jet length shall be installed within 6 months. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB.*
- xiii. *PP to implement EMP budget of Rs. 405 Lakhs as capital expenditure on pollution control measures with annual recurring cost of Rs 150 Lakhs.*
- xiv. *PP to implement the public hearing budget of Rs. 233 Lakhs on proposed activities.*
- xv. *In addition to manual monitoring, PP to install a continuous ambient air quality monitoring stations at suitable location preferably village side with consultation of SPCB. The real time data so generated shall be uploaded on company website. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.*
- xvi. *The status of mine closure activities must be included in every six months compliance report submitted to the state pollution control board and IRO.*
- xvii. *PP to install solar lights along the road used for transportation of minerals to avoid the accidents at night and also seek its maintenance. PP is asked to also identify the rural areas for installation of solar light with its maintenance within the study area of 10 km radius buffer zone within one year.*
- xviii. *PP to provide bio toilets to the villages located within the study areas within 1 year from the grant of this EC.*
- xix. *Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.*
- xx. *PP to fulfill all the commitment made in the minutes of public hearing to address the issues raised therein in a time bound manner and a progressive report to be furnished to IRO in every six monthly as compliance report.*
- xxi. *The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.*
- xxii. *PP shall pay to farmers of agricultural land if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms.*
- xxiii. *PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non- compliance or infringement should be reported to the concerned authority.*



- xxiv. *PP to implement the recommendation of land subsidence study carried out for underground mine and report shall be submitted to IRO in every six monthly report.*
- xxv. *PP to obtain the star rating as per the guidelines of Ministry of Coal.*
- xxvi. *Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEF&CC.*

### **Agenda No. 41.3**

**Expansion of Medapalli Opencast Coal Mine from 3 MTPA to 5 MTPA at Ramagundam Area-I in a mine lease area of 1145.03 ha of M/s The Singareni Collieries Company Ltd. in village Medapalli, Mandal Ramagundam, District Pedapalli (Telangana) – For Environmental Clearance under Ministry's Notification dated 14.03.2017 – reg.**

**[Online Proposal No. IA/TG/CMIN/407572/2022; File No. 23-278/2018-IA. III (V)]**

**41.3.1** The proposal is for Environmental Clearance to Expansion of Medapalli Opencast Coal Mine from 3 MTPA to 5 MTPA at Ramagundam Area-I in a mine lease area of 1145.03 ha of M/s The Singareni Collieries Company Ltd. in village Medapalli, Mandal Ramagundam, District Pedapalli (Telangana).

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

- (i) The project area is covered under Survey of India Topo Sheet No. 56N/5 & N/9 and is bounded by the geographical coordinates ranging from Latitudes 18°46'55" to 18° 49'19" N & Longitudes 79° 27'03" to 79°29'51" E.
- (ii) Coal linkage of the mine was as per Fuel Supply Agreement of the Company.
- (iii) Joint venture cartel has been formed - Not Applicable.
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13<sup>th</sup> January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation: 887 (SCCL: 540, Indirect including outsourcing: 347) persons were provided employment while project was in operation. As, coal extraction completed by 30.06.2022 due to exhaustion coal reserves, about 30 persons are employed in the mine presently for carrying out mine closure activities.
- (vi) The project is reported to be beneficial in terms of socio-economic and improving living standards.

- a. **Social:** Infrastructure facilities like drinking water supply, sanitation, roads, culverts, community halls, street lighting, Education, Medical, Recreation, Business establishments etc., were improved in the surrounding villages through CSR activities. Excess mine discharge water was also utilized for irrigation and ground water recharge.
  - b. **Financial:** Direct and indirect employment opportunities to local people were created through contract works such as coal transport, ancillary material supply like supporting material, spare parts, explosives, services, etc. Income will be generated to State and Central Govt. in the form of taxes.
  - c. **Environmental:** Parks were developed in the area; avenue plantation was taken up in along the roads. Extensive plantations were taken up in the area, fruit bearing and other saplings were distributed at free of cost to the schools and surrounding villages. Desilting of surrounding irrigation tanks was taken up, construction of rain water harvesting pits in surrounding villages was taken up for ground water augmentation.
- (vii) Earlier, Environment clearance to the project was obtained under EIA notification vide F.No. J-11015 /930/2007-IA.II (M), dated 27<sup>th</sup> October, 2008 for 3.00 MTPA (peak-4.09 MTPA) in the project area of 1171.55 ha.
- (viii) Terms of Reference (ToR) was obtained for the expansion proposal vide F.No 23-278/2018-IA.III(V) dated 22.01.2020.
- (ix) Total Project area is 1145.03 ha and falls in the Medapalli Mining Lease (1643.145 ha) granted vide G.O.Ms.No. 210 I&C Dept, dated 20.06.1991 which was valid up to 20.06.2021 and renewed (1<sup>st</sup> renewal of Medapalli mining lease) was vide G.O.Ms.No.13, dated 02.06.2022 valid up to 15.12.2041. Mining Plan (Including Mine Closure plan) (2<sup>nd</sup> Revision/Modification) for Medapalli Opencast mine was approved by MoC, GOI vide Lr. No. 38011/12/2017-PCA, dated 12.09.2019.
- (x) The land usage pattern of the project is as follows:

**Pre-mining land use details (Area in ha):**

<b>Land owner ship</b>	<b>Land use</b>	<b>Extent (ha)</b>
<b>Private land</b>	Agricultural	-
	Township	-
	Grazing /other	-
	Barren	1137.55
	Water Bodies	-
	Road	-
	<b>Sub Total</b>	<b>1137.55</b>
<b>Government land</b>	Agriculture Land	-
	Barren	3.60
	Grazing /other	3.88
	Road	-
	Water body	-
	<b>Sub Total</b>	<b>7.48</b>
<b>Forest land</b>		<b>Nil</b>
<b>Total</b>		<b>1145.03</b>

**During Mining Land Use Details (Area in ha):**

Sl. No.	Description	Total Land (ha)
1	Quarry area at surface level.	382.91
2	External dump including roads etc.	506.76
3	Roads and other infrastructure area.	128.40
4	Safe barrier and embankment.	126.96
<b>Total Land</b>		<b>1145.03</b>

### Land Use (Post Closure) (Ha)

Sl. No	Description	Land use Details (ha)			
		Plantation	Water body	Public/ company Use	Total
1	Excavation area				
(a)	Backfilled area	124.60	--	--	124.60
(b)	Excavated void area	--	258.31*	--	258.31
2	External Dump including roads etc.,	491.06	12.79	2.91	506.76
3	Roads & other Infrastructure area	123.20	1.37	3.83	128.40
4	Safe barrier and embankment	126.96	--	--	126.96
	<b>Total</b>	<b>865.82</b>	<b>272.47</b>	<b>6.74</b>	<b>1145.03</b>

- (xi) Total geological reserves in the project area are as 69.57 MT with 63.00 MT extractable reserves. The total coal reserves extracted till closure of the project is 60.678 MT including High-wall mining reserves.
- (xii) 8 seams with thickness ranging from 0.27m – 8.00m are workable. Grade of coal is G-8, stripping ratio 1:5.46, while gradient is 1 in 5 to 1 in 10.
- (xiii) Method of mining operations envisaged by Open Cast Mining method with Shovel- Dumper combination apart from this, High-wall Mining Technology was also adopted to extract locked up coal from the High-wall.
- (xiv) Life of the mine: 0 years (The coal & OB extraction operations completed on 01.07.2022 due to exhaustion of the coal reserves and presently mine closure activities as per the approved final mine closure are being carried out).
- (xv) The project has 3 external OB dumps in an area of 506.76 ha with 90 m height and 179.765 Mm<sup>3</sup> of OB already dumped and 3 over burdens dumps were stabilized with plantation. There are 2 internal OB dumps in an area of 124.60 ha and 155.354 Mm<sup>3</sup> of OB already backfilled.
- (xvi) Total quarry area is 382.91 ha out of which back filling was done in 124.60 ha while final void will be created in an area of 258.31 ha with a depth of 220 m. Backfilled quarry area of 124.60 ha will be reclaimed with plantation. Final void will be converted into water body.
- (xvii) Transportation of coal from quarry to surface CHP was done by dumpers and from surface CHP to siding was done by covered trucks and at siding by rail mode to end users.

- (xviii) Reclamation Plan in an area of 566.201 ha, comprising of 491.06 ha of external dump, 124.60 ha of internal dump and 123.20 ha of green belt, included in the safety zone/rationalization area, etc has also been proposed for green belt development.
- (xix) Forest land is involved in the project: Nil
- (xx) National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project: Nil
- (xxi) A Wildlife Conservation Plan was prepared for the Ramagundam Region mines including Expansion of Medapalli Opencast Project for conservation of Schedule-I species (Indian Peafowl (*Pavo Cristatus*) and Indian Monitor Lizard (*Varanus bengalensis*) and was approved by the Principal Chief Conservator of Forest (HoFF) and Chief Wild Life Warden (FAC), Telangana State. vide Ltr No. 3505/2020/W1-1 dated 08.04.2021 for an amount of Rs.335.68 Lakhs (Peddapally district Rs.164.34 Lakhs and Chennur division Rs.171.34 Lakhs). SCCL Deposited Rs.164.34 Lakhs into Bio-diversity Conservation Society of Telangana (BIOSOT) for implementing the conservation plan in Peddapally district.
- (xxii) The ground water level has been reported to be varying between 1.65 to 13.04 m during pre-monsoon period and 0.95 to 11.15 m during post-monsoon period. Total water requirement for the project is about 1325 KLD.
- (xxiii) The approval of the State Ground Water Authority was obtained for Ground Water Clearance Lr. No: 1370/T (1)/2005, dtd. 08.03.2006.
- (xxiv) Public hearing for Medipalli Opencast Project of 5 MTPA capacity in an area of 1145.03 ha is conducted on 04.11.2022 near Medipalli Open Cast Project parking yard, near main check post, project office, Medapalli opencast project, Medapalli Village, Ramagundam Mandal, Peddapalli district, Telangana State, under chairmanship of Additional Collector & Additional Magistrate Peddapalli District. Major issues raised in the public Hearing including employment to local un employed youth in contractual works, providing skill development training to youth, infrastructure development activities, establishment of RO Plants in the surrounding villages, free medical camps & treatment and pollution control measures. Appropriate action to address the issues raised in the Public Hearing have been proposed in the EIA/EMP.
- (xxv) Consent to operate for the existing capacity was obtained from the State PCB vide order No. 22052287078, dated 28.02.2022 and is valid till 31.03.2026.
- (xxvi) River Godavari forming North Eastern boundary of the block, drains the area along with its ephemeral tributaries and there is no diversion of the nallahs in the project.
- (xxvii) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to State pollution control board, IRO, MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except
- (xxviii) Court cases: As, production in the project exceed beyond the sanctioned EC capacity of 4.09 MTPA (peak) for five years violating the environmental clearance conditions. As per MoEF&CC S.O 804(E), dated 14.03.2017, EE, RO, Ramagundam, TSPCB filed a case under Section 19 of the E(P) Act, 1986 in the Court of Hon'ble Additional Judicial Magistrate of F.C. at Godavarikhani on 04.02.2021 with C.C. No. 39 of 2021 and the case is under trial stage.

(xxix) The project involves violation of the EIA Notification, 2006 as per MoEF&CC, S.O. No. 804 (E) dated 14.03.2017 and its subsequent amendments. The coal production including excess production from the mine since grant of EC in 2008 for the production capacity of 3.00 MTPA (peak - 4.09 MTPA) is furnished hereunder.

Sl. No	Year	As per EC	Actual production	Excess production beyond the EC Capacity
1	2008-09	4.09	3.09	Nil
2	2009-10		3.32	Nil
3	2010-11		4.18	0.09
4	2011-12		3.57	Nil
5	2012-13		3.99	Nil
6	2013-14		2.74	Nil
7	2014-15		3.87	Nil
8	2015-16		4.59	0.50
9	2016-17		4.65	0.56
10	2017-18		4.69	0.60
11	2018-19		4.50	0.41
12	2019-20		1.25	Nil
13	2020-21		1.07	Nil
14	2021-22			0.530

(xxx) R&R for the project was already completed and no R&R is involved for the proposed expansion.

(xxxii) Total cost of the project is Rs. 8380.00 Lakhs. Cost of production is Rs. 1685/-per tonne. Environment management Capital cost is Rs.9.29 Crores and environment management Recurring cost is Rs. 8.93/tonne (Rs.2.68 Crores per annum).

(xxxiii) CSR cost: As per Companies Act, 2013 and Companies Social Responsibility (Policy) Rules - 2014, SCCL is spending 2% of its average annual net profit calculated in accordance with the provisions of Section 198 of the Act made during three immediately preceding financial years in pursuance of its CSR policy on CSR activities each financial year. In addition, District Mineral Fund (DMF) Rs 869.00 Crores was deposited till now with District Collector, Peddapalli.

#### 41.3.3 The Committee during detail deliberation noted the following:

- Earlier, First Environmental Clearance was granted by Ministry vide No. J-11015/44/89/-IA.II dated 22.06.1992 for a production capacity of 1.25 MTPA. Later another, EC for production capacity of 3.00 MTPA (Peak 4.09 MTPA) vides F. No. J-11015/930/2007-IA.II (M) was granted on 27<sup>th</sup> October, 2008 in the mine lease area of 1171.55 ha.

- Terms of Reference (ToR) vide F. No 23-278/2018-IA.III (V) dated 22.01.2020 for expansion of Medapalli OC from 3.00 MTPA (Peak 4.09 MTPA) to 5 MTPA in the mine lease area of 1145.03 ha under violation category based on Ministry's Notification dated 14<sup>th</sup> March, 2017.
- Presently, the Coal mine life is exhausted as the extraction of reserves and OB has been accomplished on 01.07.2022. Currently, the project proponent is carrying out the mine closure activities as per the approved mine closure plan.
- Public hearing for Medapalli Opencast expansion project was conducted on 04.11.2022 at 11.00 am in the premises of Medapalli opencast project parking area, Near main Check post, Medapalli Village, Ramagundam Mandal, Peddapalli District, under the chairmanship of the Additional Collector, Peddapalli District., Telangana State
- Public hearing meeting was Chaired by Sri Kumar Deepak Additional Collector & Additional Magistrate, Peddapalli District, Telangana State and convened with Sri B. Bhikshapathi, Environmental Engineer, T.S. Pollution Control Board, Regional Office, Ramagundam. Major issues raised in the public Hearing includes ; employment to local unemployed youth in contractual works, providing skill development training, infrastructure development activities, establishment of RO Plants in the surrounding villages, free medical camps & treatment and pollution control measures. Appropriate action has been taken by PP to address the issues raised in the Public Hearing and proposed in the EIA/EMP.
- PP has obtained the Consent to operate for the existing capacity from the State PCB vide order No. 22052287078, dated 28.02.2022 and is valid till 31.03.2026.
- River Godavari forming North Eastern boundary of the block, drains the area along with its ephemeral tributaries and there was no diversion of the nallahs in the project.
- PP has produced coal beyond the EC capacity of 4.09 MTPA during the five years i.e. 2010-11, 2015-16, 2016-17, 2017-18 & 2018-19.
- PP has mentioned the year wise excess production detail and their Remediation Plan as well as Natural & Community Resource Augmentation Plan (NCRAP) such as:

*Table1:*

<b>S. No.</b>	<b>Year</b>	<b>EC capacity (MTPA)</b>	<b>Actual Coal Production (MTPA)</b>	<b>Excess Production (MTPA)</b>	<b>Profit per Tonne (in Rs.)</b>	<b>NET Cost for excess production (in Rs.)</b>
1	2010-11	4.09	4.18	0.09	293.06	2,63,75,150
2	2015-16	4.09	4.59	0.50	807.46	40,37,30,208
3	2016-17	4.09	4.65	0.56	132.99	7,44,73,968
4	2017-18	4.09	4.69	0.60	582.56	34,95,33,900
5	2018-19	4.09	4.50	0.41	813.53	33,35,48,728
<b>Total</b>			22.61	2.16		<b>1,18,76,61,954</b>

- The PP has mentioned the Damage cost for air pollutants emissions due to excess coal production, Topsoil & hard OB removal such as:

Table 2:

Year	Total Emission From Various Activities (KG/DAY)				Cost Per Kg of Emission (INR)				Damage Cost Per Annum (INR)
	PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>x</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>x</sub>	NO <sub>x</sub>	
2010-11	3.944	21.583	0.0026	0.349	524	340	165	96	19,82,159.31
2015-16	6.814	35.589	0.0034	0.821					33,07,524.97
2016-17	5.908	30.585	0.0030	0.750					28,49,146.08
2017-18	7.889	41.106	0.0040	0.933					38,22,083.92
2018-19	1.105	5.059	0.0004	0.215					4,87,166.41
									<b>Total</b>

Rs.1.24 Crore has been evaluated as Damage cost of air pollutant emissions due to excess Coal production.

- PP has mentioned that Rs. 3.42 Lakhs has been evaluated as Damage cost of excess seepage water pumped due to excess production.
- Summary of Damage Cost for RP&NCRAP is **Rs. 3,67,07,102.05** are shown below:

Table 3:

S.No.	Component	Cost In Rs/-
1	Air damage cost	1,24,48,080.60
2	Ground water damage Cost	3,42,191.00
3	Surface Water damage cost	1,62,591.45
<b>4</b>	<b>Subtotal (1+2+3)</b>	<b>1,29,52,863.05</b>
5	2% of profit of ₹118.76 Crores for RP& NCRAP works	<b>2,37,54,239.00</b>
<b>6</b>	<b>Total RP &amp; NCRAP Cost (4+5)</b>	<b>Rs. 3,67,07,102.05</b>

- The PP has submitted that 1% of profit of Rs. **118.00 Crores** for community development under EMP (Based on Public hearing) i.e. Rs. **1,18,00,000.00**
- The detail of Community development works under EMP 1% of profit of Rs. 118.00 Crores i.e. **Rs. 1.18 Crores** mentioned below:

S.No.	Component	Activity Proposed	Description	Locations	Rate	Total Qty.	Total Cost (Rs.)	Year I	Year II	Year III
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		ed									
1	Community development under EMP	Development of parks	Development of parks with open gym facility in the surrounding 5 villages.	1.Lingapur village 2.Ramagundam( old) village 3.Pamulapeta village 4.Malkapur village 5.Medapalli village	Rs.15 .6 lakhs per Unit	5	78,00,000	31,20,000	31,20,000	15,60,000	
2		Renovation of Govt. Schools	Renovation of Govt. Schools in the surrounding 5 villages along with providing furniture if necessary.	1.Medapalli village 2.Lingapur village 3.Malkapur Village 4.Pamulapeta village 5.Ramagundam( old) village	Rs.8.0 lakhs per unit	5	40,00,000	8,00,000	16,00,000	16,00,000	
<b>Total</b>								<b>1,18,00,000</b>	<b>39,20,000</b>	<b>47,20,000</b>	<b>31,60,000</b>

**41.3.4** The EAC, after deliberation observed that the instant project falls under violation category i.e. applied as per the Ministry's Notification dated 14<sup>th</sup> March, 2017 and accordingly TOR was granted. PP has submitted the cost for Remediation Plan, Natural Resource Augmentation Plan and Community Resource Augmentation Plan based on damage assessment, and the same was found to be adequate. The cost of Remediation Plan is Rs. 125.00 Lakhs, Natural Resources Augmentation Plan is Rs. 76 Lakhs, and Community Resources Augmentation Plan is Rs. 167 Lakhs.

While taking the note of mine closure, the Committee emphasized to rejuvenate the mine pit so that it may be used for the purpose of Ground water recharge as well as the sources of water for



*the villagers. The project proponent has to setup a water treatment plant facility near the mine pit and after the treatment the water should be supplied to villagers through permanent water tank facility having capacity not less than 500 Kilo litres. The Pond should be designed in such a manner so that the part of the pond can be used for near village farmer for cattle in consultation with Gran Panchayat. Apart from construction of overhead water tank, the PP must construct an irrigation tanks for local villagers.*

*The Committee suggested the project proponent to develop solar parks, ecofriendly-parks, fish-farming pond, and picnic spot and sports compound. The project proponent has to engage themselves for proposed implementation of wildlife conservation plan by involving wildlife expert in order to complete the activities within 2 years. The project proponent should immediately replace all exotic species available in the mine lease area like conocarpus and others if any with native species. Proper garland drain and retaining wall should be made (if required) and same should be revived from time to time.*

*The Committee noted that the project proponent shall have to approach to CCO for approval of revised Mine closure plan for Mine closing activities. These Mine closing activities shall be inspected by IRO within every six months. The Committee informed to PP that the instant EC will be valid subject to the certification of mine closure items proposed in NRAP and CRAP. The EC will be valid for 2 years' subject to the completion of EC conditions and same should be monitored by IRO within every six month and report to be submitted to MoEF&CC.*

*PP has submitted the compliance of issues raised during Public Hearing wherein some of the activities are included in CSR activity of the company. However, EAC suggested that all the activity/issues to be addressed as in public hearing should not be included in CSR activity. Accordingly, the proposed budget shall be considered as part of Public Hearing. Finally, committee took a note that previously PP has extracted the coal beyond permitted sanctioned value and also extracted the coal after the grant of TOR and now when reserves are mined out, the purpose of EC is left for certification from CCO. Therefore, the committee found it unique case and was of the view that mine closure activities shall be seen concurrently with Remediation plan & Natural and Community Resource Augmentation plan while considering escrow amount/certification by CCO.*

*Based on documents submitted by PP, EAC **recommended** the proposal for EC under violation category to Medapalli Opencast Coal Mine from 3 MTPA to 5 MTPA at Ramagundam Area-I in a mine lease area of 1145.03 ha of M/s The Singareni Collieries Company Ltd. in village Medapalli, Mandal Ramagundam, District Pedapalli (Telangana), under EIA Notification, 2006 and subsequent amendments/circulars thereto along with the compliance of the following terms & conditions / specific conditions for environmental safeguards:*

- (i) EAC recommended an amount of Rs. 125 Lakh towards Remediation plan and Rs 243 Lakh towards Natural and Community Resource Augmentation plan, which should be spent within a span of 2 years.*

(ii) The details of Remediation plan, Natural resource Augmentation plan and Community Resource Augmentation plan with budgetary provision are mention in the tabular form below:

a) Budgetary provision of Remediation Plan for Rs. 125 Lakh is as below:

S.No.	Component Remediation	Remediation Proposed	Description	Locations	Unit Rate (Rs.)	Total Qty.	Total Cost (Rs.)	Year I (Rs.)	Year II (Rs.)	Year III (Rs.)
1	Air Environment	Dust suppression	Construction of 10 feet CC road of 1km	1.Lingapur village	50,00,000 per Km	1km	50,00,000	25,00,000	12,50,000	12,50,000
<b>Sub-Total (Rs.)</b>							<b>50,00,000</b>	<b>25,00,000</b>	<b>12,50,000</b>	<b>12,50,000</b>
2a.	Water Environment	Construction and annual maintenance of 10 No's Rain Water Harvesting pits in surrounding village for ground water augmentation.	Construction of RWH-10 Nos @ 2,50,000/ per RWH (including raw material, labour, construction and maintenance for one year)	1. Medapalli village 2. Lingapur Village 3. Pamulapeta village 4. Malkapur village 5. Ramagundam (old) village	2,50,000 per unit	10 Nos	25,00,000	10,00,000	10,00,000	5,00,000
2b.		Supply of potable drinking water in surrounding villages.	RO plants of 1000 litres capacity with installation and 2 years maintenance in	1. Medipalli village 2. Lingapur village 3. Pamulapeta village 4. Malkapur village 5. Ramagundam (old)	10,00,000 per unit	5 Nos	50,00,000	20,00,000	30,00,000	-

			nearby 5 villages@ 10,00,000 per plant in the villages.	village						
<b>Sub-Total (Rs.)– (2a+2b)</b>							<b>75,00,000</b>	<b>30,00,000</b>	<b>40,00,000</b>	<b>5,00,000</b>
<b>Total (Rs.)</b>							<b>1,25,00,000</b>	<b>55,00,000</b>	<b>52,50,000</b>	<b>17,50,000</b>

b) The details of Community Resource Augmentation Plan of Rs. 167 Lakh out total amount allocated of Rs. 243 Lakh towards Natural and Community Resource Augmentation plan is mentioned below:

S.No.	Component	Activity Proposed	Description	Locations	Unit Rate (Rs.)	Total Qty.	Total Cost (Rs.)	Year I (Rs.)	Year II (Rs.)	Year III (Rs.)
1a.			Construction of Community hall	1.Medapalli Village	35,00,000 lump sum	1	35,00,000	35,00,000	--	--
1b	<b>Community Resource Augmentation Plan</b>	Development of infrastructure	Laying of 10 feet CC road of 1.50 km in surrounding 4 villages	1.Medapalli village 2.Pamula peta village 3.Ramagundam (old) village 4. Malkapur Village	50,00,000 per 1 km	1.5 km	75,00,000	25,00,000	25,00,000	25,00,000

<b>1c</b>			Improvement of Public Sanitation by Providing 20 no's Bio toilets in surrounding villages & Govt. Schools.	1.Medapalii village 2.Lingapur village 3.Pamulapeta village 4.Malkapur village 5.Ramagundam (old) village	2,00,000	20	40,00,000	20,00,000	10,00,000	10,00,000	
<b>1d</b>		Skill development programmes	Skill development programmes at GVTC, RG.I for Skill development programmes for unemployed people of surrounding villages	1.Lingapur village 2.Ramagundam (old) village 3.Pamulapeta village 4.Malkapur village 5.Medapalii village	17,00,000	Lump sum of 17 lakhs	17,00,000	7,00,000	5,00,000	5,00,000	
<b>Total</b>								<b>1,67,00,000</b>	<b>87,00,000</b>	<b>40,00,000</b>	<b>40,00,000</b>

c) The details of Community Resource Augmentation Plan of Rs. 76 Lakh out total amount allocated of Rs. 243 Lakh towards Natural and Community Resource Augmentation plan is mentioned below:

S.No.	Component	Activity Proposed	Description	Locations	Unit Rate (Rs.)	Total Qty.	Total Cost (Rs.)	Year I (Rs.)	Year II (Rs.)	Year III (Rs.)
1a.	Natural Resource Augmentation Plan	Energy Conservation by adapting Green Energy technology.	Providing Solar Lighting system (includes panels, inverters, wiring, structure, connectors, junction boxes, etc.) in nearby 5 villages as per requirement of village panchayats at Rs.50,000 per unit	1. Medapalii village 2. Lingapur village 3. Pamulapeta village 4. Ramagundam (old) village 5. Malkapur village	50,000 per unit	152	76,00,000	26,00,000	25,00,000	25,00,000
<b>Total (Rs.)</b>							<b>76,00,000</b>	<b>26,00,000</b>	<b>25,00,000</b>	<b>25,00,000</b>

•The PP has submitted the Summary of RP & NCRAP as mentioned below:

Sl. No.	Description	Estimated cost (Rs. in Lakh)
1	Remediation Plan	125.00
2	Natural Resources Augmentation Plan	76.00
3	Community Resources Augmentation Plan	167.00
<b>Total</b>		<b>368.00</b>

(iii) Total budgetary provision with respect to Remediation plan and Natural & Community Resource Augmentation plan is Rs 368.0 lakhs. Therefore, project proponent shall be

- required to submit a bank guarantee of an amount of Rs 368.0 lakhs towards Remediation plan and Natural and Community Resource Augmentation plan (NCRAP) with the SPCB prior to the grant of EC.*
- (iv) The Project proponent shall complete the Remediation plan within two years from date of issue of EC along with the submission of Bank Guarantee (BG) which shall be for 5 years. BG will be released after successful implementation of the remediation plan and Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.*
  - (v) All the recommendation in NCRAP must be part of Mine Closure activity and to be completed concurrently. Accordingly, Coal Controller Organization (CCO) shall ensure these activities be completed along with other Mine Closure activity before disbursement of escrow amount deposited by Project Proponent.*
  - (vi) PP to shall complete the tree plantation particularly fruit bearing tree along the village road within 2 months from date of issue of EC to IRO, MoEF&CC. The plantation shall also be planted along the Mine boundary and Mine pit. A detailed report with GIS images of every 3 months subsequently be submitted in every six monthly report to justify the adequate tree plantation.*
  - (vii) The PP shall implement the cost of Remediation Plan Rs. 125.00 Lakh, Natural Resources Augmentation Plan Rs. 76 Lakh, and Community Resources Augmentation Plan Rs. 167 Lakh within the time frame of 2 years and accordingly SPCB may take view upon this.*
  - (viii) The PP shall implement the Community development works in 2 years i.e. 1% of profit of Rs.118.00 Crores (Rs. 1.18 Crores) as mentioned above table 2.*
  - (ix) The instant EC will be valid subject to the certification of mine closure items proposed in NRAP and CRAP. Subsequently, the EC will be valid for 2 years subject to the completion of EC conditions compliance and same should be monitored by IRO every six month and report to be submitted to MoEF&CC.*
  - (x) The project proponent should rejuvenate the mine pit so that same may be used for the purpose of Ground water recharge as well as the water may be used for the nearby villagers. Water treatment plant facility should also be setup near to the mine pit subsequently after the treatment the mine pit water should be supplied to villagers through permanent water tank facility having capacity not less than 1000 Kilo litres.*
  - (xi) The project proponent shall develop solar parks, ecofriendly-parks, fish-farming pond, picnic spot and sports compound.*
  - (xii) All the activity/issues proposed to be addressed as part of public hearing, should not be included in CSR activity. Accordingly, the proposed budget shall be considered as part of Public Hearing.*
  - (xiii) The project proponent shall engage themselves for proposed implementation of wildlife conservation plan with a engaged wildlife expert in order to complete the activities within next 2 years.*
  - (xiv) The project proponent shall immediately replace all exotic species available in the mine lease area like conocarpus and others if any with native species.*
  - (xv) Proper garland drain and retaining wall should be made (if required) and same should be*

- revived from time to time.*
- (xvi) *The PP shall not use the ground water for any type of mine closure activity. PP shall maintain one permanent Piezometer for monitoring of ground water level.*
- (xvii) *PP shall engage third party independent expert agency for monitoring/auditing of compliance of EC conditions.*
- (xviii) *No village road shall be used during mine closure activity as well as no road transport route shall be adopted, which is passing through any sensitive location such as schools, hospitals etc.*
- (xix) *The project proponent shall install effective dust suppression system at the suitable location in the other parts of the mining lease to arrest the fugitive dust emission.*
- (xx) *The project proponent shall arrange Periodical health check-up camp and in long term PP shall arrange permanent health facility near village area.*
- (xxi) *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 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.*

#### **Agenda No. 41.4**

**Khairagura Opencast Expansion Coal Mine from 3.0 MTPA to 3.75 MTPA in Mine Lease area of 1217.50 ha of M/s The Singareni Collieries Co. Ltd., District Adilabad (Telangana) – For Amendment of Environmental Clearance dated 06.02.2015 - reg.**

**[Online Proposal No. IA/TG/CMIN/297610/2023; File No. J-11015/28/2013-IA.II (M)]**

**41.4.1** The proposal is for amendment of Environmental Clearance dated 06.02.2015 for Khairagura Opencast Expansion Coal Mine from 3.0 MTPA to 3.75 MTPA in an Mine Lease area of 1217.50 ha of M/s The Singareni Collieries Co. Ltd., District Adilabad (Telangana).

Project Proponent has requested for amendment in EC condition 4(A) (iii) regarding ***“the coal transportation on road by mechanically covered trucks”*** with to ***permit transportation of coal in Khairagura Opencast Expansion Project by tarpaulin covered trucks instead of mechanically covered trucks.***

**41.4.2** The EAC during deliberations noted the following:

- Earlier, Environment Clearance was granted by Ministry vide its letter No. J-11015/28/2013-

IA-II (M) dated 06.02.2015 for production capacity of 3.75 MTPA in mine lease area of 1217.50 ha which inter-alia includes the following condition:

specific condition no. 4 (A)(iii) such as “*The Voids shall be filled upto the near ground level by the OB from the new Ullipetta Dorli mine. The coal transportation on road by mechanically covered trucks.*”

- Project Proponent has requested to **permit transportation of coal** in Khairagura Opencast Expansion Project **by tarpaulin covered trucks instead of mechanically covered trucks.**
- PP has cited the **reason** that they have made continuous efforts for procurement of mechanically covered trucks for transportation of coal by road mode, but faced difficulty in deploying the same due to non-availability of trucks with desired mechanism.
- Also, SCCL incorporated the condition for the deployment of mechanically covered trucks in the NITs issued for coal transportation in order to comply with EC condition. But due to non-availability of mechanically covered trucks, no coal transporter has come forward to deploy mechanically covered trucks. SCCL has deployed a few locally altered trucks with hydraulic covering mechanism in one of the opencast mines on a trial basis. However, different operational and technical problems were encountered in usage of these trucks -
  - frequent failure of hydraulic mechanism due to accumulation of coal dust in the moving parts.
  - damage of the side bars and other parts during loading.
  - damage of the cloth during loading & unloading operations.

**41.4.3** *The EAC, after deliberation observed that the project proponent has requested for amendment of condition for transportation of coal by tarpaulin covered trucks instead of mechanically covered trucks as per the EC condition no. 4(A) (iii). The limitation of not complying the conditions were also submitted by PP. Alternate system of covering the coal laden trucks with tarpaulin cloth and security check post so as to avoid spillage during coal transportation has been made by PP.*

*Further, committee deliberated the certified compliance report of EC conditions and found that there many non-compliances. It was desired that the project proponent shall explore alternative transportation route in place of the route passing though forest area and explore implementation of conveyor system till railway siding. Meanwhile, the project proponent shall take 'pollution control certificate' for all mine vehicle and suggested to implement the vehicle with BSVI technology in place of BSIV.*

*The Committee during the discussion desired the project proponent to further explore the possibility of Mechanized covering trucks with other vendors instead of traditional vendors such as trucks of Tata and Ashok Leyland. Subsequently committee advised to increase the fleet size from 35 tonnes.*

*Based on the above discussion, EAC **recommended** the proposal for amendment of EC dated 06.02.2015 particularly for the specific condition no. 4(A) (iii) which will be read as “The Voids*



shall be filled upto the near ground level by the OB from the new Ullipetta Dorli mine. The coal transportation on road by **Tarpaulin covered trucks instead of mechanical system**” of Khairagura Opencast Expansion Coal Mine from 3.0 MTPA to 3.75 MTPA in an Mine Lease area of 1217.50 ha of M/s The Singareni Collieries Co. Ltd., District Adilabad (Telangana), under the provisions of EIA Notifications, 2006 and its amendments therein, subject to following additional condition for environmental safeguards;

- (i) PP to develop the onsite control/ monitoring system through digital mode to oversee the through cameras at every 400 m distance to check the status of covered trucks. It shall be ensured that camera are workable condition and status be reported in six montly report for IRO, MoEF&CC.
- (ii) PP shall increase the fleet size from 35 ton trucks to 45-50 ton truck in order to reduce the air pollution due to transportation. SPCB to issue CTO on this condition.
- (iii) PP shall obtain certified compliance report of previous EC from Ministry's IRO within six months from the date of issue of this letter.
- (iv) PP shall explore the alternative transportation route in place of the route passing though forest area or any other sensitive area.
- (v) PP shall take 'pollution control certificate' for all mine vehicles and suggested to implement the vehicle with BS-VI technology in place of BS-IV.
- (vi) PP shall deploy movable fog cannon systems and mechanized road sweepers in the transportation route.
- (vii) PP must obtain 4.5-star rating of MoC in the year 2024-25 and report shall be submitted to IRO.
- (viii) Periodical health check-up shall be conducted to monitor the impact of heavy metals present in core zone & buffer zone air quality and also to prepare an action plan to reduce heavy metals concentration and also report to be submitted to concerned regional office of MoEF&CC.
- (ix) PP shall conduct tree plantation drive in this year monsoon period (i.e. 2023) and plant about 50000 trees all along the 14 km of road transportation with geo tagging and certified from concerned DFO.
- (x) PP to undertake the recruitment of a full-fledged qualified manpower with Environmental Engineer/Env. Science degree background in Environment Management Cell etc at coal washery site for compliance of EC conditions.
- (xi) 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 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.

## Agenda No. 41.5

**Pachwara South Opencast Coal Mine of 9 MTPA (Normative & Peak) in mine lease area of 715 ha by M/s Neyveli Uttar Pradesh Power Limited located at Rajmahal Coalfield, District Dumka (Jharkhand) – Reconsideration of Environmental Clearance –reg.**

**[Online Proposal No. IA/JH/CMIN/168045/2020; File No. J-11015/18/2020-IA. II(M)]**

**41.5.1** The proposal is for reconsideration of Environmental Clearance for project Pachwara South Opencast Coal Mine of 9 MTPA (Normative & Peak) in mine lease area of 715 ha by M/s Neyveli Uttar Pradesh Power Limited located at Rajmahal Coalfield, District Dumka (Jharkhand).

**41.5.2** The Committee during the EAC meeting noted the following:

- Earlier, the instant project was considered by sectoral EAC in its 36<sup>th</sup> meeting held during 20-21 October, 2022 and deferred the proposal based on certain observation. The project proponent has submitted the reply of observation raised vide letter dated 04.03.2023 on Parivesh Portal.
- Accordingly, the compliance of observation is detailed below:

<b>Sr. No.</b>	<b>Observation of EAC</b>	<b>Reply of Project Proponent</b>
<b>1.</b>	PP shall submit the plan for the protection of Bansloi river flowing adjacent to the Mine lease area with the safe distance of at least 100m from the embankment of the Bansloi river to the protect the natural flow of the river stream.	<p>Net Geological reserve of Pachwara South Coal Block is 473.52 MT and extractable reserve is 262.84 MT. As estimated in the approved mining Plan, about 21.77 Million Tons of coal reserves are blocked on account of 60 meter safety distance from the Southern bank of Bansloi river. Further consideration of safety zone of around 100 meter from the southern bank of Bansloi river will result in reduction of around 7.25 Million Tons of coal reserve.</p> <p>The geological structure of Pachwara South coal Block reveals that strike of the coal seams are north south and across the Bansloi river. Reduction in working width will not only resulting in reduction in extractable reserve but this will reduce the face widths and will affect the mining operation especially when it goes in depth.</p> <p>In this regard, NUPPL has already conducted a scientific study through Khargapur IIT where the it has recommended that the mine working will be safe to work leaving 60 meter safety distance. On actuals, there are several places of the block already exists beyond the 100 meter safety distance and few parts are falling within 60</p>

		<p>meter safety distance from the river bank. Specific recommendations has been made towards construction of embankment and further primary data generations has been suggested before construction of the embankment. The scientific study report is enclosed in reply on PARIVESH Portal.</p> <p>NUPPL is committed to strictly adhere the recommendations made there in the scientific study report and implementation of the embankment construction shall be done in accordance with the approved design by the competent authority.</p>
2.	PP shall submit the revised EMP budget including the cost of sprinkler, Water and Air quality monitoring device, ETP, garland construction and other devices used for the environment protection and prevention by excluding fund allocated for R&R and CSR Activity.	The project proponent has mentioned the Environmental Budget for the project including Mine Closure cost comes to Rs. 311.84 Crores.
3.	PP shall submit the timeline for construction of railway siding and inpit conveyor system with silo loading system.	<p>Pachwara Coal Mines area consists of 03 Coal Blocks — Pachwara North (WBPDC), Pachwara Central (PSEPL) and Pachwara South (PSCB).</p> <p>For transportation of the Coal a joint venture is formed between the 03 coal blocks with state Government as 4th member called as Special Purpose Vehicle (SPV).</p> <p>Total time for construction is 36 months which starts from 01.04.2023. Time schedule is enclosed with submissions.</p> <p>DPR is prepared by M/s RITES. The DPR is approved by Eastern railways and is sent to Railway Board for final approval.</p>
4.	PP shall submit the Stage-I FC for the forest land of 398.3243 ha involved in the Mine lease area of 714.8553 ha, under Forest (Conservation) Act, 1980.	Online application for seeking prior approval of Central Govt. under section 2 of the Forest (Conservation) Act, 1980 for Diversion of fresh area is submitted on 20 Nov, 2022 vide proposal no FP/JH/MIN/59823/2020. The proposal is in advance stage of considerations and already forwarded to MOEF & CC by the Government of Jharkhand.
5.	PP shall revise the budget allocated for addressing the issues of Public Hearing.	Public hearing for the project was held on 28 <sup>th</sup> of December, 2021. The proceedings of the Public hearing were enclosed.

		The need based activities along with the budgets resulting from the proceeding along with expenditure on CSR activities.
6.	PP shall prepare and submit the wildlife conservation plan for the Schedule-I species.	This is to state that, as per the guideline issued by MoEF & CC vide file no FC-11/43/2021-FC dated 7th June 2022, Ms NUPPL undertakes that the 2% of total project cost towards the cost of implementation of the Wildlife Management Plan shall be deposited by NUPPL into the CAMPA account and the same will be intimated to the MoEF & CC for the purpose of obtaining approval under the FC Act, 1980. A site specific Wildlife Conservation Plan (Draft) has already been submitted to the competent Authority. The submission letter is furnished.
7.	PP shall prepare a plan for implementation of the sand-segregation (to be recovered from Overburden).	The Feasibility Report for sand segregation requires scientific study of the sand/overburden materials which will be available only after the commencement of the Mining Operations. A Feasibility report along with implementation plan will be submitted to Ministry within one year from the date of commencement of the Mining Operation. NLCIL, Neyveli has already implemented sand-segregation at Neyveli in full fledges. In the line of same it will be implemented at Pachwara South Coal Block.
8.	PP shall submit the plan for water requirement in the mine lease area and no ground water to be used for drinking purpose.	Ground water will be required for the initial 5 years of the mining Operation till sufficient mined out void is created at the Mine Site. Requisite permission from CGWA has already been obtained in this regard and also payment has been made to the authority as per demand. The CGWA permission is enclosed with reply. Mine water requirement is specified in Chapter-2 Table No. C2-23 of the EIA -EMP Document (Page No. C2-33).
9.	PP shall conduct Bio-assay test of the river water and presence of aquatic species in the river.	A bio-assay study has been conducted with samples collected from Bansloi river and found nontoxic..
10.	PP shall not dump any Overburden material on forest land and justify the same as discussed during the meeting.	The project has conceptualized without any external dump. There is no involvement of Forest Land outside the Project area for dumping purpose. As per the approved Mining Plan, the total project area is coal bearing. To have an operational flexibility and elimination of external dumping ground, the mine has

been divided into two parts — the first part of the updip side will be mined when the downdip side of the project area will be utilised for dumping. Later on, the initial dump will be rehandled and the down dip side will be mined for coal winning. Thus dumping has been proposed within the coal bearing area and which is temporary in nature.

Dumping will be done in accordance with the Approved Mining Plan.

Table below shows Coal and OB production for the initial period.

Year wise	Year	Coal MT	OB MM <sup>3</sup>
1 <sup>st</sup>	2022-23		5.28
2 <sup>nd</sup>	2023-24	1.68	8.5
3 <sup>rd</sup>	2024-25	2.00	10.00
4 <sup>th</sup>	2025-26	4.11	13.50
5 <sup>th</sup>	2026-27	6.50	18.50
6 <sup>th</sup>	2027-28	9.00	25.00
7 <sup>th</sup>	2028-29	9.00	29.00
<b>Total</b>		<b>32.29 MT</b>	<b>109.78</b>

Area required for OB removal and coal production for first 7 years will be about 170 ha approximately.

Area required for first 7 years of initial dumping of 109.78 MM3 is approximately 210 Hectares.

The project has no provision of external dumping outside of the lease hold area. The only option left is internal dumping. Therefore, for seven years internal dumping will be done as per approved mining plan. Later on, the initial dump will be rehandled and subsequent backfilling will be done.

There is no sufficient non forest land within the lease hold area to accommodate 109.78 MM3 of initial dump.

Moreover, Forest cover within the lease hold area is scattered throughout the block and hence it cannot be avoided utilisation of the forest land from the very beginning of the project.

Therefore, considering all the aspects, the only option left is to dump involving forest land for initial 7 years before it is re-handled to backfill the mined out voids.

**11.** PP shall submit the approved Social Impact Assessment study as being done by District

The final SIA Report has been prepared and submitted.

	Administration.	
12.	PP shall submit alternative land for using surface water bodies of area 12.20 ha and also inform the nature/type of these water bodies.	The surface water body covering an area of around 12.20 ha is comprising static water body used by the villagers as well as there few 1st order streams generating from the southern part of the block. The first order streams are not going to exist once the mining operation commences in the block. The static water bodies will be provisioned in the planned R & R Colonies to cater the need pf the shifted families.
13.	PP shall submit signed Corporate Environment Policy as approved by the Board of the company.	The project proponent did not submit the signed Corporate Environment Policy as approved by the Board of the company (as per enclosed Annexure IX)

- Approved Mine plan including Mine Closure Plan has been submitted for Peak production capacity of 9 MTPA as per latest guidelines of Ministry of Coal dated 11<sup>th</sup> November 2020 vide letter 34011/2/2020-MPS.
- Stage I Forest Clearance for forest area of 397.39 ha is still awaited. However, online application for seeking prior approval of Central Govt. under section 2 of the Forest (Conservation) Act, 1980 is submitted on 20.11.2022 vide proposal no FP/JH/MIN/59823/2020.
- Base line study for Environmental Impact Assessment has been carried out during December, 2020 to February, 2021.
- The Public hearing was conducted on 28.12.2021 at village Rangamison for the production capacity of 9 MTPA (Normative) and 13.50 MTPA (Peak) in the ML area of 715 ha. During the public hearing, major issues raised were related to social-developmental activities, Pollution control during mining activity, construction of R&R colony with all basic amenities and adequate compensation for the "Van Patta" and other land, construction of schools for children, employment to the villagers, filling the mined out land and to be made flat, irrigation well and distribution network shall be installed, occurrence of seepage of ground water and leaching from overburden material.
- The project proponent has submitted that the Wildlife conservation plan for schedule I to the Principal & Chief Conservator of Forest, Doranda, Ranchi, Jharkhand on 06.10.2022.
- The PP has submitted clarification from Divisional Forest Officer, Dumka vide letter no-2509 dated 07.12.2020 that the mine does not fall under corridors of any National Park and Wildlife Sanctuary. Vide letter no. – 227 dated 02.01.2021 clarified that the Buffer Zone of Mine lease area doesn't form part of any National Park and Wildlife Sanctuary.

**41.5.3** *The EAC, after deliberation observed that PP has submitted the replies of additional details sought earlier. The project involved forest land of 398.3243 ha in the total lease area of 714.8553 ha (i.e. more than 50% of total area) and Stage-I Forest Clearance is yet to be obtained by PP. The distant of 100 mts from river Bansloi and report of IIT-Kgp on Slope Stability Analysis of the*

*Proposed Embankment in Pachwara South Coal Block at the Bank of Bansloi River” was discussed and EAC observed that the safe distance of 100m from the Bansloi river was not properly addressed. Subsequently committee suggested to further explore to provide permanent safeguard at distance of 100 m from the bank of the Bansloi river by different method.*

*Further, EAC was in disagreement on the submission of PP that there is no other way to avoid or reduce the forest land which are staggered for its usage of OB Dump. It was desired that PP shall further explore and discuss with expert Mine Planners to relook this matter. Bioassay test conducted by PP did not include the baseline data of benthic species and predicted impact on this species. Accordingly, it was suggested to complete the Benthic Assessment study and submit it to the Ministry.*

*It was observed that except for drinking and domestic purpose, initially (for initial 6 years) water (1560 KLD water) will be drawn from the Bansloi River after taking necessary permissions from the Water Resource Department, Jharkhand, afterwards water shall be harvested at mine pit for industrial utilization based on permission from Water Resources Dept. of Jharkhand.*

*Committee also observed that the project proponent did not submit the signed Corporate Environment Policy as approved by the Board of the company; therefore, committee advised to submit the same.*

*During the discussion, committee noted that the EMP budget was not justified with the proposed activity in terms of number, quantity of equipment's and detailed back up. Hence the project proponent should provide the detailed plan and should mention the duration (in month or year) for completion of the EMP activity. Further, activity proposed to address the compliance of issues raised in Public Hearing has been included as part of CSR activity. PP shall separate the list of activities to be conducted for compliance of issues raised in Public Hearing and CSR Activity. Accordingly, the budget for the same shall be submitted. Also certified translated copy of public hearing shall be provided to EAC.*

*In view of the above, the project proponent shall submit the following details: -*

- i. The PP shall submit the plan to provide permanent safeguard at distance of 100 m from the bank of the river in order to restrict the seepage of mine water.*
- ii. PP shall further explore and discuss with other expert Mine Planners to conclude that forest land can not be avoided for OB dumping*
- iii. The PP shall submit signed Corporate Environment Policy as approved by the Board of the company.*
- iv. The PP shall submit the Benthic Assessment study of the stretch of Bansloi river located very near to the mine lease area and submit the same report to the Ministry*
- v. PP shall submit the activity proposed to address the compliance of issues raised in Public Hearing by excluding the CSR activity. Accordingly, the budget for the same shall be submitted. Also certified translated copy of public hearing shall be provided.*

- vi. PP shall submit details of action plan submitted in Wildlife Conservation plan for conservation of schedule I Species.
- vii. PP shall submit the stringent time for development of railway siding and in-pit conveyor system with silo loading facilities.

In view of above, the project was **deferred** for submission of observation.

### **Agenda No. 41.6**

**Talabira II & III Opencast Coal Mine of 20 MTPA (Normative)/23 MTPA (Peak) in mine lease area of 1914.063 Ha of M/s NLC India Limited in the district of Sambalpur, Jharsuguda (Odisha) - For Amendment of Environmental Clearance dated 11.10.2018 - reg.**

**[Online Proposal No. IA/OR/CMIN/298068/2023; File No. J-11015/215/2007-IA.II (M)]**

**41.6.1** The proposal is for amendment of Environmental Clearance dated 11.10.2018 to Talabira II & III Opencast Coal Mine of 20 MTPA (Normative)/23 MTPA (Peak) in mine lease area of 1914.063 Ha of M/s NLC India Limited in the district of Sambalpur, Jharsuguda (Odisha).

**41.6.2** The EAC, during the deliberation noted the following:

- Environment Clearance was granted by Ministry vide F. No. J-110115/215/2007-IA.II (M) dated 11.10.2018 for 23 MTPA (Peak) in the mine lease area of 1914.063 Ha of M/s NLC India Limited.
- The Project proponent has proposed amendment in EC for Sl. no. 3 (xvii) of page no-3 in preamble of Environmental Clearance wherein PP committed the following:  
*“Coal is to be transported to pit head Talabira TPS (4 x 800MW) and NTPL Tuticorin (2 X 500 MW). Coal transportation within the lease area will be done by dumpers and conveyors up to the silo and from Silo; it will be transported through railway for NTPL, Tuticorin. For Talabira TPS, coal will be transported through closed conveyor from coal depot. Thus, the dumper movement to be restricted within Core area only. However, interim transportation for 3 years up to a distance of 12 Km is proposed by road through covered tippers/dumpers.”*

**Proposed amendment in EC for Sl. no. 3 (xvii) of page no-3 of Environmental Clearance by PP:** *“Coal is to be transported from pit head to Talabira TPS (4 x 800MW) and NTPL Tuticorin (2 X 500 MW) and other users. Coal transportation within the lease area will be done by dumpers and conveyors up to the silo and from silo it will be transported through railway for NTPL, Tuticorin. For Talabira TPS, coal will be transported through closed conveyor from coal depot. Thus, the dumper movement will be restricted to core area only. However, interim road transportation up to 31.03.2027 is permitted i.e; until commissioning of Silo conveying system and railway siding, up to a distance of 12km is proposed by road through covered tippers/dumpers.”*

- The PP has submitted the approved Mine plan and Mining closure Plan by the Ministry of



coal vide letter no – 34012/ (4)/2011-CPAM dated 11.01.2012 & 26.12.2012.

- The PP has submitted the Justification for Amendment such as “Due to the delay in commissioning of Railway siding and pithead Talabira TPS, the coal transportation is to be carried out through road and rail network. The railway siding is expected to be commissioned by March, 2027.”
  - i. Against EC sanction capacity of 23MTPA, the project has achieved the production of 1.01 MTPA, 3.37 MTPA and 9.32 MTPA in the years 2020-21, 2021-22, and 2022-2023 (8<sup>th</sup> March 2023) respectively.

**41.6.3** The EAC after deliberations noted that the project proponent has opted the change in Preamble part of EC such as “transportation of coal to the other users” and therein requesting for “interim road transportation up to 31.03.2027 i.e; until commissioning of Silo conveying system and railway siding, up to a distance of 12km and also being proposed by road through covered tippers/dumpers”. The committee noted that these amendments will directly impact the Environment and increasing the pollution load since mandatory condition given in EC has not been complied. On enquiry, the project proponent did not submit the proper justification or transportation study to reduce the pollution load. Subsequently committee after examination noted that there are certain major EC conditions which have not been complied by PP and the same should be complied first rather seeking amendment on preamble part. Therefore, the Committee emerged that PP has selectively chosen the amendment only in the preamble part and not in the specific condition of EC.

Subsequently committee after discussion with PP found that the several mandatory conditions have not been complied such as implementation in-pit belt conveyor with mist sprinklers, deploying mechanized sweeping machine, fogging arrangement, vertical greenery etc. The committee also noted that PP in its own submission at the time of taking EC, confirmed that interim transportation for 3 years upto a distance of 12 km shall be required to complete the works of belt conveyor upto silo and from Silo through railway to Power Plant. The project proponent failed to comply major EC condition, after more than 4 years, which should have been completed in 3 years. Moreover, PP did not apprise about the preparedness of the plan for implementation of said mechanized system. Therefore, the committee opined that MoEF&CC may take appropriate action under the provision E(P), Act, 1986 for violating the conditions stipulated under EIA, Notification, 2006.

Separately, Committee also suggested that the project proponent should submit a proper coal evacuation plan from road transportation with adequate mitigation measures after exploring the distribution route and mode of coal transportation to other users. In view of the above the project needs to submit the following:

- (i) The project proponent to submit the action plan for implementation of in pit belt conveyor upto silo and from silo to power plant through rail.
- (ii) The PP shall submit the Certified compliance report of EC and action taken report within span of six months after completing all the EC conditions.
- (iii) Alternatively, synchronizing the mechanized system till its implementation, PP to submit a proper coal evacuation plan from road transportation with adequate mitigation measures after

*exploring the distribution route and mode of coal transportation to other users.*

*(iv) PP to submit the Status of Stage II forest clearance for forest land involved in the project.*

*(v) PP to submit the drone video covering mine area, tree plantation, routes of road transportation.*

*(vi) Status of construction of linked Thermal Power Plants and justification of delay.*

*(vii) PP shall submit the details of current status of coal transportation by road and rail with distance and quantity*

*In view of above, the proposal was **deferred** for compliance of observations.*

### **Agenda No. 41.7**

**Expansion of Surkha (North) Lignite Mining for enhancement in production capacity from 3 to 5 MTPA in mine lease area of 3672 Ha (Including already existing Pyrite Plant with 3 MTPA of capacity in Same MLA) by M/s Gujarat Mineral Development Corporation Limited located in village Tagdi malpar, Holdad, Thordi, Rampur, Bhuteshwar, Ratnapur, Koliyak, Ghogha and Surkha, Taluka Ghogha, District Bhavnagar (Gujarat) – Reconsideration for Environmental Clearance – reg.**

**[Online Proposal No. IA/GJ/CMIN/418042/2023; File No. J-11015/234/2006-IA. II(M)]**

**41.7.1** The proposal for reconsideration of Environmental Clearance for project “Expansion of Surkha (North) Lignite Mining for enhancement in production capacity from 3 to 5 MTPA in mine lease area of 3672 Ha (Including already existing Pyrite Plant with 3 MTPA of capacity in Same MLA) by M/s Gujarat Mineral Development Corporation Limited located in village Tagdi malpar, Holdad, Thordi, Rampur, Bhuteshwar, Ratnapur, Koliyak, Ghogha and Surkha, Taluka Ghogha, District Bhavnagar (Gujarat).”

**41.7.2** The EAC, during deliberation noted the following:

- The proposal was considered in the 33<sup>rd</sup> EAC (Coal Mining Sector) meeting held during 25 – 26 July, 2022 wherein the proposal was returned based on certain observations. Subsequently the project proponent has submitted the reply of observation on PARIVESH. Accordingly, the details are mentioned below:

<b>S. No.</b>	<b>Observation of EAC</b>	<b>Compliance of observation of EAC</b>
<b>1</b>	The EC of Pyrite and Corresponding values vis-a'-vis to certified production figures could not be submitted rather table was presented before EAC.	PP submitted the yearwise certified production data of lignite as well as Pyrite after the modification of EC obtained from Ministry on 18th May, 2012.
<b>2</b>	It was pointed that as per Ministry's OM dated 8 <sup>th</sup> July 2022, Certified Compliance Report (CCR) should not be	Certified Compliance of EC condition from Ministry's IRO-Gandhinagar vide letter dated 20th December, 2022 was submitted based on site visit conducted on 21st November, 2022.

	older than one year, accordingly, the Committee opined that PP shall have to submit fresh CCR from Ministry's IRO.	It has been noted that out of total 42 conditions, 35 are complied, 4 are agreed to comply and 3 conditions are noted by the unit.
3	PP need to submit the justification and need for diverting the streams based on the Cost Benefit Analysis.	<ul style="list-style-type: none"> <li>• There are no perennial rivers or major surface water bodies within the allocated lignite block or the mining lease area. There are four seasonal Nallah's, N1, to N4 flowing across the mining lease. These flow from West or south-west to east or north-east across the proposed mining areas. These will affect the mining operation as the nallah's flow through lignite bearing area.</li> <li>• From mineral conservation and safe mining point of view these nallah's are required to be re-routing. Considering the topographical conditions, re-routing of these Nallah was found feasible. It was, therefore, planned to re-route these Nallah in phase manner wise as per need and recover the locked lignite.</li> <li>• Cost Benefit analysis and diversion plan was submitted by Pp</li> </ul>
4	PP shall conduct a drone video survey for 10 minutes for clear view of the project.	Submitted during EAC meeting
5	Issues raised during public hearing shall be addressed with reply based on fund allocated for issue & timeline for completing the issue.	PP submitted the list of activities to be carried out for addressing the issues raised during public hearing. For the year 2022-23, PP has allocated Rs. 13432.68/- lakhs and spent Rs.561.72 /-Lakhs and for year 2023-24, Rs. 13707.74/-lakhs has been proposed.

- The PP has obtained the Environmental Clearance vide Ministry's letter No. J-11015/234/2006-IA.II(M) dated 7<sup>th</sup> May 2007 for the production of lignite at rated capacity of 3 MTPA in the lease area of 4690 ha under Section 12 of the Environmental Impact Assessment Notification, 2006.
- The project proponent has obtained the Modification of EC dated 07.05.2007 for installation of Pyrite treatment plant in Surkha (North) Lignite Mine project (3 MTPA) of M/s GMDC located in Bhavnagar, Gujarat.
- Total mining lease area as per block allotment is 3672 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by MOC vide F. No. 48024/1/2000- Lignite/CA-I. dated 9<sup>th</sup> May, 2016 for the lignite production capacity of 5 Million TPA in existing 3672 ha area.
- Baseline air quality has been measured at 8 locations in the study area during winter season (21.12.2020 to 23.03.2021). The 24-hourly average samples of particulate matters (PM10 and PM2.5), SO2 and NOx were measured as per the National Ambient Air Quality Standards (NAAQS), 2009.
- PP has prepared the report based on secondary data. It has been reported that there is no endangered or rare faunal species observed in the study area. There is no schedule I or

endangered species recorded in the study area; while faunal elements commonly reported in the study area.

- Public hearing for the project of 5 Million TPA capacity in an area of 3672 ha was conducted on 11/03/2022 at M/s. Gujarat Mineral Development Corporation Ltd. Surkha (N) Lignite Mine Project, Near Administrative Office of GMDC' Village Tagdi, Post Malpar, Tahsil Ghogha, District Bhavnagar (Gujarat) under the Chairmanship of Additional District Magistrate. An advertisement in English was published in English in "Times of India" and in Gujarati in "Sandesh" dated 04.02.2022.
- The PP has submitted the CCR vide dated 20.12.2022 from the IRO, Gandhinagar.
- The Life of mine is 16 years.
- Transportation of coal has been proposed by road through dumpers in mine pit head and pyrite plant, from surface to siding by dumpers and at sidings by trucks.
- NOC from the Central Ground Water Authority has been obtained on 27/10/2021 with validity up to 26/10/2023.
- Consent to operate (CTO) was obtained from the State Pollution Control Board on 04/07/2018 and is valid till 31/03/2023.
- 4 season nalla are flowing in boundary of lease. The nalla will be diverted in consultation with the Water Resource Department of the State Government.
- No court cases, violation cases are pending against the project of the PP.
- The Past Production details comparison with existing EC given below:

Year	EC sanctioned capacity(MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
2008-09	3000000	384169.530	NIL
2009-10	3000000	651398.920	
2010-11	3000000	867952.430	
2011-12	3000000	2103073.010	
2012-13	3000000	1923026.190	
2013-14	3000000	1064925.105	
2014-15	3000000	1202494.195	
2015-16	3000000	877052.800	
2016-17	3000000	527555.360	
2017-18	3000000	1277412.809	
2018-19	3000000	672670.785	
2019-20	3000000	554724.547	
2020-21	3000000	494171.546	
2021-22	3000000	1638745.695	

**41.7.3** *The EAC after deliberation noted that the instant project is for expansion of Lignite mine, wherein pyrite found in combination with Lignite Ore. The Project proponent has already taken permission for the installation of Pyrite treatment plant in surkha lignite mine vide dated 18.05.2012.*

*The Committee noted that the project proponent did not submit the compliance of Ministry's modification of EC letter dated 07.05.2007.*

*The Committee noted that the project proponent could not completed the construction of Toe wall at the bottom of the dump, which results the seepage of mine water into streams. The committee noted that PP hardly made any efforts to protect the streams and maintain safe distance within the lease boundary. There are 4 seasonal Nallah N1, N2, N3 and N4 flowing inside the mine lease area. The Committee suggested PP for conducting fresh study on all 4 nallah and describe the quantity reserves available beneath streams and justify adequately the need for diversion. The predicted reserves available below the bed of Stream should be certified by any Government agency.*

*The Committee found that a large portion of Cotton agriculture field available inside the mine lease area, which is noted to be at high risk. The Committee desires that PP must carry out cost benefit analysis appropriately to justify the mining again the green agricultural land.*

*During the discussion, committee observed that there 5 overburden dumps and 3 or 4 dumps are already inactive. It was desired that PP shall regrade the OB dump and make it usable for agriculture purpose. As informed during the discussion, an area of about 294 ha can be converted to agricultural land with drip irrigation facility as of now and further information may be provided by PP. Also, fruit orchard can be planned on these regraded land.*

*In view of the above committee asked to submit the following:*

- i. The PP shall submit the certified compliance report of modification of EC letter 18.05.2012.*
- ii. PP shall give the time bound plan and immediately start construction of Toe wall at the bottom of the dump. The seepage of dump water to be restricted to garland drain and also shall provide one layer of plantation along with Toe wall.*
- iii. PP shall submit the reserves available below the proposed stretch of Nallah to be diverted. The reserves should be certified by any of Government agency.*
- iv. PP shall also submit the certified reserves available below the agriculture field.*
- v. PP shall explore the possibility of step farming/ terrace farming on the dump site and submit an action plan to convert OB dump into agriculture field with drip irrigation facility.*
- vi. The PP shall submit the details of overall area which can be converted into agricultural field (as of now) and during mine closure. The plan of action with timeline shall be submitted with drip irrigation facility and the possibility of step farming/ terrace farming on the dump site.*
- vii. PP shall appropriately justify the reason of diversion streams based on technical analysis and on cost-benefit analysis. Along with phasing and timeline of diversions nallah/stream wise. Plan should include the protection of catchment area.*
- viii. PP shall submit detail plan upon the water harvesting facility.*
- ix. The PP shall submit the cost benefit analysis for conversion of green agriculture field into the Mine lease area with respect to the extracted minerals.*
- x. The PP shall submit the plan for the development and protection of surface water body with the identified location through rainwater harvesting, check dams and any other possibilities.*

- xi. PP shall submit the effect of mining operation on the salinity of ground water and its mitigation measures, if any.
- xii. The PP shall submit the mine closure activity plan along with plan to reclaim complete mine lease area into agriculture filed. PP shall also provide any closing activity to be started within 2 years.
- xiii. The PP shall submit the status of expenditure from the budget of Public Hearing, which has been already spent and status of the budget to be spent in future.
- xiv. The PP shall submit the plan for active dump of 294 ha to be converted into agriculture field.
- xv. The PP shall submit the coal evacuation plan through drone video.

In view of above, the proposal is **deferred** for compliance.

### **Agenda No. 41.8**

**Expansion of Amlohri Opencast Coal Mine for increase in production capacity from 14 MTPA to 15 MTPA (increase of 10% w.r.t 10 MTPA) in mine lease area of 2175 Ha by M/s Northern Coalfields Ltd, located in the village Amlohri, Tehsil Singrauli, District Singrauli (Madhya Pradesh) – Reconsideration of Environmental Clearance under OM vide no. F. No. 1A3-22/10/2022-IA.III dated 07.05.2022 [Availing total 50% relaxation of OM dealing with exemption of public hearing under clause 7 (ii) of EIA notification] [Online Proposal No. IA/MP/CMIN/415763/2023; File No. J-11015/364/2005 IA II.(M)]**

**41.8.1** The proposal is for post appraisal of Environmental Clearance issued under OM dated 07.05.2022, which has availed 50% relaxation for project “Expansion of Amlohri Opencast Coal Mine for increase in production capacity from 14 MTPA to 15 MTPA (increase of 10% w.r.t 10 MTPA) in mine lease area of 2175 Ha by M/s Northern Coalfields Ltd, located in the village Amlohri, Tehsil Singrauli, District Singrauli (Madhya Pradesh).”

**41.8.2** The PP has submitted the following details:

S.N.	Items	Details
1.	The proposal is for Environmental Clearance for Amlohri Expansion Project of 15 MTPA (Expansion from 14 MTPA to 15 MTPA) capacity in mine lease area of 2175 Ha of M/s Northern Coalfields Limited located in village Amlohri Tehsil <u>Waidhan</u> , District Singrauli (Madhya Pradesh).	
2.	Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:	
i.	The project area is covered under Survey of India Topo Sheet No <u>63/L/12</u> and is bounded by the geographical coordinates ranging from latitudes <u>24<sup>0</sup>05'40"</u> to <u>24<sup>0</sup>09'41.6"</u> North and longitudes <u>82<sup>0</sup>34'1.46"</u> to <u>82<sup>0</sup>36'59.38"</u> East	
ii.	Coal linkage of the project is proposed Existing with Rihand Thermal Power plant	
	:	
iii.	Joint venture cartel has been formed	NO

- iv. Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance. NO
- v. Employment generation, providing employment to displaced There will be further creation of direct and indirect employment opportunities in primary, secondary and tertiary sector due to proposed OB processing Plant to generate M-sand. Overall, this will further have positive impact on socio-economic profile of the area NCL undertake skill development & capacity building program like vocational training, income generation and entrepreneurship development. Same will be continued for the life of the project.
- vi. The project is reported to be beneficial in terms of. The project is reported to be beneficial in terms of supply planned quantity of Coal to Rihand Super Thermal Power Station of NTPC through MGR system, other thermal power stations of the nation and other consumers by RLS and MGR railways system, thus meeting the energy requirement of the country. It will also enhance the socio-economic activities in the adjoining area.
- vii. Earlier, the environment clearance to the project was obtained under 7 (ii) of EIA Notification, 2006 vide Ministry's letter No J-11015/364/2005-IA-II (M)- Part File dated 02.09.2015 for 14 MTPA in mine lease area of 2175 ha.
- viii. Terms of Reference granted on – (For NA EC Proposals)
- ix. Total mining lease area as per block allotment is 2175 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the Board of Directors, NCL on 12.05.2022
- x. The land usage pattern of the project is as follows:

Pre-mining land use details

S.N.	Land use	Within ML Area (ha)	Outside ML Area (ha)	Total
1	Agricultural land	898	NIL	898
2	Forest land	1195	NIL	1195
3	Wasteland	-	NIL	-
4	Grazing land	-	NIL	-
5	Surface water bodies	-	NIL	-
6	Settlements	-	NIL	-
7	Others (specify) M.P.Govt. Land	82	NIL	82

	Total Project Area	2175	NIL	2175
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Post Mining

S. No.	Land use	Land use (ha)				Total
		Plantation	Water Body	Public Use	Undisturbed	
1	External OB Dump	402	-	-	-	402.0
2	Top Soil Dump	-				
3	Excavation	780	-	-	-	780.0
4	Roads	-	-	14.0	-	14.0
5	Built-up Area	51.40	-	153.0	-	201.40
6	Green Belt	484	-	-	-	484
7	Undisturbed Area	-	-	-	290.60	290.60
8	Sand segregation Plant	-	-	-	-	3.00
	Total	1717.40	-	167.0	290.60	2175

- xi Total geological reserve reported in the mine lease area is 364.08 MT with 349.41 MT mineable reserve. Out of total mineable reserve of 349.41, 314.46 MT are available for extraction. Percent of extraction is 90%.
- xii Purewa and Turra seams with thickness ranging from 14.00 to 18.00 m (turra seam), 10.00 to 15.00 m (Purewa bottom), 5.00 to 7.00 m (Purewa top Seam) and 23.00 to 24.00 m (Purewa merged seam). Grade of coal is G7 to G9 stripping ratio 4.18 cum/te while gradient is 20 to 50.
- xiii Method of mining operations envisages Coal extraction through Dragline and OB with Shovel- Dumper method.
- xiv Life of mine is 10 years.
- xv The project has 2 nos external OB dumps in an area of 402 ha with 150.00 m height and 185MCum of OB. 2 nos internal OB in an area of 363 ha with 463 MCum of OB is envisaged in the project.
- xvi Total quarry area is 780 ha out of which backfilling will be done in 780 ha while final mine void will be created in an area of Nil ha. Backfilled quarry area of 780 ha shall be reclaimed with plantation. Final mine void will be converted into water body.
- xvii Transportation of coal has been proposed by dumpers in mine pit head, from surface to siding by CHP and at sidings by Merry Go Round.
- xviii Reclamation Plan in an area of 1717.40 ha, comprising of 402 ha of external dump, 780 ha of internal dump 484 ha of green belt. In addition to this, an area of 51.40 ha, included in the safety zone/rationalization area, has also been proposed for green belt development.
- xix 1195 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 1195 ha of forest land for non-forestry purposes has been obtained vide MoEF&CC letter No. F. No.8-194/1984-FC(Pt.) dated



12.12.2018 (Stage-i) Renewal

- xx Please mention any National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project. : No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones
- xxi Wildlife conservation plan for schedule – I species has been submitted to NIL
- xxii The ground water level has been reported to be varying between 095m.bgl to 23.07m.bgl during pre-monsoon and between 1.0m.bgl to 23.52m.bgl during post-monsoon. : The estimated water requirement for proposed OB to sand Segregation plant is initially 800 m3. This requirement will be met from Treated ETP water. As per the plant design 90% of this water will be re-circulated and only 10% i.e. 80 m3/day additional water will be required for the proposed plant.
- xxiii Application for obtaining the approval of the Central Ground Water Authority for GWNOC has been obtained on 29th December, 2017. : Obtained vide NOC number CGWA/NOC/MIN/ORIG/2021/13516 dated 27<sup>th</sup> October 2021.
- xxiv Public hearing for the project of \* .capacity in an area of \* ha was conducted on At \* Major issues raised in the public hearing include \* Appropriate action to address the issues raised in the Public Hearing have already been taken/proposed to be taken are as under : Public hearing issues for project capacity 10 MTPA was conducted on 10.06.2005 at Community Hall, Waidhan, Tehsil Waidhan, Dist Singrauli M.P.
- xxv Consent to Operate for the existing capacity was obtained from the State PCB on\* and is valid till \* CTO outward number 09.02.2023, CTO no. AW-57546 valid till 31.11.2023.
- xxvi \*.River/nalla is flowing \* boundary of lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government. : No river flowing in Mine Lease Area.
- xxvii Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to \*.and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling. NA
- xxviii No court cases, violation cases are pending against the project of the PP. No court cases, violation cases pending.

xxxix The project does not involve violation of the EIA Notification, 2006 and amendment issued there-under. The coal production from the mine was started from the year onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations. The coal production, realized from the project, from 1993- 94 onwards, is as under :

Year	EC sanctioned	Actual production
2005-06	10.0	4.00
2006-07	10.0	4.59
2007-08	10.0	4.70
2008-09	10.0	5.28
2009-10	10.0	6.15
2010-11	10.0	5.37
2011-12	10.0	6.58
2012-13	10.0	7.51
2013-14	10.0	8.51
2014-15	10.0	10.00
2015-16	14.0	10.52
2016-17	14.0	11.11
2017-18	14.0	12.14
2018-19	14.0	13.08
2019-20	14.0	13.47
2020-21	14.0	13.01

xxx The project involves project affected Land outstees have been compensated as per families. R&R of the PAPs will be done as the norms laid out R&R policy of CIL per. R&R has been done as per the norms.

- Total no. of families to be shifted 226
  - no. of families that have been shifted/given plot 173
  - No legal heirs/claimant – 4
  - Payment done to tribunal for dispute – 1
  - not entitled as per records/checking – 35
- No new shifting is required.

xxxi Total cost of the project is Rs. 1905.27 crores. Cost of production is Rs. 971.00 /- per tonne., CSR cost - As per CIL CSR policy, the fund for CSR should be allocated based on 2% of Average Net profit of the Company for the 3 immediate preceding years or Rs. 2/tonne of coal production for previous year whichever is higher., R&R cost Rs 212.72 Lakh. Environment Management Cost is Rs.2626.90 lakh.

xxxii Consent to Operate for the existing capacity CTO outward number 14<sup>th</sup> September 2021, was obtained from the State PCB on\* and is CTO no. AW-54151 valid till 31.01.2022. valid till \*

xxxiii Past Production details comparison with existing EC

Year	EC sanctioned	Actual production	Excess production beyond the EC capacity (MTPA) (MTPA) sanctioned capacity
2005-06	10.0	4.00	Production within EC sanctioned capacity
2006-07	10.0	4.59	Production within EC sanctioned capacity
2007-08	10.0	4.70	Production within EC sanctioned capacity
2008-09	10.0	5.28	Production within EC sanctioned capacity
2009-10	10.0	6.15	Production within EC sanctioned capacity
2010-11	10.0	5.37	Production within EC sanctioned capacity
2011-12	10.0	6.58	Production within EC sanctioned capacity
2012-13	10.0	7.51	Production within EC sanctioned capacity
2013-14	10.0	8.51	Production within EC sanctioned capacity
2014-15	10.0	10.00	Production within EC sanctioned capacity
2015-16	14.0	10.52	Production within EC sanctioned capacity
2016-17	14.0	11.11	Production within EC sanctioned capacity
2017-18	14.0	12.14	Production within EC sanctioned capacity
2018-19	14.0	13.08	Production within EC sanctioned capacity
2019-20	14.0	13.47	Production within EC sanctioned capacity
2020-21	14.0	13.01	Production within EC sanctioned capacity

**41.8.3** The committee observed the following during the EAC meeting:

- i. Ealier, PP has obtained EC for expansion in capacity from 4MTPA to 10 MTPA vide letter dated 16th February, 2006 based on Public Hearing. Environment Clearance for expansion from 10 MTPA to 14 MTPA in mine lease area of 2175 ha under para 7 (ii) of EIA Notification, 2006 vide Ministry's letter No J-11015/364/2005-IA-II (M) dated 02.09.2015. Further expansion in capacity based on Ministry's OM dated 7<sup>th</sup> May, 2022 from 14MTPA to 15 MTPA on 25<sup>th</sup> July, 2022.
- ii. The PP has submitted the approved Mining Plan (Including Progressive Mine Closure Plan) on 12.05.2022 for lease area of 2175 ha approved by the Board of Directors, NCL.
- iii. Life of mine is 10 years.
- iv. Transportation of coal has been proposed by dumpers in mine pit head, from surface to siding by CHP and at sidings by Merry Go Round.
- v. PP has obtained the Stage-I forest clearance for 1195 ha for non-forestry purposes vide letter no. F. No.8-194/1984-FC (Pt.) dated 12.12.2018 under Forest (Conservation) Act, 1980.
- vi. PP has obtained NoC for withdrawal of Ground water vide NOC number CGWA/NOC/MIN/ORIG/2021/13516 dated 27th October 2021.
- vii. Public hearing conducted on 10.06.2005 for production capacity of 10 MTPA.
- viii. PP has obtained the CTO for the capacity of 15 MTPA vides dated 09.02.2023 which is valid till 31.11.2023.
- ix. PP has submitted R&R cost Rs 212.72 Lakh. Environment Management Cost is Rs\_2626.90 lakh.
- x. Certified compliance report vide dated 25.07.2022.
- xi. PP has collected the baseline data from October to December 2022.

**41.8.4** *The EAC, after deliberations observed that instant project has been submitted in compliance of Ministry's OM dated 7<sup>th</sup> May, 2022 wherein expansion in capacity was granted in advance (10% beyond 40% from the existing capacity) subject certain conditions related to submission of EIA-EMP report and compliances of existing EC conditions within six months alongwith other statutory requirements. This EC was granted on 25<sup>th</sup> July, 2022 by MoEF&CC due to shortage of coal in the country and as per the condition contained therein. The committee noted that proposal was submitted by delay of more than one month beyond the prescribed time limit of six months.*

*It was further observed that PP has completed the formalities for the submission of Baseline data, past production detail and Certified compliance report and EIA/EMP report based on standard ToR. The instant project lies in the Severely Polluted Area (SPAs) of Singruali, Madhya Pradesh. It was observed that the ambient air quality data consistently exceeding their prescribed limit. The project proponent needs to take immediate mitigation measures in order to reduce the pollution. The committee suggested installing another CAAQMS towards village side within six month and the data to be displayed for local villagers.*

*The PP did not start implementing the EIA-EMP measures, Committee advised to take action upon the same. The committee found that the core area is still not mechanized in order to reduce the pollution and make lesser burdens on Environment. Also the Baseline data need to be rechecked as some of data either not recorded properly or EMP measures have not been put in place to bring to within standards. The Committee also advised to install some of the additional water sprinkler system with time bound manner. Additional study also requires in order to take the mitigation measures. The project proponent needs to submit the Compliance report of the Amendment in EC dated 24.12.2021.*

*In view of the above project proponent shall submit the following:*

- i. The PP shall take immediate mitigation measures in order to reduce the air pollution in the mine lease area and the submit the measures taken for the mine employee in polluted environment.*
- ii. The PP shall install another CAAQMS towards village side within six month and the data to be displayed for local villagers.*
- iii. The PP should submit the Compliance report of the Amendment in EC dated 24.12.2021.*
- iv. PP shall submit the action plan of mechanized conveyor system for 100% transportation of coal till railway siding with silo loading facility.*
- v. PP shall submit plan to convert 100% haul road from unpaved to paved to reduce the emission of fugitive dust.*
- vi. PP shall submit mitigation plan for dust emission from Coal Handling Plant and Coal storage yard.*
- vii. PP shall submit the compliance of earlier issues raised during Public Hearing and budget spent on the said issues.*
- viii. PP shall submit the effluent characteristics of its ETP and STP*

*Accordingly, the proposal was **deferred** for further submission of compliance.*

## **Agenda No. 41.9**

**Jhiria West Opencast Coal Mine of capacity 1.50 MTPA (Peak) in mine lease area of 427.993 ha of M/s South Eastern Coalfields Limited (SECL) located in villages Bthalmuri, Fulkona, Dumarkachhar, Bangawan, Padritola, Tehsil Kotma, District Anuppur (Madhya Pradesh) - For Environmental Clearance - reg.**

**[Online Proposal No. IA/MP/CMIN/413363/2023; File No. J-11015/57/2019-IA-II(M)]**

**41.9.1** The proposal is for Environmental Clearance for project Jhiria West Opencast Coal Mine of capacity 1.50 MTPA (Peak) in mine lease area of 427.993 ha of M/s South Eastern Coalfields Limited (SECL) located in villages Bthalmuri, Fulkona, Dumarkachhar, Bangawan, Padritola, Tehsil Kotma, District Anuppur (Madhya Pradesh).

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

- i. 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°10'05" to 23°11'05" N and longitudes and 82°05'00" to 82°07'05" E.
- ii. Coal linkage of the project is proposed for Power generation use for various Thermal Power Plants.
- iii. Joint venture cartel has been formed- Not Applicable
- iv. Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13<sup>th</sup> January 2010 has imposed moratorium on grant of environment clearance.
- v. Employment generation: Permanent employment to 304 Persons will be provided from the project along with temporary employment to the tune of 68000 man-days per annum.
- vi. The project is reported to be beneficial in terms of various aspects relating to economy, infrastructure development and energy self-sufficiency. The project activities will directly or indirectly improve physical infrastructure (like road and rail network, bridges, telecommunication), social infrastructure (like educational facilities, medical facilities, women and child welfare facilities, water supply and sanitary facilities, banking facilities, training and skill development facilities, employment opportunities), Central and state Exchequer, helps Nation in Energy self-sufficiency, green cover and Water reserves.
- vii. Terms of Reference granted on – 07.11.2019 (for EC proposals)
- viii. Total mining lease area as per block allotment is 427.993 Ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the 279<sup>th</sup> meeting of the Board of Directors of SECL on 28.11.2018.
- ix. The land usage pattern of the project is as follows:

Pre-Mining Land use Details (Area in Ha)

S. No.	Land Use	Within ML Area (Ha.)	Outside ML Area (Ha.)	Total (Ha)
1	Agricultural Land	59.720	0.00	59.720
2	Forest Land	354.258	0.00	354.258
3	Waste land*	0.866	0.00	0.866
4	Grazing Land	0.00	0.00	0.00
5	Surface Water Bodies*	1.665	0.00	1.665
6	Settlements**	1.073	0.00	1.073
7	Other (specify) (Govt. Land)	14.015	0.00	14.015
	<b>Total</b>	<b>427.993</b>	<b>0.00</b>	<b>427.993</b>

**\*Included in Govt. Land**

**\*\*0.131 Ha included in Govt. land, 0.063 Ha in Forest land and 0.879 Ha in Agricultural/Tenancy land.**

Post Mining:

S. No.	Land use	Land Use (Ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1.	External OB Dump	0	0	0	0	0
2.	Top soil Dump	0	0	0	0	0
3.	Excavation	259.706	64.064	0	0	323.77
4.	Roads	0	0	0	0	0
5.	Built up areas	9.298	0	2.750	0	12.048
6.	Green Belt	92.175	0	0	0	92.175
7	Undisturbed Area	0	0		0	0
8.	Safety Zone*/Restoration Area	92.175	0	0	0	92.175
9.	Diversion/ below river/ Nala/ Canal	0	0	0	0	0
10.	Water body	0	0	0	0	0
11.	Staff Colony	0	0	0	0	0
	<b>Total Area</b>	<b>361.179</b>	<b>64.064</b>	<b>2.750</b>	<b>0.000</b>	<b>427.993</b>

**\*Safety zone area of 92.175 m will be developed as Green belt.**

- x. Total geological reserve reported in the mine lease area is 16.254 MT with 13.16 MT mineable reserve. Out of total mineable reserve of 13.16 MT, 13.16 MT are available for extraction. Percent of extraction is 100 %.
- xi. 5 nos seams with thickness ranging from 0.5 m to 5.25 m are workable. Grade of coal is G6, stripping ratio 8.20 while gradient is 1 in 60.
- xii. Method of mining operations envisages by Opencast mining method.
- xiii. Life of mine is 11 years.
- xiv. The project has no external OB dumps and 107.95 Mcum internal OB in an area of 259.706 ha with 107.95 Mm<sup>3</sup> of OB as envisaged in the project.
- xv. Total quarry area is 323.770 ha out of which backfilling will be done in 259.706 ha while final mine void will be created in an area of 64.064 ha with a depth of 60 m. Backfilled quarry area of 259.706 ha shall be reclaimed with plantation. Final mine void will be converted to a water body of depth upto 60 m.
- xvi. Transportation of coal has been proposed by Dumpers in mine pit head, from surface to siding by Covered Trucks and from Rajnagar Railway siding to Consumer by Railway.
- xvii. Reclamation Plan in an area of 361.179 Ha (Mine Lease Area- 427.993 Ha), comprising of 0.00 ha of external dump, 259.706 ha of internal dump and 92.175 ha of green belt. In addition to this, an area of 9.298 Ha, included in the Infrastructure & Road area, has also been proposed for green belt development/ plantation.
- xviii. 354.258 ha of forest land has been reported to be involved in the project. Application for Forest Clearance made for obtaining Stage-I Forest Clearance vide Proposal No.: FP/MP/MIN/39881/2019 dated 27.05.2019.
- xix. No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project.
- xx. No Wildlife conservation plan for schedule – I species has been submitted since there is no Schedule I species
- xxi. The ground water level has been reported to be varying between 6.18 m to 11.75 m during pre-monsoon and between 2.15 m to 8.52 m during post-monsoon. Total water requirement for the project is 504 KLD.
- xxii. Application for obtaining the approval of the Central Ground Water Authority will be submitted after obtaining Environmental Clearance.
- xxiii. Public hearing for the project of 1.5 MTPA capacity in an area of 427.993 ha was conducted on 28.09.2022 at Government Secondary School, Bhalmundi, Tehsil- Kotma, District Anuppur, Madhya Pradesh under the Chairmanship of Additional District Magistrate, Anuppur. Major issues raised in the public hearing include Employment & Compensation. Appropriate action to address the issues raised in the Public. Public Hearing have already been taken on 28.09.2022 under the Chairmanship of Additional District Magistrate, Anuppur.
- xxiv. Consent to Operate for the existing capacity was obtained from the State PCB on. and is valid till – CTO will be obtained after obtaining Environmental Clearance.
- xxv. Kulhariya Nallah Middle & Western part- Jhiria nallah and Sautanchua nallah River/nalla is flowing adjacent to boundary of lease. The nallah will not be diverted.

- xxvi. Regular monitoring of ambient air quality is being carried out on fortnightly basis.
- xxvii. No court cases, violation cases are pending against the project of the PP.
- xxviii. The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the mine was started from the year onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations.
- xxix. The project involves 220 project affected families. R&R of the PAPs will be done as per CIL R&R Policy, 2012.
- xxx. Total cost of the project is Rs. 389.97 Crores. Cost of production is Rs 1499.74/- per tonne (at 100% Production) and Rs.1644.23/Te (at 85% Production), CSR cost is 2% of net profit or at least Rs. 2.00 per tonne, whichever is higher R&R cost is Rs. 4732.77 lakhs. Environment Management Cost is Rs 70.76 Crores: Capital Rs. 7076.44 lakhs & Recurring Rs. 738.184 Lakhs per annum.
- xxxi. Consent to operate (CTO) was obtained from the State Pollution Control Board on and is valid till - CTO will be obtained after obtaining Environmental Clearance.

**41.9.3** The Committee during the deliberation observed the following:

- i. The project is noted to be A category due to its location falls near to the inter-State boundary of Madhya Pradesh and Chhattisgarh otherwise it would have been category B as mine lease area is 427.993 (less than 500 ha).
- ii. PP has submitted the Mining Plan (Including Progressive Mine Closure Plan) for the mine lease area of 427.993 ha in the 279<sup>th</sup> meeting of the Board of Directors of SECL on 28.11.2018.
- iii. Life of mine is 11 years.
- iv. ToR vide MoEF&CC letter no F. No. J-11015/57/2019-IA. II (M) was granted on 07.11.2019.
- v. PP has submitted the application for Stage-I Forest clearance for 354.258 Ha.
- vi. No nallah will be diverted such as Kulhariya Nallah flowing in the Middle & Western part of the mine lease area. The Jhiria nallah and Sautanchua nallah is flowing adjacent to the mine lease boundary.
- vii. PP has collected the Baseline data (Post-Monsoon season) from October to December 2020 in the core zone (mine lease boundary) and buffer zone (10 km radius from the mine lease boundary) with respect to various environmental components, viz. Socio-economic profile, land and landuse pattern, Micro-Meteorological Data, Air quality, Noise levels, Water quality, Soil quality, Ecology and biodiversity and Hydrogeological characteristics.
- viii. Public hearing was conducted on 28.09.2022 for the capacity of 1.5 MTPA in an area of 427.993 ha by MPPCB at “Saasakiya Madhyamik Vidhyalay, Bhalmundi” under the chairmanship of Additional District Magistrate (ADM). Advertised in National/English: The Times of India. National/Hindi: Dainik Bhaskar Local/Hindi: Patrika. Major issues raised during Public Hearing were on plantation of fruit bearing trees, employment to land losers, health facilities, land compensation, education facilities to children’s, road,



- electricity, water system, community building, water, etc.
- ix. PP has informed that No schedule I species has been found in the area however, Budget of Rs. 5 Cr has been kept for Wild Life Conservation for implemented as per instructions/ directions of Ministry and State Forest Department.
  - x. PP has submitted the CSR cost 2% of net profit or at least Rs. 2.00 per tonne anyone of higher value. R&R cost Rs. 4732.77 lakhs. Environment Management Cost is Rs 70.76 Crores, Capital Rs. 7076.44 lakhs & Recurring Rs. 738.184 Lakhs per annum.
  - xi. The PP has proposed the provision of Rs 7076.44 Lakhs capital and 1318.184 Lakhs revenue for cost of EMP.

<b>S. No</b>	<b>PARTICULARS</b>	<b>AMOUNT Rs. in Lakhs</b>
<b>A.</b>	<b>CAPITAL ESTIMATE</b>	
1	Cost of rehabilitation	4732.77
2	Capital for restoration	62.00
3	Capital for anti-pollution measure in mine & industrial area	1653.49
4	Environmental control measures in township	508.18
5	Stone pitching of embankment on Nallah side	50.00
6	Cost of EMP preparation	50.00
7	Community development in surrounding villages	20.00
	<b>Total capital from 1 to 7</b>	<b>7076.44</b>
<b>B.</b>	<b>REVENUE ESTIMATE</b>	<b>1318.184</b>

**41.9.4** *The EAC after deliberation noted that the instant proposal is green field falls near to the inter-State boundary of Madhya Pradesh and Chhattisgarh. The committee noted that the approval of Mine Plan has been taken for 1.5 MTPA only whereas PP has applied for 1.875 MTPA (Peak), accordingly, EAC after agreement with PP has fixed the capacity of proposal upto 1.5 MTPA. Further, it was observed that Kulhariya Nallah passing through the mininig lease area, any type of mining activity shall be prohibited within 100m from both sides of Nallah. The Adjacent Nallah to the mine lease area shall also be protected with proper bund and plantation with native species or fruit bearing trees on the both sides. The Committee advised to the project proponent for development of Sal nursery with minimum 11000 of Sal tree capacity.*

*During the discussion, the committee emphasized that the proposed road for the transportation of coal should not be passed through any village or any sensitive location. The truck size should be more than 35 Tonne of coal capacity. The committee noted that number of school present within the periphery of 1 km from the mine lease boundary. The project proponent shall take all mitigation measures and no dedicated road should Pass through these schools. The committee asked the project proponent to spent the proposed EMP budget of Rs. 7076.44 Lakh on the proposed activity. Along*

*with the committee suggested installing Noise control devises, wind barrier etc.*

*Based on the above discussion, EAC **recommended** the Environmental Clearance for Jhiria West Opencast Coal Mine of capacity 1.50 MTPA (Peak) in mine lease area of 427.993 ha of M/s South Eastern Coalfields Limited (SECL) located in villages Bhalmuri, Fulkona, Dumarkachhar, Bangawan, Padritola, Tehsil Kotma, District Anuppur (Madhya Pradesh) under the provisions of EIA Notification, 2006 and its amendments therein with following additional specific conditions for environmental safeguards to be followed:*

- i. PP shall submit Stage-I Forest Clearance of forest land 354.258 ha required for non-forestry activity prior to grant of Environment Clearance.*
- ii. PP shall obtain CTE/CTO from State Pollution Control Board for 1.5 MTPA ( peak) capacity*
- iii. The PP shall prohibit any type of activity (mining or non-mining) within 100m from both sides of Kulhariya Nallah passing through the mining lease area. The Adjacent Nallah to the mine lease area shall also be protected with proper bund and plantation with native species or fruit bearing trees on the both sides.*
- iv. The PP shall develop Sal nursery with minimum number 11000 of plant capacity in 5 ha within 2 years of issuance of EC letter. Further, PP shall carryout atleast 50% of total plantation with Sal plantation concurrently through progressive mine closure activities*
- v. No Overburden dump should be created on forest land coming under non-coal bearing area and under coal bearing till coal is proposed to be extracted.*
- vi. The PP shall have dedicated route to transport the coal and same route should not pass through any village or any sensitive location such as school. PP shall deploy on 45-50 tonne of truck/dumpers for transportation.*
- vii. Schools present within the periphery of 1 km from the mine lease boundary shall be protected from dust and noise pollution and mining activities. The project proponent shall take all mitigation measures and no coal transportation route should pass through these schools.*
- viii. PP shall submit Letter of Intent issued by State Government to Ministry's IRO within six months from the date of issue of Environment Clearance letter.*
- ix. PP shall provide observation well on dipside for monitoring the ground water level.*
- x. PP shall complete the in-pit belt conveyor system within the Mining lease area and railway siding system from mining site shall be completed by 2025. Further no road transportation shall be allowed by the State Government beyond this period.*
- xi. PP shall prepare the detail plan for rain water harvesting system with the help of existing natural pond lying inside the Mine lease area.*
- xii. In addition to manual monitoring, PP to install the Continuous Automatic Air Quality Monitoring Station (CAAQMS) at suitable location preferably village side with consultation of SPCB. The real time data so generated shall be uploaded on company website. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.*
- xiii. PP shall obtain No Objection Certificate from Central Ground Water Authority before intersection of aquifer/Ground water during mining operations.*
- xiv. PP shall implement 20% of mining machineries & trucks/dumpers operating with*

- LNG/CNG/Electrical in order to curb the pollution due to mining activity within 5 years..*
- xv. *PP shall provide basic facilities to local people like road, multispecialty hospital for 24X7, Library, Digital study centre and Training facility centre for improving skills among available potential manpower. The said infrastructures shall be implemented within 3 years from the commencement of mining operations and within 10 km of project area.*
  - xvi. *PP shall develop the green belt plantation with aim of 2500 trees / ha within the proposed area of plantation in 2 years & their survival rate should be 90 to 95%. The local species shall be use for Plantation in consultation with the local forest department.*
  - xvii. *PP shall implement the proposed EMP budget of Rs. 7076.44 lakhs as capital expenditure on pollution control measures and 1318.184 Lakhs revenue for cost of EMP.*
  - xviii. *PP shall install fixed fog cannon (mist sprayer) and fixed sprinkler all along the haul road till CHP, Railway siding and OB Dump area and accordingly sufficient number of fog cannons (not less than 10 nos.) with 40 mts jet length shall be installed within 6 months of mining operation. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB.*
  - xix. *PP shall construct a pucca road to maintain the safety of people residing nearby along the transportation route with plantation on either side of the road.*
  - xx. *PP shall deploy more than 45-50 tonnes of covered trucks/dumper to reduce fleet size till conveyor system, silo/Rapid loading system and railway siding is implemented i.e. till 2026.*
  - xxi. *PP shall use only surface miner for mining operation/coal extraction instead of shovel dumper method.*
  - xxii. *PP shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to IRO, MoEF&CC.*
  - xxiii. *The status of mine closure activities must be included in every six months compliance report submitted to the state pollution control board and IRO.*
  - xxiv. *PP to maintain the topped haul road properly to minimized the dust emission. PP to also develop pucca roads by seeking consent from the panchayat with widening of roads especially roads inter linking the villages within the study area of 10 km radius buffer zone.*
  - xxv. *PP should make dedicated bypass concrete road equipped with the sprinkling system after every 100m within 1 year for transportation and no transportation shall be done from village road and near to the habitation.*
  - xxvi. *PP to install solar lights along the road used for transportation of minerals to avoid the accidents at night and also seek its maintenance. PP is asked to also identify the rural areas for installation of solar light with its maintenance within the study area of 10 km radius buffer zone within one year.*
  - xxvii. *PP to provide bio toilets to the villages located within the study areas within 1 year from the grant of this EC.*
  - xxviii. *PP to fulfill all the commitment made in the minutes of public hearing to address the issues raised therein in a time bound manner and a progressive report to be furnished to IRO in every six monthly as compliance report.*
  - xxix. *The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health*

*in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.*

- xxx. *PP shall pay to farmers of agricultural land if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms.*
- xxxi. *PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup at site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis instead of engaging environment monitoring laboratories/consultants. Any non- compliance or infringement should be reported to the concerned authority.*
- xxxii. *PP to obtain the star rating as per the guidelines of Ministry of Coal within 3 years of commencement of mining operations.*
- xxxiii. *Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEF&CC.*

#### **Agenda No. 41.10**

**Expansion of Bhubaneswari Opencast Coal Mine for increase in production capacity from 28 MTPA to 30 MTPA (increase of 10% w.r.t 20 MTPA) in mine lease area of 638.341 Ha by M/s Mahanadi Coalfields Ltd., located in the village Jilinda,Hensmul (Sharasahi), Hensmul (Talasahi), Naraharipur, Khandualbhal, Kandhal, Madanmohanpur, Langijoda and Anadipur, Tehsil Talcher Sadar, District Angul (Odisha) – Reconsideration for Environmental Clearance under OM vide no. F. No. IA 3-22/10/2022 – IA.III 07.05.2022 [Availing total 50% relaxation of OM dealing with exemption of public hearing under clause 7 (ii) of EIA notification]**

**[Online Proposal No. IA/OR/CMIN/416178/2023; File No. J-11015/280/2013-IA.II (M)]**

**41.10.1** The proposal is for Environmental Clearance issued under OM dated 07.05.2022, which has availed 50% relaxation for project Expansion of Bhubaneswari Opencast Coal Mine for increase in production capacity from 28 MTPA to 30 MTPA (increase of 10% w.r.t 20 MTPA) in mine lease area of 638.341 Ha by M/s Mahanadi Coalfields Ltd., located in the village Jilinda,Hensmul (Sharasahi), Hensmul (Talasahi), Naraharipur, Khandualbhal, Kandhal,

Madanmohanpur, Langijoda and Anadipur, Tehsil Talcher Sadar, District Angul (Odisha).

**41.10.2** Details of the proposal, as ascertained from the proposal documents and as per the OM dated 07.05.2022 under special dispensation are given as under:

- (i) The project area is covered under Survey of India Topo Sheet No F45T1 on R.F 1:50000 and special toposheet nos. D1, D2, E1& E2 on R.F 1:10000. and is bounded by the geographical coordinates ranging from latitude 20°57'58.03"N to 20°59'17.44"N and longitudes 85° 8'26.86"E to 85° 11'5.73"E.
- (ii) Coal linkage of the project: Power Plants and basket linkage.
- (iii) Joint venture cartel has been formed: Not Applicable
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF & CC vide its OM dated 13<sup>th</sup> January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation: Approximately 1007 nos. of direct employment already generated.
- (vi) The project is reported to be beneficial in terms of
  - a) Improvement in Physical Infrastructure
  - b) Improvement in Social Infrastructure
  - c) Increase in employment potential
  - d) Contribution to the Exchequer (both State and Central Govt.)
  - e) Post mining enhancement of Green Cover
  - f) Improvement of Electrical Power Generation & availability of electricity for 24x7 in rural areas
  - g) Overall economic growth of the country.
- (vii) The proposal is for grant of EC expansion in production capacity from 28 MTPA to 30 MTPA in ML area 638.341 Ha. in accordance with the OM. vide no F.No. IA3-22/10/2022-IA.III [E177258] dated 07-05-22.
- (viii) EC granted on MoEF & CC F.No. J-11015/280/2013-IA-II(M) Pt. Dt.25-07-2022 for 30 MTPA
- (ix) Total mining lease area as per block allotment is 638.341 Ha. Mining Plan was approved by MCL Board in its 249<sup>th</sup> Board meeting held on 05.07.2022
- (x) The land usage pattern of the project is as follows:

**Pre-mining land use details (Area in Ha)**

Si. No	Type of Land	Within ML Area (ha)	Outside ML Area (ha)	Total Area for 28.0 MTY (ha)
a)	Agricultural	445.030	Nil	445.030
b)	Forest	112.521	Nil	112.521
c)	Barren	Nil	Nil	Nil
d)	Grazing	Nil	Nil	Nil
e)	Water bodies	Nil	Nil	Nil
f)	Roads	Nil	Nil	Nil
g)	Township	Nil	32.00	32.00

h)	Community/other use	80.790	Nil	80.790
i)	Resettlement	Nil	117.57	117.57
	<b>Total</b>	<b>638.341</b>	<b>149.57</b>	<b>787.911</b>

### Post Mining

S No	Category	Plantation	Unfilled void	Dip side slope	Undisturbed	Agriculture	Public/ Company use	Total
1.	Quarry excavation	326.844	242.808	---	---	---	14.10	583.752
2.	Safety Zone (7.5mt)	3.717	2.03	---	---	---	---	5.747
3.	OB dumps (external)	---	---	---	---	---	---	---
4.	Infrastructure & Roads	6.713	---	---	---	---	19.609	26.322
5.	Green belt	10.00	---	---	---	---	---	10.00
6.	Coal stock yard	---	---	---	---	---	---	---
7.	Nalla diversion & settling pond	---	---	---	---	---	---	---
8.	Other areas (embankment, magazine)	12.52	---	---	---	---	---	12.52
<b>9.</b>	<b>Mine Lease Area (A)</b>	<b>359.79</b>	<b>244.838</b>	---	---	---	<b>33.709</b>	<b>638.341</b>
10	Colony	6.400	---	---	---	---	25.600	32.00
11.	Resettlement	23.520	---	---	---	---	94.050	117.57
<b>12</b>	<b>Outside Mine Lease Area (B)</b>	<b>29.920</b>	---	---	---	---	<b>119.650</b>	<b>149.57</b>
<b>13</b>	<b>Total Project Area (A+B)</b>	<b>389.71</b>	<b>244.838</b>	---	---	---	<b>153.359</b>	<b>787.911</b>

- (xi) Total geological reserve was 420.77 MT. The mineable reserve 365.98 MT, balance extractable reserve is 93.92MT with per cent of extraction as 86.98%.
- (xii) 13 seams with average thickness 95.30 m. The coal grade is average G11 to G13. The stripping ratio is 1.40 cum/tonne. The average gradient is 2° to 7°.
- (xiii) The method of mining would be Opencast by Shovel - Dumper/ Ripper-dozer in OB/parting; Surface miner, pay loader & tipper in coal.
- (xiv) The life of mine is 4 Years.
- (xv) There is one external OB dump with Quantity of 37.0Mcum in an area of 94.0Ha. The

- external dump area is now being re-handled into mine voids.
- (xvi) Total quarry area is 583.752 ha out of which backfilling will be done in 326.844Ha. While unfilled mine void will be created in an area of 242.808 Ha is for future expansion and same will be partially planted or grass carpeted. Final mine void with a maximum depth of 30m. Backfilled quarry area of 326.844Ha shall be reclaimed with plantation/grass/agriculture. Final mine void will be converted into a water body.
  - (xvii) The entire coal production of 30.0Mty will be by Surface Miner. The coal will be dispatched through rail and road mode.
  - (xviii) Reclamation Plan in an area of 389.71Ha, comprising of 326.844 Ha of internal dump, 29.920Ha of built-up area and 10.0Ha of green belt, etc.
  - (xix) The total forest area involved in the project is 112.521 Ha. for which stage II FC has already been granted by vide letter 8-18/2002/89-FC, Dt-06.12.2004, Government of India MoEF& CC.
  - (xx) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
  - (xxi) Wildlife Conservation plan: Habitat management prepared by PCCF (wildlife), Odisha vide letter no: 3090/3WL-(Cons)33/04, dated, Bhubaneswar , dated 06/07/2004.
  - (xxii) Total estimated water requirement is 5516 m<sup>3</sup>/day. The level of ground water ranges from 1.36mbgl to 9.30mbgl.
  - (xxiii) NOC from the Central Ground Water Authority has been obtained vide CGWA/NOC/MIN/ORIG/2020/9378 dated 16.12.2020. Application for renewal is under process at CGWA.
  - (xxiv) The public hearing for Bhubaneswari Opencast Project of coal production capacity 20.00 MTPA of Mis Mahanadi Coalfields Limited' was conducted at Jagannath Kalakendra, Jagannath area 10.02.2009, at 10.00 AM. Additional District Magistrate supervised and presided over the Public Hearing Process. The issues raised during Public Hearing were regarding Employment, Supply of drinking water, blasting vibration, Plantation, dust in pond in core zone, dust suppression & sprinkling on peripheral roads. All the issues have been addressed.
  - (xxv) Consent to operate (CTO) is already obtained from the State Pollution Control Board and valid up to 31.03.2024.
  - (xxvi) No stream is flowing through the ML Area. Hence, no diversion is proposed.
  - (xxvii) Regular monitoring of ambient air quality is being and will be carried out on fortnightly basis. The documented report is being and will be submitted to Regional Office, MoEF&CC, and Bhubaneswar and also to MoEF&CC along with half yearly EC compliance report.
  - (xxviii) No court cases are pending in the court.
  - (xxix) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under.
  - (xxx) The project involves 1242 project affected families. R&R of the PAPs is being done as per Orissa Rehabilitation and Resettlement Policy 2006. Employment already provided to 1007 persons. Cash in lieu of employment provided to 35 persons and rest 13 are

under process.

(xxxix) Total capital cost of the project is Rs. 490.10 Crores. CSR Cost - 2% of the average net profit of the company for the three immediately preceding financial years or Rs. 2.00 per tonne of coal production of the previous year whichever is higher. R&R Cost Rs. 29.51 Crores. Environmental Management Cost – Rs. 71.41 Crores.

(xxxix) Consent to operate (CTO) is already obtained from the State Pollution Control Board and valid till 31.03.2024.

(xxxix) Past Production details comparison with existing EC-

Year	EC sanctioned capacity (MTPA)	Actual Production (MTPA)	Excess production beyond the EC sanctioned capacity
2007-08	10.00	0.20	--
2008-09	10.00	1.84	--
2009-10	10.00	4.00	--
2010-11	10.00	3.27	--
2011-12	10.00	7.11	--
2012-13	20.00	17.93	--
2013-14	25.00	24.44	--
2014-15	25.00	25.00	--
2015-16	25.00	25.00	--
2016-17	25.00	25.00	--
2017-18	28.00	26.25	--
2018-19	28.00	28.00	--
2019-20	28.00	28.00	--
2020-21	28.00	28.00	--
2021-22	28.00	28.00	--
2022-23	30.00	28.02 (as on 07.03.23)	

**41.10.3** The Committee after deliberation noted the following:

i. The PP has obtained the following Environmental Clearance:

Project	Capacity (MTPA)	EC Letter
Bhubaneswari OCP	10.0	J-11015/45/96-IA.II(M) dated 06-06-2003
	20.0	J-11015/128/2007-IA.II(M) dated 30-11-2012
	25.0	J-11015/280/2013-IA.II(M) dated 19-02-2014
	28.0	J-11015/280/2013-IA.II(M) dated 16-02-2018
	30.0	J-11015/280/2013-IA-II(M) dated 26-07-2022

ii. The PP has submitted the Baseline data generated for the period from October, 2022 to



December, 2022 and submitted the EIA/EMP report based on standard ToR.

- iii. Approved Mining plan & Mine Closure plan by MCL board for 30.0 MTPA vide dated 26.07.2022.
- iv. Certified Compliance Report vide dated 23.01.2023 for the Environmental clearance issued on 16.02.2018 and 02.05.2022 (Amendment in EC) has been submitted after based on inspection conducted by Ministry's IRO.
- v. The life of mine is 4 years.
- vi. The PP has submitted the proposed dispatch route in respect of Bhubaneswari OCP 30 MTY Project such as:
  - a. Reduction of 10 MTPA coal dispatch through road, after full fledged operation of Conveyor + Silo arrangement 10 MTPA (near siding 3 & 4) after Mar 2023.
  - b. Reduction of 15 MTPA coal dispatch through road, after full fledged operation Conveyor + Silo arrangement 15 MTPA (near siding 5 & 6) after Oct 2023.

Existing Scenario					After Mar 2023					After Oct 2023				
Siding 1 & 2	Siding 3 & 4	Siding 5 & 6	Dedicated coal corridor or Road sale	Total	Siding 1 & 2	Siding 3 & 4	Closed conveyor To SIL O 10 Mty Capacity	Dedicated coal corridor or Road sale	Total	Siding 1 & 2	Closed conveyor To SIL O 10 Mty Capacity	Closed conveyor to SIL O 15 Mty capacity	Mechanised truck loading system to Dedicated Coal Corridor or Road sale	Total
Through internal dedicated CT roads not passing through any village.					Through internal dedicated CT roads not passing through any village.					Through internal dedicated CT roads not passing through any village.				
14	10	2	04	30	12	05	10	03	30	05	10	12	03	30

**41.10.4** *The EAC, after deliberations observed that instant project has been submitted in compliance of Ministry's OM dated 7<sup>th</sup> May, 2022 wherein expansion in capacity was granted in advance (10% beyond 40% from the existing capacity) subject certain conditions related to submission of EIA-EMP report and compliances of existing EC conditions within six months alongwith other statutory requirements. This EC was granted on 26<sup>th</sup> July, 2022 by MoEF&CC due to shortage of coal in the country and as per the condition contained therein. The committee observed that proposal was submitted by delay of more than one month beyond the prescribed time limit of six months.*

*Further, it was observed that project proponent has submitted the Baseline data, certified compliance report and consent to operate to the Ministry and EIA/EMP report based on standard ToR. However, Committee opined that there are number of non-compliances in the previous EC and their amendment. Subsequently, project proponent has submitted in their undertaking that after October, 2023 transported of coal by rail for 25 MTPA and by road for 5 MTPA. The Committee emphasised to implement the transportation plan of coal by Rail for 28 MTPA and by road for 2 MTPA.*

*During the discussion, committee highlighted the issues of plantation before the project proponent and advised to start acting upon the same. The plantation should include the native species and fruit bearing tress only. Committee also suggested installing another CAAQMS system, which noted to be not installed by PP. The committee observed that the fog canon system still not installed in the defined location which plays an important role to mitigate the dust. Therefore, committee suggested to immediately take action against the same. The same should be audited by any other agency after installation & implementation.*

*In view of the above committee **deferred** the proposal and advised to start acting upon the above highlighted issues. The proposal may again be reviewed after 5 months after satisfactory compliance with documentary proof.*

- i. The PP shall install another CAAQMS towards village side within six months and the data to be displayed for local villagers.*
- ii. PP shall submit the action plan of mechanized conveyor system for transportation of coal till railway siding with silo loading facility upto 28 MTPA and only 2 MPTA road transportation*
- iii. PP shall submit plan to convert 100% haul road from unpaved to paved to reduce the emission of fugitive dust.*
- iv. PP shall submit mitigation plan for dust emission from Coal Handling Plant and Coal storage yard.*
- v. PP shall submit the compliance of earlier issues raised during Public Hearing and budget spent on the said issues.*
- vi. PP shall submit the effluent characteristics of its ETP and STP with copy of CTO.*
- vii. PP shall submit the action plan for development of 5 ha Sal nursery and also further plantation of Sal trees in mine lease. The plantation on Slope of Overburden shall be expedited and provide the details of the same.*
- viii. PP shall submit the improvement in air quality and other environmental parameters after implementation of mitigation measures as proposed in current EIA/EMP report.*
- ix. PP shall submit the status of mine closure activity already conducted and further activities as per approved Mine Plan and Mine Closure Report.*

*In view of above, the proposal was **deferred** for submission of compliance.*

## **Agenda No. 41.11**

**Expansion of Kalyan Khani Opencast Coal Mine from 2 MTPA to 3.375 MTPA with reduction in mine lease area from 945.21 ha to 853.13 ha by M/s The Singareni Collieries Company Limited, located in District Adilabad (Telangana) – For Terms of Reference reg.**

**[Online Proposal No. IA/TG/CMIN/403165/2023; File No. J-11015/21/2009-IA.II (M)]**

**41.11.1** The proposal is for Terms of Reference for project “Expansion of Kalyan Khani Opencast Coal Mine from 2 MTPA to 3.375 MTPA with reduction in mine lease area from 945.21 ha to 853.13 ha by M/s The Singareni Collieries Company Limited, located in District Adilabad (Telangana).”

**41.11.2** Details of the proposal, as ascertained from the proposal documents, are given as under:

- (i) The project area is covered under Survey of India Topo Sheet No. 56 M/8 and is bounded by North Latitudes 19° 00’ 3.417163” - 19° 02’ 32.528997” and East Longitudes 79° 27’ 0.642218” – 79° 28’ 41.172646”.
- (ii) Coal linkage as per fuel Supply Agreement of the Company
- (iii) The joint venture cartel has been formed - Not Applicable.
- (iv) The project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC’s vide its OM dated 13<sup>th</sup> January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation is around 788.
- (vi) The project is reported to be beneficial in terms of socio-economics and improving living standards.
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification S.O. 1533 (E) dated 14<sup>th</sup> September, 2006 vide Ministry’s letter No No.J-11015/21/2009-IA-II(M) dated 19<sup>th</sup> March, 2015 for 1.75 MTPA Normative and 2.0 MTPA Peak in mine lease area of 945.21.ha.
- (viii) Terms of Reference granted on - (for EC proposals) : NA
- (ix) Total mining lease area is 853.13 ha. Mining Plan and Mine Closure Plan was approved by MoC on dated 18<sup>th</sup> August, 2022.
- (x) The land usage pattern of the project is as follows:

Pre-mining land use details

Land Type	Area (ha)
Agricultural	402.45
Township	109.74
Barren	281.37
Water Bodies	33.88
Road	0.83
Plantation	24.86
Total	853.13

Post Mining:

Type	Post Closure Land Use (ha)			
	Plantation	Water Body	Undisturbed	Total
Excavation Area				
Backfilled Area	184.13			184.13
Excavated Void		179.17		179.17
Top Soil Dump	6.30			6.30
External Dump (Including rationalization area)	213.64			213.64
Safety Zone	103.94			103.94
Diversion/ below River/Nala/canal		23.67		23.67
Settling pond		1.02		1.02
Road & Infrastructure area	27.75			27.75
Garland drains		4.26		4.26
Undisturbed/Mining right for UG			109.25	109.25
Total	535.76	208.12	109.25	853.13

- (xi) Total Net geological reserve reported in the mine lease area is 63.22 Mt with 45.25 Mt mineable reserves. Out of total mineable reserves 40.79 Mt are extractable, out of which 16.81 Mt were already extracted by Fy 2021-22 and 23.88 Mt are available for extraction. Percent of extraction is 64.52 %.
- (xii) 11 seams viz., IB, IA, I, II(Top Section), II (Bottom Section), LB, IIIB, IIIA, III, IV(Top Section), IV (Bottom Section) with thickness ranging from 0.08 m to 5.08 m are workable. Grade of coal is G-10. Stripping ratio 12.04 Cum of OB per 1 tonne of coal, while gradient is varying from 1 in 3.4 to 1 in 7.3.
- (xiii) Method of mining operations is by open-cast method.
- (xiv) Life of mine is 12 years from 01.04.2023.
- (xv) The project has One (1) external OB dump in an area of 213.64 ha with +90 m height and 117.30 Mm<sup>3</sup> of Total OB (Hard OB: 111.85 Mm<sup>3</sup> and Top Soil 5.45 Mm<sup>3</sup>). Internal OB in an area of 184.13 ha with 248.19 Mm<sup>3</sup> of Total OB (Hard OB: 246.37 Mm<sup>3</sup> and Top Soil 1.82 Mm<sup>3</sup>) is envisaged in the project.
- (xvi) Total quarry area is 363.23 ha out of which backfilling will be done in 184.13 ha which shall be reclaimed with plantation while final mine void will be created in an area of 179.17 ha with a depth of 230 m. Final mine void will be converted into water body.
- (xvii) Transportation of coal in the opencast workings has been proposed as follows:
- Existing system of coal transport: by Dumpers from Quarry to pit head CHP, by Trucks from pit head CHP to siding and by Rail from siding to consumers.
  - Proposed change after establishment of siding: by belt conveyor from pit head CHP to proposed new railway siding.
- (xviii) Reclamation Plan in an area 535.76 ha, comprising of 213.64 ha of external dump, 184.13 ha of internal dump and 103.94 ha of Safety Zone and 6.05 ha in others (Infrastructure Area) proposed for green belt development.
- (xix) No Forest Land is involved in this project

- (xx) There are no National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project.
- (xxi) Wildlife conservation plan for schedule – I species for mines of Mandamarri Area is approved for Rs.554.70 ha vide Ref:-PCCF-WL1/WL14/9-2022, Dated 05/02/2023.
- (xxii) The ground water level has been reported to be varied between 3.69 m to 12.41 m during pre-monsoon and between 0.40 m to 9.36 m during post-monsoon. The total water requirement for the project is 2300 KLD.
- (xxiii) Ground Water Clearance was obtained vide Lr. No.157/T/2008, Dated 30.04.2009 for existing project. Application submitted for proposed expansion.
- (xxiv) Public hearing for the project for the proposed expansion will be conducted as per the ToR condition.
- (xxv) Consent to operate for the existing project was obtained from state PCB for Kalyan khani opencast project with Consent Order No.220523624450, valid up to 31<sup>st</sup> March 2027.
- (xxvi) Suddala vagu , an ephemeral stream, is passing through the quarry area. The nallah was already diverted for 1.7 km length in 1st phase and remaining diversion of nallah for 2.3 km length is under progress.
- (xxvii) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is being submitted to State Pollution Control Board and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- (xxviii) No court cases, violation cases are pending against the project of the PP.
- (xxix) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the mine was started from the year onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations. The coal production, realized from the project, from the inception (2017-18) is as under:

Year	EC Capacity (MTPA)	Actual Production (MTPA)	Excess production beyond the EC sanctioned capacity (MTPA)
2017-18	Normative- 1.75 (peak 2.00)	1.01	Nil
2018-19		0.79	Nil
2019-20		1.75	Nil
2020-21		1.34	Nil
2021-22		1.76	Ni

- (xxx) No R&R is involved in the proposed expansion project.
- (xxxii) The total cost of the project is Rs. 384.32 Crores. Cost of production is Rs. 2564 per tone Sale Price Rs. 2338 per Tonne. Environment Management Cost is Rs 32.97 crores (Capital) and Rs 15.87 Per / Tonne (Recurring).
- (xxxiii) Consent to operate was obtained from state PCB on 23<sup>rd</sup> May, 2022 and is valid till 31st March, 2027.

**41.11.3** The EAC, during deliberation noted the following:

- i. The proposal for Terms of Reference has been submitted for expansion in capacity reduction in mine lease area.
- ii. Earlier, EC vide letter No. J-11015/21/2009-IA-II(M) dated 19.05.2015 for capacity of 1.75 MTPA Normative and 2.0 MTPA Peak was granted by Ministry. Amendment in EC for relaxation in time period to install conveyor system was granted on 24<sup>th</sup> January, 2020 and 2<sup>nd</sup> May, 2022.
- iii. Mining Plan and Mine Closure Plan vide dated 18.08.2022 for the mine lease area of 853.13 ha.
- iv. Life of mine is 12 years from 01.04.2023.
- v. The PP has submitted the Wildlife conservation plan for schedule – I species for mines of Mandamarri Area is approved for Rs.554.70 ha vide letter no. PCCF-WL1/WL14/9-2022 dated 05/02/2023.
- vi. No Forest Land is involved in this project required for non-forestry activity.
- vii. The PP has obtained the Ground Water Clearance vide letter No. 157/T/2008 dated 30.04.2009 for existing project. Application has been submitted by the project proponent for proposed expansion.
- viii. It was noted that Suddala vagu, an ephemeral stream passing through the quarry area is proposed to be diverted. The nallah was already diverted for 1.7 km length in 1<sup>st</sup> phase.

**41.11.4** *The EAC, after deliberation observed that the instant proposal is brown field project for expansion in production capacity. After deliberation, committee suggested to the project proponent for completing the compliance of previous EC conditions and same to be certified from IRO. The project proponent needs to submit certified compliance report before submission of application for Environmental Clearance for all previous ECs and EC amendments. The committee has suggested quantifying the exact requirement of water for the mining. The Project proponent shall also submit the safety measure that has been already taken to recharge Ground water in the same mine area.*

*The committee also emphasized to submit the EIA-EMP report with physical progress of construction of in-pit belt conveyor/coal transport mechanized system as per previous EC. The PP shall also submit the status of work in progress. The committee emphasized to incorporate the transportation plan and current environment condition in the EIA report. The committee desired from the project proponent to mention the major features of wildlife conservation plan.*

*Based on the above discussion, EAC **recommended** the proposal for Terms of Reference for Expansion of Kalyan Khani Opencast Coal Mine from 2 MTPA to 3.375 MTPA with reduction in mine lease area from 945.21 ha to 853.13 ha by M/s The Singareni Collieries Company Limited, located in District Adilabad (Telangana), under the provisions of EIA Notifications, 2006 and its*

*amendments therein, with following additional specific conditions to be followed:*

- (i) Public Consultation, including public hearing, shall be conducted through concerned SPCB in the concerned districts 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.*
- (ii) The PP shall submit the EIA-EMP report with physical progress of inpit belt conveyer /mechanized system as per laid down condition of previous EC.*
- (iii) PP shall submit the proposal of EC only after completion of EC conditions stipulated in earlier EC dated 19.05.2015 and its amendments.*
- (iv) PP shall submit certified compliance report of already issued EC and Amendment in ECs from Ministry's IRO.*
- (v) PP shall quantify the water requirement as per the existing mining activity and based on the proposed expansion.*
- (vi) The PP has to incorporate transportation plan and impact of mining in the EIA report.*
- (vii) The PP shall submit the major features of wildlife conservation plan along with their implementation plan and amount already spent on wildlife conservation.*
- (viii) PP should submit the real time aerial footage and video of the Mining lease area made through drone with a special focus on stream passing through mine lease area.*
- (ix) PP shall extract coal from virgin area in the block only through surface miner.*
- (x) 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.*
- (xi) PP shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs.*
- (xii) Inpit conveyer belt with silo loading should be proposed and installed for transportation of coal till railway siding. No transportation of coal by trucks/dumpers shall be proposed in EIA/EMP.*
- (xiii) Wind rose pattern in the area should be reviewed and accordingly location of AAQMS shall be planned by the collection of air quality data. 12 nos of Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area.*
- (xiv) Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.*
- (xv) PP shall provide the details of mining technology/methodology proposed to be adopted for coal mining operations and its associated environmental benefits of using from Climate Change perspective.*
- (xvi) Detailed Social Impact Assessment shall be prepared in villages for Rehabilitation and Re-settlement. R & R Activity shall be proposed with timeline and allotted fund with the approval of District Commissioner/collector. A need based sample survey, family-wise, should be undertaken to assess their requirements, and action programs prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government.*
- (xvii) Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA) only for mining activity.*

- (xviii) Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report. Further, detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.
- (xix) No mining activity shall be proposed on grazing land till the alternate land is provided of same area to the community.
- (xx) PP should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.
- (xxi) PP shall provide provision of mine reclamation cum land form / land scape plan for Open cast coal mining projects. The plan must show the predicted post mining reclaimed and reformed surface by regarding and reshaping to reduce its height as close to the original surface level and proper sloping benching and terracing of external dump should be clearly brought out in the post mine closure plan. This would also include water management strategies such as surface water catchment and drainage paths etc. of post mining land surface.
- (xxii) PP shall propose to use LNG/CNG based mining machineries and trucks for mining operation and transportation of coal.
- (xxiii) PP shall submit letter from Principal Chief Conservator of Forest, State Government that the area does not falls under any Eco-sensitive zone and areas and further is no corridor of Elephants & Tigers.
- (xxiv) PP shall submit approved list of species for flora and fauna in the core and buffer area from District Forest Officer, State Government.
- (xxv) Details of toe wall and garland drain to be constructed along the OB dump.
- (xxvi) Reclamation to be done using geo-texturing technique of the dumps close to habitation and a cause of visual intrusion.
- (xxvii) 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.

## **Agenda No. 41.12**

**Bijahan Opencast Coal Mine with capacity of 5.26 MTPA in mine lease area of 1100 ha. of M/s Mahanadi Mines and Minerals Private Limited located at Village Bijahan, Bhograkachhar, Girisima, and Jharpalam, Tehsil Hemgir, District Sundargarh (Orissa) – For Terms of Reference reg.**

**[Online Proposal No. IA/OR/CMIN/420595/2023:- File No. J-11015/237/2013-IA-II(M)]**

**41.12.1** The proposal is for Terms of Reference for Bijahan Opencast Coal Mine with capacity of 5.26 MTPA in mine lease area of 1100 ha. of M/s Mahanadi Mines and Minerals Private Limited located at Village Bijahan, Bhograkachhar, Girisima, and Jharpalam, Tehsil Hemgir, District Sundargarh (Orissa).



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

- (i) The project area is covered under Survey of India Topo Sheet No. 64N/12 (RF 1:50,000) and is bounded by the geographical coordinates ranging from 22<sup>0</sup> 04' 50" N to 22<sup>0</sup> 07' 01" N and longitudes 83° 35' 29" E to 83° 37' 41" E.
- (ii) Coal linkage of the project is not applicable as the mine is commercial coal mine.
- (iii) No Joint venture cartel has been formed
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation- Direct and Indirect employment to 1270 Persons will be provided from the project.
- (vi) The project is reported to be beneficial in terms of energy security for the development of country.
- (vii) The Bijahan coal block in MCL area, covering an area of 1100 Ha, has been allotted to M/s Mahanadi Mines and Minerals Private Limited for Commercial Coal Mining purpose by GoI, Ministry of Coal vide order no. NA-104/4/2022-NA, dated 10th October 2022.
- (viii) Total mining lease area as per block allotment is 1100ha. Mining plan was approved vide letter No. 13016/33/2005-CA-I dated 13<sup>th</sup> August 2008 & Mine Closure Plan was approved vide letter No. 34011/30/2012-CPAM dated 11<sup>th</sup> November 2013 by Ministry of Coal, Government of India.
- (ix) The land usage pattern of the project is as follows:

Pre-mining land use details (Area in 1100 Ha)

Name of Village & Tehsil	Non- Forest Land (In Ha)	Forest Land (In Ha)	Total Area (In Ha)
<b>Tehsil-Hemgir</b>			
Bijahana	197.51	57.48	254.99
Bhagarakachhara	120.37	50.11	170.48
Girisuan	88.88	21.51	110.39
Jharpalanka	84.6	21.78	106.38
Jamakani (RF)	0	457.76	457.76
Total	491.36	608.64	1100

**Post Mining**

S. No	Description of area	Land use (Ha.)				
		Plantation	Water Body	Public use	Undisturbed	Total
1	Top soil dump	0	-	-	-	0

S. No	Description of area	Land use (Ha.)				
		Plantation	Water Body	Public use	Undisturbed	Total
2	Surface dump	0	-	-	-	0
3	Excavation	495.54	136.00	-	-	631.54
4	Roads/ facilities	10	-	30.0	-	40
5	Surface water reservoir	-	-	20.0	-	20
6	Green belt	14.8	-	-	-	14.8
7	Undisturbed area	-	-	-	393.66	393.66
<b>Total</b>		<b>520.34</b>	<b>136.0</b>	<b>50.0</b>	<b>393.66</b>	<b>1100</b>

- (x) Total geological reserve reported in the mine lease area is 327.02 MT with 185.24 MT mineable reserve by Opencast mining. Out of total mineable reserve of 185.24 MT, 161.2 MT are available for extraction. Percent of extraction is 87.022%.
- (xi) 13 seams with thickness ranging from 0.05m to 33.7 m are workable Percentage of F grade coal (65.05%) is high and the ROM is expected to give F and G grade to the extent of 73.31%.
- (xii) Method of mining operations envisages by Opencast Mining: shovel-dumper combination will be used to excavate coal. Technical study for deployment of surface miner is under progress.
- (xiii) Life of mine is 32.5 years. (Including construction)
- (xiv) The project has 1 external OB dumps (temporary) in an area of 38.86 ha with 40m height and 9.79 Mm<sup>3</sup> of OB. 1 internal OB in an area of 495,54 ha with 372.74 Mm<sup>3</sup> of OB is envisaged in the project.
- (xv) Total quarry area 631.54 ha out of which backfilling will be done in 495.54 ha while final mine void will be created in an area of 136 ha with a depth of 150m. Backfilled quarry area of 495.54 ha shall be reclaimed with plantation. Final mine void will be converted water body.
- (xvi) Transportation of coal has been proposed by 35 T RD truck to Pithead stock yard within lease area, and for outside lease the coal block has been allocated for commercial usages of coal so based on location of customer, the coal will be transported using rail or road option.
- (xvii) Reclamation Plan in an area of 520.43 ha, 495.54 ha of internal dump and 24.80 ha of green belt.
- (xviii) 608.84 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 608.84 ha of forest land for non-forestry purposes has been submitted dated 14.02.2023.
- (xix) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project.
- (xx) Wildlife conservation plan for schedule – I species has been submitted –shall be submitted for approval.

- (xxi) The ground water level has been reported to be varying between 4 m bgl to 5 m bgl during pre-monsoon and between 3 m bgl to 3.5 m bgl during post-monsoon. To water requirement for the project is 1600 KLD.
- (xxii) Application for obtaining the approval of the Central Ground Water Authority is to be submitted.
- (xxiii) Consent to Operate for the proposed capacity to be obtained after environment clearance to State Pollution Control Board
- (xxiv) River/nalla is flowing within the boundary of lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government.
- (xxv) No court cases, violation cases are pending against the project of the PP.
- (xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the mine was started from the year onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations. The coal production, realized from the project, from 1993-94 onwards, is as under:
- (xxvii) The project involves 434 project affected families. R&R of the PAPs will be done as per prevailing laws.
- (xxviii) Total cost of the project is Rs. 260000 Lakh.

**41.9.3** The EAC during deliberations noted the following:

- PP submitted a greenfield project for opencast coal mine allocated by Ministry to Coal in mine lease area 1100 ha wherein forest land covers 608.64 ha of land.
- The Bijahan coal block has been allotted to M/s Mahanadi Mines and Minerals Private Limited for Commercial Coal Mining purpose by GoI, Ministry of Coal vide order no. NA-104/4/2022-NA, dated 10th October 2022.
- Total mining lease area as per block allotment is 1100ha. Mining plan was approved vide letter No. 13016/33/2005-CA-I dated 13<sup>th</sup> August 2008 & Mine Closure Plan was approved vide letter No. 34011/30/2012-CPAM dated 11<sup>th</sup> November 2013 by Ministry of Coal, Government of India.
- Application for diversion of forest land for 608.64 Ha has been submitted on Parivesh Portal vide Proposal no – FP/O/MIN/QR/416053/2023 on 14.02.2023.
- It was also noted that instant mine is also proposed for underground mining after 32.5 years (as per calendar program of mining operation in Mine Plan). This proposed underground mine consists of forest (366.77 ha) as well as non-forest land (16.41 ha). Currently PP has submitted the FC proposal for all the forest land involved in the mine lease area.
- PP has proposed for realignment of Budajolia Nallah which is flowing southward through SE corner of ML, to be aligned along the block boundary (1.2 km)

**41.12.4** *The EAC, after detailed deliberation observed the proposal is of Terms of Reference for a greenfield project. It was observed that though PP has proposed for only opencast coal mine but as per pre-feasibility and reserves details submitted, the project involves opencast and underground coal*

*mine operation and underground operation is proposed after 32 years. It was desired that PP shall exclude the underground mine area having majority of forest land (total 366.77 (forest land) + 16.41 ha (non- forest land)) since it is proposed after 32 years. This should be preserved forest and its ecology and accordingly permanent fencing along this forest land shall be conducted. Further, it was found that there are non-essential infrastructure/activities proposed on forest land such was water reservoir, pit head facilities, the same shall not be considered on forest land. EAC also desired that PP should not divert the forest land covering underground area for next 32 years till UG operations starts as given their own feasibility report*

*Also, PP has proposed realignment of Budajolia Nallah/stream along the block boundary. It was desired that PP shall not conduct activity along the said nallah/stream and keep a minimum of 60 mtrs distance all along the nallah/stream.*

*While discussing the mode of transportation for evacuation of coal, EAC suggested to implement railway siding near to the mine in collaboration with other mine owners and submit the plan of implementation during EC presentation.*

*Based on the above discussion, EAC **recommended** the proposal for Terms of Reference for Bijahan Opencast Coal Mine with capacity of 5.26 MTPA in mine lease area of 1100 ha. of M/s Mahanadi Mines and Minerals Private Limited located at Village Bijahan, Bhograkachhar, Girisima, and Jharpalam, Tehsil Hemgir, District Sundargarh (Orissa), under the provisions of EIA Notifications, 2006 and its amendments therein with following additional specific conditions and applicable Standard ToR to be followed:*

- (i) Public Consultation, including public hearing, shall be conducted through concerned SPCB in the concerned districts 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.*
- (ii) PP shall submit drone video of mine lease area and nearby effected villages.*
- (iii) The PP shall submit the transportation related option study to optimize the transportation system through rail/road. Further, submit the plan of implementation for inpit conveyor belt with silo loading system till railway siding, near to the mine in collaboration with other mine owners.*
- (iv) PP shall submit Letter of Intent from concerned State Government based on allocation of coal block from Ministry of Coal.*
- (v) PP shall not conduct activity along the Budajolia Nallah/stream and keep a minimum of 60 mtrs distance all along the nallah/stream, accordingly no alignment or diversion is to be conducted to the said stream.*
- (vi) PP shall exclude the underground mine area having majority of forest land (total 366.77 (forest land) + 16.41 ha (non-forest land)) from its FC proposal and submit action plan for permanent fencing along this forest land.*
- (vii) PP shall submit the approved revised Mine Plan as per recommendation and observations of EAC.*

- (viii) *PP shall not propose any non-essential infrastructure/activities proposed on forest land such as water reservoir, pit head facilities, overburden dump etc on non-coal bearing forest land.*
- (ix) *PP shall submit the alternate land of same area for grazing/gouchar land coming in the mine lease area*
- (x) *Wind rose pattern in the area should be reviewed and accordingly location of AAQMS shall be planned by the collection of air quality data. Adequate nos of Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area.*
- (xi) *Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.*
- (xii) *PP shall provide the details of mining technology/methodology proposed to be adopted for coal mining operations and its associated environmental benefits of using from Climate Change perspective.*
- (xiii) *Detailed Social Impact Assessment shall be prepared in villages for Rehabilitation and Resettlement. R &R Activity shall be proposed with timeline and allotted fund with the approval of District Commissioner/collector. A need based sample survey, family-wise, should be undertaken to assess their requirements, and action programs prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government.*
- (xiv) *Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA) only for mining activity.*
- (xv) *Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report. Further, detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.*
- (xvi) *PP should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.*
- (xvii) *PP shall explore to use LNG/CNG based mining machineries and trucks for mining operation and transportation of coal.*
- (xviii) *PP shall submit letter from Principal Chief Conservator of Forest, State Government that the area does not falls under any Eco-sensitive zone and areas and further is no corridor of Elephants & Tigers. Also, it should include with certified map with exact distance from any Wildlife Sanctuary.*
- (xix) *PP shall submit approved list of species for flora and fauna in the core and buffer area from District Forest Officer, State Government.*
- (xx) *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.*

### **41.13 Additional Item**

**Wet Type Coal Washery Project based on Heavy Media Cyclone with a capacity of 2.5 MTPA in an area of 3.598 Ha by M/s Horizon Coal Beneficiation Private Limited located at Village Bhaneshar, Tehsil Masturi, District Bilaspur (Chhattisgarh) – For Environmental Clearance – reg.**

**41.13.1** The proposal for grant of Environmental Clearance was recommended to the project Wet Type Coal Washery Project based on Heavy Media Cyclone with a capacity of 2.5 MTPA in an area of 3.598 Ha by M/s Horizon Coal Beneficiation Private Limited located at Village Bhaneshar, Tehsil Masturi, District Bilaspur (Chhattisgarh) was considered by the sectoral Expert Appraisal Committee (EAC) in its 40<sup>th</sup> EAC Meeting during 16 -17 February, 2023 through physical mode, subject to certain terms and conditions therein. One of the specific conditions as inter-alia mentioned below:

Specific condition (xi): *PP to transport raw coal through dedicated road connected to National Highway to project site and transport 80% washed coal & washery rejects through railway with silo loading at railway siding and 20% washed coal & middling rejects by road. CTO shall be issued accordingly. PP to make arrangement for belt conveyor system to transport coal from washery to railway siding.*

**41.13.2** Project Proponent vide its email dated requested for modification in above condition as in the recommendation of Minutes of Meeting. It proposed for transportation of washed coal and reject through road/rail (20% by rail and 80% by road) with the exemption from wagon loading through silo. Following was submitted by Project Proponent in its justification for the said modification:

As total capacity of Jairamnagar Railway Siding is 60 Rakes/month but due to limited availability of rakes at railway siding. Railway is unable to run the siding at full capacity. Data of inwards and outward rakes for Oct-2022, Nov-2022 and Dec-2022 are given below.

<b>S.No</b>	<b>Month</b>	<b>Inward Rakes</b>	<b>Outward Rakes</b>
1	October-2022	07 (27180.7 MT/Month)	01 (3963.6 MT/Month)
2	November-2022	06 (46166.6 MT/Month)	03 (12233.8 MT/Month)
3	December-2022	03 (11995 MT/Month)	01 (4130.2 MT/Month)

Whereas, project capacity is 2.5 MTPA or 7575 TPD. So, it will be difficult for us to transport clean coal and reject through rail as rakes availability is limited and siding is not operational at full capacity.

Hence, PP has requested change in Specific Cond. XI in minutes of meeting of 40<sup>th</sup> EAC (Coal Mining) as stated table below.

<b>S.No.</b>	<b>As Per Minutes of Meeting</b>	<b>Amendment required</b>
1	<p><b>Specific Cond. xi.</b></p> <p>PP to transport raw coal through dedicated road connected to National Highway to project site and transport 80% washed coal &amp; washery rejects through railway with silo loading at railway siding and 20% washed coal &amp; middling rejects by road. CTO shall be issued accordingly. PP to make arrangement for belt conveyor system to transport coal from washery to railway siding.</p>	<p><b>Specific Cond. xi</b></p> <p>PP to transport total raw coal through dedicated road connected to National Highway to project site and transport 20% washed coal &amp; washery rejects through railway and 80% washed coal &amp; middling rejects by road. CTO shall be issued accordingly.</p>

**41.13.3** *The EAC, after detailed deliberations observed that though rail transportation is always better option than road transportation in terms of economics and environmental conservation however, looking over the current scenario wherein the availability of rakes is limited as submitted by project proponent. Therefore, in view of request of PP, and current scenario, the EAC accordingly recommended to modify the condition with suggestion that PP shall gradually reduce the road transportation for raw coal, washed coal and rejects. Accordingly, further add with mitigation measures to curb fugitive emission due to transportation.*

**The meeting with vote of thanks**

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## Annexure-I

### Standard EC Conditions for Coal Mining Project (Opencast mining):

All the projects recommended for grant of environmental clearance by the EAC shall also comply with the following Standard EC conditions as per Ministry's circular issued from time to time:

**(a) Statutory compliance**

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iii) The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of Schedule-I species in the study area).
- (iv) The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (vi) Solid/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.

**(b) Air quality monitoring and preservation**

- (i) Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
- (ii) The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25<sup>th</sup> September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- (iii) Transportation of coal, to the extent permitted by road, shall be carried out by covered



trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM10/PM2.5) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

- (iv) The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
- (v) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- (vi) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid airborne dust. Side cladding all along the conveyor gantry should be made to avoid airborne dust. Drills shall be wet operated or fitted with dust extractors.
- (vii) Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

**(c) Water quality monitoring and preservation**

- (i) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25<sup>th</sup> September, 2000 and as amended from time to time by the Central Pollution Control Board.
- (ii) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J- 20012/1/2006-1A.11 (M) dated 27<sup>th</sup> May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- (iii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- (iv) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- (v) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water

resources.

- (vi) Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.
  - (vii) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement(standards).
  - (viii) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.
  - (ix) The water pumped out from the mine, after siltation, shall be utilized for industrial purposive. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
  - (x) The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.
  - (xi) The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.
- (d) Noise and Vibration monitoring and prevention**
- (i) Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard.

Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

- (ii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
- (i) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

**(e) Mining Plan**

- (i) Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- (ii) Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- (iii) No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.
- (ii) Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

**(f) Land reclamation**

- (i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- (ii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27<sup>th</sup> August, 2009 and subsequent amendments.
- (iii) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the “during mining”/“post mining” land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
- (iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3<sup>rd</sup> November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

- (v) Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
- (vi) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.
- (g) Green Belt**
  - (i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
  - (ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.
- (h) Public hearing and Human health issues**
  - (i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six-monthly basis.
  - (ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.
  - (iii) Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
  - (iv) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
  - (v) The project proponent shall follow the mitigation measures provided in this Ministry's

OMNo.Z-11013/5712014-IA.II (M) dated 29<sup>th</sup> October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

**(i) Corporate Environment Responsibility**

- (i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No.22-65/2017-IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- (ii) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.
- (iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- (iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- (v) Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

**(j) Miscellaneous**

- (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The project proponent shall monitor the criteria pollutants level namely; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>(ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the

company.

- (v) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (vi) The project proponent shall follow the mitigation measures provided in this Ministry's OMNo.Z-11013/5712014-IA.II (M) dated 29<sup>th</sup> October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.
- (vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- (viii) The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
- (xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- (xvi) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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## **Annexure-II**

### **Standard EC Conditions for Coal Mining Project (Underground mining):**

All the projects recommended for grant of environmental clearance by the EAC shall also comply with the following Standard EC conditions as per Ministry's circular issued from time to time:

#### **I. Statutory compliance:**

- (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 forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- (iii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iv) The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of schedule-I species in the study area)
- (v) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- (vi) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (vii) Solid waste/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016

#### **II. Air quality monitoring and preservation**

- i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO<sub>2</sub> and NO<sub>x</sub>. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. to be carried out at least once in six months. Online ambient air quality monitoring station/stations may also be installed in addition to the regular air

monitoring stations as per the requirement and/or in consultation with the SPCB

- ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water sprinkling/rain gun/mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- iv. Major approach roads shall be black topped and properly maintained.
- v. The transportation of coal shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed that the impact of sound, dust and accidents could be appropriately mitigated.
- vi. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- vii. Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid airborne dust. Side cladding all along the conveyor gantry should be made to avoid airborne dust. Drills shall be wet operated or fitted with dust extractors.
- viii. Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

### **III. Water quality monitoring and preservation**

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J- 20012/1/2006-1A.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- iii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be



carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

- iv. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- v. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- vi. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.
- vii. 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
- viii. The water pumped out from the mine, after siltation, shall be utilized for industrial purposive. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
- ix. Industrial waste water from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste water.
- x. Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- xi. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.
- xii. The project proponent shall take all precautionary measures to ensure reverian/ riparian

ecosystem in and around the coal mine upto a distance of 5 km. A revarian /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

#### **IV. Noise and Vibration monitoring and prevention**

- i. Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in underground mining operations, operation of HEMM, etc. shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms/guidelines in this regard. Progress in usage of such accessories to be monitored. Adequate awareness programme for users to be conducted.
- 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.

#### **V. Mining Plan**

- i. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- ii. No change in mining method i.e. UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).
- iii. 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).
- iv. Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.
- v. No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.
- vi. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

#### **VI. Land reclamation**

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- ii. Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- iii. Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of

observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.

- iv. Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3<sup>rd</sup> November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- v. A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.
- vi. Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.
- vii. Native tree species shall be selected and planted over areas affected by subsidence.
- viii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

## **VII. Green Belt**

- i. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. Action plan, in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife

Department.

- ii. Greenbelt, consisting of three-tier plantation, of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The greenbelt comprising of a mix of native species shall be developed all along the major approach roads/ coal transportation roads.

## **VIII. 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 workers engaged in the Project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS Circulars. Besides carrying out regular periodic health check-up of their workers, 20% of the workers engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.
- iii. Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Skill training as per safety norms specified by DGMS shall be provided to all workmen

- including the outsourcing employees to ensure high safety standards in mines.
- v. Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
- vi. Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/ or the National R&R Policy/ R&R Policy of the State Government, as applicable
- vii. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29<sup>th</sup> October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

#### **IX. Corporate Environment Responsibility**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation/ violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

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

**Annexure-III**

**Standard EC Conditions for Coal Washery Project**

**I. Statutory compliance:**

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iii) The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (incase of the presence of schedule-I species in the study area)
- (iv) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (vi) Solid waste/hazardous waste generated in the washery needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules,2016.
- (vii) Coal beneficiation practices shall be carried out under strict adherence to provisions of the Factories Act, 1957 and subordinate legislations made there under.

**II. Air quality monitoring and preservation**

- i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO<sub>2</sub> and NO<sub>x</sub>. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution

- Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months.
- ii. Continuous ambient air quality monitoring stations as prescribed in the statute established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
  - iii. Transportation of coal by road shall be carried out by covered trucks/conveyors. The transportation of clean coal and rejects shall be by rail with wagon loading through silo. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulates such as roads, belt conveyors, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled at source. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board
  - iv. All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered trucks.
  - v. Covered trucks shall be engaged for mineral transportation outside the washery up to the railway siding, shall be optimally loaded to avoid spillage en-route. Trucks shall be adequately maintained and emissions shall be below notified limits.
  - vi. Facilities for parking of trucks carrying raw material from linked mine shall be created within the unit.
  - vii. Vehicular emissions shall be kept under control and regularly monitored. The vehicles having 'PUC' certificate from authorized pollution testing centres shall be deployed for washery operations.
  - viii. Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.
  - ix. The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.

- x. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.

### **III. Water quality monitoring and preservation**

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-1A.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for compliance.
- iii. Industrial waste water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time.
- iv. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the washery. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side stabilised with plantation so as to withstand the peak water pressure preventing any chance of inundation.
- v. Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.
- vi. The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate compaction and post closure arrangement to avoid water pollution due to leachate from rejects and surface run off from reject dumping sites.
- vii. An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake etc. with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.
- viii. Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.
- ix. Rainwater harvesting in the washery premises shall be implemented for conservation and augmentation of ground water resources in consultation with Central Ground Water Board.
- x. No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 m<sup>3</sup>/tonne of raw coal.
- xi. Regular monitoring of ground water level and quality shall be carried out in and



around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.

- xii. The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government

#### **IV. Noise and Vibration monitoring and prevention**

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

#### **V. Coal beneficiation**

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

#### **VI. Green Belt**

- i. Three tier greenbelt comprising of a mix of native species, of minimum 30 m width shall be developed all along the washery area to check fugitive dust emissions and to render aesthetic to neighbouring stakeholders. A 3-tier green belt comprising of a mix of native species or tree species with thick leaves shall be developed along vacant areas, storage yards, loading/transfer points and also along internal roads/main approach roads.
- ii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble

Supreme Court with regard to acquiring grazing land.

## **VII. Public hearing and Human health issues**

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six-monthly basis. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.
- ii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iii. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
- iv. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29<sup>th</sup> October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

## **VIII. Corporate Environment Responsibility**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

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

## **IX. Miscellaneous**

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during

Public Hearing and also that during their presentation to the Expert Appraisal Committee.

- xi. No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made
- xii. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xiii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xvi. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and 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.
- xvii. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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## **ANNEXURE-IV**

### **Generic ToR for coal washery**

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

avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in EIA/EMP report.

- xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.
- xiii. Impacts of CHP, if any, on air and water quality should also be spelt out along with Action Plan.
- xiv. O.M.no.J-11013/25/2014-IA.I dated 11<sup>th</sup> August, 2014 to be followed with regard to CSR activities.
- xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.
- xvi. Analysis of samples indicating the following be submitted:  
Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc).  
Characteristics and quantum of coal after washing.  
Characteristics and quantum of coal rejects.
- xvii. Details of management/disposal/use of coal rejects should be provided. Therejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyer belt. If it is far away, the transportation should be by rail as far as possible.
- xviii. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.
- xix. Corporate Environment Responsibility:
  - a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
  - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
  - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
  - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- xx. A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.

- xxi. Permission of drawl of water shall be pre-requisite for consideration of EC.
- xxii. Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986
- xxiii. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

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**GENERIC TOR FOR AN OPENCAST COALMINE PROJECT for EC**

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



concerned state.

- (x) Similarly, if the project involves diversion of any road/railway line passing through the ML/project area, the proposed route of diversion and its realignment should be shown in the map along with the status of the approval of the competent authority.
- (xi) Break up of lease/project area as per different land uses and their stage of acquisition should be provided.

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

Sl. No.	Land use	Within ML area (ha)	Outside ML area (ha)	Total
1.	Agricultural land			
2.	Forest land			
3.	Wasteland			
4.	Grazing land			
5.	Surface water bodies			
6.	Settlements			
7.	Others (specify)			
	<b>TOTAL</b>			

- (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/forestland/grazing land, should be provided.
- (xiv) One-season (other than monsoon) primary baseline data on environmental quality - air (PM10, PM2.5, SO<sub>x</sub>, NO<sub>x</sub> and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xv) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats,

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

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

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

Table 1: Stage-wise Land use and Reclamation Area (ha)

S.N.	Land use Category	Present (1 <sup>st</sup> Year)	5 <sup>th</sup> Year	10 <sup>th</sup> Year	20 <sup>th</sup> Year	24 <sup>th</sup> Year (end of mine life)*
1.	Backfilled Area Reclaimed with plantation)					
2.	Excavated Area (not reclaimed)/void					
3.	External OB dump Reclaimed with plantation)					
4.	Reclaimed Top soil dump					
5.	Green Built Area					
6.	Undisturbed area(brought under plantation)					
7.	Roads (avenue plantation)					
8.	Area around buildings and Infrastructure					
	TOTAL					

\* As a representative example

Table 2 : 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 mine life)					
10.	34-37 <sup>th</sup> Year (Post-mining)					

\* As a representative example

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

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

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

(xxxii) Flow chart of water balance should be provided. Treatment of effluents from workshop, township, domestic wastewater, mine water discharge, etc. should be provided. Details of STP in colony and ETP in mine should be given. Recycling of water to the max. possible extent should be done.

(xxxiii) Occupational health issues. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower in the mine should be given.

(xxxiv) Risk Assessment and Disaster Preparedness and Management Plan should be provided.

(xxxv) Integration of the Env. Management Plan with measures for minimizing use of natural resources - water, land, energy, etc. should be carried out.

(xxxvi) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.

(xxxvii) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the

resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.

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

(xxxix) Corporate Environment Responsibility:

- a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
  - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
  - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
  - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- (xl) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.
- (xli) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xlii) Status of any litigations/ court cases filed/pending on the project should be provided.
- (xliii) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and 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/PROJECT AREA (ha)	TOTAL FORESTLAND AND (ha)	Date of FC	Extent of forestland	Balance area for which FC is yet to be obtained	Status of appl for. diversion of forest land

		If more than, provide details of each FC			
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**ANNEXURE -VI**

**GENERIC TORs FOR AN UNDERGROUND COALMINEPROJECT**

- (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 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.
- (iv) 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.
- (v) 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.

- (vi) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.
- (vii) Original land use (agricultural land/forestland/grazing land/wasteland/waterbodies) of the area should be provided as per the tables given below. Impacts of project, if any on the land use, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations should be analyzed. Extent of area under surface rights and under mining rights should be specified.

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

#### Area under Surface Rights

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

- (viii) 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.
- (ix) 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.

- (x) 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.
- (xi) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM<sub>10</sub>, PM<sub>2.5</sub>, 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.
- (xiii) 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.
- (xiv) 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.
- (xv) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.
- (xvi) Detailed water balance should be provided. The breakup of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.

- (xvii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.
- (xviii) 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.
- (xix) 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.
- (xx) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.
- (xxi) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.
- (xxii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.
- (xxiii) 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.
- (xxiv) Greenbelt development should be undertaken particularly around the transport route and CHP. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be submitted.
- (xxv) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxvi) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.

- (xxvii) 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.
- (xxviii) Corporate Environment Responsibility:
- a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
  - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
  - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
  - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- (xxix) 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.
- (xxx) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xxxi) Status of any litigations/ court cases filed/pending on the project should be provided.
- (xxxii) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.
- (xxxiii) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

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

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

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**ANNEXURE-VII**

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

- (i) An EIA-EMP Report would be prepared for a combined peak capacity of....MTPA for OC-cum-UG project which consists of.... MTPA in anML/project area of ha for OC and .... MTPA for UG 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) The ToRs prescribed for both opencast and underground mining are applicable for opencast – cum underground mining.
- .....

**LIST OF PARTICIPANTS OF EAC (COAL) IN 41<sup>st</sup> MEETING HELD DURING 13-14 MARCH, 2023 THROUGH VIDEO CONFERENCING**

1.	<b>Shri G.P Kundargi</b>			<b>2- DAYS</b>
		-	Chairman	P
2.	Dr. N. P. Shukla	-	Member	A
3.	Shri Suramya Dolarray Vora, IFS (Retd)	-	Member	P
4.	Dr. Umesh Jagannathrao Kahalekar	-	Member	P
5.	Shri K.B. Biswas	-	Member	P
6.	Dr. Nandini.N	-	Member	A
7.	Dr. Unmesh Patnaik	-	Member	A
8.	Professor S S Rai, Representative of IIT/ISM Dhanbad	-	Member	P
9.	Shri M.P Singh, Representative of CEA	-	Member	P
10.	Dr. Santosh Kumar Hampannavar	-	Member	P
11.	Prof R.K. Giri Representative of IMD	-	Member	A
12.	Dr. Nazimuddin Representative of Central Pollution Control Board	-	Member	P
13.	Shri Lalit Bokolia, Director, MoEFCC	-	Member Secretary	P