

MINUTES OF 29th MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENT APPRAISAL OF COAL MINING PROJECTS HELD ON 25th – 26th April, 2022 THROUGH VIDEO CONFERENCE.

Confirmation of the Minutes of 28th Meeting of the EAC (Coal) held on 1st April, 2022: The minutes of the 28th meeting of the EAC held during 1st April, 2022 as 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 29th meeting of the Expert Appraisal Committee (EAC) for coal mining projects was held on, 25th – 26th April, 2022 through video conferencing with support NIC team due to Covid-19 lockdown. 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. 29.1

Brahampuri Coal Mine Project of 0.36 MTPA (UG) in mine lease area of 360 Ha of M/s Birla Corporation Limited located at villages Bichhua Pathar, Sirgora, Kukurmunda, Chhinda and Sethia, Tehsil Parasia, District Chhindwara (Madhya Pradesh)- For Environmental Clearance-reg

[Online proposal IA/MP/CMIN/178023/2020; F.No J-11015/20/2020-IA-II(M)]

29.1.1 The proposal is for Environment Clearance of Brahampuri Coal Mine Project of 0.36 MTPA (UG) in mine lease area of 360 Ha of M/s Birla Corporation Limited located at villages Bichhua Pathar, Sirgora, Kukurmunda, Chhinda and Sethia, Tehsil Parasia, District Chhindwara (Madhya Pradesh).

29.1.2 The 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 F44G16 and is bounded by the geographical coordinates ranging from 22° 12' 26" N to 22° 13' 46" N and longitudes 78' 51' 18" E & 78' 52' 41" E.
- (ii) As per EIA notification dated 14th September 2006, as amended on date, the project falls under Activity 1 (a) and category 'A' project.
- (iii) The Brahampuri Coal Mine of M/s Birla Corporation Limited located in PENCH Kanhan Coalfield, Parasia Tehsil, Chhindwara district of Madhya Pradesh, India.
- (iv) Total power requirement is estimated to be between 3000 KVA to 4000 KVA excluding the load of township. For emergency power arrangement a DG set of 2 x 500 KVA shall be used for which about 60-70 LPH of HSD shall be consumed.

- (v) Coal linkage of the project is proposed for captive use for various cement plants.
- (vi) 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.
- (vii) The peak rated capacity of Brahampuri Coal Mine is 0.36 MTPA by underground mining with Semi-mechanized board & pillar method with LHD and belt conveyor conveying system with Coal Handling Plant (CHP) of 1200 tons per day.
- (viii) Due to underground coal project a direct employment of about 600 persons shall be envisaged and 1200 persons will get in-direct employment.
- (ix) The project is reported to be beneficial in terms of job opportunity, revenue generation for government and area development.
- (x) Terms of Reference granted on 10.12.2020 by MoEFCC, New Delhi, vide File No- IA-J-11015/20/2020-IA-II(M).
- (xi) Total mining lease area as per block allotment is 360 ha. The Mining Plan (Including Progressive Mine Closure Plan) has been approved by the Ministry of Coal Vide vide letter no. 13016/63/2008-CA-I 23rd April 2010.
- (xii) The land usage pattern of the project is as follows

Pre-mining & during mining

Forest		Pre-Mining Land Use	
Reserve Forest	32.475	Settlement	3.45
Protected Forest	29.181	Water Bodies	Nil
Revenue Forest	88.442	Waste Land	23.457
(A) Total Forest Land 150.098		Grazing Land	Nil
Non-Forest		Agriculture	182.995
Private Land	184.635	Forest Land	150.098
Government Land	25.267		
(B) Total Non-Forest Land 209.902 Ha			
Total Land (A +B) = 360 Ha		Total	360

Post-Mining: Area in Ha

SL. No.	Land Use	Forest Land (Ha)	Non-Forest Land (Ha)	Total Area (Ha)
1	Area under mining undisturbed area over surface	146.407	201.089	347.406
2	Approach Road for public use	0.000	0.704	0.704
3	Plantation at the end of mine life	0.726	3.554	4.280
4	Safety Zone/ Green Belt / Plantation kept as it is	1.000	1.000	2.090

5	Office & others for public use	1.965	3.555	5.520
Total		150.098	209.902	360.0

- (xiii) Total geological reserve reported in the mine lease area is 55 MT with 12.343 MT extractable reserves. Percent of extraction is 22.44 %.
- (xiv) Seven seams with thickness ranging from 1.5 m to 3.48 m are workable. Grade of coal is G-6 as per tender documents, stripping ratio is not applicable due to underground working.
- (xv) Method of mining operations envisages by underground method.
- (xvi) Life of mine is 38 years.
- (xvii) Transportation of coal has been proposed by two main shafts for coal and manpower transportation in UG mine. After mine development the coal from various galleries shall be transported to shaft by a network of LHD-conveyor belts for coal dumping in conveyor and shafts. in mine pit head, from surface to siding by road/rail.
- (xviii) The project involves diversion of 150.098 Ha of forest land for industrial purpose. The forest diversion proposal of Brahampuri has been submitted vide proposal no. FP/MP/MIN/51637/2020 dated 21.10.2020 and the proposal is at advance level of approval.(Recommended by state government and pending at head office, Delhi)
- (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 to DFO, Chhindwara.
- (xxi) The ground water level has been reported to be varying between 3 m to 12.5 m during pre-monsoon and between 2.45 m to 10.50 m during post-monsoon. Total water requirement for the project is 450 KLD.
- (xxii) Approval of the Central Ground Water Authority has been obtained Vide CGWA/NOC/MIN/ORIG/2021/12662, dated: -26.08.2021.
- (xxiii) Public hearing for the project of 0.36 MTPA capacity in an area of 360 ha was conducted on 04.01.2022 at Govt. Primary School, Village: Bichhua Pathar, Tehsil: Parasia, District: Chhindwara, Madhya Pradesh under the Chairmanship of Ms. Rani Batad, Addl. Collector, Chhindwara. The project was welcomed by locals. Few major issues raised in the public hearing include Employment to land looser, Village road development, Health and sanitation programme for villagers, Employment opportunities for local youth & girls, women's etc.
- (xxiv) There is no prominent well developed drainage within the mine lease area. As per toposheet, the area is in a hilly terrain and has a one third order seasonal nalla flowing from north to south east from the lease area. Apart from a nalla two first order nalls flows from the lease area. There is no pond in the lease area. The nallah will not be diverted.
- (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.
- (xxvii) No Rehabilitation and resettlement involved in project.
- (xxviii) Total cost of the project is Rs. 191 Cr. CER cost is Rs. 198.5 Lakhs. Environment Management Cost is Capital 909.9 Lakhs & Recurring 339 Lakhs.

- (xxix) Brahampuri Coal Mine has been allotted to M/s Birla Corporation Limited through vesting order no. NA-104/2/2019-NA dated Feb. 10, 2020 under clause (b) of sub-rule (2) of rule 7 & sub-rule (1) of rule 13 of the Coal Mines (Special Provisions) Rules 2014, issued by Ministry of Coal Govt. of India.
- (xxx) The mine infrastructure comprises of shafts (2 No's), coal handling plant, coal transport facility, Mine offices, Canteen, Rest shelters, weighbridge etc which shall be made on ground at about 12.594 Ha [Forest Land 3.691 Ha, Non-Forest Land 8.903 Ha].

29.1.3 The EAC during deliberations noted the followings:

- Brahmpuri underground coal mine is a green field, located in district Chhindwara. M.P. Terms of Reference of this project was granted on 10.12.2020 by MoEFCC vide File No- IA-J-11015/20/2020-IA-II(M).
- The previous allottee of Brahampuri coal mine was M/s Push Steel and Mining Pvt. Ltd. who prepared mine plan and progressive mine closure plan of 0.36MTPA and approved from Ministry of Coal, Govt. of India vide letter no. 13016/63/2008-CA-I 23rd April 2010. The Mine was subsequently de-allotted as per Hon'ble Supreme Court judgement and subsequently in year 2020 allotted to M/s Birla Corporation Limited as per Coal Mine Special Provision Act, 2015 with transfer of all statutory licenses'/approvals/consents etc.
- Ministry of Coal, Government of India vide their vesting order no NA-104/2/2019-NA, dated 10th Feb, 2020 under clause (b) of sub-rule (2) of rule 7 & sub-rule (1) of rule 13 has allotted the Brahampuri Coal Mine in favor of M/s Birla Corporation Limited
- Public hearing for the project of 0.36 MTPA capacity in an area of 360 ha was conducted on 04.01.2022 at Govt. Primary School, Village: Bichhua Pathar, Tehsil: Parasia, District: Chhindwara, Madhya Pradesh under the Chairmanship of Ms. Rani Batad, Addl. Collector, Chhindwara
- Major issues raised in the public hearing include protection of green area, agriculture land, construction of pucca roads and bridges over streams, planting fruit bearing trees, street light installation, Drinking water facility at Sirghora village, poor drainage, community center.
- PP had yet to obtained Stage I forest clearance for 150.098 Ha from the MoEF&CC, New Delhi
- Schedule-I species viz. Leopard are reported in the core zone and buffer zone. The conservation plan for Schedule-I Species has been prepared its receiving from the competent authority is submitted.
- Environmental Baseline data was generated in the **Non-monsoon season 2020 (1st October, 2020 to 31st December, 2020)**. Monitoring Parameters:
 - Air Monitoring: Sampling locations are 08. The result indicates that the maximum and minimum values of PM10 are in the range of 53.7 to 70.1 µg/m³, whereas the PM2.5 are in the range of 34.6 to 42.1 µg/m³. The SO₂ concentrations within the study area are in the range of 5 to 9.9 µg/m³ and the NO_x are in the range of 10.7 to 21.8 µg/m³. The incremental increase in the values was projected to be 0.03 µg/m³ for PM10, 0.02 µg/m³ for PM2.5, 0.226 µg/m³ for SO₂, and 1.84 µg/m³ for NO_x. The value of Total GLC is for PM10 is 70.13 µg/m³ for PM2.5 is 42.12

µg/m³, for SO₂ is 10.126 µg/m³, and for NO_x is 23.64 µg/m³.

- The observed pollutant levels were compared with CPCB National Ambient Air Quality Standards & Standards for Coal Mines issued by MoEF&CC, GSR-742 E dt. 25.09.2000 and found to be under standards.
 - Surface water Monitoring: Sampling locations were 8 i.e Pench river, Ghatamali Nadi, Stream near over bridge NH-19, Accumulated water near Sethia, Mandla, Sirgora. Sampling location of the river must be also specified with up streams and down streams as per the CPCB guidelines. The result indicates that the maximum and minimum values of DO ranges between 5 to 6.1 mg/l, hardness ranged between 48 to 62 mg/l etc, COD ranged between 31 to 21 mg/l, BOD ranged between 3.6 to 3.0 mg/l. TDS ranged between 286-321 mg/l
- The project area does not have any migratory corridor of any endangered fauna. The project area does not fall under corridors of any National Park and Wildlife Sanctuary and same was stated by DFO vide his letter and copy of detailed ecology and biodiversity report.
- The nearest Sanctuaries are Ratapani and Singhori Wildlife Sanctuary at a distance of 140 km in NE direction from project site and Nauradehi Wildlife Sanctuary is at 145 km towards NE direction from project site. However, presences leopard which is Schedule-I species have been reported in the study area. Accordingly, PP has submitted the Wildlife Conservation plan to Forest Department, Chhindwara and its receiving copy has been enclosed.

29.1.4 The EAC, after deliberations observed that it is a green field project. PP was asked to revise the mine plan & mine closure activities but they requested to follow the mine plan approved by MOC in 2010.

On enquiring about the status of railway siding, the PP justified that as production is low so it will not be feasible to construct railway siding. EAC asked PP to revise the green belt development plan & its budget, also to plant the trees in barren land of 25.267 Ha in consultation of experts if required. It was also found that other than the shaft infrastructure like coal storage yard, etc has been proposed on the forest land so EAC asked PP to manage such infrastructure in non -forest area. It was also seen that the PP had proposed to use DG set as alternate fuel so EAC mandatorily recommended the PP to use low Sulphur diesel fuel. EAC also suggested the PP to explore the possibility of utilizing the ponds located near the boundary of mine lease.

Later, PP provided the undertaking vide letter dated 25.04.2022 for the plantation of 23 Ha waste land with 1500 per ha of tree plantation, with the estimated budget of 35 lakhs. PP will dispose the muck/overburden of ~20,000 m³ generated out of shaft sinking in the low-lying areas inside the infrastructure boundary and will be compacted. In addition, retaining wall / toe wall shall be constructed to prevent erosion at an estimated cost of Rs.15.0 Lakh alongwith construction of ETP & STP of adequate capacity based on zero wastewater discharge. PP will construct community toilet blocks in nearby areas in consultation with gram panchayats with an estimated budget of ₹12.5 Lakhs. PP had also revised the public hearing action plan budget for infrastructure development in the surrounding areas including construction of road and bridge has been increased by Rs.25 Lakhs.

Due to which the EMP budget is revised from Rs. 711.4 lakhs to 746.4 lakhs and budget for addressing public hearing issues is revised from Rs.198.5 lakh to Rs.236.0 lakh. Thus, total budget is revised from Rs.909.9 lakh to Rs.982.4 lakh.

EAC recommended the proposal for Environmental Clearance to **Brahampuri Coal Mine Project of 0.36 MTPA (UG) in mine lease area of 360 Ha of M/s Birla Corporation Limited located at villages Bichhua Pathar, Sirgora, Kukurmunda, Chhinda and Sethia, Tehsil Parasia, District Chhindwara (Madhya Pradesh)** under the provisions of EIA Notification, 2006 and its amendments circulars thereto subject to the compliance of the following terms & conditions / specific conditions for environmental safeguards.

- (i) Environmental Clearance is recommended subject to submission of Stage-1 FC for forest land involved and required for non-forestry activity/surface rights.
- (ii) PP shall obtain CTO for 0.36 MTPA (Peak) from State Pollution Control Board and must obtain the CTE and CTO of the proposed ETP and STP. The treated effluent to be utilized within mine lease area. No treated and untreated wastewater should be discharge outside the boundary of mine area.
- (iii) A proper record of regular monitoring of subsidence study as per the norms must be furnished.
- (iv) PP shall do plantation on 23 Ha of barren land (1500 tree/ ha) of native trees other than the green belt development proposed in the EIA /EMP report, also the broad leaves along the transportation route in three years to prevent the effect of air pollution. PP shall implement Peripheral tree plantation along the mine lease area with miyawaki method of 50 mts width within 2 years through independent expert. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer
- (v) PP will construct community toilet blocks in nearby areas in consultation with gram panchayats with an budgetary provision kept for public hearing.
- (vi) PP shall deposit fund allocated for wildlife conservation plan to forest department within six months of issue of this letter.
- (vii) 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 mining site for compliance of EC conditions.
- (viii) 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.
- (ix) PP to construct a bridge of length of around 85 mts at Gram Mandla -Mandli over a stream and road from Bicchwa Pachhar to Gram Mandla- Mandli in consultation of town panchayat and if cost is arrived more than expected, PP may contribute the estimated funds from public hearing head and CSR to meet the efforts of the State Govt./concerned department.
- (x) PP shall deploy only 40-50 tones covered trucks/dumper to reduce fleet size
- (xi) PP shall deploy of atleast 5 nos of fog cannon for mitigation of fugitive dust at coal storage yard and transportation route.

- (xii) PP to obtain 5-star rating from Ministry of Coal as per their guidelines.
- (xiii) PP must fulfill the commitment made for addressing the public hearing issue and the budgetary audit of Rs.236.0 lakhs progressively submitted to IRO
- (xiv) PP must adopt the proper mitigation measure as propose under EMP with budgetary provision of 746.4 lakhs by PP. The progressive audit of the same may be given to IRO
- (xv) PP to install solar lights within 1 year from the grant of this EC 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
- (xvi) Project proponent shall supply clean drinking water and for domestic purpose for the people coming under the zone of influence of this mining activity.
- (xvii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (xviii) PP to install 1 continuous ambient air quality monitoring stations at suitable locations preferably village side and 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.
- (xix) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (xx) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- (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 implement rain water harvesting mechanism in order recharge the ground water or as water conservation measure in addition to the proposed structure. PP shall carry out regular monitoring of Ground water level and quality.
- (xxiii) 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
- (xxiv) 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 conditions shall be sent to the Regional Office of the MoEF&CC.

Agenda No. 29.2

Expansion of Chhal Opencast coal mining from 3.5 MTPA to 6 MTPA (Peak) with increase of mine lease area from 641.013 ha to 1342.86 ha by M/s South Eastern Coalfields Limited located in Tehsil Dharamjaigarh, District Raigrah (Chhattisgarh) – For reconsideration of Environmental Clearance – reg.

[Online Proposal No. IA/CG/CMIN/11029/2007; F. No. J-11015/1000/2007-IA. II(M)]

29.2.1 The proposal is for reconsideration of Environment Clearance for Expansion of Chhal Opencast coal mining from 3.5 MTPA to 6 MTPA (Peak) with increase of mine lease area from 641.013 ha to 1342.86 ha by M/s South Eastern Coalfields Limited located in Tehsil Dharamjaigarh, District Raigrah (Chhattisgarh).

29.2.2 The revision of Details of the proposal, as ascertained from the proposal documents are given as under

Pending legal litigations: -

Case No. 993/2021 – pending at High Court of Chhattisgarh Bilaspur Kshetriya Adhikari v/s M/s Chhal Opencast Coal Mine

The coal production, realized, from 2006-07 onwards, is as under updating the data of 2020-21 & 2021-22:

Year	EC capacity (MTPA)	Actual production (Million Tonnes)
2006-07	1.0 MTPA	0.827250
2007-08	1.0 MTPA	1.313140
2008-09	1.0 MTPA	2.594475
2009-10	1.0 MTPA	3.45
2010-11	3.5 MTPA	3.50
2011-12	3.5 MTPA	3.50
2012-13	3.5 MTPA	3.50

2013-14	3.5 MTPA	3.50
2014-15	3.5 MTPA	3.50
2015-16	3.5 MTPA	3.50
2016-17	3.5 MTPA	3.50
2017-18	3.5 MTPA	3.50
2018-19	3.5 MTPA	1.873083
2019-20	3.5 MTPA	1.470220
2020-21	3.5 MTPA	3.04174
2021-22	3.5 MTPA	3.335439

29.2.3 The EAC during deliberations noted the following:

- The proposal was deferred in 16th EAC held during 22nd July, 2021. PP has now submitted the point-wise compliance to observation of EAC and provided additional information on date 02nd April, 2022 which are enlisted below:

S. No.	Observation of EAC	Reply by PP

1	PP shall provide monetary provisions for Wildlife Conservation Plan and breakup of the proposed activities submitted to the DFO	Monetary provisions for Wildlife Conservation Plan and breakup of the proposed activities is provided by PP the summary ios enclosed herewith			
		Proposed activities	Budget (in Cr)	Nodal Agency	Timeline
		Site Specific Action Plan of OCP Chhal, Dharamjaigarh Forest Division	1.98	Forest Dept.	Implementation in 1 st year & maintenance for 5 year
		Establishment of artificial avifauna habitat “Pakshi Vihar”on dumping site.	0.55	SECL/SFRTI, Raipur	Implementation in 1 st year
		Road side plantation (Both side)	0.70	Forest Dept.	Implementation in 1 st year & maintenance for 5 year
		Training & workshops/Awareness Program	0.21	Forest Dept.	Implementation for 3 year
		Fire Protection	0.15	Forest Dept./ FMIS/FSI	Implementation for 3 year
		Monitoring and Evaluation.	0.15	SFRTI, Raipur	5 years
		Total	3.74		
2	PP shall submit Cumulative Impact Assessment as per conditions mentioned in ToR.	Cumulative Impact Assessment has been carried out for Chhal OC Expansion Project for 7.5 MTPA. The baseline air quality status provide the pollution load from existing industries (Existing Chhal OC + KL Energy (Washery)) and there is no any proposed projects are in pipeline other than Chhal OC. The finding of cumulative impact assessment due to additional mining activities is summarized. The budget of Rs. 2.8 Cr. has been proposed for additional measures in Chhal OC.			

3	Approval of WL regarding certification of elephant corridor in vicinity of project site.	The certificate stating that no elephant corridor is present within 10 km radius of the mine site is being furnished by PP.
4	PP to employ appropriate measure to control the environmental impacts of blasting such as noise, vibration, air blast etc. Use of state of the technology solution for design and simulation of each blast is strongly recommended to minimize the environmental impacts of blasting	<p>The existing control measures being practiced at Chhal OC.</p> <ul style="list-style-type: none"> • Only NONEL (Non Electric Detonator) is being used with SME/LD for blasting. • No Overcharging of blast holes with explosives. • Muffling of blast holes is being done with wire netting overlain by 3-4 sandbags of 40 kg for each round of blasting. • Only moist sand is being used for stemming purpose. • Free face is being maintained for every blast. • All loose material are removed from the blast site to prevent the fly rock. • Vibration measurement is being recorded by Seismograph for every blast at the mine. • Special attention is being given to type of initiation and sequence of delay to reduce charge/delay. <p>For use of state of the technology for design and simulation of each blast, a study has been conducted and report submitted entitled “Scientific Study for Controlled Blasting at Chhal OC, Raigarh Area, SECL” by CMPDI. The recommendations are divided into two part: 1. For beyond 100 m of villages/hutments not belonging to SECL and 2. For beyond 200 m of dam/reservoir not belonging to SECL.</p>
5	Stage –I Forest Clearance for forest land involved in the project for non-forestry activity to be provided by the PP.	<ul style="list-style-type: none"> • Proposal for non-forestry use of 240.867 ha (185.017 ha Revenue Forest Land + 55.850 ha Deemed Forest) forest land under Forest (Conservation) Act, 1980 for Chhal OC Seam-III 6 MTY project of SECL in Raigarh District of Chhattisgarh. F.No. 5-18/2018/10-2 dated 08.04.2021. • Query received from MoEFCC dt 11.07.2021, Reply of the query submitted to DFO dt 24.11.2021. Proposal forwarded to CCF Bilaspur by DFO Raigarh on dt 14.01.2022. State Govt. Forwarded the reply to MoEF&CC on 25.02.22. • Stage-1 FC awaited.

6	PP shall submit the details of input parameters indicating the sources of fugitive dust emissions, and a flowchart showing the various mining activities considered for modelling of air quality.	<p>As discussed in point no 3 Cumulative Impact Assessment has been carried out for Chhal OC Expansion Project for 7.5 MTPA. The baseline air quality status provide the pollution load from existing industries (Existing Chhal OC + KL Energy (Washery)) and there is no any proposed projects are in pipeline other than Chhal OC. The sources of fugitive dust emissions are given below</p> <table border="1" data-bbox="630 407 1464 1083"> <thead> <tr> <th data-bbox="630 407 1003 537">Sources of fugitive dust emissions in OB extraction process</th> <th data-bbox="1003 407 1464 537">Sources of fugitive dust emissions in Coal extraction process</th> </tr> </thead> <tbody> <tr> <td data-bbox="630 537 1003 590">Topsoil removal</td> <td data-bbox="1003 537 1464 590">Coal cutting in surface miner</td> </tr> <tr> <td data-bbox="630 590 1003 642">Drilling in OB</td> <td data-bbox="1003 590 1464 642">Coal loading</td> </tr> <tr> <td data-bbox="630 642 1003 695">Blasting in OB</td> <td data-bbox="1003 642 1464 695">Coal transportation</td> </tr> <tr> <td data-bbox="630 695 1003 747">OB Loading</td> <td data-bbox="1003 695 1464 747">Coal unloading in feeder point</td> </tr> <tr> <td data-bbox="630 747 1003 800">Transportation of OB</td> <td data-bbox="1003 747 1464 800">Coal load for despatch (CHP point)</td> </tr> <tr> <td data-bbox="630 800 1003 852">Unloading of OB in dump</td> <td data-bbox="1003 800 1464 852">Wind erosion in pit</td> </tr> <tr> <td data-bbox="630 852 1003 905">OB Dozing in PIT</td> <td data-bbox="1003 852 1464 905">Coal bulldozing (pit)</td> </tr> <tr> <td data-bbox="630 905 1003 957">OB dozing in dump</td> <td data-bbox="1003 905 1464 957"></td> </tr> <tr> <td data-bbox="630 957 1003 1010">Wind erosion in Dump</td> <td data-bbox="1003 957 1464 1010"></td> </tr> </tbody> </table>	Sources of fugitive dust emissions in OB extraction process	Sources of fugitive dust emissions in Coal extraction process	Topsoil removal	Coal cutting in surface miner	Drilling in OB	Coal loading	Blasting in OB	Coal transportation	OB Loading	Coal unloading in feeder point	Transportation of OB	Coal load for despatch (CHP point)	Unloading of OB in dump	Wind erosion in pit	OB Dozing in PIT	Coal bulldozing (pit)	OB dozing in dump		Wind erosion in Dump	
Sources of fugitive dust emissions in OB extraction process	Sources of fugitive dust emissions in Coal extraction process																					
Topsoil removal	Coal cutting in surface miner																					
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7	PP shall submit water quality report (to be tested again) for u/s & d/s of river Mand with source of pollution in river, water bodies w.r.t. drinking water parameters including BOD/COD	<p>Water quality Re-Monitoring carried out at all 18 specified locations covering for u/s & d/s of river Mand with source of pollution in river, water bodies w.r.t. drinking water parameter including BOD/COD for period of Oct 2021 to Dec 2021. The water quality recorded are well within the permissible norms</p> <table border="1"> <thead> <tr> <th colspan="6">Details of Surface Water Monitoring (at 9 locations for period Oct 2021 to Dec 2021)</th> </tr> <tr> <th>Criteria Pollutants</th> <th>Unit</th> <th>Maximum value</th> <th>Minimum value</th> <th>98 Percentile value</th> <th>Prescribed Standard</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>-</td> <td>7.89</td> <td>6.88</td> <td>7.89</td> <td>6-9</td> </tr> <tr> <td>DO</td> <td>mg/l</td> <td>8</td> <td>6</td> <td>8</td> <td>4,(Min)</td> </tr> <tr> <td>BOD</td> <td>mg/l</td> <td><2</td> <td><2</td> <td><2</td> <td>3</td> </tr> <tr> <td>COD</td> <td>mg/l</td> <td><8</td> <td><8</td> <td><8</td> <td>-</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="6">Details of Ground Water Monitoring (at 9 locations for period Oct 2021 to Dec 2021)</th> </tr> <tr> <th>Criteria Pollutants</th> <th>Unit</th> <th>Maximum value</th> <th>Minimum value</th> <th>98 Percentile value</th> <th>Prescribed Standard</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>-</td> <td>7.45</td> <td>6.52</td> <td>7.45</td> <td>6.5-8.5</td> </tr> <tr> <td>TSS</td> <td>mg/l</td> <td>107</td> <td><10</td> <td>107</td> <td>-</td> </tr> <tr> <td>TDS</td> <td>mg/l</td> <td>352</td> <td>32</td> <td>352</td> <td>500-2000</td> </tr> <tr> <td>Total Hardness</td> <td>mg/l</td> <td>258</td> <td>16</td> <td>258</td> <td>200-600</td> </tr> <tr> <td>Chlorides</td> <td>mg/l</td> <td>54</td> <td><5</td> <td>54</td> <td>250-1000</td> </tr> <tr> <td>Fluoride</td> <td>mg/l</td> <td>0.35</td> <td><0.1</td> <td>0.35</td> <td>1-1.5</td> </tr> </tbody> </table>	Details of Surface Water Monitoring (at 9 locations for period Oct 2021 to Dec 2021)						Criteria Pollutants	Unit	Maximum value	Minimum value	98 Percentile value	Prescribed Standard	pH	-	7.89	6.88	7.89	6-9	DO	mg/l	8	6	8	4,(Min)	BOD	mg/l	<2	<2	<2	3	COD	mg/l	<8	<8	<8	-	Details of Ground Water Monitoring (at 9 locations for period Oct 2021 to Dec 2021)						Criteria Pollutants	Unit	Maximum value	Minimum value	98 Percentile value	Prescribed Standard	pH	-	7.45	6.52	7.45	6.5-8.5	TSS	mg/l	107	<10	107	-	TDS	mg/l	352	32	352	500-2000	Total Hardness	mg/l	258	16	258	200-600	Chlorides	mg/l	54	<5	54	250-1000	Fluoride	mg/l	0.35	<0.1	0.35	1-1.5
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8	<p>Reassessment of water table/hydrology considering effect of mining on river (quality and quantity wise) and impact of Pelam Dam. Further assessment of safety of Pelam dam due to blasting shall be conducted.</p>	<p>Reassessment of water table/hydrology considering effect of mining on river (quality and quantity wise) and impact of Pelam Dam have been completed.</p> <ul style="list-style-type: none"> ➤ To assess the effect of mining activity on the Mand River, 9 number of boreholes all along the mine boundary with the Mand River were considered for the study. ➤ From the lithology of the boreholes, it is evident that, from a minimum depth of 9.59 m to the maximum depth of 35.25 m from the ground level, the lithology consists of mainly impermeable layers such as sludge, grey shale, coal, sandy shale, shaly coal, carb shale, etc.- which behave as aquicludes. ➤ Due to the presence of these impervious barriers between the mine quarry and the river channel, there will be no vertical movement of water from the River into the mine. ➤ Moreover, embankments constructed all along the river boundary so as to strengthen the river banks and therefore will restrict any lateral surface water runoff or spillover from the mine quarry into the river and vice versa.
9	<p>As suggested by EAC, Plan for three tier plantations in the prescribed area with development of SAL nursery to be submitted by the PP</p>	<p>Total biologically reclaimed area includes at the end of mine life:</p> <ol style="list-style-type: none"> 1. Reclaimed Internal dump: 794.01 ha 2. Reclaimed external dump: 130.73 ha <p>Additional afforested area:</p> <ol style="list-style-type: none"> 1. Safety zone as green belt: 144.47 ha 2. Afforested built up area: 5 ha <p>TOTAL AREA: 1074.21 ha (80% of Project area)</p> <ul style="list-style-type: none"> ❖ Sal nursery for 50000 saplings will be established by June 2022 (month of getting Sal seeds).
10	<p>PP shall submit approved Mine Plan including Mine Closure Plan for 7.5 MTPA (Peak capacity) showing stage wise mining and reclamation plan to minimize land requirement for production and maximize the land reclamation for restoration.</p>	<p>Project report of Chhal OC has been approved for 6 MTPA on 16/12/2013. The mine closure plan is an integral part of project report. The project may kindly be considered for 6 MTPA.</p>

11	In lieu of the proposed expansion of the mine area, PP shall explore the use of the flexible pit conveyor and mobile Coal Handling Plant so as to minimise the use of dumper.	The Project has been planned with in pit conveying system which will minimize the use of dumper. The feeder point will receive coal from pit restricting the movement of dumpers and the coal will be transported via belt to Coal Handling plant attached to Pit head Rapid SILO system for coal dispatch to distant consumers. Initially the feeder point the conveyer system will be at pit top. As the mine will advances/progress additional feeder points will be constructed in the pit.																																								
12	The proper location of the OB dumps along with its Longitude and Latitude to be provided by the PP with its proper restoration plan. PP shall propose location of OB away from the bank of river.	As per PR, the proposed external OB dump lies between longitude 83°6'45.91" E- 83°7'43.47" E & latitude 22°6'30.96" N- 22°7'5.54" N and the distance proposed from Mand River is 60 m minimum and 528 m maximum.																																								
13	PP shall submit the impact on air quality with and without the adoption of mitigation measures.	<p>Impact on Air quality with and without the adoption of mitigation measures has been covered in point 2. The summary of air quality impact is shown.</p> <table border="1" data-bbox="643 913 1528 1528"> <thead> <tr> <th data-bbox="643 913 699 1171">S N</th> <th data-bbox="699 913 824 1171">Criteri a Polluta nts</th> <th data-bbox="824 913 911 1171">Uni t</th> <th data-bbox="911 913 1078 1171">Baseline Concentr ation (98 percentile value)</th> <th data-bbox="1078 913 1203 1171">Minim um Value</th> <th data-bbox="1203 913 1365 1171">Incremen tal concentra tion Without control</th> <th data-bbox="1365 913 1528 1171">Incremen tal concentra tion with control</th> <th data-bbox="1528 913 1622 1171">Total GLC with out contr ol</th> </tr> </thead> <tbody> <tr> <td data-bbox="643 1171 699 1262">1</td> <td data-bbox="699 1171 824 1262">PM₁₀</td> <td data-bbox="824 1171 911 1262">µg/ m³</td> <td data-bbox="911 1171 1078 1262">79.3</td> <td data-bbox="1078 1171 1203 1262">58.90</td> <td data-bbox="1203 1171 1365 1262">51.24</td> <td data-bbox="1365 1171 1528 1262">13.47</td> <td data-bbox="1528 1171 1622 1262">130.5 4</td> </tr> <tr> <td data-bbox="643 1262 699 1352">2</td> <td data-bbox="699 1262 824 1352">PM_{2.5}</td> <td data-bbox="824 1262 911 1352">µg/ m³</td> <td data-bbox="911 1262 1078 1352">40.40</td> <td data-bbox="1078 1262 1203 1352">29.40</td> <td data-bbox="1203 1262 1365 1352">9.64</td> <td data-bbox="1365 1262 1528 1352">4.37</td> <td data-bbox="1528 1262 1622 1352">50.04</td> </tr> <tr> <td data-bbox="643 1352 699 1442">3</td> <td data-bbox="699 1352 824 1442">SO₂</td> <td data-bbox="824 1352 911 1442">µg/ m³</td> <td data-bbox="911 1352 1078 1442">23.10</td> <td data-bbox="1078 1352 1203 1442">9.50</td> <td data-bbox="1203 1352 1365 1442">0.006</td> <td data-bbox="1365 1352 1528 1442">0.006</td> <td data-bbox="1528 1352 1622 1442">23.11</td> </tr> <tr> <td data-bbox="643 1442 699 1528">4</td> <td data-bbox="699 1442 824 1528">NO₂</td> <td data-bbox="824 1442 911 1528">µg/ m³</td> <td data-bbox="911 1442 1078 1528">25.70</td> <td data-bbox="1078 1442 1203 1528">16.90</td> <td data-bbox="1203 1442 1365 1528">6.75</td> <td data-bbox="1365 1442 1528 1528">6.75</td> <td data-bbox="1528 1442 1622 1528">32.45</td> </tr> </tbody> </table> <p data-bbox="643 1528 1528 1690">Note: Above values are for highest incremental value obtained through modeling zone at Agasmai Village (L6) in Downwind (SSW) only 1.88 km from mine.</p>	S N	Criteri a Polluta nts	Uni t	Baseline Concentr ation (98 percentile value)	Minim um Value	Incremen tal concentra tion Without control	Incremen tal concentra tion with control	Total GLC with out contr ol	1	PM ₁₀	µg/ m ³	79.3	58.90	51.24	13.47	130.5 4	2	PM _{2.5}	µg/ m ³	40.40	29.40	9.64	4.37	50.04	3	SO ₂	µg/ m ³	23.10	9.50	0.006	0.006	23.11	4	NO ₂	µg/ m ³	25.70	16.90	6.75	6.75	32.45
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14	Permission from CGWA for extraction ground water based on earlier EC via letter dated 13th January, 2006.	<ul style="list-style-type: none"> • Ground water clearance on earlier EC obtained 21-4(9)/NCCR/CGWA/05 Dt 13.01.2006. • Fresh Application for obtaining NOC applied vide Application Number:21-4/742/CT/MIN/2017 dt 30.12.2017. On dt 10.05.2019 vide letter no. 35-1/NCCR/CGWA/Vol-XI-550 desired additional documents. Documents were submitted to CGWA on Feb 2020. • The guideline was revised vide PUBLIC NOTICE No. 20/2021, Dated 20th December, 2021, and accordingly Work order has been issued on 02.04.2022 for carrying out for “Comprehensive Hydrogeological report along with ground water modelling” study and report is being expected in first week of June. The application will be re-submitted with requisite study before June end 2022. 																				
15	PP shall submit the report on optimising the blasting design and techniques in order to minimize its impact on the nearby areas	A study has been conducted and report submitted entitled “Scientific Study for Controlled Blasting at Chhal OC, Raigarh Area, SECL” by CMPDI and the suggested recommendations of this study will minimize the environmental impact of blasting as justify by PP																				
16	A copy of video recording of the site through drone to be shown in next meeting as recommended by EAC.	Video recording of the site through drone is shown by PP																				
17	PP shall submit the latest Certified Compliance Report from Ministry’s Regional Office	MOEF IRO, Raipur Visited the mine on 15.07.2021 and Certified Compliance Report was submitted vide no. 3-18/2006(Env)/347 dt 11.11.2021. <table border="1" data-bbox="646 1381 1528 1816"> <thead> <tr> <th data-bbox="646 1381 808 1430">S. NO.</th> <th data-bbox="808 1381 1360 1430">Particular</th> <th data-bbox="1360 1381 1528 1430">Number</th> <th data-bbox="1528 1381 1620 1430">A</th> </tr> </thead> <tbody> <tr> <td data-bbox="646 1430 808 1520"></td> <td data-bbox="808 1430 1360 1520">Total EC Conditions (Specific + General)</td> <td data-bbox="1360 1430 1528 1520">41</td> <td data-bbox="1528 1430 1620 1520"></td> </tr> <tr> <td data-bbox="646 1520 808 1568">A</td> <td data-bbox="808 1520 1360 1568">Total Specific Condition</td> <td data-bbox="1360 1520 1528 1568">23</td> <td data-bbox="1528 1520 1620 1568"></td> </tr> <tr> <td data-bbox="646 1568 808 1614">i</td> <td data-bbox="808 1568 1360 1614">Complied Conditions</td> <td data-bbox="1360 1568 1528 1614">16</td> <td data-bbox="1528 1568 1620 1614">C</td> </tr> <tr> <td data-bbox="646 1614 808 1816">ii</td> <td data-bbox="808 1614 1360 1816">Partially Complied Conditions</td> <td data-bbox="1360 1614 1528 1816">06 (x, xii, xiii, xiv, xvi, xxii)</td> <td data-bbox="1528 1614 1620 1816">C ba G</td> </tr> </tbody> </table>	S. NO.	Particular	Number	A		Total EC Conditions (Specific + General)	41		A	Total Specific Condition	23		i	Complied Conditions	16	C	ii	Partially Complied Conditions	06 (x, xii, xiii, xiv, xvi, xxii)	C ba G
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		iii	Non Complied Conditions	01 (xv)		In C
		B	Total General Condition	18		
		i	Complied Conditions	16		C
		ii	Partially Complied Conditions	02 (iii, iv)		C ai
		iii	Non Complied Conditions	Nil		
18	Permission for diversion of state highway from State PWD and alternate road for movement of public shall be informed.	State Government Directed PWD to submit report after examination. Chief Engineer, PWD, Bilaspur submitted report to Engineer in Chief, PWD, Raipur. SECL deposited Rs 1.23 Lakh for realignment survey work. Survey could not be completed due to Covid 19. Letter from Executive Engineer, PWD, Raigarh to GM, Raigarh, SECL dated 22.03.2022 which states that the permission for diversion of state highway is in process.				
19	Design details for construction of embankment (consider 150 mts and 4 mts height beyond HFL) along the Mand river and necessary permission shall be submitted.	<p>The Embankment design is in accordance with condition stipulated by DGMS for Chhal OC.</p> <ul style="list-style-type: none"> • Total Length: 2400 Meter; • Top Width of Embankment: 31 Meter; • Bottom width: 92 Meter • Solid barrier against • Mand River: 120 Meter • Height of Embankment from • Ground level: 30.02 Meter • HFL: 234.00 Meter • Height above HFL: 29.42 Meter <p>PP assured that as desired by EAC, a solid barrier of 150 m will be maintained along the Mand River.</p>				

29.2.4 The EAC, after deliberations observed that as per the action taken report provided by PP, the points raised by EAC in earlier meeting regarding revising the mine plan were taken up by PP. It was observed that the base line value of air quality is very high so EAC asked the PP to expedite the installation of 2 CAAQMS near the village site and to take mitigation measure to reduce the dust emission by installation of long range movable fog cannon in such affected area. Stage –I FC is still awaited so PP to obtain Forest Clearance of the total forest area falling in the project boundary.

PP presently transporting coal by road so EAC enquired about the preparedness of silo loading and railway siding, for which PP committed to install by December 2023. Further it was confirmed that by installing the silo loading, 90% of coal will be transported by Dharamjai railway siding. EAC recommended PP to opt for 40 Tonnes trucks so the environment impact due to transportation could be minimized till conveyor system and railway siding established. EAC also mandatorily asked the PP to install the surface miner and electronic detonator during blasting to minimize the air pollution. For which PP requested to carry blasting technique as per mine plan wherein EASC restricted the blasting 2 times during the day time. EAC further asked PP to install the blasting monitoring station near the affected villages.

EAC also found that the mine water is discharge to the river in monsoon for which the EAC suggested to install the flow meter and a record of its flow and water quality be kept checking on fortnight basis. EAC also suggested the PP to develop an artificial pond for recharging ground water for fishing purposes and improving the water quality instead of directly discharging mine water into the river. EAC advised to maintain minimum distance of 150 mts along the Mand River and no OB dumping to be placed towards the river side EAC also asked PP to develop a STP for its colony and nearby villagers instead of soak pit.

EAC recommended the proposal for Environmental Clearance to **Expansion of Chhal Opencast coal mining from 3.5 MTPA to 6 MTPA (Peak) with increase of mine lease area from 641.013 ha to 1342.86 ha by M/s South Eastern Coalfields Limited located in Tehsil Dharamjaigarh, District Raigarh (Chhattisgarh)** under the provisions of EIA Notification, 2006 and its amendments circulars thereto subject to the compliance of the following terms & conditions / specific conditions for environmental safeguards.

- (i) Recommendation of Environment Clearance is subject to submission of stage-I FC required for diversion for non-forestry activity.
- (ii) PP shall obtain CTO for 6 MTPA (Peak) from State Pollution Control Board. PP must obtain the CTE and CTO of STP. No wastewater from mine lease area shall be disposed directly into the river. Treated wastewater from STP and ETP shall be utilised with area and plants designed should based on zero liquid discharge.
- (iii) PP must plant 150,000 of native trees other than the green belt development proposed in the EIA /EMP report, also the broad leaves along the transportation route in three years to prevent the effect of air pollution. PP shall implement Peripheral tree plantation along the mine lease area with miyawaki method of 50 mts width within 2 years through independent expert. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer
- (iv) PP will construct community toilet blocks in nearby areas in consultation with gram panchayats within 1 year to the grant of this EC
- (v) As committed, PP to install silo loading and railway siding with full mechanized system to transport coal from pit head to railway siding by October 2023. No CTO shall be granted by SPCB by road transportation after October 2023. SPCB shall allow only 10% coal by road against the sanctioned capacity (i.e 0.6 MTPA) beyond October 2023.
- (vi) Coal extraction mandatory by surface miner method only and it should be deployed by December

2022. SPCB shall grant the CTO accordingly.
- (vii) 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.
 - (viii) PP to fulfill the commitment made during public hearing and a progressive record must be submitted to IRO
 - (ix) PP shall deploy only 40-50 tones covered trucks/dumper to reduce fleet size
 - (x) PP shall deploy of atleast 10 nos of fog cannon for mitigation of fugitive dust on the haul road, coal storage yard and transportation route. Also 5 Movable long range fog cannon on the affected village must be immediately installed within 3 months
 - (xi) Further expansion (if applied) in capacity will only be considered by EAC when at least 75% of EC conditions are complied fully and PP to obtain 5-star rating from Ministry of Coal as per their guidelines.
 - (xii) 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 mining site for compliance of EC conditions.
 - (xiii) PP must adopt the proper mitigation measure as propose under EMP with budgetary of 7731.45 lakhs as proposed by PP. The progressive audit of the same may be given to IRO
 - (xiv) PP to install solar lights within 1 year from the grant of this EC 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
 - (xv) Project proponent shall supply clean drinking water and for domestic purpose for the people coming under the zone of influence of this mining activity.
 - (xvi) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
 - (xvii) PP to install 2 nos of continuous ambient air quality monitoring stations at suitable locations preferably village side in 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. These monitoring station shall be deploy by December 2022.
 - (xviii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
 - (xix) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
 - (xx) 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

- (xxi) *PP shall implement rain water harvesting mechanism in order recharge the ground water or as water conservation measure in addition to the proposed structure. PP shall carry out regular monitoring of Ground water level and quality.*
- (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) *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 conditions shall be sent to the Regional Office of the MoEF&CC.*

Agenda No. 29.3

Cluster No. 10 Coal Mining Project of production capacity of 7.70 MTPA in an ML area of 5979 ha of M/s Eastern Coalfields Limited, located in Raniganj Coalfields, District Paschim Bardhaman (West Bengal) – For Amendment in Environmental Clearance – reg

[Online proposal no. IA/WB/CMIN/265471/2022, F. No J-11015/180/2011-IA-II(M)]

29.3.1 The proposal is for Amendment in Environmental Clearance of Cluster No. 10 Coal Mining Project of production capacity of 7.70 MTPA in an ML area of 5979 ha of M/s Eastern Coalfields Limited, located in Raniganj Coalfields, District Paschim Bardhaman (West Bengal).

29.3.2 The EAC during deliberations noted the following:

- This is a proposal to establish a plant for processing OB dump (POB Plant) in Naba Jambad UG & OC Project within Cluster No. 10.
- This is an amendment proposal to EC granted vide letter no. J-11015/180/2011-I(A).II(M) Dated 20.01.2015 and subsequent amendment on 31.05.2018 and 09.02.2021.
- There is no change in any other parameters viz. mine capacity, leasehold area and mine life of the constituent mines within the cluster.
- The proposed changes are in line with the supplementary note to mining plan for the cluster, duly

approved by the Board of Directors of ECL on 22.03.2022.

29.3.3 *The EAC, after deliberations noted that the proposal is for installation of processed OB plant (POB Plant) in Naba Jambad UG & OC Project within Cluster No. 10 to recover the sand from OB dump and there is no other changes envisaged except processing of sand from OB dump area. The mine capacity, leasehold area and mine life of the constituent mines within the clusters shall remain unchanged. PP had also provided the air modelling and mitigation measures in respect to the installation of this plant. EAC mandatorily recommended PP to take proper mitigation measure near the crushers, transportation of OB dump etc. EAC also found that the life of Madhusudanpur UG is 5 years so asked PP to initiate its mine closure activity and also to comply the EC conditions properly*

*EAC finally **recommended** the proposal for amendment in Environmental Clearance to Cluster No. 10 Coal Mining Project of production capacity of 7.70 MTPA in an ML area of 5979 ha of M/s Eastern Coalfields Limited, located in Raniganj Coalfields, District Paschim Bardhaman (West Bengal) as per under the provisions of EIA Notification, 2006 and its amendments therein. All other conditions stipulated in EC. No. J-11015/180/2011-I(A).II(M) Dated 20.01.2015 and subsequent amendment on 31.05.2018 and 09.02.2021 shall remain unchanged with following additional specific conditions to be followed:*

- (i) PP shall comply with all the EC condition which is presently non-complied or partially complied as per the certified compliance report, like green belt, dedicated environment cell, etc. The same shall be reported to IRO, MoEF&CC within 3 months with action plan in time bound manner. SPCB shall issue the CTO for proposed amendment only after satisfactory compliance of earlier EC as confirmed by IRO, MoEF&CC.*
- (ii) PP to take proper EMP measure to reduce the dust emissions during the processing of OB dump plant. Like installation of fixed fog cannon, transportation of OB dump by covered trucks.*
- (iii) Adequate air pollution control device shall be installed in stone crusher to avoid the dust emission. Noise acoustic enclosure shall be provided in periphery of area. Noise level should be maintained as per the CPCB guidelines for industrial activity.*
- (iv) PP to install 1 more continuous ambient air quality monitoring stations at suitable locations preferably village side with consultation of SPCB. The real time data so generated shall be uploaded on company website and linked it with website of CPCB & SPCB. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.*
- (v) 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.*
- (vi) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational*

environment for mine workers shall be implemented. The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

- (vii) *Persons of nearby villages shall be given training on livelihood and skill development to get them employable with its proper records.*
- (viii) *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*
- (ix) *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.*
- (x) *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.*
- (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 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 conditions shall be sent to the Regional Office of the MoEF&CC.*

Agenda No. 29.4

Goleti Opencast Mine with a production capacity of 3.50/5.25 MTPA (N /P) in project area of 1358.26 Ha by Singareni Collieries Co Ltd located in Bellampa area, near Goleti & Sonapur villages of Rebbena Mandal of Kumram Bheem District and Abbapur, Bijal, Gampalapelly, Narsapur & Asalmada villages of Tandur mandal of Mancherial District (Telangana)- For Terms of References (Under Violation) -reg

[Online proposal No. IA/TG/CMIN/263348/2022; F No. J-11015/147/2005-IA-II(M)]

29.4.1 The proposal is for Terms of References of Goleti Opencast Mine with a production capacity of 3.50/5.25 MTPA (N /P) in project area of 1358.26 Ha by Singareni Collieries Co Ltd located in Bellampa

area, near Goleti & Sonapur villages of Rebbena Mandal of Kumram Bheem District and Abbapur, Bijal, Gampalapelly, Narsapur & Asalmada villages of Tandur mandal of Mancherial District (Telangana)

29.4.2 The 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. 56M/8 and is bounded by the geographical coordinates ranging from Latitudes N 19⁰ 12' 23" to 19⁰ 14' 15" & Longitudes E 79⁰ 19' 39" to 79⁰ 23' 44".
- (ii) Coal linkage of the mine is proposed 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 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation to 778 (SCCL: 203, Indirect including outsourcing: 575) persons will be provided from the project.
- (vi) The project is reported to be beneficial in terms of socio-economic and improving living standards
Socio: Infrastructure facilities like drinking water supply, sanitation, roads, culverts, community halls, street lighting, Education, Medical, Recreation ,Business establishments etc., will be improved in the surrounding villages through CSR activities. Excess mine discharge water will be utilized for irrigation and ground water recharge.

Financial: Direct and indirect employment opportunities to local people in will be 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.

Environmental:

- Parks will be developed in the area.
 - Avenue plantation will be taken up in along the roads.
 - Extensive plantations will be taken up in the area.
 - Environmental awareness will be created in the area.
 - Fruit bearing and other saplings will be distributed at free of cost to the schools and surrounding villages.
 - De-silting of surrounding irrigation tanks.
 - Construction of rain water harvesting pits in surrounding villages.
- (vii) EC was obtained for 0.40 MTPA vide Lr. No. J-11015/147/2005-IA.II (M), dt:11.09.2006 for 0.40 MTPA in mine lease area of 191.98 ha
 - (viii) Total Project area is 1358.26 ha.
 - i. 1108.26 ha - 2nd Renewal of Tandur Mining Lease (12611.70ha) granted vide G.O.Ms.No.03, dated: 12.01.2015 for a period of 20years.
 - ii. 250 ha -Goleti 1&1A Incline Mining Lease (250ha) granted vide G.O.Ms.No.100, dated: 12.05.2009 for a period of 30 years.

iii. Mining Plan (including Progressive Mine Closure Plan) has been approved vide Lr.No. 34011/3/2020-CPAM,dt.18.11.2020 by MoC, GoI for a production capacity 3.50 MTPA (Peak 5.25 MTPA).

(ix) The land usage pattern of the project is as follows

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

Land Type		WithinML Area	Outside ML Area	Total
Tenancy	Agricultural	24.738	0	24.738
	Township	34.718		34.718
	Water Bodies	2.176		2.176
	Road	2.459		2.459
	Community/ other use	9.827		9.827
Govt Non Forest	Agricultural	88.005		88.005
	Township	19.476		19.476
	Barren/other use	41.018		41.018
Forest	Reserve	1135.843		1135.843
Total		1358.260		

Post Mining Land Use Details (Area in ha):

Type	Land Use (Post Closure)						
	Agricultural Land	Plantation	Water Body	Public/ Company Use	Forest Land (Returned)	Undisturbed	Total
Excavation Area							
Backfilled Area		16.034			424.097		440.131
Excavated Void			2.418		190.091		192.509
External Dump (Including rationalization area)		4.612			114.240		118.852
Safety Zone		12.685		0.557	137.286		150.528
Road diversion				1.641	9.690		11.331
Diversion/ below River/Nala/canal			3.013		13.102		16.115
Settling pond			0.154		2.100		2.254
Road & Infrastructure area	28.974			0.156	0.752		29.882
Garland drains			0.366		2.170		2.536
Embankment		0.815			4.197		5.012
Undisturbed/ Mining right for UG					238.118	150.992	389.110
Total	28.974	34.146	5.951	2.354	1135.843	150.992	1358.260

- (x) Total geological reserve reported in the mine lease area is 161.74 MT with 55.25 MT minable coal reserve and Extractable reserves are 52.49MT in 13.51MT are already extracted, balance Extractable reserves are 38.98MT. Percent of extraction is 95 %.
- (xi) 4 seams with thickness ranging from 2 Seam (0.90 to 3.86 m thickness) Top Seam (0.99 to 5.42 m thickness), Middle Seam (1.22 to 7.15 m thickness) and Bottom Seam (1.52 to 5.98 m thickness), Grade of coal is G-10, stripping ratio 14.42), while gradient is 1 in 3.2 to 1 in 5.1.
- (xii) Method of mining operations by Open cast Mining method with Shovel- Dumper combination.
- (xiii) Life of mine is 15 years.
- (xiv) The project has 1 external OB dumps with an area of 118.852 ha with 120m height and 70.55Mm³ of OB is envisaged in the project.
- (xv) Total quarry area is 1358.26 ha, out of which backfilling will be done in 440.131ha while final mine void will be created in an area of 192.509 ha with a depth of 120 m. Backfilled quarry area of 440.131ha shall be reclaimed with plantation. Final mine void will be converted as Water body.
- (xvi) Transportation of coal has been proposed by Coal from quarry to pit head CHP by dumpers and to Goleti Area CHP by tippers and to the customers by Rail to end users.

- (xvii) Reclamation Plan in an area of 713.966 ha, comprising of 115.499 ha of the external dump, 352.159 ha of internal dump, and 246.308 ha of green belt.
- (xviii) 1135.843 ha of forest land have been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980. The details of forest land diversions for surface rights are furnished below.
- 283.714 ha of forest land with surface rights was diverted for BPA OC-II Project.
 - 506.921 ha of forest land with UG rights is involved in the project area. Out of which 270.178 ha of Forest land is required for diversion of surface rights. The balance 236.743 ha of forest land will remain continues with UG rights.
 - A fresh forest land of 345.208 ha is also involved in the project requires diversion of surface rights.
 - An application for diversion of forest land of 615.386 Ha (270.178 + 345.208 Ha) was submitted.
- (xix) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project
- (xx) A wild life conservation plan is under preparation
- (xxi) The ground water level has been reported to be varying between 4.28 m to 12.50 m during pre-monsoon period and 3.18 m to 11.10 m during post-monsoon period. Total water requirement for the project is about 2,610 KLD.
- (xxii) Application for obtaining the approval of the State Ground Water Authority for Ground Water Clearance will be submitted after getting EC.
- (xxiii) Public hearing for the Project: Will be conducted as per ToR condition.
- (xxiv) Consent to Operate:
- (xxv) CFO for BPA OC –II Extension Project was obtained vide No:210522785639 and valid up to 28.02.2026.
- (xxvi) Narsapur nalla is flowing in the quarry area, the nallah will be diverted. The nallah will be designed as per recommendations of I & CAD, TS, Government. An application was submitted for diversion.
- (xxvii) The project involve violation of the EIA Notification, 2006 and amendment issued there under.

Production Details of Bellampalli Opencast- II Extension Project:

Sl. No	Year	Coal (in MTPA)		Excess production
		As per EC	Actual	
1	2006-07	0.40	0.20	--
2	2007-08		0.40	--
3	2008-09		0.40	--
4	2009-10		0.36	--
5	2010-11		0.18	--
6	2011-12		0.03	--
7	2012-13			

8	2013-14		Not in operation due to delay in diversion of Forest land to an extent of 108.78 ha (BLOCK-B&D)	
9	2014-15			
10	2015-16			
11	2016-17		0.73	0.33
12	2017-18		0.99	0.59
13	2018-19		0.85	0.45
14	2019-20		0.40	--
15	2020-21		0.12	--
16	2021 – 22		0.08	--

The total excess production was 1.36MT.

(xxviii) The project involves R&Rt: No. of families: Project affected families – 36, PDFs – 25 (Sonapur Village): R&R of the PAPs will be done as per RFCT LARR ACT 2013/R&R Policy of State Government.

Total cost of the Project is Rs. 220 Crores. CSR cost is 2% of average net profits of the company made during last three years are being allocated for CSR at company level. R&R cost is Rs.16.64 Crores. Environment Management Cost is as follows; Direct cost : Rs. 26 Crores , Revenue cost: [Rs. 8.2 Crores/Annum](#).

29.4.3 The EAC during deliberations noted the followings:

- EC was obtained for 0.40 MTPA vide Lr. No. J-11015/147/2005-IA.II (M), dt:11.09.2006 for 0.40 MTPA in mine lease area of 191.98 ha
- Mining Plan (Including Mine Closure Plan) was approved by MoC vide Lr. No.34011/3/2020-CPAM, dated 18.11.2020.
- Narsapur Nallah existing over the block. Total 12.1 km is proposed to be diverted i.e in 1st phase (9.2km), nallah diversion is proposed 15&57m away from the top edge of Pit-2&3 respectively & in 2nd phase (2.9km), on the bench from surface in Pit-4 providing 34m safe distance between the edge of nallah and the toe of the internal dump.
- Status of stage –I FC

Area in ha.	Stage-I FC issued vide letter no. & date	Validity period of FC
83.77	FL diversion for OC/UG Rights in Goleti 1&1A Icline ML, G.O.Ms.No.75, dated: 02.09.2009.	17.09.2039
108.78	F.No.8-21/2009-FC,dated:04.09.2014	03.09.2044

- An application for diversion of forest land of 615.386 Ha (270.178 + 345.208 Ha) was submitted.
- Wildlife Conservation Plan to be prepared and will be implemented for conservation of schedule-I species.

29.4.4 *The EAC, after deliberations found that PP had not yet obtained the Stage I FC for entire forest area of 1135.843 Ha and permission for 615.386 ha is yet to be obtained. The EAC found that the project is for conversion of Goleti mine 1 & 1 A incline from UG to opencast, also it involve amalgamation of Ballamaplli Mine OC –II expansion project and Abbapur OCP along with seeking ToR under the violation category*

EAC enquired about the mine lease so PP told that the amalgamation of all the mine lease is under the process. EAC also found that the PP desired to divert the Narsapur Nallah, for which PP was asked to provide the proper detail of its catchment area, flow and explore the possibility to protect it.

*EAC also asked the PP to submit prepare the wild life conservation plan, damage assessment report. The EAC after deliberation, **recommended** for grant of Terms of Reference to Goleti Opencast Mine with a production capacity of 3.50/5.25 MTPA (N/P) in project area of 1358.26 Ha by Singareni Collieries Co Ltd located in Bellampa area, near Goleti & Sonapur villages of Rebbena Mandal of Kumram Bheem District and Abbapur, Bijal, Gampalapelly, Narsapur & Asalmada villages of Tandur mandal of Mancherial District (Telangana) under violation category as per the OM dated 28th January, 2022 under the provisions of EIA Notification, 2006 and its amendments therein with specific conditions mentioned below:*

- (i) The State Government/SPCB to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no consent to operate for project to be issued till the project is granted EC.*
- (ii) Public Consultation shall be conducted through concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal. All the issues outstretched and PP reply should be incorporated in EIA along with its time bound action plan and budgetary provision. Also the issue raised in public hearing held during 2009 should also be addressed with time line action plan and budgetary provision in EIA/EMP report.*
- (iii) PP shall assess the damage assessment of environment against the excess production against the quantities for not taking EC/valid EC as per SOP issued by Ministry's OM.*
- (iv) Certified compliance report of previous EC from Ministry's Regional Office shall be submitted. PP shall prepare amalgamated mine plan and submit at the time of submission of EIA-EMP report.*
- (v) PP should submit the certified authenticated/Audited production figures from the revenue department or department of mining and geology of State Government or certificate from Coal Controller for production capacity since 1993-94 or start of production.*
- (vi) Exploring 100% Transport of coal from TPP by closed conveyor belt. PP shall provide the detailed action plan for completion of the conveyor belt to avoid the road transportation*
- (vii) PP should bring out the awareness campaign to be carried out on various Environmental issues, practical training facility to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.*
- (viii) PP shall prepare Mine Plan including Mine Closure Plan for Peak production capacity as per latest guidelines of Ministry of Coal.*

Wind rose pattern in the area should be reviewed and accordingly location of AAQMS shall be planned by the collection of air quality data. Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area

- (ix) The parameters Arsenic, Lead and Silica shall also be analyzed in ambient air quality*
- (x) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples*
- (xi) 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*
- (xii) Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.*
- (xiii) 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.*
- (xiv) The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.*
- (xv) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.*
- (xvi) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.*
- (xvii) In case of violation of undertaking by way of affidavit to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated 02.08.2017 in WP (Civil) case No-114/2014,, the ToR/Environmental Clearance shall be liable to be terminated forthwith.*
- (xviii) Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to prepare accordingly.*
- (xix) The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25.10.2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.*
- (xx) PP shall be submitting R &R in respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government.*
- (xxi) Description of water conservation measures proposed to be adopted in the Project should be given.*

- (xxii) *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.*
- (xxiii) *PP should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory*
- (xxiv) *PP should clearly bring out the details of the manpower to be engaged for this project with their roles/responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged for implementation of environmental management plan (EMP).*
- (xxv) *The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this plantation in the safety zone at lease boundary the plantation should be completed within 2 years only.*
- (xxvi) *PP should submit the real-time aerial footage & video of the mining lease area and of the transportation route.*
- (xxvii) *PP should clearly bring out the details of the manpower to be engaged for this project with their roles/responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged for implementation of environmental management plan (EMP).*
- (xxviii) *PP should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral.*
- (xxix) *The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry*
- (xxx) *PP to seek permission of any nala or stream diversion from the competent authority*
- (xxxi) *PP shall submit letter from PCCF that mine does not fall under corridors of any National Park and Wildlife Sanctuary and does not involve any violation of forest area and wild sanctuary with certified map showing distance of nearest sanctuary*
- (xxxii) *Stage-I Forest Clearance for diversion for non-forestry activity shall be submitted, if applicable.*

Agenda No. 29.5

Expansion of Karwahi Opencast coal mine project sub block Gare IV/7 (production capacity 1.2 MTPA to 1.80 MTPA in an ML of 277.10 Ha) by M/s Sarda Energy Minerals Limited located at villages Karwahi, Khamaria, Saraitola, Dholnara & Bajarmuda Tehsil Karwahi, District Raigarh (Chattisgarh) - For Terms of References – reg.

[Online proposal no. IA/CG/CMIN/263727/2022; File no. J-11015/37/2004-IA-II(M)]

29.5.1 The proposal is for Terms of Reference to Expansion of Karwahi Opencast coal mine project sub block Gare IV/7 (production capacity 1.2 MTPA to 1.80 MTPA in an ML of 277.10 Ha) by M/s Sarda Energy Minerals Limited located at villages Karwahi, Khamaria, Saraitola, Dholnara & Bajarmuda Tehsil Karwahi, District Raigarh (Chattisgarh).

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

- (i) The project area is covered under Survey of India Topo Sheet No F44L8 Project site and is bounded by the geographical coordinates ranging from Latitude: 22°9'11.383"N & 22°9'49.32"N, Longitude: 83°28'59.858"E & 83°29'50.409"E.
- (ii) Coal linkage of the project is proposed for commercial sale of Coal.
- (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 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation, direct employment to 300 persons will be provided from the project.
- (vi) The project is reported to be beneficial in terms of direct and indirect employment generation in that region.
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No. J-11015/37/2004-IA.II (M) dated 30.09.2005 for 1.2 MTPA in mine lease area of 335.736 ha. The same has been transferred to M/s Sarda Energy and Minerals Limited vide Ministry's letter No. J-11015/37/2004-IA.II (M) (Part) dated 02.06.2021.
- (viii) Total mining lease area as per block allotment is 482 ha. Revised Mine Plan with mine closure plan for 277.10 ha is in progress.
- (ix) The land usage pattern of the project is as follows

Pre-mining

S. No.	Land Use	Within ML Area (ha)	Outside ML Area (ha)	Total (ha)
1	Agricultural Land	256.122	Nil	256.122
2	Forest Land	0	Nil	0
3	Govt./Non forest land/Others	5.528	Nil	5.528
4	Grazing land	9.344	Nil	9.344
5	Barren/Water bodies/Other use	3.435	Nil	3.435
6	Free Hold	2.671	Nil	2.671
Total		277.10	0	277.10

Land use during mining

S. No.	Land Use during mining	Land use (Proposed)	Land use (End of Life)	Land Use (Post Closure)					
				Plantation	Water Body	Agricultural land	Public Use	Undisturbed	Total
1	External OB Dump	7.89	7.89			7.89			7.89
2	Top soil Dump								
4	Excavated area	248.44							
	Backfilled area		143.24			143.24			143.24
	Excavated Void		105.20		68.29	36.91			105.20
5	Road & Infrastructure	0.60	0.60			0.60			0.60
6	Built up areas								
7	Green Belt	18.52	18.52	18.52					18.52
8	Safety Zone								
9	Undisturbed area								
	Haul Road b/w quarries	1.65	1.65			1.65			1.65
Total		277.10	277.10	18.52	68.29	190.29	0	0	277.10

Post-mining

S. No.	Type	Total Area	Reclaimed Area	Un-reclaimed Area
1	Excavation/Quarry Area :	248.44	180.15	68.29
	(a) Backfilled areas	143.24	143.24	-
	(b) Excavated Void	105.2	36.91	68.29
2	External Dump	7.89	7.89	-
3	Safety Zone			-
4	Roads & Infrastructure	0.6	0.6	-
5	Garland drains			-
6	Embankment			-

7	Others	20.17	20.17	-
Total		277.100	277.1	208.81

- (x) Total geological reserve reported in the mine lease area is 239.045 MT with 48.84MT mineable reserves. Out of total mineable reserve of 48.84MT, 46.40MT is available for extraction. Percent of extraction is 21.567%
- (xi) 9 seams with thickness ranging from 0.5 m to 6.86m are workable. Grade of coal is G-11, while gradient is 20 to 30
- (xii) Method of mining operations envisages by Opencast, Shovel Dumper, Surface Miner.
- (xiii) Life of mine is 24 years.
- (xiv) The project has 4 (3 existing + 1 Proposed) external OB dumps in an area of Dump-1 23.72ha, Dump-2: 22.712 ha, Dump-3: 12.17ha, Dump-4 : 2.80ha (Proposed) with Dump-1: 60 m, Dump-2: 50 m, Dump-3: 20m, Dump-4 : 60 m height and 157.14.
- (xv) Total quarry area is 248.44 Ha out of which backfilling will be done in 180.15 ha while final mine void will be created in an area of 68.29 Ha with a depth of 100m in northern side and about 65m in west side. Backfilled quarry area of 180.15 Ha shall be reclaimed with plantation. Final mine void will be converted water body.
- (xvi) Transportation of coal has been proposed by Loaders & Dumpers in mine pit head. The allotted coal block is a commercial coal block for sale of coal. The consumers/buyers will lift the coal from pit head by truck and transport the same to end use plant by rail/road,
- (xvii) Reclamation Plan in an area of 208.81 ha, comprising of 7.89 ha of external dump, 0 Ha of internal dump and 18.52 ha of green belt. In addition to this, an area of 182.4 ha, included in the safety zone/rationalization area, has also been proposed for green belt development (will be created as Agricultural Land).
- (xviii) No forest land has been reported to be involved in mine lease area.
- (xix) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project
- (xx) The ground water level has been reported to be varying between 0.42 to 12.49 m bgl during premonsoon and between 0.02 to 4.32m bgl during post-monsoon. Total water requirement for the project is 339 KLD
- (xxi) Approval of Central Ground Water Authority granted vide letter no 21-4/CGWA/RASL/03-1935 dated 29/10/2003. Further Comprehensive hydrogeological study with groundwater modeling on groundwater conditions in core and buffer zones of Gare Palma IV/7 Coal Mine for obtaining NOC from CGWB/CGWA is completed and Report is under preparation.
- (xxii) Public hearing for the project of 1.2 MTPA capacity in an area of 335.736 ha was conducted on 08.01.2003 at SDM Office, Tehsil-Gharghoda, District-Raigarh, Chattisgarh under the Chairmanship of SDM, Tehsil-Gharghoda, District-Raigarh, Chattisgarh Major issues raised in the public hearing include Appropriate action to address the issues raised in the Public Hearing have already been taken into account.
- (xxiii) Kelo River is flowing about 1.2 km away towards East direction of Karwahi opencast Coal Mine Lease Area is flowing

(xxiv) No court cases, violation cases are pending against the project of the PP.

(xxv) 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 2009 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 2007-08 onwards, is as under

Production Details		
Year	Coal	OB
	Ton	CUM
2007-08	-	1,63,487
2008-09	8,150	14,72,533
2009-10	2,91,127	20,65,056
2010-11	4,31,728	25,98,491
2011-12	7,74,028	23,02,694
2012-13	9,76,063	22,94,683
2013-14	11,64,789	21,38,093
2014-15	11,89,028	25,14,964
2015-16	the coal block was de-allocated	
2016-17		
2017-18		
2018-19		
2019-20		
2020-21		
2021-22	7,86,143	11,65,719

(xxvi) Total cost of the project is Rs 41.70 Cr (Rs. 31.70 Cr Existing + 10.00 Cr for Proposed Expansion.) Cost of production will depend on market demand. CSR cost as per Companies Act 2013, R&R cost is N.A. Environment Management Cost is Rs. 1.5 Crores.

(xxvii) Consent to Operate for the existing capacity was obtained from the State PCB on 03/08/2021 vide letter no. **2962/TS/CECB/2021** and is valid till **31/03/2024**

29.5.3 The EAC during deliberations noted the following:

- Standard TOR to this project was granted electronically on 9th April 2022.
- “Environmental Clearance” for Gare Palma IV/7 Coal Block was earlier accorded to M/s Raipur Alloys & Steel Limited vide letter No. J-11015/37/004.1A.II (M) dated 30.09.2005.
- After obtaining all the request approvals the mine operation commenced and the Mine was operational till 31st March 2015 as the coal block was de-allocated by the Hon’ble Supreme Court vide its judgement dated 25th August 2014 and order dated 24th September 2014.

- Thereafter M/s Monnet Ispat & Energy Limited, emerged as the successful bidder for the coal block through the coal block auction process and in accordance with the provisions of the vesting order the Environment Clearance was transferred from M/s Raipur Alloys & Steel Limited, to M/s Monnet Ispat & Energy Limited vide letter No. J-11015/37/2004.1A II (M) dated 11.05.2015.
- However the CMDPA between MIEL and NA was terminated vide order dated 30th December 2017 due to non achievement of Milestone and expiry of Bank Guarantee, the custody of the coal block was handed over to the Chairman, Coal India Limited vide notification dated 21st March 2018.
- Gare Palma IV/7 was then re-auctioned in Tranche 11 of auction under Coal Mines (Special Provisions) Act, 2015 conducted by the Nominated Authority, Ministry of Coal. M/s SARDA ENERGY & MINERALS LIMITED (“SEML” in short) has been declared as the successful bidder for Gare Palma IV/7 under the Tranche 11 of auction under CM (Special Provision) Act, 2015 conducted by the Nominated Authority, Ministry of Coal. The Nominated Authority, Ministry of Coal, Govt. of India has issued Vesting Order no. NA-104/18/2020-NA dated 08 March 2021.
- Ministry of Environment Forest and Climate Change Government of India vide letter no F. No. J-11015/37/2004-IA.II (m)(Part) dated 02.06.2021 has granted Transfer of Environmental Clearance for Karwahi Opencast Coal Mine Project (Production Capacity 1.2 MTPA) located in Karwahi, Khamariya, Tamnar, Saraitola and Dholnara in Raigarh District of Chhattisgarh from M/s Monnet Ispat & Energy Limited to M/s Sarda Energy and Minerals Limited.
- In earlier allotments, the area of Gare Palma IV/7 Block was 420 Ha and the mining lease was granted over 335.736 Ha. land. Owing to the boundary dispute among the sub block owners of Gare Palma Coal Block, the Central Mine Planning & Design Institute Limited (CMPDI) re-demarcated the boundary of the sub-divided blocks. In the process, the block area of Gare Palma IV/7 Coal Block got revised from 420 Ha to 482 Ha. (Major area addition on the north side and major area deletion on south side)
- Accordingly the Gare Palma IV/7 Block now vested in SEML has an area of 482 Ha. However the lease area and all the previously granted statutory clearances now transferred in SEML have remained same as those granted for previous block area of 420 ha.
- As a result of this re-demarcation, 58.636 Ha of land previously granted in the mining lease area falls outside the re-demarcated Gare Palma IV/7 block as allotted to SEML. Thus the previously granted lease area gets reduced to 277.100 Ha.
- The Mining Lease has been executed by the State Government on 23.11.2021 is over an area of 277.100 Ha.
- All the other per-requisite clearance has been received from State/Central Government and the mine was commissioned on 14th Dec 2021

29.5.4. The EAC after deliberations observed that the PP had filed the application under OM dated 28th July, 2014 in order to seek the exemption of the public hearing. EAC observed that this OM has now

superseded by earlier OMs of September 2017 and further by OM of April 2022. From discussion, it revealed that PP intends to enhance the production upto 50% by availing the relaxation contained in latest OM of April 2022. However, the Consultant by virtue of lack of knowledge has quoted the old OM. EAC asked PP to avail the relaxation of current OM, he has to apply in Form-2 with fulfillment of conditions contained in this OM. The committee also noted that the proposal has now become B-category as per the recent Notification dated 12th April 2022. However, PP insisted that application was filed prior to issue of Notification and may be considered at central level.

- (i) *Knowing the fact that application was submitted prior to Notification and being examined during transition zone, EAC accordingly opined that PP has to apply proper application in Form-2 on Parivesh at central level and should meet the requirement of OM of April 2022, which is currently not available in present application. PP was also advised to withdraw the standard TOR which was issued electronically on 9th April 2022.*

*The project is **deferred** on suggested lines.*

Agenda No. 29.6

Barsingsar Opencast Lignite Mine of capacity 2.1 MTPA in mine lease area of 971 ha by M/s Neyveli Lignite Corporation Limited at village Barsingsar, District Bikaner (Rajasthan) - For reconsideration of Term of Reference under violation category – reg.

[Online Proposal No. IA/RJ/CMIN/188918/2020; F No. J-15012/23/97-IA-II(M)]

29.6.1 The proposal is for reconsideration of **Term of Reference under violation category** for Barsingsar Opencast Lignite Mine of capacity 2.1 MTPA in mine lease area of 971 ha by M/s Neyveli Lignite Corporation Limited at village Barsingsar, District Bikaner (Rajasthan).

29.6.2 The EAC during deliberations noted the following:

- The proposal was considered in 8th EAC minutes held on 11th February, 2021 and EAC had recommended the proposal for grant of terms of References; however Ministry questioned to deal such type of cases in violation category as no window is available.
- As per Hon'ble Supreme Court dated 02.08.2017 in WP (Civil) case No-114/2014, the ToR/Environmental Clearance shall be liable to be terminated. The condition (xvii) is as per Ministry's Notification dated 14th March, 2017 and a decision was pending to modify the conditions on such proposals as per directions of Secretary (EF&CC) based on Giridih OCP of same proponent.
- Ministry's has issued the SOP to deal with violation cases vide OM. F. No. 22-21/ 2020 –IA.III Dated 28th January, 2022 and therefore proposal is placed in 29th EAC meeting held on 25th April, 2022

29.6.4 The EAC after deliberation found that as per the OM. F. No. 22-21/ 2020 –IA.III Dated 28th January, 2022 the project can be reconsidered for grant of ToR under violation category and in light of above, EAC recommended the grant of Terms of Reference Barsingsar Opencast Lignite Mine of capacity 2.1 MTPA in mine lease area of 971 ha by M/s Neyveli Lignite Corporation Limited at village Barsingsar, District Bikaner (Rajasthan) under violation category as per the OM dated 28th January, 2022 under the provisions of EIA Notification, 2006 and its amendments therein with specific conditions mentioned in the MoM of 8th EAC minutes held on 11th February, 2021.

Agenda No. 29.7

Bikram Opencast cum Underground Coal Mine with production capacity of 0.36 MTPA in an ML Area of 239 Ha by M/s Birla Corporation Limited located at Villages Bartara and Gopalpur, Tehsil Burhar, District Shahdol (Madhya Pradesh) – For Environmental Clearance-reg

[Online proposal No. IA/MP/CMIN/185753/2020; File No IA-J-11015/23/2020-IA-II(M)

29.7.1 The proposal is for reconsideration of Environment Clearance of Bikram Opencast cum Underground Coal Mine with production capacity of 0.36 MTPA in an ML Area of 239 Ha by M/s Birla Corporation Limited located at Villages Bartara and Gopalpur, Tehsil Burhar, District Shahdol (Madhya Pradesh).

29.7.2 The revision of Details of the proposal, as ascertained from the proposal documents are given as under:

Post Mining:

No.	Land use during Mining	Land Use (Ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1.	External OB Dump	0	0	0	0	0*
2.	Topsoil dump	0	0	0	0	0**
3.	Excavation	79.53	39.07	0	0	118.6
4.	Roads	2.3	0	0	0	2.3
5.	Builtup areas	2.00 [#]	0	0	0	2.00
6.	Green belt	15.53	0	0	0	15.53
7.	Safety Zone	-	-	-	-	-
8.	Undisturbed Area	0	0	0	98.97	98.97
9.	Surface water reservoir	0	1.60	0	0	1.60
		99.36	40.67	0	98.97	239

Note: *11.8 ha was on mineral bearing area, rehandled & backfilled by 10th year

** 3 ha was temporarily stored on area that was later excavated and backfilled

Facilities area

Source: Revised after ADS reply dated 26.03.2022

(i) The project has two temporary surface OB dumps inside lease for Dump 1 in an area of 9.16 ha with 35 m height and 1.58 BMm3 of OB and for Dump 2 in an area of 1.83 ha with 20 m height and 0.20 BMm3 of OB. At the end of OC mining operation after 23 years internal OB in an area of 79.53 ha with 36.09 Mm3 of OB backfilling is envisaged in the project.

(xviii) Reclamation Plan in an area of 99.36 ha, comprising of 79.53 ha of internal dump/backfilled dump, 15.53 ha green belt and 4.3 ha of facilities/ roads.

(xxxix) Total cost of the project as on date is about Rs. 289.45 Crores. Cost of production is Rs 2479 per tonne., CSR cost will be 2% of the average profit of three years as per Companies Act, R&R cost will be as per the R&R Plan. Revised Capital and recurring Environment Management Cost is Rs. 22.83 crore (capital) and Rs. 7.49 Crore per year (recurring).

29.7.3 The EAC during deliberations noted the following:

- Stage –I FC for 151.095 ha of forest land including 142.075 Ha of forest land in Reserve forest and 9.020 Ha revenue forest land vide letter no dated 8-34/2021-FC dated 21st April, 2022 is obtained by PP
- Earlier, the proposal was deferred in 26th EAC held during 18th February, 2022. PP has now submitted the point-wise compliance of observation of EAC and provided additional information on 27th March, 2022 which are enlisted below:

S. No.	Observation of EAC	Reply by PP
1	PP shall submit details of capital and recurring cost of the project/activities listed in EMP with allocated budget as per DPR of all proposed activities. Accordingly, EMP should be revised.	The capital cost is now revised from Rs. 15.40 crores to Rs. 22.83 crores. Recurring cost is now revised from Rs. 5.62 crores to Rs. 7.49 Crore per year.
2	PP shall submit details of addressing the issues raised in public hearing with specific action plan, timeline and fund allocation	Total 186 people attended the public hearing and 30 persons spoke/ raised issues which were related to generation of employment opportunity, provision of health care, drinking water & education, infrastructure development, pollution control measures, etc. Three citizens have given written representation. 161 nos. consent letters have been received in favour of opening the

		project. Questions/ comments/ demand raised during public hearing and plan of project proponent to address the issues along with budget and timeline has been submitted by PP																
3.	PP shall submit time bound action plan with its budgetary provision for green belt development with three tier (at least 50 mts width), preferably plantation of Sal species with nursery	<p>The Management has revised its planning in view of the ADS point no. 3, 4 & 5 and now proposes to implement plantation program over an area of 99.36 ha till mine closure stage, comprising of :</p> <ul style="list-style-type: none"> • 79.53 ha of internal/ backfilled dump, • 15.53 ha green belt and • 4.3 ha of facility. • also on temporary surface dump, along roadside & facilities as well. <p>The stage plans of Approved Mine Plan and Mine Closure Plan have been reviewed and it has been concluded that development of 50-meter-wide greenbelt all along the mine periphery is not feasible in view of the presence of essential facilities (haul roads & pit limit along the northern and southern boundary of Mine Lease).</p> <p>However, it is being proposed to provide 50 m thick greenbelt along the western boundary of disturbed area due to project (UG & OC) and 7.5 m thick greenbelt along the ML boundary in other three directions i.e. north, east and south. There is no habitation along S & E (within 100 m) except 2 houses</p> <p>After relocation of facilities outside the forest area (as required in subsequent ADS point), 5.53 ha become vacant and proposed to be converted into dense greenbelt.</p> <p>Time bound action plan with its budgetary provision for green belt development</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Stage/ year</th> <th style="text-align: center;">Greenbelt area (ha)</th> <th style="text-align: center;">Nos. of plants @2500 trees/ ha</th> <th style="text-align: center;">Budget, Rs. Lakh</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1st</td> <td style="text-align: center;">10.00</td> <td style="text-align: center;">25000</td> <td style="text-align: center;">75</td> </tr> <tr> <td style="text-align: center;">2nd</td> <td style="text-align: center;">5.53</td> <td style="text-align: center;">13825</td> <td style="text-align: center;">41.48</td> </tr> <tr> <td style="text-align: center;">Total</td> <td style="text-align: center;">15.53</td> <td style="text-align: center;">17225</td> <td style="text-align: center;">116.48</td> </tr> </tbody> </table> <p>Budget for the nursery development has been kept as Rs. 15 lakhs</p>	Stage/ year	Greenbelt area (ha)	Nos. of plants @2500 trees/ ha	Budget, Rs. Lakh	1 st	10.00	25000	75	2 nd	5.53	13825	41.48	Total	15.53	17225	116.48
Stage/ year	Greenbelt area (ha)	Nos. of plants @2500 trees/ ha	Budget, Rs. Lakh															
1 st	10.00	25000	75															
2 nd	5.53	13825	41.48															
Total	15.53	17225	116.48															

4	PP shall change the mining sequence and land use pattern so that no forest land shall be used for OB Dump, infrastructure, any other non-essential activities etc	The planning has been revised and the forest area, which was earlier occupied by non-essential activities such as OB dumping, infrastructure and other, is reduced by 78% by removing non-essential activities. A comparison table explaining the occupied forest land before and after revised planning, is given below:																												
		<table border="1"> <thead> <tr> <th data-bbox="683 447 1179 667" rowspan="2">Particulars</th> <th colspan="2" data-bbox="1179 447 1453 537">Forest land to be occupied, ha</th> <th data-bbox="1453 447 1521 537"></th> </tr> <tr> <th data-bbox="1179 537 1360 667">As per previous planning</th> <th data-bbox="1360 537 1453 667">As per revised planning</th> <th data-bbox="1453 537 1521 667"></th> </tr> </thead> <tbody> <tr> <td data-bbox="683 667 1179 722">Temporary OB dump</td> <td data-bbox="1179 667 1360 722">3.60</td> <td data-bbox="1360 667 1453 722">1.59</td> <td data-bbox="1453 667 1521 722"></td> </tr> <tr> <td data-bbox="683 722 1179 812">Infrastructure & stock yards and settling pond near OC pit head</td> <td data-bbox="1179 722 1360 812">1.23</td> <td data-bbox="1360 722 1453 812">0.00</td> <td data-bbox="1453 722 1521 812"></td> </tr> <tr> <td data-bbox="683 812 1179 867">Road</td> <td data-bbox="1179 812 1360 867">0.31</td> <td data-bbox="1360 812 1453 867">0.00</td> <td data-bbox="1453 812 1521 867"></td> </tr> <tr> <td data-bbox="683 867 1179 921">Temporary top soil dump</td> <td data-bbox="1179 867 1360 921">2.01</td> <td data-bbox="1360 867 1453 921">0.00</td> <td data-bbox="1453 867 1521 921"></td> </tr> <tr> <td data-bbox="683 921 1179 978">Total</td> <td data-bbox="1179 921 1360 978">7.15</td> <td data-bbox="1360 921 1453 978">1.59</td> <td data-bbox="1453 921 1521 978"></td> </tr> </tbody> </table>	Particulars	Forest land to be occupied, ha			As per previous planning	As per revised planning		Temporary OB dump	3.60	1.59		Infrastructure & stock yards and settling pond near OC pit head	1.23	0.00		Road	0.31	0.00		Temporary top soil dump	2.01	0.00		Total	7.15	1.59		
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		<ul style="list-style-type: none"> • Forest area occupied by the Infrastructure & stock yards & their connecting road and settling ponds, which are located near OC pit head, and a temporary top soil dump all have been 100% relocated to non forest land within ML area. • 100% relocation of OB dump on non forest land was not possible due to following reason: <ul style="list-style-type: none"> ➤ Shortage of availability of non forest land within applied ML area. ➤ Irregular shape of available non forest land at already planned dump location: Although it is possible to adjust OB dump shape according to the irregular forest boundary, but it is simultaneously not possible to accommodate 1.78 Mcum overburden because of the dump height gets restricted due to limitation in maintaining slope & providing space for safe dumper movement. ➤ Thus, OB quantity (1.78 Mcum) has been accommodated in two separate dump i.e. Dump-1 and Dump-2. Dump-1 is at non forest land which will be 																												

		<p>rehandled and backfilled during 6th Year of OC operation. Whereas at Dump-2, it became essential to take 1.59 ha forest land to accommodate the balance overburden quantity.</p> <p>➤ Out of 1.59 ha, 0.75 ha land comes under revenue forest where not a single tree is present. Thus, only 0.84 ha of forest land may be considered to be disturbed.</p>
5	PP shall submit stage wise mine operation of opencast and accordingly plan of development of afforestation with requisite allocated fund	<p>Stage wise mine operation of opencast and afforestation plan along with budget (Rs. 593.99 Lakh say Rs. 594 Lakh) has been presented</p> <p>Plantation plan will be implemented over 95.063 ha land including green belt till the end of life of mine and further during post mine closure (PMC) period the dismantled facilities and reservoir will be planted. Thus, at PMC stage, there will be plantation over 99.363 ha. The total budget proposed for the same is Rs. 594 Lakh</p>
6	PP shall submit list of species of flora and fauna vetted by DFO based on primary survey	List of species of flora and fauna vetted by DFO based on primary survey has been submitted along with English translation of the authentication letter.
7	PP shall submit justification of carrying the open cast mining w.r.t carbon foot print and carbon sink of the existing forest area for next 10 years and with compensatory provisions	Forest desertification and mining operation energy consumption vs Compensatory Afforestation & Plantation was provided and it was found that carbon emission was exceeding carbon sequestration. So the consultant had recommended PP for its mitigation by using green energy generation via installation solar power generation plant of 1 MWH for which PP had agreed upon

8	PP shall submit the details of habitation (within 100 mts of both side road ends) along with road route and width of road till Burhar Railway siding and Chhadda Railway siding.	The summarized road width details are given below.									
		Route	Length, km	Length of Stretch (in km) w.r.t. Type				Type of road			
				Single Lane (<5.5 m)	Intermediate (>=5.5 m)	Two Lane (> 7 m)	Multi-lane (>=10 m)	Black top	Concrete	WBM / Hauler road	Other
		Min e to Burhar RS	5.42	0.69	0.67	4.06	0	4.73	0	0.69	0
Min e to Chhadda RS	16.16	3.80	0.00	12.36	0	11.06	4.41	0.69	0		
9	PP shall submit plan for transportation of coal only till Burhar Railway Siding and optimize the fleet size (size of dumpers/trucks). Further timeline of construction of Mine exit-1 and exit 2 and its DPR shall be submitted	<ul style="list-style-type: none"> • Currently, no railway siding exists at Burhar and Chhadda Railway station. Although the stations are open for traffic of coal, but there is need to construct a siding either by some private party (individually or jointly) or by the Indian railway themselves. • Considering the low coal production of Bikram Coal Mine i.e. about 1090 TPD of coal, one rake of coal (capacity ~4500 tonne) will be evacuated once in four days (1090 T X 4 days = 4360 T). Hence, constructing a railway siding at Burhar will not be feasible for Birla Corporation. • Nearest existing coal siding is Amlai railway siding located at a distance of 14 km by road in ESE direction. As per the discussion held with the incharge of the railway siding and Indian Railway Official, it was found that the siding's capacity is already utilized by existing users (SECL, Orient Paper Mill, etc.) • Thus, it is not available for Bikram Coal Mine currently. Indian Railway may explore the option of loading of coal produced from Bikram Coal Mine in near future, if the capacity of siding increases or material handling scenario changes. 									

		<ul style="list-style-type: none"> • Thus, in view of the above, Management has to keep option of coal transportation by road open and it is being proposed to transport coal by road directly through trucks for initial years, till capacity at an existing railway siding becomes available or a new one is constructed nearby to the mine. • However, to reduce impact on traffic volume on road, it is proposed to reduce the fleet size by increasing the truck size from 10 tonne to average 35 Tonne. Thus, there will be to & fro movement of only 64 trucks/ tippers per day or 3 trucks per hour. <p>Timeline of construction of road from Mine Exit-1 and Exit-2 till the main road: For approaching the main road from mine, two option i.e. Mine Exit-1 and Mine Exit-2 have been selected (refer figure given below). DPR has been prepared considering both the option and it has been concluded that Mine exit 2 will be constructed</p> <p>The road will be of concrete type having carriageway width of will be 7.5 m. There will be 1.5 m wide paved shoulders/ footpath on either side of the road. The timeline has been set for the same as December 2023. DPR of the same has been submitted by PP</p>
10	PP shall provide an elaboration on Environmental cost benefit analysis with reference to the open cast mining instead of underground or to leave that reserve of coal as it is.	<ul style="list-style-type: none"> • Environment cost benefit analysis has been submitted. • It has been concluded that the benefit: cost ratio is more in Opencast Method (10.95) which is more than 1.5 times as compare to Underground (7.25). • Further, at local level direct employment will be there for 305 persons directly in the opencast mining. Thus, extraction of 3.758 Mt coal reserve at shallow depth will be beneficial for proponent as well as for local society & Government through opencast mining method only.
11	PP shall submit plan for construction of Sewage Treatment Plant for its employees at proposed colony	<ul style="list-style-type: none"> • Colony is not proposed currently. Mining activities are existing in Sohagpur Coalfield in the nearby area, hence, most of the required type of manpower will be available in the area. Outside manpower will have options to stay in nearby villages and in Burhar town. However, essential quarters will be provided at site for temporary stay and as rest shelter. • Domestic waste water generation has been estimated as 27.2 KLD from the project. Treatment of domestic waste

		water shall be through centralised system of STPs at opencast pit head and under ground mine entry, with 16 KLD STPs at both places. Budget : Rs. 15 Lakh and included in the revised EMP budget
12	PP shall submit Social Impact Assessment & Management Plan in line with the Form B and Form C under Rule 5 of Madhya Pradesh Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015	The Social Impact Assessment & Management Plan in line with the Form B and Form C under Rule 5 of Madhya Pradesh Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015 has been submitted by PP
13	PP shall upload a copy of approved Mining plan include Mine Closure Plan on PARIVESH Portal	The PP had uploaded the mine closure plan on PARIVESH Portal

29.7.4 *The EAC, after deliberations found that instant proposal is a green field project and observed the points raised by EAC are responded adequately. It was also observed that the within 10 km radius many active mines are located so EAC enquired whether the cumulative impact assessment was considered. In response, the consultant confirmed that while predicting the traffic study and its impact on air quality, the traffic moments from nearby mines was taken into consideration.*

Apart from the response of EAC, the Committee observed commitment of PP in obtaining Stage –I FC for 151.095 ha of forest land vide letter no dated 8-34/2021-FC dated 21st April, 2022. EAC also appreciated the efforts of the consultant for assessment of carbon foot printing and suggested installation of 1 MWH of Solar power plant. PP had also committed vide letter dated 26.04.2022 that a nursery of Sal trees, other medicinal & local species shall be developed before monsoon season of 2022; which shall be used tree plantation and greenbelt development. A solar plant (1MW) shall be developed over backfilled area of opencast mine within 5 years. Road side plantation along the villages falling on the route to Burhar Railway siding shall be commenced in consultation with villagers and local authorities. A concrete road from ML area to nearby main road will be constructed by December 2023.

On enquiry about coal transportation through railway siding, PP confirmed that road transportation shall continue for first 5 years but assured that they will keep a frequent follow up with the Indian railways for Rajasthan route. But for power plant located within 250 km PP had requested for allowing road transportation as it economically and environmentally more viable.

*EAC finally **recommended** the proposal for Environmental Clearance to Bikram Opencast cum Underground Coal Mine with production capacity of 0.36 MTPA in an ML Area of 239 Ha by M/s Birla Corporation Limited located at Villages Bartara and Gopalpur, Tehsil Burhar, District Shahdol (Madhya*

Pradesh) as per Ministry's Notification dated 6th April, 2018, under the provisions of EIA Notification, 2006 and its amendments therein with following additional specific conditions to be followed:

- (i) PP to obtain the CTO for 0.36 MTPA capacity after grant of EC.
- (ii) Coal Transportation by Road route is permitted for 5 years and further transportation shall be conducted only through railway siding. PP to submit the action taken and proof of consultation with railway in this regard to IRO, MoEF&CC in six monthly reports. .
- (iii) PP shall focus on tree plantation along the area proposed by PP far from North to west to South direction near the dump 2 and before the habitation & in the east direction too for 100 mts with miyawaki technique. A detailed action plan with budgetary provision should be submitted within 6 months to IRO. Areal images in this regard should be submitted in six monthly reports to IRO as a proof.
- (iv) 1.59 ha forest land can only be used to accommodate the overburden quantity. Out of 1.59 ha, 0.75 ha land comes under revenue forest where not a single tree is present. Thus, only 0.84 ha of forest land may be considered to be disturbed. While reclamation the plantation to be carried out at 1.59 ha with proper maintenance. before handling
- (v) 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 mining site for compliance of EC conditions.
- (vi) PP to fulfill all the commitment made to address the public hearing issued in time bound manner as committed vide letter BCL/EC/ Bikram/08/22 dated 26.03.2022 and a progressive report to be furnished to IRO with every six monthly compliance report
- (vii) PP shall comply to its letter Refer no. BCL/EC/ bikram/11/22 dated 26th April, 2022 submitted for Sal nursery development by June, 2022, Installation of Solar Power plant of 1 MWH in 5 years, Road side plantation in consultation with gram panchayat which should be initiated by June, 2022, development of haul road by March, 2023 instead of December 2023. PP to maintain the topped haul road properly to minimized the dust emission.
- (viii) PP to develop pucca roads connecting to State Highway 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. A record of it to be submitted to the respective IRO in six monthly compliance reports. All along the road tree plantation of about 20-30 mts shall be maintained.
- (ix) PP to furnish the record (audited) of actual budgetary expenditure for EMP in respect of capital cost of Rs. 22.83 crores & Recurring cost of Rs. 7.49 Crore per year.
- (x) PP to monitor the water quality of the ground water and surface water body located within the core zone and 5 km radius from the periphery of the mine boundary as per procedure laid down by CPCB.
- (xi) PP to install 1 more continuous ambient air quality monitoring stations at suitable locations preferably village side with consultation of SPCB. The real time data so generated shall be uploaded on company website and linked it with website of CPCB &SPCB. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.
- (xii) PP shall develop 2 water harvesting pond near the villages of suitable area as suggested by EAC in consultation with Gram Panchayat within 1 year.

- (xiii) *PP shall deploy atleast 5 number of fog canons with 40 mts throw for mitigation of fugitive dust during mining operations within six months.*
- (xiv) *PP to plant additional 100,000 plants with three tier plantation along the haul Roads, if not completed, and identified areas with consent to the gram panchayat within one year and plant for remaining within 1 year for their proper growth.*
- (xv) *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*
- (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. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented. The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities*
- (xvii) *Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records*
- (xviii) *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*
- (xix) *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.*
- (xx) *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.*
- (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 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. 29.8

Wet Type Coal Washery Project based on Heavy Media Cyclone of production capacity 2.5 MTPA in an area of 15 acres of M/s R.K Transport & Constructions Limited located at Village Gorbi, Tehsil Chitrangi, District Singrauli (Madhya Pradesh)- For reconsideration in Environmental Clearance – reg.

[Online proposal IA/MP/CMIN/182374/2020, File No IA-J-11015/21/2020-IAII(M)]

29.8.1 The proposal is for reconsideration of Environment Clearance of Wet Type Coal Washery Project based on Heavy Media Cyclone of production capacity 2.5 MTPA in an area of 15 acres of M/s R.K Transport & Constructions Limited located at Village Gorbi, Tehsil Chitrangi, District Singrauli (Madhya Pradesh).

29.8.2 The EAC during deliberations noted the following:

- The proposal was deferred in 27th EAC held during 3rd and 4th March, 2022 and it was deferred for want of certain information regarding location/distance of project from boundaries of CPA.
- PP has submitted the compliance of observation of EAC and provided additional information on date 05th April, 2022 which are enlisted below:

S. No.	Observation of EAC	Reply by PP
1	Due to inconsistencies of coordinates, PP must clarify that coordinates of project sites as given in EIA-EMP report will not fall within boundaries of CPA (w.r.t. nearest points project site). A confirmation/vetting letter in this regard should be submitted from Member Secretary in SPCB..	The project site falls outside the CPA boundary of Singrauli. Confirmation /vetting vide letter no. 1890/HOMPPCB/Tech/ Singrauli/2022 dated 30.03.2022 regarding the same from Member Secretary, SPCB is provided by PP
2.	The cumulative impact assessment study of the area, being already severely polluted, needs to be reassessed in view of several coal mines already operating within command area and; accordingly, air	The coal washery project site and both the railway sidings fall outside the SPA/CPA boundary. The air pollution from coal mines are captured in the baseline ambient air quality data generated in the 10 km area. Air modelling of the proposed coal washery was carried out by following the CPCB guidelines using AERMOD software. The cumulative impact assessment is furnished by PP

	modelling needs to be done with latest modal																												
3.	The proposed bifurcation of CER and CSR activity in time bound manner with budgetary provision needs to be furnished by PP	As per MoEF&CC Office Memorandum vide F.No.22-65/2017-IA.III dated. 30-9-2020 Rs.65.1 lakhs have been allocated as CER fund for addressing the concerns raised during public hearing. CSR activities and funding are covered exclusively under section 135 of the Companies Act 2013. Company will abide by the rules. CSR activities will be taken up after the plant starts operations and makes profit.																											
4	The socio-economic study needs revision based on primary data in light of facilitation of infrastructure to be created under CSR activities	Total budget of 50 Lakh has been earmarked for CER budget and proposed CSR activities related to infrastructure development <table border="1"> <thead> <tr> <th>S. No</th> <th>Planned Activities under CER as per Specific needs</th> <th>Budget (Lakh)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Construction of Bus Stop on NH (near Indian Oil Petrol Pump, Village Gorbi)</td> <td>5</td> </tr> <tr> <td>2</td> <td>Making 2 Classrooms in Government School in Gorbi village</td> <td>10</td> </tr> <tr> <td>3</td> <td>Making Community Hall for organising festivals and marriage ceremony in Gorbi village</td> <td>10</td> </tr> <tr> <td>4</td> <td>Making boundary wall in the Govt School at Gorbi village</td> <td>5</td> </tr> <tr> <td>5</td> <td>Making boundary wall in the Govt Hospital at Chitrangi</td> <td>5</td> </tr> <tr> <td>6</td> <td>Install 20 solar street lights in Gorbi village</td> <td>10</td> </tr> <tr> <td>7</td> <td>Develop concrete road 800 m in Gorbi village</td> <td>5</td> </tr> <tr> <td colspan="2">Total</td> <td>50</td> </tr> </tbody> </table>	S. No	Planned Activities under CER as per Specific needs	Budget (Lakh)	1	Construction of Bus Stop on NH (near Indian Oil Petrol Pump, Village Gorbi)	5	2	Making 2 Classrooms in Government School in Gorbi village	10	3	Making Community Hall for organising festivals and marriage ceremony in Gorbi village	10	4	Making boundary wall in the Govt School at Gorbi village	5	5	Making boundary wall in the Govt Hospital at Chitrangi	5	6	Install 20 solar street lights in Gorbi village	10	7	Develop concrete road 800 m in Gorbi village	5	Total		50
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Total		50																											
5	EMP measure to be adopted as per the state action plan for abatement of pollution in Singrauli District provided by MPPCB, which are not furnished in EIA/EMP report.	The project falls outside the SPA/CPA. This has been certified by MS, MPPCB. Hence compliance of state action plan is not applicable. However, The capital cost for environmental management of the proposed project is estimated to be Rs.416.1 lakhs. Rs.101.5 lakhs per year will be required as annual recurring expenses to meet the recurring expenditure for implementing the measures.																											

		S. No	Activities	Capital Cost (Lakhs)	Recurring expenses per annum (Lakhs)
		1	Air Pollution Control Measures	115	26.5
		2	Water Pollution Control Measures	120	35
		3	Green Belt development	19	7.50
		4	Occupational health and Safety	20	10
		5	EMC	10	5
		6	Risk Mtigation measures	20	
		7	CER Budget (Public heraing)	62.1	-
		8	EMP during construction phase	-	10
			Total	416.1	101.5
6	The proper land use break- up of the project site to be provided in Ha	S. No	Details	Area (Hectares)	Percentage (%)
		1	Washery Plant	1.08	17.80
		2	Raw Coal, Stock Yard, Clean Coal, & Rejects	1.53	25.04
		3	Other Facilities (Internal Roads, Thickner, admin building. etc.)	032	5.10
		4	Greenbelt Development/ Plantation Area	2.50	41.20

		5	Ponds for Run Off Water	0.64	10.50
				6.07 Ha	100 %
7	The detail of the provision of supplying clean drinking water to the nearby villages to be given by PP with timeline	Water requirement for the project is 490 KLD. Water will be sourced from Parewa Nalla through dedicated pipeline and permission has been obtained. Company is committed to allow the pipeline for supplying drinking water to Gorbi, Muher and Chamarkhoh village. For this purpose, company will bear the cost of pipeline, etc. Budget of Rs.22.5 Lakh has been already earmarked in the CER Budget. The work will be completed in FY 2022-2023			

29.8.3 *The EAC, after deliberations found that instant proposal is a green field project and observed that though the project lies in the Singrauli district but is located 3 km away from CEPI area as per the letter vetted by Member Secretary, MPPCB. EAC found that cumulative impact assessment was conducted by consultant which inferred that the impact of proposed coal washery on the existing air pollution will be negligible. There will be no cumulative impact on the water pollution and land pollution. The existing Highway has adequate capacity to accommodate the additional traffic due to the new coal washery.*

EAC pointed out the ignorance of consultant and PP for not taking state action plan for abatement of pollution in EMP measures simply by justifying that the project does not fall under the CEPI region of Singrauli District and EAC mandatorily recommended the PP to follow the state action plan as the project site is not too far from boundaries of CPA in Singrauli district and the CEPI score is dynamic in nature.

*EAC finally **recommended** the proposal for Environmental Clearance to Wet Type Coal Washery Project based on Heavy Media Cyclone of production capacity 2.5 MTPA in an area of 15 acres of M/s R.K Transport & Constructions Limited located at Village Gorbi, Tehsil Chitrangi, District Singrauli (Madhya Pradesh) as per Ministry's Notification dated 6th April, 2018, under the provisions of EIA Notification, 2006 and its amendments therein with following additional specific conditions to be followed:*

- (i) PP to obtain the CTO for 2.5 MTPA capacity after grant of EC.*
- (ii) The technology so chosen for ETP within washery should conform to 'Zero Liquid Discharge'. No treated wastewater shall be discharged outside the boundaries of project area.*
- (iii) Heavy metal content in raw coal, and washed coal shall be analysed once in a year and records maintained thereof and it should be reported in IRO, report.*
- (iv) PP to fulfill all the commitment made to address the public hearing issued in time bound manner as committed and a compliance report should be furnished to IRO in every six monthly compliance report*
- (v) PP shall focus on tree plantation along the area proposed for 2.50 Ha along the periphery of the washery including avenue plantation and also plantation on haul roads to be done by June 2022.*

- (vi) *Thick green belt of 30-45 m width to be provided around the washery to mitigate/check the dust pollution. A 3-tier avenue plantation 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.*
- (vii) *EMP measure to be adopted or dovetail as per the state action plan for abatement of pollution in Singrauli District provided by MPPCB, and revised EMP report to be furnished to IRO with six monthly compliances.*
- (viii) *Total fresh water requirement shall not exceed 490 KLD proposed to be met through pipeline from Parewa nallah. The Company's commitment to allow the pipeline coming from Parewa Nallah for supplying drinking water to Gorbi, Muher and Chamarkhoh village to be fulfilled within 1 year*
- (ix) *PP to install 1 more continuous ambient air quality monitoring stations at suitable locations preferably village side with consultation of SPCB. The real time data so generated shall be uploaded on company website and linked it with website of CPCB &SPCB. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.*
- (x) *The impact of proposed project/activity on hydrological regime of the area shall be assessed and report to be submitted within the six month and recommendation shall be implemented*
- (xi) *The beautification of 2 ponds located nearby by the washery plants must be taken up by the PP with consultation of competent authority*
- (xii) *Solar street light to be installed with its proper maintenance along the road of 2.5 km reaching the Kathi – Singrauli highway.*
- (xiii) *Transportation of raw coal should be done by closed conveyor belt uphill railway siding as no road transportation will be allowed*
- (xiv) *The ROM coal shall be washed to bring down the ash content to <34%, ensuring more than 7% reduction in ash should be taken care off as committed by PP*
- (xv) *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.*

Agenda No. 29.9

The Penagadapa OC mine of 1.5/ 2.25 MTPA (N/P) in ML area of 415.768 Ha of M/s Singareni Collieries Co Ltd located in Mahammad Nagar of Tippanapally village, Chandrugonda Mandal District Bhadradi Kothagudem (Telangana) – For Terms of References -reg.

[Online Proposal No. IA/TG/CMIN/260386/2022; F. No. IA-J-11015/17/2022-IA-II(M)]

29.9.1 The proposal is for Terms of Reference to the Penagadapa OC mine of 1.5/ 2.25 MTPA (N/P) in ML area of 415.768 Ha of M/s Singareni Collieries Co Ltd located in Mahammad Nagar of Tippanapally village, Chandrugonda Mandal District Bhadradi Kothagudem, (Telangana).

29.2.2 The 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. 65C/11 (E44O11) and is bounded by the geographical coordinates ranging from Latitudes 17°24'32.07" to 17°26'13.13 and East Longitudes 80°39'20.66" to 80°40'30.41"
- (ii) Coal linkage will be as per the Fuel Supply Agreement.
- (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, Permanent/Contractual employment to 46/270 persons will be provided from the project.
- (vi) The project is reported to be beneficial in terms of socio-economic and improving living standards.
- (vii) Total project area is 415.768 ha. Mining Plan (Including Mine Closure Plan) has been approved by MoC vide F.No. CC/MPMC/207/2021/PENAGADAPA, Dt.31st January, 2022.
- (viii) The land usage pattern of the project is as follows

Pre-mining Land use details

Land use	Within ML Area(ha)	Outside ML Area(ha)	Total (ha)
Forest Land	242.9869	-	242.9869
Agriculture	164.6016	-	164.6016
Water bodies	1.7128	-	1.7128
Roads	0.8148	-	0.8148
Township	5.6519	-	5.6519
Total	415.7680	-	415.7680

Post Mining:

Post Closure Land use status is furnished hereunder

Type	Land use (ha)				
	Plantation	Water body	Public/ Company Use	Forest land (Returned)	Total
Excavation Area					
Backfilled Area	3.1058			116.8392	119.945
Excavated void				88.822	88.822

External dump	128.4281			0.1929	128.621
Safety zone	28.9852		3.1919	25.0289	57.206
Road diversion				3.1820	3.182
Diversion/below river/Nala/canal		0.380			0.380
Settling pond		1.5539		0.1071	1.661
Road and infra structure area	4.6557			6.0973	10.753
Garland drains		2.1835		2.7175	4.901
Embankment	0.2970				0.297
Total	165.4718	4.1174	3.1919	242.9869	415.768

- (xvi) Total geological reserves reported in the mine lease area are 37.98 MT with 21.98 MT mineable reserves. Out of total mineable reserves of 21.98 MT, 20.88 MT are available for extraction. Percent of extraction is 95%.
- (xvii) 2 seams viz. Index above 1 seam with thickness ranging from 1.07 m - 2.25 m and 1 seam thickness ranging from 5.44 m -16.85 m are workable. Average grade of coal is G-13, stripping ratio 10.11 Cum of OB per 1 tonne of coal, while gradient is 1 in 6.5 to 9.
- (xviii) Method of mining operations envisages by Opencast method.
- (xix) Life of mine is 17 years including construction period.
- (xx) The project has one external OB dump in an area of 128.621 ha with 120 m height and 69.481 Mm³ of OB (Hard OB 68.632 Mm³ and Topsoil 0.849 Mm³). The project has one Internal OB dump in total area of 119.945 ha with 142.262 Mm³ (141.445 Mm³ Hard OB & 0.817 Mm³ Top Soil) of OB is envisaged in the project.
- (xxi) Total quarry area is 208.767 ha out of which backfilling will be done in 119.945 ha while final mine void will be created in an area of 88.822 ha with a depth of 160 m. Backfilled quarry area of 119.945 ha shall be reclaimed with plantation Final mine void will be converted into water body.
- (xxii) Transportation of coal has been proposed as.. from In pit to surface by Dumpers, from surface to siding/loading by Trucks and from siding/loading to end users by rail.
- (xxiii) Reclamation Plan in an area of 310.892 ha, comprising of 128.621 ha of external dump, 119.945 ha of internal dump, 51.276 ha of green belt and 11.05 ha others.
- (xxiv) 24.9869 ha of forest land has been reported to be involved in the project.
- (xxv) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- (xxvi) Wildlife conservation plan for Scheduled-I species will be prepared as per the requirement.
- (xxvii) The ground water level has been reported to be varying between 4.80 m to 10.68 m during pre-monsoon and between 1.82 m to 5.61 m during post-monsoon. Total water requirement for the project is 1080 KLD.
- (xxviii) Application for obtaining the approval of central ground water authority: Will be obtained after grant of EC.
- (xxix) Public hearing for the project: Will be conducted as per ToR.

- (xxx) Consent to Operate will be obtained after grant of EC.
- (xxxi) No River/nalla is flowing within the boundary of lease. A small seasonal nallah passing through the external dump will be diverted for a length of 0.58 km during 2nd year.
- (xxxii) Regular monitoring of ambient air quality: will be carried out as per the EC conditions
- (xxxiii) No court cases, violation cases are pending against the project of the PP.
- (xxxiv) The Project does not involve violation of the EIA Notification, 2006 and amendment issued there under.
- (xxxv) The project involves 70 PAFs and 200 PDFs. R&R of the PAPs will be done as per RFCT LARR ACT 2013/R&R Policy of State Government
- (xxxvi) Total cost of the project is Rs. 280.12 Crores. Cost of production is Rs. 1,815/- per tonne, CSR cost is 2% of average net profits of the company made during last three years at company level, R&R cost is Rs. 78.00 Crores. Environment Management Capital cost is Rs. 48.45 Crores and Recurring cost is Rs. 2.22 Crores per annum @ ₹14.78 per tonne.

29.9.3 The EAC during deliberations noted the following:

- Penagadapa Coal Block was allotted to the SCCL vide F.No.103/7/2016/NA,
- Dt.27.10.2016 under the provisions of Coal Mines (Special Provisions) Rules, 2014.
- Mining Plan (Including Mine Closure Plan) was approved by MoC vide F.No.
- CC/MPMC/207/2021/PENAGADAPA, Dt.31st January, 2022.
 - The proposal is a green field project
 - 24.9869 ha of forest land has been reported to be involved in the project
 - A small seasonal nallah passing through the proposed external dump will be diverted for a length of 0.58 km during 2nd year

29.9.4 *The EAC, after deliberations found it is green field project and the project will be further transferred to the state authority for Environmental Clearance as per the latest notification issued by MoEF&CC under which instant proposal is classified as B -category .*

*EAC finally **recommended** Terms of References with **transfer of this project to State SEIAA/SEAC to The Penagadapa OC mine of 1.5/ 2.25 MTPA (N/P) in ML area of 415.768 Ha of M/s Singareni Collieries Co Ltd located in Mahammad Nagar of Tippnapally village, Chandrugonda Mandal District Bhadradi Kothagudem, (Telangana) as per Ministry's Notification dated 6th April, 2018, under the provisions of EIA Notification, 2006 and its amendments therein with following additional specific conditions to be followed:***

Statutory

- *The Stage –I FC to be obtained by PP for 24.9869 Ha*
- *The DPR of the nala diversion and its approval from the competent authority to be provided by PP during the EC*
- *Public Consultation, shall be conducted through the concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal. All the issues*

should be incorporated in EIA along with its time bound action plan and budgetary provision. Also the issue raised in public hearing held earlier should also be addressed with time line action plan and budgetary provision in EIA/EMP report.

- *PP should submit the real time aerial footage and video of the Mining lease area made through drone with a special focus on the area adjacent to the rivers.*
- *PP shall prepare a Plan for implementation of Continuous Automatic Air Quality Monitoring Station (CAAQMS) at mine site or its vicinity.*
- *PP to prepare water augmentation plan with its budgetary provision in respect to the water withdrawal in nearby location and PP shall propose to fishery culture in the surface water body located towards the east boundary of the mine.*
- *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.*

Monitoring

- *In addition to existing data already collected (if any), PP shall collect one month additional data of all environmental parameters and shall compare with the data of earlier data collected for cumulative assessment of area.*
- *Air pollution impact predication shall be conducted by considering the maximum values.*
- *Wind rose pattern in the area should be reviewed and accordingly location of AAQMS shall be planned by the collection of air quality data. Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area.*
- *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*
- *The impact of mine operation on the river bodies flowing within the boundary of the mine with its mitigation measures adopted should be clearly spell in the EIA/EMP report with flood plain protection measures.*
- *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 in Air quality and other parameters Arsenic, Lead shall also be analyzed in ambient air quality & to be furnished in EIA/EMP report*
- *The PP while carrying out base line monitoring should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should also submit the original Lab reports of air, water, soil and noise quality and NABL/MoEF&CC certificates of the respective laboratory.*
- *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.*
- *A detailed traffic study along with presence of habitation in 100 mts distance from both side of road,*

the impact on the air quality with its proper measures and plan of action with timeline for widening of road. The project will increase the no. of vehicle along the road which will indirectly contribute to carbon emission so what will be the compensatory action plan should be clearly spell out in EIA/ EMP report.

- *The socio-economic study to be conducted with actual survey report and a comparative assessment to be provided from the census data of 2011-part B to be provided in EIA/ EMP report also economic status of the study area and what economically project will contribute should be clearly mention. The study should also include the status of infrastructural facilities and amenities present in the study area and a comparative assessment with census data of 2011 part A to be provided and to link it with the initialization and quantification of need based survey for CSR activities to be followed.*
- *The Ecology and biodiversity study should also indicate the likely impact of change in forest area for surface infrastructural development or mining activity in relation to the climate change of that area and what will be the compensatory measure to be adopted by PP to minimize the impact of forest diversion.*

Infrastructure & Mine Management

- *In pit conveyor 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.*
- *PP shall submit detailed plan for implementation of railway siding for evacuation of coal with its target date of completion. Target date should be such that railway siding should be operational within 3 years of commissioning of mine operations. Forest Clearance shall be submitted if railway siding land comes under forest land.*
- *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 by i.e. the likely emissions of greenhouse gases from the mining operations to be estimated with the modelling for future prediction related to the climate of that study area.*
- *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. Proposal for use of electric driven battery dumper shall be proposed being area is already polluted.*
- *Details of toe wall and garland drain to be constructed along the OB dump and proper plantation to be carried out*
- *Reclamation to be done using geo-texturing technique of the dumps close to habitation and a cause of visual intrusion. 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.*
- *PP should bring out the awareness campaign to be carried out on various Environmental issues, practical training facility to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.*
- *Details of Fog mist sprayer (static water sprinklers) at coal stock yard and along the permanent haul*

road.

- *PP shall propose to use LNG/CNG based mining machineries and trucks for mining operation and transportation of coal.*
- *No trucks or vehicles used for transportation of Coal to be passed by village roads or roads located near to the villages. PP shall develop a pucca haul road for transportation of coal proper widening considering its carrying capacity, lightening and three tire plantation along the haul road. Details of black topping of permanent haul roads to be furnished in EIA /EMP report with its measurement and budgetary provision.*

Other

- *The environmental sensitivity mentioning not only about the surface water bodies, Forest areas, Inter-state or country boundary etc but also the nearby other mines, coal washery, power plants and other industries etc located within the 10 km radius buffer zone present with its distance and direction from the periphery of the project boundary must be furnished in EIA/EMP report.*
- *Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report*
- *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. PP shall be submitting R &R in respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programs prepared and submitted accordingly, integrating the sectoral programs of line departments of the State Government.*

Agenda No. 29.10

Proposed coal washery of 1.2 MTPA along with (expansion of existing coal crusher 0.6MTPA) in an area of 6.46 Ha based on heavy media cyclone technology by M/s Coalman Logistics (India) Private Limited located at Village Gatouri/Jalso, Tehsil & District Bilaspur (Chhattisgarh). - For Terms of Reference – reg.

[Online proposal IA/CG/CMIN/266207/2022, File No. J - IA-J-11015/24/2022-IA-II(M)]

29.10.1 The proposal is for Terms of Reference to Proposed coal washery of 1.2 MTPA along with (expansion of existing coal crusher 0.6MTPA) in an area of 6.46 Ha based on heavy media cyclone technology by M/s Coalman Logistics (India) Private Limited located at Village Gatouri/Jalso, Tehsil & District Bilaspur (Chhattisgarh).

29.10.2.1 The 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 F44K4 and is bounded by the geographical coordinates ranging from 22°11'37.25"N to 22°11'35.56"N and longitudes 82° 9'1.64"E and 82° 8'58.22"E.
- (ii) Details of coal Linkage:-

Name of the industries Linked: Finished Coal will be supplied to Nearby Integrated Steel Plant, Cement Plant i.e. Scania steels & powers limited (Champa), Navdurga Fuels Private Limited (Raigarh), Rashi Steel and Power Ltd.

(iii) Distance from the project site: 50 to 100 Kms

(iv) Joint venture cartel has been formed –Not applicable.

(v) 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.

(vi) 35 persons will get direct employment from the project.

(vii) It is a Greenfield project.

(viii) The land usage pattern of the project is as follows:

S. No.	Description	Area (ha.)	% Area
1.	Plant & Machinery	0.69	10.68
2.	Coal Storage Yard	0.31	4.77
3.	Green belt area	2.13	33
4.	Road & Paved Area	2.26	34.98
5.	Parking Area	0.98	15.18
6.	Water Reservoir	0.09	1.39
Total		6.46	100

(ix) The ROM coal from the SECL mines, located within approx. 60 km, namely Dipka, Gevra, Chal and Kusmunda, through E-Auction. Coal will be transported maximum by existing railway network and road.

(x) “No national park/Wild life sanctuary present within the 10 km radius of the project site”

(xi) The ground water level has been reported to be varying between 2.26 to 16.52 mbgl during pre-monsoon and between 0.11 to 10.33 mbgl. during post-monsoon. Total water requirement for the project is 245 KLD.

(xii) Application for obtaining the approval of the Central Ground Water Authority for 245 KLD will be applied .

(xiii) Consent to Operate for the existing crusher was obtained from the Chhattisgarh Environment Conservation Board and is valid till 30.06.2023.

(xiv) Kurung Right Bank Canal is flowing 0.8Km away from boundary of Project site towards NE.

(xv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report will be submitted to MoEF&CC along with EIA Report.

(xvi) No court cases, violation cases are pending against the project of the PP.

(xvii) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder.

(xviii) Total land is 6.46 ha out of which 4.62 ha is diverted for industrial use and remaining 1.84 ha is in under process of diversion into industrial use.

(xix) Water supply arrangement for the project will basically cover the industrial and potable water demand. Washery will operate on closed water circuit, therefore, only make-up water is required. Total water requirement is 245KLD.

- (xx) About 1.5 MW of electricity will be required for operation of proposed plant; which will be supplied by Chhattisgarh State Power Distribution Company Limited. One DG sets of 500 KVA will be installed for emergency backup supply to meet the contingencies of power cut and power failure.

29.10.4 The EAC during deliberations noted the following:

- Though it is a green field project w r t to washer but there is an existing coal crusher within the boundary of the proposed washery
- The coal crusher is operational since 2012 and PP had not taken any proper EMP measures to combate air pollution so the area nearby had high deposit of coal dust
- The Jairam Siding is located at 17 km

29.10.4 The EAC, after deliberations found it is green field project with existing crusher plant in the premises of the proposed washery and the project will be further directed to the state authority for Environmental Clearance as per the latest notification under which intant proposal is classified as B-category.

The EAC expressed dissatisfaction by seeing KML file which indicates that poor house -keeping has been maintained in the existing crusher plant as top soil within plant and surrounding is fully turned to black with negligible plantation. EAC asked the PP to take immediate mitigation measures to minimize coal dust pollution and also to get the certified compliance of the CTO during the EC.

*EAC finally **recommended** Terms of References with **transfer of this project to State SEIAA/SEAC** for Proposed coal washery of 1.2 MTPA along with (expansion of existing coal crusher 0.6MTPA) in an area of 6.46 Ha based on heavy media cyclone technology by M/s Coalman Logistics (India) Private Limited located at Village Gatouri/Jalso, Tehsil & District Bilaspur (Chhattisgarh) as per Ministry's Notification dated 6th April, 2018, under the provisions of EIA Notification, 2006 and its amendments therein with following additional specific conditions to be followed:*

- PP must furnish the Certified compliance report of CTO form the competent authority*
- PP to provide adequate pollution control device in stone crusher and its impact shall be analyzed in EIA-EMP report.*
- Action taken Report on the EMP measure for existing crusher to combat the air, water pollution must be provided during the EC*
- Public Consultation shall be conducted through the concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal. Allthe issues should be incorporated in EIA along with its time bound action plan and budgetary provision. Also the issue raised in public hearing held earlier should also be addressed with time line action plan and budgetary provision in EIA/EMP report.*
- PP shall prepare EIA-EMP with detailed land use plan for washery infrastructure and furnish details of 33 % of the green belt plantation with trees within the plant boundary and also in adjoining area. Accordingly, three Tier Green belt developments all along the boundary in with time bound action plan in EIA/EMP report*

- (vi) *PP shall propose the minimal or no usage of ground water for washery operation since a pond is located near the project site. Permission for using surface water and ground water (if preferred) shall be submitted during submission of EC proposal.*
- (vii) *PP should submit the complete water balance cycle need to be submitted considering only surface water usage for washery operations. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.*
- (viii) *PP should submit the real time aerial footage and video of the Coal Washery made through drone*
- (ix) *PP shall furnish the MoU for its raw coal, washed coal and reject management, as per the respective MoC guidelines*
- (x) *Mode of transportation should be clearly spelled for raw coal, rejects and washed coal as the project is located near to the railway line. PP shall propose to implement conveyor system from railway siding for raw coal, washed coal and rejects till coal washery plant.*
- (xi) *DPR of the Closed conveyor belt for transportation of washed coal to the Jairam railway siding must be provided with its proper action plan to avoid road transportation*
- (xii) *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.*
- (xiii) *PP shall propose to develop two water harvesting pond of 15 days storage capacity of washery operations.*
- (xiv) *The socio-economic study to be conducted with actual survey report and a comparative assessment to be provided from the census data of 2011-part B to be provided in EIA/ EMP report also economic status of the study area and what economically project will contribute should be clearly mention. The study should also include the status of infrastructural facilities and amenities present in the study area and a comparative assessment with census data of 2011 part A to be provided and to link it with the initialization and quantification of need based survey for CSR activities to be followed.*
- (xv) *A detailed traffic study along with presence of habitation in 100 mts distance from both side of road, the impact on the air quality with its proper measures and plan of action with timeline for widening of road.*
- (xvi) *For proper baseline air quality assessment, Wind rose pattern in the area should be reviewed and accordingly location of AAMSQ shall be planned by the collection of air quality data by adequate monitoring stations in the downwind areas. Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area.*
- (xvii) *Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.*
- (xviii) *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*
- (xix) *Heavy metals including other parameters in surface water quality shall be analyzed and provided*

in EIA Report Sulphur content.

(xx) *The parameters Arsenic, Lead and Silica shall also be analyzed in ambient air quality.*

(xxi) *The washing technology so chosen should conform to 'Zero Liquid Discharge'.*

Agenda No. 29.11

Sahapur West UG Coal Mine of 0.6 MTPA (Peak production) in an area of 594.401 Ha of M/s Sarda Energy and Minerals Limited at village Khamariya Khurd, Kushmaha Khurd, Shahpur, Tehsil Pali of District Umariya and village Khamhariya Kala, Kathotiya, Tehsil Suhagpur, District Shahdol (Madhya Pradesh) - For Amendment in Terms of Reference- reg

[Online Proposal No. IA/MP/CMIN/266928/2022; F No. J-11015/280/2010-IA- II(M)]

29.11.1 The proposal is for Amendment in Terms of Reference of Sahapur West UG Coal Mine of 0.6 MTPA (Peak production) in an area of 594.401 Ha of M/s Sarda Energy and Minerals Limited at village Khamariya Khurd, Kushmaha Khurd, Shahpur, Tehsil Pali of District Umariya and village Khamhariya Kala, Kathotiya, Tehsil Suhagpur, District Shahdol (Madhya Pradesh).

29.10.5 The revision of details of the proposal, as ascertained from the proposal documents are given as under:

- Total mining lease area as per block allotment is 619 ha. Mining Plan and Mine Closure Plan for 587.5 Ha. Block Area was approved by Ministry of Coal vide 13016/28/2010-CA-I dated 07.02.2012. (Internal Committee constituted under MMDR Act 1957 for approval of Mining Plan / Mine Closure Plan has recommended the approval of Revised Mining Plan is being has been submitted for re-demarcated Block area of 619 Ha. with a mining lease area 619 Ha. in its meeting held on 28/02/2022)
- The change in land use pattern as per the issued ToR of the project is as mentioned below

Pre-mining land use details

Land Type		Earlier (In TOR) Area in Ha.	Amendment Requested Area in Ha.
Tenancy	Agricultures (includes few residential houses)	497.777	511.220
	Township		
	Grazing	-	-
	Barren	-	-
	Water Bodies	-	-
	Road	-	-
	Community/ Other	-	-
Govt. Non Forest	Agriculture	1.337	2.191
	Township	-	-

	Road	6.282	3.583
	River/Nallah	9.643	9.418
	Water Bodies	13.868	9.100
	Grazing	3.258	
	Community/ Other	17.956	2.898
	Barren	-	-
Forest	Revenue Forest	15.949	34.102
	Reserve	16.083	34.240
	Protected	12.248	12.248
Free Hold		-	-
Total		594.401	619.000

Land use During Mining

Type	Earlier (In TOR) Area in Ha.	Amendment Requested Area in Ha.
Top Soil Dump	0.030	0.030
Settling pond	0.200	0.200
Ventilation shaft	0.170	0.170
Coal stack yard	0.630	0.630
Magazine	0.185	0.185
Transportation and approach road		4.005
Other support infra including internal road, office, workshop, store, CHP, Canteen, Diesel Bunk and area between the building	13.888	9.884
Embankment	0.877	0.880
UG Entry	0.300	0.300
Green Belt	8.018	8.020
Undisturbed/ Mining right for UG	570.103	594.696
Total	594.401	619.000

Post Mining

Proposed Land Use Details (After Amendment)

Type			Land use (Post Closure)
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	Land use (Proposed)	Land Use (End of Life)	Agricultural land	Plantation	Water Body	Public/Company use	Forest Land (Returned)	Undisturbed	Total
Excavation Area	-	-	-	-	-	-	-	-	-
Backfilled Area	-	-	-	-	-	-	-	-	-
Excavated Void	-	-	-	-	-	-	-	-	-
Without plantation	-	-	-	-	-	-	-	-	-
Top Soil Dump	0.03	-	-	-	-	-	-	-	0.03
External Dump	-	-	-	-	-	-	-	-	-
Safety Zone	-	-	-	-	-	-	-	-	-
Haul Road between quarries	-	-	-	-	-	-	-	-	-
Road diversion	-	-	-	-	-	-	-	-	-
Diversion/ below River/Nallah/canal	-	-	-	-	-	-	-	-	-
Settling pond	0.20	0.20	-	0.20	-	-	-	-	0.20
Road & Infrastructure area	14.87	14.87	-	10.20	-	4.68	-	-	14.87
Rationalization area	-	-	-	-	-	-	-	-	-
Garland drains	-	-	-	-	-	-	-	-	-
Embankment	0.88	0.88	-	0.88	-	-	-	-	0.88
Green Belt	8.02	8.02	-	8.02	-	-	-	-	8.02

Water Reservoir near pit	-	-	-	-	-	-	-	-	-
UG Entry	0.30	0.30	-	0.30	-	-	-	-	0.30
Undisturbed/ Mining right for UG	594.702	594.702	-	-	-	-	-	594.702	594.702
Resettlement	-	-	-	-	-	-	-	-	-
Pit head power plant	-	-	-	-	-	-	-	-	-
Water harvesting	-	-	-	-	-	-	-	-	-
Agricultural land	-	-	-	-	-	-	-	-	-
Total	619.000	618.970	-	19.593	-	4.675	-	594.702	619.000

Core area: Mining Lease Area is 619 Ha

- Total geological reserve reported in the mine lease area is 39.709MT with 17.380 MT mineable reserves. Out of total mineable reserve of 10.38MT, 10.38 MT are available for extraction. Percent of extraction is 29.049%
- 3 seams with thickness ranging from 0.15 m –4.16 m are workable. Grade of coal is G7, while gradient is 1 in 23 to 1 in 57
- Method of mining operations envisages by Mechanised board and pillar underground mining by Continuous Miner with shuttle cars as well as LHDs and SDLs with solid blasting method.
- Life of mine is 19years.
- The proposed is an underground mine. The coal from the underground working face will be evacuated through conveyor. On surface the coal will be dumped in a ground hopper from where it will be stored in silo.
- 80.590 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 80.590ha of forest land for non-forestry purposes application will be submitted shortly

29.11.3 The EAC during deliberations noted the following:

• Earlier, the project was granted Terms of Reference by MoEFCC vide letter no. J-11015/280/2010-IA-II (M) dated 22.11.2021. Now, PP had requested again the amendment for increase in area of the project seeking extension in timeline for implementation of said conditions. The reason for seeking amendment is as under

A. Reduction in Quantum of Extractable Reserve: The reason of reduction in extractable reserve is explained as under:

1. Provisions in Approved Mining Plan:

a. The approved mining plan considered extraction of seams having thickness greater than 1.2 m thickness.

b. Out of the 8 coal seams available in GR only 4 seams namely IV, L2, IIIA and II were considered for mining by the prior allottee in the Approved Mining Plan. This included mining of Seam IV, which has seam thickness of 0.15m to 1.70m and has seam thickness of more than 1.50m in only 7 bore holes only. The dominant thickness of the seam is mentioned as 0.50m to 1.50m (Table 4.6, page 4-11 of the approved Mining Plan).

2. In Revised Mining Plan it is proposed to mine reserves with ≥ 1.5 m thickness considering the limitation of presently available technology.

Internal Committee constituted for approval of mining plan in its meeting held on 07/01/2022 has found the proposal acceptable. Further the committee also suggested that in future with improvement of technology reserves with less thickness may also be attempted to mine (if found feasible at appropriate time with proper scientific study, if need so felt).” We have conveyed our acceptance of the above to the committee. Hence for the present, Seam IV having a thickness of less than 1.5 m has been left out from mining in the revised Mining Plan & Mine Closure Plan and Seams II, L2 & IIIA having seam thickness of more than 1.5m are considered for Mining. Thus non-workability of Seam having a thickness of less than 1.5m has ipso facto reduced the Extractable reserves to 10.38Mt.

B. Increase in Mining Lease Area from 594.401 (as mentioned in TORs granted) to 619 Ha.

Total mining lease area was mentioned as 594.401 ha. against the total block area of 619 Ha. The reasons for not including 24.599 Ha in the mining lease area are as under: The 24.599 Ha area in the south-west part of the allocated block area of 619 Ha is affected by two faults at right angle. Approach to this area will be difficult. Also Seam II is the only seam in this part with more than 1.5m thickness as can be seen in the two bore holes drilled in this part. The thickness of other seams as per the data from these two bore holes are tabulated below:

BH ID	Seam L2	Seam IIIA	Seam II
SSH 26	0.67	0.40	1.90
MSSW 24	0.95	0.59	1.56

Two faults F1 and F2 are at right angle in this area. F1 is east west trending fault, which culminates at F2 and has a throw of 15m. F2 Fault trends north-west south-east with a throw varying from 40m in south to 25m in the north.

It may also be noted that in the plate appended with approved mining plan, workings are not shown in this part. Part of seam development plan for Seam II (Plate XII D) as provided in the approved mining plan. In mining plan text there is no mention of mining in the region designated as Sector C and Sector D. Thus, the submission made for not projectizing (including in the Mining Lease Area) of this 24.599 Ha is in line with the approved Mining Plan.

Internal Committee constituted for approval of mining plan in its meeting held on 02/02/2022.

Submitted that: Whole of the Geological Block shall be projected and to be brought under lease area/project area. (Note: It has been agreed by the project proponent that efforts will be made to extract coal reserves underlying the left-out portion at a later date. However, the area has not been brought under lease/project area.)

Accordingly, the directions of the Committee accepted and revised the ML area from 594.401 Ha to 619 Ha. and the entire Block Area is now been projected and considered as Mining Lease area.

29.11.4 Therefore, the application for grant of amendment in ToR for increase in Mining Lease Area 594.401 Ha to 619 Ha is submitted by the PP as per the details hereunder; -

Details	Area as per granted ToR	Proposed Change	Final Area Amendment	Remarks
Mine Lease Area	594.401 Ha	24.599 Ha	619 Ha	Increasing due to addition of new area.
Private Land	497.542 Ha	13.678 Ha	511.220 Ha	Increasing due to addition of New area and change in Land schedule as per DGPS survey
Forest Area	44.28 Ha	36.310 Ha	80.590 Ha	Increasing due to addition of New area and change in Land schedule as per DGPS survey
Govt. Land	52.579 Ha	-25.389 Ha	27.190 Ha	Decreasing as a result of change in Land schedule as per DGPS survey

29.11.2.1 *The EAC, after deliberations found that increase in area is mainly due to the increase in forest area of 36.310 Ha i.e total 80.590 Ha and private land by 13.678 Ha.*

Details	Area as per granted ToR	Proposed Change	Final Area Amendment
Mine Lease Area	594.401 Ha	24.599 Ha	619 Ha
Private Land	497.542 Ha	13.678 Ha	511.220 Ha
Forest Area	44.28 Ha	36.310 Ha	80.590 Ha
Govt. Land	52.579 Ha	-25.389 Ha	27.190 Ha

EAC finally recommended the above mentioned Amendment in Terms of References Sahapur West UG Coal Mine of 0.6 MTPA (Peak production) in an area of 594.401 Ha of M/s Sarda Energy and Minerals Limited at village Khamariya Khurd, Kushmaha Khurd, Shahpur, Tehsil Pali of District Umariya and village Khamhariya Kala, Kathotiya, Tehsil Suhagpur, District Shahdol (Madhya Pradesh) as per Ministry's Notification dated 6th April, 2018, under the provisions of EIA Notification, 2006 and its amendments therein with following additional specific conditions to be followed:

- *The Stage –I FC to be obtained by PP for 80.590 ha*
- *The revised mine plan to be submitted by PP at the time of EC*

Agenda 29.12

Kathara Opencast Coal Mine of 1.9 MTPA (Peak) in a mine lease area of 773.23 Ha of M/s Central Coalfields Limited, located in Block Bermo, District Bokaro (Jharkhand)- For Reconsideration of Environmental Clearance under violation Category

[Online Proposal No. IA/JH/CMIN/179534/2020; File No. J-11015/482/2008-IA-II(M)]

29.12.1 The proposal is for Environment Clearance of Kathara Opencast Coal Mine of 1.9 MTPA (Peak) in a mine lease area of 773.23 Ha of M/s Central Coalfields Limited, located in Block Bermo, District Bokaro (Jharkhand)

29.12.2 The EAC during deliberations noted the followings:

Earlier, the proposal was considered by EAC in its 25th meeting held on 18-20 January, 2022 and in 27A meeting held on 3rd March, 2022 under violation category and was deferred since there was no policy for dealing with violation cases and for compliance of observation raised in 27A meeting respectively.

PP vide its reply on PARIVESH portal has resubmitted the proposal and accordingly the compliance of observation on previous EAC meeting was deliberated and noted as below:

Sr. No.	ADS	Compliance

i	<p>PP shall revise damage assessment and its remedial action plan for violation of over production as suggested by EAC based on following points:</p> <p>a) PP has obtained EC for this project on 8/01/2014 for an ML area of 798.21 ha which was valid upto 07/01/2017 and whereas the present proposal is for 773.23 ha. It needs Proper explanation for the reduced area.</p> <p>b) The total production under violation shall be considered from 08/01/2017 to January 2022 and accordingly damage calculation to be revised.</p> <p>c) Economic benefit accrual shall be</p>	<p>Reply of point a to l</p> <p>a) •The prior environment clearance of Kathara OCP was issued on 08.01.2014 for an area of 792.81 Ha. As per the EC letter, the existing washery was included in the Infrastructure head of EC granted to the Kathara OCP.</p> <ul style="list-style-type: none"> • A fresh proposal of setting up of New Kathara Coking Coal Washery was submitted to MoEF&CC on 12.10.2018. During appraisal of this proposal, the EAC, MoEF&CC directed that area proposed for washery shall be kept outside the mine plan of Kathara OCP. • Accordingly, a revised mining plan and mine closure plan of Kathara OCP in an area of 773.23 Ha was prepared excluding the area of existing and New Kathara Washery, and approved by the Board of CCL on 04.02.2020. • MoEF&CC has granted EC to New Kathara Coking Coal Washery on 15.01.2021. • As per the direction of MoEF&CC, a fresh proposal for consideration of Kathara OCP for ToR was made on 17.10.2020 on the basis of the revised mine plan & mine closure plan in an area of 773.23 Ha only. • As such the area of the project is revised from earlier 792.81 Ha to 773.23 Ha. <p>b) The damage calculation has been revised considering the total production under violation during the period- 08.01.2017 to January 2022</p> <p>Summary of Assessment of Damages</p>																													
		<table border="1"> <thead> <tr> <th>S. No.</th> <th>Particulars</th> <th>Estimated Damage Cost in Lakhs</th> <th>Rs</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Land and Ecosystem Services</td> <td>3.94</td> <td></td> </tr> <tr> <td>2</td> <td>Air Environment</td> <td>1160.74</td> <td></td> </tr> <tr> <td>3</td> <td>Water Environment Ground Water Surface Water</td> <td>269.45 90.00</td> <td></td> </tr> <tr> <td>4</td> <td>Flora and Fauna</td> <td>Nil</td> <td></td> </tr> <tr> <td>5</td> <td>Socio-Economis</td> <td>Nil</td> <td></td> </tr> <tr> <td></td> <td>Grand Total in Rs. Lakhs</td> <td>1524.13</td> <td></td> </tr> </tbody> </table>	S. No.	Particulars	Estimated Damage Cost in Lakhs	Rs	1	Land and Ecosystem Services	3.94		2	Air Environment	1160.74		3	Water Environment Ground Water Surface Water	269.45 90.00		4	Flora and Fauna	Nil		5	Socio-Economis	Nil			Grand Total in Rs. Lakhs	1524.13		
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	<p>revisited and certified by finance department.</p> <p>d) Air Environment-Damage: The emissions shall be considered for all the violation years, without comparison/base year and shall be revised accordingly</p> <p>e) The rates for GW shall be revised as per CGWA Notification of Sept 2020 for abstraction as well as compensation.</p> <p>f) Surface water rates shall be revised as per the deficiency in provision of SW structures.</p> <p>g) The activities enumerated under Remediation, NRAP and CRAP shall be revised based on the need based survey and further shall be</p>	<p>c) The certified copy of Economic benefit accrual is provided by PP.</p> <p>d) The emission & damage calculation has been revised for all the violation years as given in point 1 b)</p> <p>e) The rate for GW has been revised as per CGWA Notification of Sept 2020 for abstraction as well as compensation ECow rate taken for 2016-19 is Rs 90/m³ while for 2019-22 is Rs 60/m³</p> <p>f) The surface water rates has been revised as per the deficiency in provision of SW structures and the revised damaged cost.</p> <p>g) The activities under Remediation, NRAP and CRAP has been revised & is made specific along with monitorable timelines</p> <table border="1" data-bbox="704 1079 1549 1419"> <thead> <tr> <th>S. No.</th> <th>Description</th> <th>Revised Estimated cost (Rs. in Lakhs)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Remediation Plan</td> <td>153700000</td> </tr> <tr> <td>2</td> <td>Natural Resources Augmentation Plan</td> <td>28,00,000</td> </tr> <tr> <td>3</td> <td>Community Resources Augmentation Plan</td> <td>57,00,000</td> </tr> </tbody> </table> <p>h) The water balance for STP & ETP has been revised and submitted. The water conservation plan is also provided by the PP. The peak demand of wter consumption is 2870 m³/ day</p> <p>The proposed water conservation measures are as follows:</p> <table border="1" data-bbox="711 1713 1586 1843"> <thead> <tr> <th>Activity</th> <th>Details</th> <th>Total Cost in Rs. Lakhs</th> <th>Timeline of Completion</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	S. No.	Description	Revised Estimated cost (Rs. in Lakhs)	1	Remediation Plan	153700000	2	Natural Resources Augmentation Plan	28,00,000	3	Community Resources Augmentation Plan	57,00,000	Activity	Details	Total Cost in Rs. Lakhs	Timeline of Completion				
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<p>specific, monitorable besides revising the target period for two years.</p> <p>h) Water balance for STP and ETP shall be revised and submitted and water conservation plan to be drawn.</p>	<p>Sewage Treatment Plant at the existing colony</p>	<p>Existing colonies at Kathara colliery with 794 quarters will be provided with an integrated sewage treatment plant.</p>	500	Mar' 2023	
	<p>Embankment with a catch drain along Damodar River</p>	<p>Embankment along with catch drain of 4000 m along Damodar River</p>	400	Dec' 2022	
	<p>Additional Rain Water Harvesting System</p>	<p>Roof top rain water harvesting system at Workshop and Pit Office</p>	25	Dec' 2022	
	<p>Toe wall and garland drain/ catch drain</p>	<p>Toe wall, garland drain and catch drains around the active and stabilized OB Dumps, quarry and other industrial settlements</p>	200	Oct' 2022	
	<p>Sedimentation Tank</p>	<p>02 Nos. of Sedimentation tank to arrest run-off before discharge of water into Damodar</p>	30	Pre-monsoon 2022	
	<p>Piezometers</p>	<p>Additional 2 no. of Piezometers in upstream and Downstream of the project.</p>	50	Oct' 2022	
	<p>Total Cost of proposed Water Pollution & Conservation Measures</p>		1205		
	<ul style="list-style-type: none"> • Roof top rain water harvesting system has been provided at P.O. Office of Kathara OCP and in about 100 quarters in the residential colonies of Kathara area. • Moreover, it has been proposed in the EIA-EMP to construct 				

03 additional RWH structures worth Rs. 25 Lakh at 03 locations (Pit Office, Mine Rescue Station and Kathara Rest House). The proposed action plan is given below:

S. No.	Work	Location	Tentative Cost (in Rs Lakhs)	Expected Date of start of Work	Expected Date of completion of Work
1	Rain Water Harvesting	1. Pit Office 2. Mine Rescue Station 3. Kathara Rest House	25	June-22	Sep-22

i) Provision of RWH structures in the colony shall be submitted

J) The CCL colonies and establishments fall under bulk waste generator or waste generator category. At present, total waste is being collected through an outsourcing agency for disposal at a landfill site.

b) A vermi-composting plant for treatment of biodegradable waste generated from colonies & nearby habitations is proposed under NCRAP at a cost of Rs 45 Lakhs.

c) It is proposed to carry out awareness programs for disposal of e-waste in command area of Kathara. d) The tentative waste generated from the colonies of CCL is given below:

Location	Total No. of Houses/ office Buildings	Estimated no. of People	Per capita MSW to be generated in kg/head/day	Total Waste to be generated in kg/day
Residential Colony	794	3176	0.3 kg/capita/day	952.8
Office	3	750	0.5 kg/day/employee	375
Total MSW to be Generated in kg/day				1327.8

j) Compliance status of municipal solid

	<p>waste generated, as per SWM Rules 2016, shall be submitted</p> <p>k) Cost saved due to the above a/c for the violation years shall be added to CRAP and likewise cost saved EMP also.</p> <p>i) Penalties as per SOP of violation shall be submitted apart from damage assessment and natural remediation measures.</p>	<p>k) Assessment of EMP cost saved during the period of violation has been assessed and 3% of the total cost saved has been accounted in CRAP. Revised DAR and NCRAP is being provided: Detail of EMP Cost saved during period of violation</p>	<table border="1"> <thead> <tr> <th data-bbox="711 369 787 533">S. No.</th> <th data-bbox="787 369 1206 533">EMP/EC Measures Supposed to be Implemented</th> <th data-bbox="1206 369 1398 533">Capital Cost Saved in Rs. Lakhs (approx.)</th> <th data-bbox="1398 369 1539 533">Revenue Cost Saved in Rs. Lakhs (approx.)</th> </tr> </thead> <tbody> <tr> <td data-bbox="711 533 787 617">1</td> <td data-bbox="787 533 1206 617">PCC Topping of Permanent Hual road (1.6 km)</td> <td data-bbox="1206 533 1398 617">250</td> <td data-bbox="1398 533 1539 617">-</td> </tr> <tr> <td data-bbox="711 617 787 785">2</td> <td data-bbox="787 617 1206 785">Strengthening of slopes by stone in wire mesh in certain portions of dumps (30-40 m length)</td> <td data-bbox="1206 617 1398 785">30</td> <td data-bbox="1398 617 1539 785">-</td> </tr> <tr> <td data-bbox="711 785 787 953">3</td> <td data-bbox="787 785 1206 953">Stone revetment to provided upto HFL level in the portion where loose material was visible (50-100 m length)</td> <td data-bbox="1206 785 1398 953">40</td> <td data-bbox="1398 785 1539 953">-</td> </tr> <tr> <td data-bbox="711 953 787 1121">4</td> <td data-bbox="787 953 1206 1121">Toe walls with provision of weep holes along foot of external dump on the river side (1.5 km)</td> <td data-bbox="1206 953 1398 1121">50</td> <td data-bbox="1398 953 1539 1121">-</td> </tr> <tr> <td data-bbox="711 1121 787 1205">5</td> <td data-bbox="787 1121 1206 1205">Handling and Management of Municipal Solid Waste</td> <td data-bbox="1206 1121 1398 1205">-</td> <td data-bbox="1398 1121 1539 1205">20</td> </tr> <tr> <td data-bbox="711 1205 787 1247"></td> <td data-bbox="787 1205 1206 1247">Total Cost Saved in Rs. Lakhs</td> <td data-bbox="1206 1205 1398 1247">370</td> <td data-bbox="1398 1205 1539 1247">20</td> </tr> <tr> <td colspan="2" data-bbox="711 1247 1206 1381">Provision for CRAP= 3% of total EMP Cost saved during violation period in Rs. Lakhs</td><td colspan="2" data-bbox="1206 1247 1398 1381" style="text-align: center;">11.7</td></tr> </tbody> </table>	S. No.	EMP/EC Measures Supposed to be Implemented	Capital Cost Saved in Rs. Lakhs (approx.)	Revenue Cost Saved in Rs. Lakhs (approx.)	1	PCC Topping of Permanent Hual road (1.6 km)	250	-	2	Strengthening of slopes by stone in wire mesh in certain portions of dumps (30-40 m length)	30	-	3	Stone revetment to provided upto HFL level in the portion where loose material was visible (50-100 m length)	40	-	4	Toe walls with provision of weep holes along foot of external dump on the river side (1.5 km)	50	-	5	Handling and Management of Municipal Solid Waste	-	20		Total Cost Saved in Rs. Lakhs	370	20	Provision for CRAP= 3% of total EMP Cost saved during violation period in Rs. Lakhs		11.7		<ul style="list-style-type: none"> • It is submitted that the project has not exceeded the EC capacity of 0.96 / 1.9 MTPA till 2016-17 since grant of EC or coal production of 1993-94 (0.9 MTPA) afterwards. The mine was also operated within the same project area of 773.23 Ha. • The Form-I of Kathara OCP was submitted on 17.10.2020 & ToR of Kathara OCP was issued on 27.04.2021. Accordingly, it is submitted that the process of regularization of violation of Kathara OCP has started prior to the issuance of SOP of violation. • Also, the coal production of the mine is stopped since
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		<p>01.01.2022 due to non-renewal of CTO as per the ToR letter issued on 27.04.2021.</p> <ul style="list-style-type: none"> • It is therefore requested that penalty as per SOP of violation may be waived for this specific case.
2	<p>The total damage cost mentioned in the EIA report is 359.59 Lakhs; Total fund proposed for remediation measures 34,799,000, Total cost proposed for Natural & Community Resource Augmentation Measures is 7,200,000, which is to be revised as per recommendation mentioned above</p>	<p>The activities under Remediation, NRAP and CRAP has been revised as per the recommendation and the summary is provided.</p>
3	<p>PP shall submit Status of Credible action taken by Project Proponent by State Government.</p>	<p>1. Jharkhand State Pollution Control Board (JSPCB) has been requested vide letter no: HOD(Env.)/2021/1097 Dated: 15.11.2021 for taking necessary action in this regard. 2. Member Secretary, JSPCB has directed Regional Officer, Dhanbad to take necessary action.</p>
4	<p>PP also to provide IRO Certified Compliance Report of previous EC dated 08 January, 2014</p>	<p>The office of IRO, MoEF&CC, Ranchi was requested vide letter no GM-Env & Forest/2022/209 dated 01.04.2022 to carry out inspection and provide certified compliance report.</p>

5	Status of Wild Life Conservation approval may be providing along with clarification of budget reflected in Form-2 @ Rs.80 lacs vs Rs.34 lacs given presentation.	1. The wild-life conservation plan of Kathara OCP has been submitted to Divisional Forest Officer, Bokaro. The receiving of Wildlife Conservation Plan for Schedule-I species is enclosed 2. As per Form-II uploaded earlier on 26.10.2021, the total fund provision of Rs 85 Lakhs has been made. However, the fund provision was revised and in the Form-II uploaded on 28.02.2022, a capital cost of Rs 15 Lakhs & revenue cost of Rs. 19 Lakhs/year for the balance life of the project was proposed.
6	PP shall submit action plan for plantation along peripheral boundary with allocated budget and timeline	1. Plantation of approx. 140.6 Ha has been carried out on vacant/undisturbed land in the past including 20 Ha of green belt & Safety zone has been carried out till date. 2. The action plan for plantation along peripheral boundary & other areas is submitted with allocated budget & timeline.
7	PP to give proof of grievance cell like creation link in web portal and whatsapp number for local people. Awareness program to be done in this regard among the local people	a) A grievance cell has been created in CCL. The link is given below: https://www.centralcoalfields.in/ccl_cmplnt/ a) For registering complaint in Samadhan, Whatsapp no. is 7091093753 and Toll free no. is 18003456501
8	PP shall provide proof of installation of CAAQMS with picture and online data linked with CPCB and SPCB and further data of piezometer should be shown.	CAAQMS & piezometer has been installed & the photographs are provided by PP.
9	PP shall provide drone survey to substantiate environment compliance	Drone Survey to substantiate environment compliance has been carried out. The details are being submitted separately through electronics means.
10	PP shall provide the receiving of Wildlife Conservation Plan for Schedule-I species	Compliance submitted in reply of Point No 5

	and breakup of the proposed activities with budgetary provision submitted to the DFO.	
11	PP to provide Protection measures for the streams/nallahs from the lease area to Damodar river. The PP must take inputs by other consultant (third party) regarding the river conservation plan of Damodar River.	The water conservation plan is submitted and is also mentioned in 1h)
12	Time bound action plan with budgetary provision for commitment made on the issues raised during public hearing in EIA EMP report also	The time-bound action plan with budgetary provisions for commitment made on the issues raised in Public Hearing has been submitted. It was found that the total cost proposed under CER for compliance of PH issues is 643.50 lakhs
13	Plan of action and allocated fund for maintenance and services to provide drinking water pipeline with fittings to the nearby villages with installed RO for 10 years.	The time-bound action plan to provide drinking water pipeline with fittings to the nearby villages is given below: a) Construction of borewells with solar power operated submersible pumpset, pump house, recharge pit etc for drinking water at Asnapani. (Work Awarded: Timeline- FY 22-23) a) Construction of Bore Wells each with Solar Power operated Submersible pump set, pump house, Recharge Pit etc. for drinking water in Khetko, Hazari, Sadam Purvi, Pipra Tola (Work Awarded: Timeline- FY 22-23) a) Construction of Bore Wells each with Solar Power operated Submersible pump set, pump house, Recharge Pit etc. for drinking water in different locations of Kathara Area. (Under Tender Stage: Timeline – FY22-23) a) Construction of borewells with solar power operated submersible pumpset, pump house, recharge pit etc for drinking water at Bandh Basti (Under Tender Stage: Timeline – FY 22-23)

		<p>a) 2 pumps of 1000 GPM capacity are deployed for domestic water to Jhirki, Yadav tola, Asna pani and Bandh Basti located near project. The annual cost of operation, repair & maintenance of water supply system is approximately 56 Lakhs/annum.</p> <p>b) Water filter plants for the purpose of water supply to nearby villages is already under construction under DMFT scheme by State Govt</p>												
14	PP must provide the plan of action and allocated fund for maintenance and services to provide solar street light in the nearby villages and village roads	<p>1. 60-watt LED street light (250 numbers) have been installed at various junctions and community centers in nearby villages in FY 2021-22.</p> <p>2. Additional Provision for providing solar lights in nearby villages under CSR for FY 2022-23 has been made. The action plan is given below:</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Work</th> <th>Location</th> <th>Tentative Cost (in Rs Lakhs)</th> <th>Expected Date of start of Work</th> <th>Expected Date of completion of Work</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Solar lights in nearby villages under CSR for FY 2022- 23</td> <td>Bandh Basti Jhirki Basti</td> <td>9</td> <td>Aug-22</td> <td>Oct-22</td> </tr> </tbody> </table>	S. No.	Work	Location	Tentative Cost (in Rs Lakhs)	Expected Date of start of Work	Expected Date of completion of Work	1	Solar lights in nearby villages under CSR for FY 2022- 23	Bandh Basti Jhirki Basti	9	Aug-22	Oct-22
S. No.	Work	Location	Tentative Cost (in Rs Lakhs)	Expected Date of start of Work	Expected Date of completion of Work									
1	Solar lights in nearby villages under CSR for FY 2022- 23	Bandh Basti Jhirki Basti	9	Aug-22	Oct-22									
15	PP must furnish the photograph of road constructed from Muslin Tola to Yadav Tola.	<p>The road from Muslim Tola to Yadav Tola is under construction for a length of approximately 1.1 KM</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Work</th> <th>Length</th> <th>Tentative Cost (in Rs Lakhs)</th> <th>Expected Date of start of Work</th> <th>Expected Date of completion of Work</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Construction of Road from Muslim</td> <td>1100</td> <td>23</td> <td>April-22</td> <td>June-22</td> </tr> </tbody> </table>	S. No.	Work	Length	Tentative Cost (in Rs Lakhs)	Expected Date of start of Work	Expected Date of completion of Work	1	Construction of Road from Muslim	1100	23	April-22	June-22
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1	Construction of Road from Muslim	1100	23	April-22	June-22									

		Tola to Yadav Tola				
16	Time bound action plan with budgetary provision for commitment for the construction of new bridge at Swang which has been damaged due to which the local persons have to take a diversion of 2 KM.	The iron bridge at Swang has been repaired at a cost of Rs 1.53 Lakhs. The work order is and the photograph is provided by PP.				

29.12.3 *The EAC, after deliberation observed that the Project Proponent have provided the revised damage assessment cost and accordingly the revised cost of remediation plan, Natural Resource Augmentation Plan and Community Resource Augmentation Plan. It was also noted that the area reduction is from 792.81 ha to 773.23 ha due to excluding the area covered Kathara Washery zone as it is already taken a separate proposal for which EC was obtained on 15.01.2021.*

PP stated that he had voluntarily applied for violation EC i.e. the process of regularization of violation of Kathara OCP has started prior to the issuance of SOP of violation. Also, the coal production of the mine was stopped on 01.01.2022 due to non-renewal of CTO as per the ToR letter issued on 27.04.2021, so penalty as per SOP of violation may be waived for this specific case. EAC opined that penalty as per SoP has to be imposed since it is violation cases and amount allocated in remediation plan shall have to be revised and activities of said amount of penalty mandatorily be incorporated.

The revised expenditure for addressing the issues raised in Public Hearing has been submitted. EAC also suggested PP to consider the fund allocated to address the PH issues under EMP cost instead of CER. It was observed that the PP had neither furnished the Certified Compliance from the IRO nor the copy Credible Action by JSPCB and has hurriedly submitted the ADS reply without fully complying with the EAC observation raised in the last meeting. PP was cautioned not repeat this again as incomplete reply cannot be conclusive. PP was also asked to take third party consultation regarding the river conservation plan of Damodar River, for which PP had not consult any Expert inputs and had provided the report prepared by CMPDI. PP had mentioned about the construction of picnic spots, approach road & pathways, chath ghat, shed, river side plantation etc. under the activity proposed for remediation plan wrt to water environment. EAC had suggested to take the consent from the state whether it is feasible in terms of social values and focus on core activity like construction of STP for nearby localities will be more fruitful from river conservation point of view.

Based on above, EAC desired following information from PP for further deliberations:

- (i) PP shall submit proof of Credible action taken on Project Proponent by State Government.*

- (ii) PP shall furnish the certified compliance report from the IRO, MoEF&CC, Ranchi. If non-compliance exists in report, PP to come up with time bound action plan.
- (iii) PP shall revise the allocated budget for remediation plan by including penalty money as per SOP of the Ministry's OM and thus submit the revised list of activities towards Remediation Plan and Natural Conservation and Community Augmentation plan.
- (iv) PP shall submit specific activities to be conducted villagewise (if proposed in villages) for Remediation Plan and Natural and Community Resource Augmentation Plan (NCRAP) for the area covering Kathara OCP and undertaking shall be submitted that these activities are not overlapping with other activities of other coal mines of M/s CCL.
- (v) Permission of extraction of ground water from Central Ground Water Authority
- (vi) The action plan of construction of picnic spots, approach road & pathways, chath ghat, shed, river side plantation etc should have consent from the gram panchayat and the state on account of its feasibility for social cause in terms of its future maintenance or Otherwise propose for construction of STP to treat the sewage falling from nearby area within 25 km u/s or d/s of project site.

The proposal is **deferred** on above lines

Agenda 29.12

Bharkunda OCP for production capacity of 2.05 MTPA (1.75 MTPA for OC and 0.30 MTPA for UG) in an area of 910.16 Ha by M/s Central Coalfields Limited, located at village Balkudra, Kurse, Deoria-Bargawan and Dhundua, Tehsil Patratu, District Ramgarh (Jharkhand)- For Reconsideration of Environmental Clearance under violation category.

[Online Proposal No. IA/JH/CMIN/74128/2018; File No. 23-266/2018-IA.III (V)]

29.12.1 The proposal is for Environmental Clearance of Bharkunda OCP for production capacity of 2.05 MTPA (1.75 MTPA for OC and 0.30 MTPA for UG) in an area of 910.16 Ha by M/s Central Coalfields Limited, located at village Balkudra, Kurse, Deoria-Bargawan and Dhundua, Tehsil Patratu, District Ramgarh (Jharkhand).

29.12.2 The EAC during deliberations noted the following:
Earlier, the proposal was considered by EAC in its 25th meeting held on 18-20 January, 2022 under violation category and was deferred based on certain observation.

PP vide its reply on PARIVESH portal has resubmitted the proposal and accordingly the compliance of observation on previous EAC meeting was deliberated and noted as below:

Sr. No.	Observation	Reply of Project Proponent
	PP shall revise damage assessment and its remedial action plan for violation of	<ul style="list-style-type: none"> • Damage quantification for Air pollutants viz., PM10, PM2.5 for pit emissions and coal/OB transportation has been

	<p>over production as suggested by EAC based on following points:</p> <ol style="list-style-type: none"> a. Damage quantification for Air pollutants viz., PM10, PM2.5 for pit emissions and coal/OB transportation shall be reassessed and submitted along with total details, method, etc. in a tabular for all the 4 years and specifically for 2018/19 and 2019/20. b. The damages shall be worked for PM10 and PM2.5 separately and (Environmental prices considered can be obtained from EAC VIOLATION COMMITTEE guidelines.) c. Ground water abstraction for O/C and as well for U/G shall be reworked as unit cost is inadequate. d. Cost saved in EMP expenditure for all the violation years shall be assessed and 3% of the total cost saved shall be considered/added in CRAP. e. The total damage cost and the cost saved as mentioned shall be taken for Remediation, NRAP and CRAP budget. f. The economic benefits accrual during the violation period shall be certified by finance dept 	<p>reassessed and submitted in a tabular for all violation years in Revised DAR & NCRAP.</p> <ul style="list-style-type: none"> •The damages for PM10, PM2.5, SOx & NOx has been worked out separately. The prices have been taken up from EAC Violation Committee guidelines •Ground water abstraction for O/C and as well for U/G has been reworked and submitted. •Cost saved in EMP expenditure for all the violation years is assessed and 3% of the total cost saved is provided in the Proposed budgetary provisions for Natural and Community Resource Augmentation Plan. •The total damage cost and the cost saved as mentioned above has been considered and the damage assessment and its remedial action plan has been revised accordingly •The signed copy of financial statement of Bhurkunda Colliery has been provided
	<p>Time bound Action Plan for STP construction with details of treatment and compliance of Domestic waste management as per MSW Rules 2016 shall be submitted.</p>	<p>Time bound action plan for STP construction with details of treatment and compliance of Domestic waste management has been prepared and is given below. The scheme and proposal for construction of STP at three locations. Expected date of completion is March, 2023.</p>
	<p>PP must take certification from PCCF that forest area was broken prior to 25th October, 1980 and no virgin area is left</p>	<p>Letter regarding certification of forest land broken before 1980 in respect of the forest proposal of Bhurkunda</p>

	after w.r.t forest land 1980, and in case there were any than the damage assessment cost to be revised respectively	CollieryFP/JH/MIN/39387/2019 has been sent to PCCF, Ranchi vide letter no.- Letter/GM(E&F)/2022/131 dt. 26/02/2022. • PCCF, Ranchi has directed RCCF Bokaro vide letter no: 332 Dated: 08.04.2022 for providing details regarding certification of forest land broken before 1980 in respect of Bhurkunda Colliery.
	70% of land is forest area. The project does not have Stage-I forest clearance as on date. Thus discussing this project for appraisal is a fait accompli situation, which is to be clarified by PP in light of Supreme Court Order	Bhurkunda Colliery is an old colliery operating since 1924. The entire forest land of 621.14 Ha has been broken prior to 1980. An undertaking in this regard has also submitted with the forest diversion proposal of 621.14 Ha submitted vide: FP/JH/MIN/39387/2019 Dated: 29.03.2019. As such, appraisal of the project is not a fait accompli situation. • The progress made & status of activities like tree enumeration, CA land provisioning and NOC JJ/FRA at DFO Ramgarh level for Stage I FC is enclosed. It is expected that Stage I FC will be granted to the project by December 2022.
	Status of credible action initiated by JSPCB	Jharkhand State Pollution Control Board (JSPCB) has been requested vide letter no: HOD(Env.)/2022/16 Dated: 14.01.2022 for taking necessary action in this regard.
	ATR on the observations by Sub - committee of EAC (Violation), MOEF&CC during their visit on 19/01/19 shall be resubmitted with commitment of time line to complete within a year.	ATR on the observations by Sub-committee of EAC (Violation), MOEF&CC during their visit on 19.01.2019 is prepared & submitted with commitment of time line.
	A capital budget of Rs:2.95 Crores (Specific and Monitorable) shall be submitted in a tabular form to be spent in 3 years' time towards the commitments during Public Hearing as the capex of the project being Rs 146.27 Crores.	Major issues raised during PH along with budget provision is being attached & timeline has been provided.
	Clarification regarding Stage 1 FC, in case required, may be provided and PP	Clarification Regarding Stage-I FC: Compliance submitted in Point No: iii & iv

	shall submit NOC for Ground water extraction as the mine is very old	NOC for ground water extraction: NOCAP Application vide 21-4/731/JH/MIN/2021 has been approved by Chairman (CGWA). The payment of ground-water charges is under process and it is expected that NOC will be issued by April 2022
	PP shall update mine closure activity already conducted and to be pursued for final mine closure	1. The mine closure plan of Bhurkunda Colliery (OC & UG) has been approved in 479th Board meeting held on 04.11.2019. The copy of approval & approved mining plan & mine closure plan is enclosed. 2. The approved mine closure plan includes the activity and the total amount for Progressive and Final Mine Closure Cost for both Bhurkunda OC & Bhurkunda UG. The activities already undertaken in Bhurkunda Colliery is provided
	Action plan for commitment made on the issues raised during public hearing	Action plan for commitment made on the issues raised during public hearing.
	TOR Compliance point no. 16 mentions CHP will be constructed. However, there is no mention of CHP in mine plan or PFR	1. Project Report of Bhurkunda Colliery for a higher capacity of 3.5 MTPA has been prepared with provision of CHP along with conveyor transport to nearby railway siding. The mining plan/ Prefeasibility Report of Bhurkunda Colliery (2.05 MTPA) does not account for CHP as PR is yet to be accorded approval. 2. In the EIA-EMP of Bhurkunda Colliery, the impacts have been assessed for worst-case scenario, considering the road transportation of coal to the railway siding. Mention of CHP along with conveyor transport of coal has been incorporated in the EMP as per the proposed provision of PR of Bhurkunda Colliery
	PP to submit action plan for planting Sal trees with 80 % Sal trees and 20 % other native species along the bank of the river and also recommended to develop a 10 ha Sal nursery by September 2022.	A proposal for development of Hi-Tech SAL nursery in an area of approximately 9 Ha near the bank of Naikari River has been submitted to DFO, Ramgarh vide Ref no. CCL/GM(E&F)/2022/137 dt 28/2/2022. The copy of letter & proposed location is enclosed.

		Expected Date of completion of Work is October, 2022.
	PP shall submit action for implementation of 40-50 tonnes coal haulers and accordingly impact due to reduction of fleet size.	The condition of implementation of 40-50 tonnes coal haulers for coal transportation shall be incorporated in the NIT of coal transportation of Bhurkunda Colliery. The impact due to reduction of fleet size is enclosed
	PP shall submit conservation plan of Naikari Nadi and Kurse Stream with budget allocation	A conservation plan of Naikari Nadi and Kurse Stream has been prepared and attached

M/s CCL through email submitted a letter from Office of the Divisional Forest Officer, Ramgarh forwarded to Conservator of Forest, Territorial Circle, Bokaro regarding certification of forest land broken before 1980 in respect of the forest proposal of Bhurkunda Colliery and has stated that on the basis of M/s CCL that from the letter and documents/map submitted by CCL, it appears that the forest land falling within the lease area of Bhurkunda Colliery was broken before 1980.

29.12.4 *The EAC after deliberations noted that PP has revised the damage assessment report and Remediation Plan and Natural and Community Resource Augmentation Plan (NCRAP). However, the activity proposed may be revisited for example stone pitching at the bank of Nakari river comes under Balkudra OCP and not specific to this project, development of ecological park in Barka Sayal Area. Also PP has to see that similar activities under NCRAP should not overlap with other violations projects since M/s CCL has various violation category projects and therefore it requires difference NCRAP specific to that projects. Further, socio-economic activities may include development of entrepreneurs/education professionals in the project area.*

It was also observed by EAC that recommendation of sub-committee of EAC after their visit has not been complied after the gap of three years; only action plan without any substantive detailed plan and commitment is being proposed e.g. no detailed plan on diversion of roads; simply the proposal is submitted in January, 2022 to State Government & no DPR has been prepared yet. Also, installation of fixed water sprinkler, black topping of haul road has not yet installed. No work regarding observation of geotexturing on dump site along the habitation has been done.

Further, regarding forest land broken before 1980, it is noted that PP was asked to submit certification from PCCF however; no such communication has been submitted. EAC opined that PP must submit the document clearly stating that forest land was broken before 25th October, 1980.

In view of above, EAC desired the following information for submission of PP.

- (i) *PP shall submit certification from PCCF clearly stating that forest land was broken before 25th October, 1980.*
- (ii) *PP shall submit specific activities to be conducted village wise (if proposed in villages) of Remediation Plan and Natural and Community Resource Augmentation Plan (NCRAP) for the*

- area covering Bhurkunda OCP and undertaking shall be submitted that these activities are not overlapping with other activities of other coal mines of M/s CCL.*
- (iii) Permission of extraction of ground water from Central Ground Water Authority.*
 - (iv) PP shall submit air pollution mitigation measures at Saunda D Colony and Bhurkunda Guest House.*
 - (v) PP shall submit plan of development of additional railway line at Saunda B Siding for transportation of coal with silo loading facility.*
 - (vi) PP shall submit status of proposed black topping of Approx. 1.5 km of permanent coal transportation road from UG Incline to Check Post near PO Office (timeline is June-2022 as mentioned in EIA Report).*
 - (vii) PP shall submit measures to ensure to avoid damage to surface water bodies due to underground mining activities.*

*The proposal was **deferred** on above lines.*

The meeting ended with thanks to chair

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

ANNEXURE-V

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 embankmentetc. 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 shouldbe 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.

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

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

- (xii) Break-up of lease/project area as per mining plan should be provided.
- (xiii) Impact of changes in the land use due to the project if the land is predominantly agricultural land/forestland/grazing land, should be provided.
- (xiv) One-season (other than monsoon) primary baseline data on environmental quality - air (PM10, PM2.5, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-seasonmet data coinciding with the same season for AAQ collection period should 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 st Year)	5 th Year	10 th Year	20 th Year	24 th 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 st year					
2.	3 rd year					
3.	5 th year					
4.	10 th year					
5.	15 th year					
6.	20 th year					
7.	25 th year					
8.	30 th year					
9.	34 th year (end of mine life)					
10.	34-37 th Year (Post-mining)					

(xxxi) Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the pre- mining status should be provided. A Plan for the ecological

restoration of the mined out area and post mining landuse 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.

- 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 (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			

GENERIC TORs FOR AN UNDERGROUND COAL MINE PROJECT

- (i) An EIA-EMP Report shall be prepared for MTPA rated capacity in an ML/project area of ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
- (ii) An EIA-EMP Report would be prepared for MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for MTPA of coal production based on approved project/Mining Plan for MTPA. Baseline data collection can be for any season (three months) except monsoon.
- (iii) A 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 (PM10, PM2.5, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-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.

- 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			

ANNEXURE-VII

GENERIC TORs FOR AN O P E N C A S T -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 29th MEETING OF HELD
DURING 25-26 APRIL, 2022 THROUGH VIDEO CONFERENCING**

1.	Shri G.P Kundargi			DAY
		-	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	P
7.	Dr. Unmesh Patnaik	-	Member	A
8.	Shri Prasant Kumar Mohapatra	-	Member	A
9.	Professor S S Rai, Representative of IIT/ISM Dhanbad	-	Member	P
10.	Shri M.P Singh, Representative of CEA	-	Member	P
11.	Dr. Santosh Kumar Hampannavar	-	Member	P
12.	Prof R.K. Giri Representative of IMD	-	Member	A
13.	Dr. Nazimuddin Representative of Central Pollution Control Board	-	Member	A
14.	Shri Lalit Bokolia, Director, MoEFCC	-	Member Secretary	P