

**MINUTES OF 25<sup>th</sup> MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENT APPRAISAL OF COAL MINING PROJECTS HELD DURING 18-20 JANUARY, 2022 THROUGH VIDEO CONFERENCE.**

**18 -20 January, 2022**

**Confirmation of the Minutes of 24<sup>th</sup> Meeting of the EAC (Coal) held on 30<sup>th</sup> December, 2021:** The minutes of the 24<sup>th</sup> meeting of the EAC held during 30<sup>th</sup> December, 2021 was 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 25<sup>th</sup> meeting of the Expert Appraisal Committee (EAC) for coal mining projects was held on 18<sup>th</sup> -20<sup>th</sup>, 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. 25.1**

**Ramagundum Opencast-I Coal Mine for Expansion- Phase II with increase in production capacity from 3.3 MTPA to 5.3 MTPA in mine lease area of 923.88 Ha by M/s The Singareni Collieries Company Limited at Village Nagepalli, Mandal Ramagiri, District Peddapalli (Telangana)- For Environmental Clearance under violation category based on Ministry's Notification dated 14<sup>th</sup> March, 2017 -reg**

**[Online proposal No. IA/TG/CMIN/211908/2017; F No. 23-71/2018-IA(III)]**

**25.1.1** The proposal is for Environmental Clearance of Ramagundum Opencast-I Coal Mine Project Expansion- Phase II with increase in production capacity from 3.3 MTPA to 5.3 MTPA in mine lease area of 923.88 Ha by M/s The Singareni Collieries Company Limited at Village Nagepalli, Mandal Ramagiri, District Peddapalli (Telangana).

**25.1.2** Details of the proposal, as provided by project proponent 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. 56N/10 and is bounded by the geographical coordinates ranging from Latitudes 180 39' 07" N to 180 41' 05" N and Longitudes 790 32' 37" E to 790 33' 53" E.
- (ii) Coal linkage of the mine is proposed as per the 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) The Project does not fall in the Critically Polluted Area (CPA).
- (vi) Employment generation, permanent & contract employment to 2,377 persons (departmental employment 1,777 and contractual 600 persons) will be provided from the project.
- (vii) The project is reported to be beneficial in terms of socio-economic and improving living standards.

**Social:** Infrastructure facilities like drinking water supply, sanitation, roads, culverts, community halls, street lighting, Education, Medical, Recreation, Business establishments etc., will be further improved in the surrounding villages through CSR activities. Excess mine discharge water is utilized for irrigation and ground water recharge.

**Financial:** Indirect employment opportunities to local people will be created through contract works such as OB off-loading, coal transport, ancillary material supply like spare parts, explosives, services etc. Income will be generated to State and Central Govt., in the form of taxes.

**Environmental:** Development of parks, avenue plantation, distribution of fruit bearing and other saplings free of cost to the schools and surrounding villagers, de-silting of surrounding irrigation tanks, construction of rain water harvesting pits.

- (viii) Earlier, the Environment Clearance to the project was obtained under EIA Notification, 2006 through Ministry's letter No. J-11015/534/2007-IA.II(M) dated 31.07.2008 for 3.0 MTPA (Peak:3.30) in mine lease area of 923.88 ha.
- (ix) Terms of Reference was granted on 27.09.2019 vide MoEF&CC letter No. F.No. 23-71/2018-IA (III) under Violation Category as per Ministry's Notification dated 14<sup>th</sup> March, 2017.
- (x) Total mining lease area as per block allotment is 923.88 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the MoC, GoI, on 17.10.2014 (vide Lr.No.13016/2/2006-CA-II, for a production capacity of 5.30 MTPA with existing project area of 923.88 ha with opencast method of mining by existing Shovel-Dumper and Dragline Technology).
- (xi) The land usage pattern of the project is as under

#### Pre Mining Land Use

S. No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agriculture land	233.57	0.00	233.57
2	Forest land	15.64	0.00	15.64
3	Waste land	674.67	0.00	674.67
	<b>TOTAL</b>	<b>923.88</b>	<b>0.00</b>	<b>923.88</b>

#### Land Use Break Up- during Mining

Sl.No.	Description	Area
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1	Quarry area	360.53
2	OB dump (void of RG OCP-I)	403.31
3	Safe distance around quarry and around external dump including road	116.93
4	Service buildings, CHP etc.	30.52
5	Road	12.59
<b>Total</b>		<b>923.88</b>

#### Land Use Break Up- Post-Mining

S. No.	Land use during Mining	Land use (ha)				
		Plantation	Void	SCCL/ Public Use	Undisturbed	Total
1	External OB dump yard	403.31	-	-	-	403.31
2	Excavation	61.80 (Internal dump)	298.73	-	-	360.53
3	Road around quarry and around dump yard.	86.87	-	42.65	-	129.52
4	Built up area	-	-	30.52	-	30.52
<b>Total</b>		<b>551.98</b>	<b>298.73</b>	<b>73.17</b>	<b>0.00</b>	<b>923.88</b>

- (xii) Total geological reserve reported in the project area is 80.04 MT with 74.02 MT mineable coal reserve by opencast method. Out of 74.02 MT of total mineable reserve, 71.02 MT are available for extraction. Percent of extraction is 88.73 %.
- (xiii) 9 nos. of coal seams with thickness ranging from 0.44 m to 16.46 m are workable (No.1A Seam:0.61 to 2.57 m, 1A Bottom Seam:0.61 to 1.60 m, I seam: 2.13 to 6.20 m, II Seam:1.82 to 5.17 m, IIIB Seam:0.82 to 1.83 m and IIIA Seam:0.44 to 1.82 m, III Seam:9.14 to 12.11 m, IV Seam:3.35 to 4.86 m and III&IV combined:11.70 to 16.46 m thickness). Grade of coal is G-10 (4553 Kcal/Kg), stripping ratio is 1:5.98, while gradient is 1 in 5 to 1 in 9.
- (xiv) Method of mining operations envisages by opencast method with Shovel-Dumper & Dragline technology.
- (xv) Balance life of the project is 2 years from 01.04.2021.
- (xvi) The project has one external OB dump (de-coaled void area of RG OCP-I) in an area of 403.31 ha with 120 m height and 269.78 Mm<sup>3</sup> of OB. One Internal OB dump in an area of 240.97 ha with 84.15 Mm<sup>3</sup> of OB is envisaged in the project.
- (xvii) Total quarry area is 360.53 ha, out of which backfilling will be done in 61.80 ha while final mine void will be created in an area of 298.73 ha with a depth vary from 155 to 240 m. It is proposed to fill the final void with 194.36 bank M.Cum of OB removed from the future expansion of the project (after annexing Block-C property of GDK 10 Incline & Vakilpalli Block) to reduce the final void depth to 35 m below ground level.

- (xviii) Transportation of coal has been proposed by 60T/100T dumpers from coal face to in-pit crushers in quarry and from in-pit crushers to surface by series of belt conveyers. From surface to Ramagundam Coal Handling Plant (RG OCP-I CHP) located in project area by a series of belt conveyors and from RG OCP-I CHP (SILO loading) to customer (NTPC, Ramagundam) by rail mode.
- (xix) Reclamation Plan in an area of 551.98 ha, comprising of 403.31 ha of the external dump, 61.80 ha of internal dump, and 86.87 ha green belt including safety zone/rationalization area.
- (xx) 15.64 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 15.64 ha of forest land (Stage-II FC) for non-forestry purposes have been obtained vide MoEF&CC Ltr.No.F.No.8-109/2005-FC, dated 02.05.2008 and valid up to 01.05.2028.
- (xxi) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project
- (xxii) Wildlife Conservation Plan approved by PCCF&CWLW, Govt. of Telangana vide Rc.No. 3505/2020/WL-1, dt.08.04.2021 with budgetary provision of Rs.335.68 lakh for Ramagundam mines including Ramagundam Opencast-I Coal Mine Project Expansion Phase-II will be implemented for conservation of Schedule-I species.
- (xxiii) The ground water level has been reported to be varying between 1.97 m to 10.80 m during pre-monsoon period and between 0.95 m to 8.10 m during post-monsoon period. Total water requirement for the project is 2,350 KLD.
- (xxiv) Ground Water Clearance was obtained vide Memo No.4932/Hg/II(1)/08, dt.07.05.2008 for existing EC capacity of 3.3 MTPA.
- (xxv) An application was submitted on 17.08.2021, vide Lr.No.RG3/ENV/21/82 for grant of ground water clearance for the expansion project for proposed enhanced capacity of 5.3 MTPA.
- (xxvi) Public hearing for the Project of 5.30 MTPA capacity in an area of 923.88 ha was conducted on 25.03.2021 at J.N.T.U.College Manthani, Pannuru village, Ramagiri Mandal, Peddapalli District, Telangana State under the Chairmanship of Additional Collector, Peddapalli District, T.S.
- (xxvii) Major issues raised in the public hearing include; to take up plantations in project affected villages under CSR, continue free medical camps and skill development training programs, give preference to local youth in employment in contract works, take up of infrastructure developmental works in affected villages under CSR and DMFT funds and take environmental mitigative measures as addressed in EIA/EMP report. Appropriate action to address the issues raised in the public hearing have already been taken /proposed to be taken along with basic information.
- (xxviii) Consent to Operate for the existing capacity was obtained from the State PCB on 06.11.2021 (CFO Order No. 210522933629) and is valid till 31.03.2026.
- (xxix) No River/nallah is flowing in the project area and no diversion is proposed.
- (xxx) Regular monitoring of ambient air quality is being carried out on fortnight basis by EPTRI, Hyderabad which is a QCI/NABET accredited and having NABL& CPCB recognized laboratory. The documented report is being submitted to the Regional Officer, Telangana State Pollution Control Board and also to the Regional Officer, MoEF&CC, Chennai along with half yearly EC

compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits.

- (xxxii) No court cases, violation cases are pending against the project of the PP except EC violation case for producing excess coal from the project beyond the EC sanctioned capacity for a few years in the project area stipulated in EC.
- (xxxiii) As per the ToR, State Govt./SPCB has to take action against the Project Proponent under the Provisions of the E(P) Act, 1986 for violating existing EC.
- (xxxiii) A case was filed (credible action) in the court of J.M.F.C., Manthani (C.C.No.10192020) against Project Authority by EE, TSPCB, Regional Officer, Ramagundam under section 15 of Environment Protection Act, 1986 for violating existing EC. The case is under trial and copy of credible action is along with basic information.
- (xxxiv) The project involves violation of the EIA Notification, 2006 and amendment issued there under. The coal production from the mine was started from the year 2008-09 onwards. Excess production of coal beyond the sanctioned capacity has been realized for a few years.
- (xxxv) No R&R is involved in the project.
- (xxxvi) Total cost of the Project is Rs. 16,762 lakh. Cost of production is Rs 3,035.24 per tonne. CSR cost is 2% of average net profits of the company made during last three years are being allocated for CSR at company level. No R&R involved in the project, so R&R cost is nil. Environment Management Cost is as follows: Direct cost : Rs. 6.379 crore; Revenue cost : Rs.8.469 crore per annum @ Rs.15.98 per tonne of coal
- (xxxvii) The coal production, realized from the project from 1993-94 onwards, is as under:

<b>Year</b>	<b>EC Sanctioned Capacity (MTPA)</b>	<b>Actual Coal Production (MTPA)</b>	<b>Excess Production beyond the EC Sanctioned Capacity (MTPA)</b>
2008-09	3.30	2.200	0.000
2009-10	3.30	2.980	0.000
2010-11	3.30	3.401	0.101
2011-12	3.30	4.080	0.780
2012-13	3.30	4.710	1.410
2013-14	3.30	5.294	1.994
2014-15	3.30	5.290	1.990
2015-16	3.30	5.030	1.730
2016-17	3.30	5.375	2.075
2017-18	3.30	5.300	2.000
2018-19	3.30	4.736	1.436
2019-20	3.30	4.635	1.335
2020-21	3.30	4.283	0.983

### 25.1.3 The EAC during deliberations noted the following:-

- PP has applied for EC under violation category under Ministry's Notification dated 14<sup>th</sup> March, 2017. The violation under this project has been recorded against the excess

production from the FY year 2010-2011 to till grant of TOR (i.e 27.09.2019) and even onward till 2020-21 by having excess production of 15.834 MTPA in total 11 years. TOR to project was granted on 27.09.2019 and it was observed that PP is continuing to violate by excess production even after issuance of TOR.

- Total cost estimated for ecological damage assessment is Rs. 3.4197 crore and the same is proposed to be spent in remediation measures, which is equal to the damage assessment cost.
- A three Star rating declared by MoC vide Lr.No.CC/ CS&SR/General File/2019-20, dt.17.05.2021 for the year 2018-19 to this mine. Star rating for the years 2019-20 & 2020-21 are not yet declared by the MoC.
- Certified Compliance Report monitored on 28.07.2021 by IRO, MoEF&CC, Hyd and submitted vide letter no. F.No. ENV/IRO-HYD/CCR-27/A/2021/ 109 dated 05.11.2021.
- A case was filed (credible action) in the court of J.M.F.C., Manthani (C.C.No.10192020) against Project Authority by EE, TSPCB, Regional Office, Ramagundam under section 15 of Environment Protection Act, 1986 for violating existing EC.
- EC was obtained on 31.07.2008 vide Lr. No. J-11015/534/2007.IA.II (M) for a capacity of 3.0 MTPA (Peak 3.3 MTPA) in project area of 923.88 ha and operations were commenced in the year 2008-09.
- Stage-II FC was obtained for 15.64 ha of FL (part of 412.40 ha of FL) on 02.05.2008 vide F.No.8-109/2005-FC and valid up to 01.05.2028.
- Revised Mining & Mine Closure Plan was approved on 17.10.2014 by MoC vide Lr.No.13016/2/2006-CA-II for a production capacity of 5.30 MTPA with existing project area of 923.88 ha.

*25.1.4 The EAC, after deliberations observed that Ramagundum OCP falls in violation category under Ministry's Notification dated 14<sup>th</sup> March, 2017 and noted that 9 MTPA of the coal is left, which could be exhausted in 2 to 3 years. EAC expressed displeasure that even after seeking the ToR in September 2019 under violation category, the PP is continuing to mine with excess production without obtaining EC and ignoring the fact that the Damage assessment cost will shoot up. A total of 11.516 MT of excess production has been estimated from 2010-11 to 2018-19 and this was reported while taking TOR on 27.09.2019 under violation category. After grant of this TOR, PP has further made excess production to tune of 2.318 MT, which should not have been the case, against the sanctioned EC till FY 2020-21. The Committee also observed that as per the Notification dated 14<sup>th</sup> March, 2017, PP was not allowed to make excess production and no CTO is to be granted to project. Despite the instruction by MoEF&CC, no action was taken by SPCB, but CTO was granted beyond the life of mine i.e upto 2026. This shows non-seriousness of PP and also on the part of SPCB towards the applicable regulation. EAC expressed its serious note and displeasure. Finally, the committee recommended Ministry to take appropriate action on repeated violation and desired that SPCB should take strict credible action on the Project Proponent.*

*EAC further asked about the Mine closure activity initiated by the PP as per the latest guidelines of*

*MoC. Finding no response with inadequate action taken in mine closure activity, the committee desired that PP should give time bound action plan with proof of physical work on ground with photograph. It was also noted that so far inadequate plantation has been carried out by PP along the mine boundary, roads and OB dump sites and these areas from KML were seen to be barren. PP informed that they are planning to install 2 MW solar Power plant on the dump site and as per mine closure plan in 550 Ha area, plantation is underway in 202 ha and further it will be planted in 223 Ha within three years. In addition, EAC also found inconsistency in water monitoring report for surface water and advised to redo this exercise in potential areas. It is also noted that damage assessment is incorrect and shall be done as per the guidelines.*

*In view of above observations, EAC desired for further following information and compliances.*

- (i) PP shall consolidate the mine closure activity already conducted and to be pursued for final mine closure*
- (ii) PP shall submit a video recording of the site from drone in next meeting and capture the recording of works completed for mine closure including plantation done so far.*
- (iii) PP shall re-monitor the water quality of surface water i.e. ponds, tanks and streams vicinity of the project area by other consultant (third party).*
- (iv) Action plan for commitment made on the issues raised during public hearing in both the districts.*
- (v) Details of Annual EMP cost -capital as well as recurring shall be submitted till the life of the mine.*
- (vi) The capital cost of the Expansion being Rs. 79 Crores, an amount of Rs:79.0 lacs shall be earmarked towards the commitment to address the Public hearing grievances. Activity shall be specified in consultation of town panchayat/district magistrate to the requirement of villagers.*
- (vii) Economic benefits(loss) accrued during the violation period shall be certified by the Finance Dept.*
- (viii) Ground water abstraction quantity for mine shall be reworked. Damage cost for the Excess mine seepage water shall be re worked @Rs:15/- per Cum being a safe Zone category.*
- (ix) The damages shall be re- worked for PM10 and PM2.5 separately and (Environmental prices considered can be obtained from EAC VOILATION COMMITTEE guidelines.)*
- (x) 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.*
- (xi) The total damage cost and the cost saved as mentioned shall be taken for Remediation, NRAP and CRAP budget.*

*The proposal was **returned to PP** on above lines*

## **Agenda No. 25.2**

**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 Environmental Clearance under violation category based on Ministry's Notification dated 14<sup>th</sup> March, 2017 – reg.**

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

**25.2.1** 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).

**25.2.2** Details of the proposal, as provided by project proponent held during the meeting, are given as under:

- (i) The project is covered in Survey of India topo sheet no. 73E/6 and is bounded by latitudes 23° 38' 51.52"N & 23° 40' 26.02"N and longitudes 85° 19' 42.88"E & 85° 23' 0.56"E.
- (ii) Coal linkage of the washery is proposed through basket linkage & e-auction.
- (iii) No Joint venture cartel has been formed for the project.
- (iv) Project does not fall in Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation, project is source to direct employment of about 449 persons.
- (vi) The project is reported to be beneficial in terms of employment opportunities both for skilled and semi-skilled persons in the area. Business opportunity in secondary & Tertiary sectors will increase. The proposed project will also bring about enhanced socio-economic benefits to local population due to expenditure in CSR activities, post-mining enhancement of green cover, contribution to exchequer etc.
- (vii) Terms of reference granted vide F. No. 23-266/2018-IA.III(V) Dated: 27.04.2021.
- (viii) Total mining lease area as per block allotment is 910.16 Ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved in the 479th Board meeting of CCL held on 04.11.2019.
- (ix) The land usage pattern of the project is as under

**Pre Mining Land Use**

SN	Type of Land	Area In Ha.
1	Notified Forest	221.40
2	GMK JJ	399.74
3	Tenancy	216.17
4	GM K Land	72.85
<b>TOTAL</b>		<b>910.16</b>

**Land Use Break Up- during Mining**

SN	Type	Total (in Ha)
1.	Quarry I & II	196.73

2.	External Dumps	177.07
4.	Infrastructure	19.95
5.	Old UG and OC Workings including Colony and Residential area	424.28
6.	Water Bodies	19.5
7.	Safety Zone	10.75
8.	Underground Workings	61.88
<b>Total land</b>		<b>910.16</b>

#### Land Use Break Up- Post-Mining

SN	Land Use	Plantation	Water Body	Public Use	Un-disturbed	Total (in Ha)
1.	Quarry I & II	8.71	188.02	0	0	196.73
2.	External Dumps	121.41	0	55.66	0	177.07
4.	Infrastructure	0	0	19.95	0	19.95
5.	Old UG and OC Workings including Colony and Residential area	127.12	0	297.16	0	424.28
6.	Water Bodies	0	19.5	0	0	19.5
7.	Safety Zone	10.75	0	0	0	10.75
8.	Underground Workings	61.88	0	0	0	61.88
<b>Total land</b>		<b>329.87</b>	<b>207.52</b>	<b>372.77</b>	<b>0</b>	<b>910.16</b>

- (x) As per the approved Mining Plan of Bhurkunda Colliery, total geological reserve reported in the mine lease area is 257.98 MT with 18.07 MT mineable reserve. Out of the total mineable reserve of 18.07 MT, 18.07 MT is mineable reserve. Percent of extraction is 100 %.
- (xi) 24 seams with thickness ranging from 0.07 meter to 28.63 meter are workable. Grade of coal is G-8. Stripping ratio is 4.30 while gradient is 1 in 5 to 1 in 6.
- (xii) Method of mining operation is by open-cast mining using Shovel-dumper mining system & underground mining by depillaring with caving.
- (xiii) Life of mine is 9 years for OCP mining & 20 years for UG mining.
- (xiv) The project has 2 external OB dumps in an area of 177.07 ha with 45 – 90 m height and 56.79 Mm<sup>3</sup> of OB. 1 internal OB in an area of 8.71 ha with 2.42 Mm<sup>3</sup> of OB is envisaged in the project.
- (xv) Total quarry area, combining Quarry I & II, is 196.73 ha out of which backfilling will be done in 8.71 Ha area in Quarry-II. Final mine void will be created in an area of 188.02 Ha with average depth of 60-90 m. Backfilled quarry area of 8.71 Ha shall be reclaimed with plantation. Final mine void will be converted into a water body.
- (xvi) Transportation of coal has been proposed by internal roads & Dumpers from mine pit head, from surface to siding at present by covered tipping trucks and at sidings by payloaders. It has been proposed to construct CHP for handling coal and then dispatch to Saunda B siding by closed

conveyor belt.

- (xvii) Reclamation Plan in an area of 329.87 Ha comprising of 8.71 Ha of internal dump, 121.44 Ha of external dump and 10.75 Ha of green belt and safety zone. In addition to this, an area of 127.12 ha, included for Old UG and OC Workings including Colony and Residential area & 61.88 Ha included for Underground Workings, has also been proposed for green belt development.
- (xviii) 621.14 ha of forest land has been reported to be involved in the project. The application for 621.14 Ha applied vide FP/JH/MIN/39387/2019 on 29.03.2019 for approval under the Forest (Conservation) Act, 1980
- (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 10.55 m (Pre-monsoon) to 4.3 m (Post-monsoon) (Average). Total water requirement for the project is 1823 KLD.
- (xxi) Application for obtaining the NOC of the Central Ground Water Authority has been approved vide application no: 21-4/364/JH/MIN/2019 Dated: 03.09.2021.
- (xxii) Public hearing for the project of 2.05 capacity in an area of 910.16 Ha was conducted on 27.11.2021 at Officers Club, Bhurkunda, District Ramgarh under the Chairmanship of Shri. Nelson Aeon Bage, Additional Collector. Major issues raised in the public hearing include employment, R & R, School, electricity, hospital drinking water facilities etc. Appropriate action to address the issues raised in the Public Hearing have been proposed.
- (xxiii) Last Consent to Operate for the existing capacity was obtained from the Jharkhand State PCB on 12.03.2020 and is valid upto 30.09.2020.
- (xxiv) The drainage of the block is controlled by the Easterly flowing Damodar River in the North and East of the block and Naikari nadi in the North-West and West of the block.
- (xxv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to JSPCB. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- (xxvi) No court cases, violation cases are pending against the project of the PP.
- (xxvii) The coal production, realized from the project from 1993-94 onwards, is as under:

<b>Year</b>	<b>Production in Mte</b>	<b>Year</b>	<b>Production in Mte</b>	<b>Year</b>	<b>Production in Mte</b>
<b>1993-94</b>	<b>0.65</b>	2002-03	0.37	2011-12	0.16
1994-95	0.5	2003-04	0.46	2012-13	0.21
1995-96	0.46	2004-05	0.51	2013-14	0.23
1996-97	0.32	2005-06	0.49	2014-15	0.23
1997-98	0.40	2006-07	0.49	2015-16	0.45
1998-99	0.32	2007-08	0.4	2016-17	0.79
1999-00	0.35	2008-09	0.28	2017-18	1.12
2000-01	0.37	2009-10	0.34	2018-19	0.72
2001-02	0.37	2010-11	0.23	2019-20	0.72
				2020-21	0.44

(xxviii.) The project involves no R & R.

xxix. Total cost of the project is Rs. 146.375 Crores. Cost of production is Rs. 2355.89/Tonne. The fund for the CSR should be allocated based on 2% of the average net profit of the Company for the three immediately preceding financial years. Environment Management cost is Rs. 20.45 Crore.

**25.2.3** The EAC during deliberations noted the following: -

- There is no prior EC taken by PP and project is registered for violation on account of excess production made in last 4 years i.e from FY 2016-17 to 2019-20 continuously against the base year (1993-94) production capacity (0.651 MT) as confirmed from CTO.
- The PP had applied the application of TOR within window period of Notification issued for violation category. The project was accorded with Terms of Reference (ToR) including specific conditions for violation by MoEFCC vide letter no F.N-23-266/2018-IA.III Dt.27.04.2021.
- Mining Plan for project has been prepared and approved by the CCL Board in its 479th Board meeting held on 04.11.2019
- 621.14 Ha of forest land is involved for forest diversion, which is yet to be obtained as the PP had filed the application for forest clearance.
- Mining operations at Bhurkunda Colliery has been suspended since October 2020 due to absence of CTO.

**25.2.4** *The EAC observed that the PP had not applied for any forest clearance and sought clarity regarding so as whether all the forest was acquired before 1980 or and no virgin area is left as of now. EAC recommended the PP shall take a certification from PCCF that after 1980 no virgin area is left wrt to forest land. The EAC found that quarry I and quarry II was not backfilled properly and asked PP to manage it in a way so that a better land scape can be provided. PP had not installed the CAAQMS before 2019 after the state pollution board order. No conveyor belt is installed at site and transportation is via road though the air pollution is a major issue of concern. EAC asked the fleet size and PP replied for 25 tonnes trucks. EAC suggested for minimum 40-50 tonnes coal haulers. The EAC inquired about the compliance of recommendation by the violation committee visited on 30.04.2019, which was not addressed properly.*

*EAC observed a 700 m stretch of Nikari River a main tributary of Damodar river flowing along the mine boundary and Kurse stream, which is the tributary of Naikari nadi flows through the leasehold area at around 60 m from the quarry-2 and meets Naikari nadi in the north-east of the Quarry-2 at around 150 m. EAC asked about the width safety barrier left , PP told that from 50-100 m safety distance is maintained. EAC mandatorily asked PP to plant Sal trees with 80 % Sal tress and 20 % other native species along the bank of the river and also recommended to develop a 10 ha Sal nursery by September 2022. Further is noted that damage assessment was not done as per the guidelines.*

*In view of above observation, EAC desired compliance from PP on following observations*

- (i) PP shall revise damage assessment and its remedial action plan for violation of over production as suggested by EAC based on following points:*
  - 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.*
- (ii) 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.*
- (iii) PP must take certification from PCCF that forest area was broken prior to 25<sup>th</sup> October, 1980 and no virgin area is left after w.r.t forest land 1980, and in case there were any than the damage assessment cost to be revised respectively.*
- (iv) 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.*
- (v) Status of credible action initiated by JHPCB.*
- (vi) 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.*
- (vii) 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.*
- (viii) Clarification regarding Stage I FC, in case required, may be provided and PP shall submit NOC for Ground water extraction as the mine is very old.*
- (ix) PP shall update mine closure activity already conducted and to be pursued for final mine closure*
- (x) Action plan for commitment made on the issues raised during public hearing.*
- (xi) TOR Compliance point no. 16 mentions CHP will be constructed. However, there is no mention of CHP in mine plan or PFR.*
- (xii) PP to submit action plan for planting Sal trees with 80 % Sal tress and 20 % other native species along the bank of the river and also recommended to develop a 10 ha Sal nursery by September*

2022.

- (xiii) PP shall submit action for implementation of 40-50 tonnes coal haulers and accordingly impact due to reduction of fleet size.
- (xiv) PP shall submit conservation plan of Naikari Nadi and Kurse Stream with budget allocation

The proposal was **deferred** on above lines

### **Agenda No. 25.3**

**Expansion of Khadia Open Cast Project in production capacity from 14 MTPA to 20 MTPA in an area of 1640 Ha 1697.906 Ha by M/s Northern Coalfields Limited. Located in Tehsil Didhi, District Sonebhadra. (UP) and in Tehsil Singrauli, District Singrauli (MP) - For Terms of Reference-reg**

**Online proposal No. IA/MP/CMIN/238696/2021; F No. J-11015/255/2006- IA.II(M)]**

**25.3.1** The proposal is for Terms of Reference Expansion of Khadia Open Cast Project in production capacity from 14 MTPA to 20 MTPA in an increase in area from 1640 Ha to 1697.906 Ha by M/s Northern Coalfields Limited. Located in Tehsil Didhi, District Sonebhadra. (UP) and in Tehsil Singrauli, District Singrauli (MP)

**25.3.2** Details of the proposal, as provided by PP from the proposal documents are given as under:

- (i) The project area is covered under Survey of India Topo Sheet No 63-L /12 and is bounded by Latitude 24°06'50.48" North to 24°09'16.70" North and Longitude 82°41'20.91" East to 82°44'27.55" East.
- (ii) Coal linkage of the project is for Anpara TPS (1630 MW) of UPRVUNL and Lanco Anpara TPS (1200MW) and it will also serve as Basket Linkage mine to meet the overall demand of power grade coal on NCL.
- (iii) Joint venture cartel has NOT been formed.
- (iv) Project fall in the Severally Polluted Area (CPA).
- (v) Employment generation 1600 nos. (As per EPR 16 MTPA, Peak 20 MTPA) persons will be provided from the project.
- (vi) The project is reported to be beneficial in terms of (i) Environmental: Post mining enhancement of green cover; (ii) Economic: Increase in employment potential and contribution to the exchequer of the adjoining area; (iii) Social : Improvement in social infrastructure of the adjoining area.
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J-11015/255/2006-IA.II (M) dated 23.03.2016 for 14.00 MTPA in mine lease area of 1640 Ha.
- (viii) Total mining lease area as per block allotment is 1697.906 Ha. Expansion Project Report incorporating Mining Plan (Including Mine Closure Plan) has been approved by the NCL Board

in 265th meeting on 25.06.2021.

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

**Pre Mining land Use**

S. No.	LAND USE	Within ML Area (Ha)	Outside ML area (Ha)	Total
1.	Agricultural land (Tenancy Land)	449 Ha	Nil	449 Ha
2.	Forest Land	901.906 Ha	Nil	901.906 Ha
3.	Wasteland	0	Nil	0
4.	Grazing land	0	Nil	0
5.	Surface water bodies	0	Nil	0
6.	Settlements	0	Nil	0
7.	Others (Specify) • Government land	347 Ha	Nil	347 Ha
<b>Total</b>		1697.906	Nil	1697.906

**Land Use Break Up- Post-Mining**

S.No.	Land use during Mining	Land Use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	TOTAL
1	External OB dump	258	0	0	0	258
2	Top soil dump	Top soil will be completely used in reclamation of dumps.				
3	Excavation	1023	37.0000	0	0	1060
4	Infrastructure	140	0	0	0	140
5	Residential area and Green Belt	38.5080	0	142	0	180.5080
6	Undisturbed Area (Safety Zone & Others)	59.398	0	0	0	59.398
<b>Total</b>		1518.9060	37.0000	142.0000	0	1697.906

- (x) Total geological reserve reported in the mine lease area 245.78 (Balance Reserve as on 31.03.2020) with 233.5 (Balance Reserve as on 31.03.2020) mineable reserve. Out of total geological reserve of 245.78 MT, 233.5 MT are available for extraction. Percent of extraction is 95 %.
- (xi) Three number of seams (namely Purewa Top, Purewa Bottom, Turra) with thickness ranging from 3.75 m to 22.56 m are workable. Grade of coal is G-9 (Average Grade), stripping ratio 3.61m<sup>3</sup>/t, while gradient is 2 to 3 degree.

- (xii) Method of mining operations envisages by 'combined mining system deploying dragline and shovel dumper combination and Surface Miner' method
- (xiii) Life of mine is 17 years as per Normative Capacity (16 MTPA) and 15 years as per Peak Capacity (20 MTPA) from 31.03.2020.
- (xiv) The project has 2 number of external OB dumps in an area of 258 ha with 90 m height and 198.993 Mm<sup>3</sup> of OB filled till 31.03.2020, 2 number of internal OB dumps in an area of 1023 ha with 288.666 Mm<sup>3</sup> of OB filled till 31.03.2020 and additional 844 Mm<sup>3</sup> of OB is envisaged in the project.
- (xv) Total quarry area is 1060 ha out of which backfilling will be done in 895.30 ha while final mine void will be created in an area of 37 ha with a depth of 30m. Backfilled quarry area of 895.30 ha shall be reclaimed with plantation. Final mine void will be converted into a water body.
- (xvi) Transportation of coal has been proposed by dumpers in mine pit head, from surface to SILO / siding by Closed Conveyor Belt System and from SILO/ siding by MGR/Rail through automatic RLS (Rapid Loading System). Also, provision of dispatch by road up to 10% of EC capacity may be considered for meeting the demands of small consumers of various industries.
- (xvii) Reclamation Plan in an area of 1555.906 ha, comprising of 258 ha of external dump, 1023 ha of excavated area and 38.5058 ha of green belt, 140 ha land of built-up area will be planted, 37 Ha of hydro reclamation. In addition to this, 59.398 Ha, included in the safety zone/rationalization area, has also been proposed for green belt development.
- (xviii) Total 901.906 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 664 ha of forest land for non-forestry purposes has been obtained vide F No. 8- 298/87-FC dated 30.07.1990 in UP state. 180 Ha of Forest Clearance obtained vide No.8-85/2005-FC dt. 14/09/2010 in MP State, 5.056 Ha Forest Clearance obtained vide No.8-58/2005-FC dt. 13.08.2007 and 21.189 Ha Forest Clearance (Stage-I) obtained vide No.8-69/2018-FC dt. 13.01.2020.
- (xix) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project
- (xx) The Integrated Wildlife Management Plan (IWMP) for Singrauli Region has been prepared through Indian Institute of Forest Management (IIFM), Bhopal in November'2020. As per report, there is no schedule-I species found.
- (xxi) The ground water level has been reported to be varying between 0.85 m to 5.65 m during pre-monsoon and between 0.55 m to 4.79 m during post-monsoon (from 2006 to 2021) Total water requirement for the project is 3900 KLD.
- (xxii) Application for obtaining the approval of the Central Ground Water Authority for ground water clearance for Khadia OCP, has been submitted on 29.03.2020.
- (xxiii) Consent to Operate for the existing capacity was obtained from the MPPCB on 10.05.2021 and is valid till 30.06.2022 and from UPPCB on 14.10.2021 and is valid till 31.12.2023.
- (xxiv) No River/nalla is flowing near boundary of lease.
- (xxv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to MPPCB, UPPCB, and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were

found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.

(xxvi) No court cases, violation cases are pending against the project.

(xxvii) 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 1991-92 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operation. The Coal Production, realized from the project, from 1993-94 onwards, is given below.

(xxviii) Total cost of the project is Rs. 1823 Crore. Cost of production is Rs. 894.48 /- per tonne, CSR cost is as per CIL CSR Policy, 2021, and the fund for the CSR should be allocated based on 2% of the average net profit of the company for the three immediate preceding financial years or Rs. 2/- per tonne of coal production of previous year, R&R cost is Nil. Environment Management Cost is Rs. 5471.20 Lakhs.

(xxix) Past Production details comparison with existing EC since FY 1993-94

<b>Year</b>	<b>EC Sanctioned Capacity(MTPA)</b>	<b>Actual Production (MTPA)</b>	<b>Excess production beyond the EC sanctioned capacity</b>
1993-1994	4.00	1.21	NIL
1994-1995	4.00	2.1	NIL
1995-1996	4.00	2.6	NIL
1996-1997	4.00	3.39	NIL
1997-1998	4.00	3.53	NIL
1998-1999	4.00	3.13	NIL
1999-2000	4.00	3.25	NIL
2000-2001	4.00	3.26	NIL
2001-2002	4.00	3.268	NIL
2002-2003	4.00	3.43	NIL
2003-2004	4.00	3.75	NIL
2004-2005	4.00	3.93	NIL
2005-2006	4.00	3.85	NIL
2006-2007	4.00	2.25	NIL
2007-2008	10.00	3.045	NIL
2008-2009	10.00	3.678	NIL
2009-2010	10.00	3.722	NIL
2010-2011	10.00	4.395	NIL

2011-2012	10.00	4.65	NIL
2012-2013	10.00	4.375	NIL
2013-2014	10.00	5.139	NIL
2014-2015	10.00	5.325	NIL
2015-2016	14.00	6.735	NIL
2016-2017	14.00	6.006	NIL
2017-2018	14.00	8.8	NIL
2018-2019	14.00	11.4	NIL
2019-2020	14.00	13.183	NIL
2020-2021	14.00	14.00	NIL

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

- Project site is located in severely polluted area as per 62.25 CEPI score ( as on date) and falls in 2 states i.e UP and MP.
- Existing EC was granted to the project for 14 MTPY vide letter no J-11015/255/2006-IA-II(M) dated 23.03.2016.
- Total forest land involve is Total forest land is 901.906 Ha out of which Stage-1 FC is available for 870.245 Ha and 31.661 Ha is yet to obtained
- The EPR (including Mine Closure Plan) of Khadia Expansion Opencast Project (16 MTPA, Peak 20 MTPA) has been approved by NCL Board in 265<sup>th</sup> meeting on 25.06.2021.
- Khadia OCP is located adjacent to the Bina Ext OCP and EAC observed that the boundary of Bina and Khadia is over lapping.

**25.3.4** *The EAC observed that Bina OCP is adjacent to the Khadia OCP and as per the expansion proposed by the PP it is noted that the area of Bina OCP overlaps with the Khadia OCP. EAC enquired about the Bina Extension that why PP hadn't informed about it while applied for its expansion and also sought clarity regarding the forest land involve in that particular over lapping area. PP informed that overlapping area is under the Bina Extension but being considered under the Khadia. EAC opined that PP will have to mandatorily seek the amendment in Bina OCP first by excluding the respective area and also to apply transfer of FC from Bina to Khadia OCP accordingly.*

*It was also seen that the dump is still barren and no plantation is being carried out at mine boundaries which is surrounded by habitational areas. The Committee site being fall in severely need to have cumulative impact study. While examining the base line monitoring data it was found that the PM 10 concentration is on higher side. EAC asked the PP emphasis to put in pace very effective mitigation measures and suggested to explore innovative, mechanized convincing mining method in order to minimize any pollution load to the area.*

*The EAC after deliberation **recommended** for grant of Terms of Reference Expansion of Khadia Open Cast Project in production capacity from 14 MTPA to 20 MTPA in an increase in area from 1640 Ha to 1697.906 Ha by M/s Northern Coalfields Limited. Located in Tehsil Didhi, District Sonbhadra. (UP) and in Tehsil Singrauli, District Singrauli (MP) and the compliance of the ToR is subjected to the amendment in Bina Ext of the area over falling within the mine area of Khadia expansion in the under the provisions of EIA Notification, 2006 and its amendments therein with specific conditions mentioned below:*

### ***Specific condition***

- (i) Combined Public Consultation, shall be conducted for two districts fall in UP &MP 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 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.*
- (ii) PP to seek amendment in Bina ext prior to file EC application for Khadia Expansion for the area falling within the Khadia Mine and also seek transfer of FC for respective area*
- (iii) EIA-EMP shall be submitted upon exclusion of singrauli area from the list of CPA/SPA as currently fall in SPA where no proposal is granted for EC. However, PP may accomplish the compliance of TOR conditions.*
- (iv) Action plan as drawn for CPA/SPA of singrauli area by SPCB/CPCB should be adhered to.*
- (v) 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.*
- (vi) PP shall prepare a Plan for implementation of Continuous Automatic Air Quality Monitoring Station (CAAQMS) at mine site or its vicinity.*
- (vii) 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.*
- (viii) 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***

- (ix) In addition to existing data already collected (if any), since the project fall under the CPA, PP to carry out cumulative impact assessment study wrt to source apportionate study of polluting units in buffer zone of mines considering the ecosystem services and biodiversity of the area. PP shall collect one season baseline data of all environmental parameters and shall compare with the data of earlier data collected for cumulative assessment of area.*
- (x) Air pollution impact predication shall be conducted by considering the maximum values.*
- (xi) 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.*

*(xii) 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*

*(xiii) 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.*

*(xiv) 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*

*(xv) 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.*

*(xvi) 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.*

*(xvii) 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.*

*(xviii) The socio-economic study to 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.*

*(xix) 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***

*(xx) Inpit 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.*

*(xxi) 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.*

*(xxii) 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.*

*(xxiii) 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.*

*(xxiv) Details of toe wall and garland drain to be constructed along the OB dump and proper plantation to be carried out*

*(xxv) 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.*

*(xxvi) 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.*

*(xxvii) Details of Fog mist sprayer (static water sprinklers) at coal stock yard and along the permanent haul road.*

*(xxviii) PP shall propose to use LNG/CNG based mining machineries and trucks for mining operation and transportation of coal.*

*(xxix) 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**

*(xxx) 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.*

*(xxxi) Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report*

*(xxxii) 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. 25.4**

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

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

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

**25.4.2** 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 is covered in Survey of India toposheet no. 73E/13 & 73E/14 and is bounded by latitudes 23° 44' 47.26"N & 23° 46' 26.11"N and longitudes 85° 50' 59.89"E & 85° 54' 25.91"E.
- (ii) Coal linkage of the washery is proposed through basket linkage & e-auction.
- (iii) No Joint venture cartel has been formed for the project.
- (iv) Project does not fall in Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation, project is source to direct employment of about 449 persons.
- (vi) The project is reported to be beneficial in terms of employment opportunities both for skilled and semi-skilled persons in the area. Business opportunity in secondary & Tertiary sectors will increase. The proposed project will also bring about enhanced socio-economic benefits to local population due to expenditure in CSR activities, post-mining enhancement of green cover, contribution to exchequer etc.
- (vii) Earlier, this project has obtained Environmental clearance for 0.96/1.90 MTP under EIA Notification, 2006 vide letter no: J-11015/482/2008-IA-II (M) dt. 08.01.2014.
- (viii) Terms of reference granted vide F. No. J-11015/482/2008-IA-II Dated: 27.04.2021.
- (ix) Total mining lease area as per block allotment is 773.23 Ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved in the 485th CCL Board held on 04.05.2020.
- (x) The land usage pattern of the project is as under

**Pre Mining Land Use**

Particulars	Area in Ha.
Forest	0
Scrubs	93
Plantation Area	138
Agricultural Land	53
Waste Land	64
Mining Area	358.23
Settlements	62

Water Body	5
<b>Total Area in Ha.</b>	<b>773.23</b>

#### Land Use Break Up- during Mining

Description	Forest Area in Ha.	Non-Forest Area in Ha.	Total Area in Ha.
Quarry	0	258.46	258.46
External OB Dump	0	109.53	109.53
Reclaimed OB Dump and Embankment	0	74.09	74.09
Industrial Area (W/S, S/S, Haul Road, Office etc)	0	64.54	64.54
Colony & Settlement	0	122.87	122.87
Safety Zone / Green belt	0	45	45
Vacant Land	0	98.74	98.74
<b>Total</b>	<b>0</b>	<b>773.23</b>	<b>773.23</b>

#### Land Use Break Up- Post-Mining

SN	Land Use	Plantation	Water Body	Public Use	Un-disturbed	Total (in Ha)
1.	Quarry	160.90	97.56	0	0	258.46
2.	External OB Dump	109.53	0	0	0	109.53
3.	Reclaimed OB Dump and Embankment	74.09	0	0	0	74.09
4.	Infrastructure (W/S, S/S, Office, Road etc.)	0	0	64.54	0	64.54
5.	Colony & Settlement	0	0	122.87	0	122.87
6.	Safety Zone/Green belt	45	0	0	0	45
7.	Vacant Land	0	0	98.74	0	98.74
<b>Total Area in Ha</b>		<b>389.52</b>	<b>97.56</b>	<b>286.28</b>	<b>0</b>	<b>773.23</b>

- (xi) Total geological reserve reported in the mine lease area is 185 MT with 21.16 MT balance mineable reserve. Out of total mineable reserve of 22.16 MT, 22.16 MT are available for extraction. Percent of extraction is 100%.
- (xii) 5 seams with thickness ranging from 1 mtr to 34 mtr are workable. Grade of coal is Washery Grade-III, stripping ratio 3.45, while gradient is 12 degree -25 degree.
- (xiii) The method of mining to extract coal and OB in Kathara Opencast mine is with shovel- dumper combination, considering the geo-mining characteristics of this area.
- (xiv) Life of mine is 12 years.

- (xv) The project has 1 external OB dumps in an area of 109.53 Ha with 90 m height and 12 Mm<sup>3</sup> of OB. 1 internal OB in an area of 160.90 ha with 64.40 Mm<sup>3</sup> of OB is envisaged in the project.
- (xvi) Total quarry area is 258.46 ha out of which backfilling will be done in 160.90 Ha area. Final mine void will be created in an area of 97.56 Ha with average depth of 120 m. Backfilled quarry area of 160.90 Ha shall be reclaimed with plantation. Final mine void will be converted into a water body.
- (xvii) Transportation of coal has been proposed by internal roads & Dumpers from mine pit head to nearby Kathara washery.
- (xviii) Reclamation Plan in an area of 389.52 Ha comprising of 160.90 Ha of internal dump, 109.53 Ha of external dump, 45 Ha of green belt and safety zone and an area of 74.09 ha, included for Reclaimed OB Dump and Embankment has also been proposed for reclamation.
- (xix) No forest land has been identified in the project.
- (xx) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project.
- (xxi) The ground water level has been reported to be varying between 1.23 m (Pre-monsoon) to 12.60 m (Pre-monsoon). Total water requirement for the project is 1823 KLD.
- (xxii) Application for obtaining the NOC of the Central Ground Water Authority has been made vide application no: 21-4/373/JH/MIN/2019 Dated: 29.03.2019.
- (xxiii) Public hearing for the project of 1.90 capacity in an area of 773.23 Ha was conducted on 31.08.2021 at Officers Club, Kathara, Dist: Bokaro under the Chairmanship of Shri. S. Anwar, Additional Collector. Major issues raised in the public hearing include environment, employment, R&R, compensation, health, road, electricity, education, afforestation, coordination between PAFs and project management etc. Appropriate action to address the issues raised in the Public Hearing have been proposed.
- (xxiv) Last Consent to Operate for the existing capacity was obtained from the Jharkhand State PCB on 19.01.2021 and is valid upto 31.12.2021.
- (xxv) The general surface slopes towards the Damodar River, the master drainage in the area. The drainage of the area is controlled by Damodar River, Bokaro River and Konar River. Bokaro river and Konar river which flows from north-west to south-east and joins in Damodar River. Damodar River located south of the project flowing towards east. No nala diversion is required for this project.
- (xxvi) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to JSPCB. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- (xxvii) No court cases, violation cases are pending against the project of the PP.
- (xxviii) The coal production, realized from the project from 1993-94 onwards, is as under:

Year	Production in Mte	Year	Production in Mte	Year	Production in Mte
1993-94	0.90	2003-04	0.420	2013-14	0.465
1994-95	0.834	2004-05	0.470	2014-15	0.658

1995-96	0.60	2005-06	0.620	2015-16	0.923
1996-97	0.57	2006-07	0.833	2016-17	0.937
1997-98	0.746	2007-08	0.960	2017-18	0.493
1998-99	0.359	2008-09	0.468	2018-19	0.733
1999-00	0.295	2009-10	0.501	2019-20	0.132
2000-01	0.505	2010-11	0.450	2020-21	0.200
2001-02	0.513	2011-12	0.211	2021-22	0.074
2002-03	0.409	2012-13	0.217		

(xxix.) The project involves no R & R.

(xxx.) Total cost of the project is Rs. 226.63 Crores. Cost of production is Rs.3550/Tonne. The fund for the CSR will be allocated based on 2% of the average net profit of the Company for the three immediately preceding financial years. Environment Management cost is Rs. 39.03 Crore.

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

- Earlier, this project has obtained Environmental clearance for 0.96/1.90 MTP under EIA Notification, 2006 vide letter no: J-11015/482/2008-IA-II (M) dt. 08.01.2014.
- The project falls under violation category, however, TOR was granted out of window period of Notification dated 14<sup>th</sup> March, 2017
- The estimated damage assessment cost is Rs.1049.0 lakhs and Damage Remediation Measures is Rs 63.40 lakh.

**25.4.4** *The EAC, after deliberations noted that project is under violation category and TOR to project was granted after the window period provided under Ministry's Notification dated 14<sup>th</sup> March, 2017. Previously, MoEF&CC had issued a notification wherein violation cases are mandated for grant of EC during the period April, 2017 to October, 2017 with assessment of damage cost and preparation of remedial plan with financial assessment. However, in the instant project, TOR was granted on 27<sup>th</sup> April, 2021, beyond window period. To facilitate processing of such case, Ministry has issued SOP on 7<sup>th</sup> July, 2021 but this SOP was stayed on 15<sup>th</sup> July, 2021 by Hon'ble High Court of Madras. Presently, no mechanism is available to deal such cases. The Committee accordingly proposed to defer the proposal as now the policy does not permit for consideration of such cases and detailed presentation shall be made accordingly once policy is in place.*

*The proposal is **returned** in present form*

## **Agenda No. 25.5**

**Jamadoba Underground Coal Mine of 0.34 MTPA in ML Area of 927.17 ha by M/s Tata steel Limited at village Jorapokhar, Pattiya Dungri, Tehsil Jharia, District Dhanbad (Jharkhand) – For Reconsideration of Environment Clearance- reg**

**25.5.1** The proposal is for reconsideration of Environmental Clearance of Jamadoba Underground Coal Mine of 0.34 MTPA in ML Area of 927.17 ha by M/s Tata steel Limited at village Jorapokhar, Pattiya Dungri, Tehsil Jharia, District Dhanbad (Jharkhand). Earlier, TOR was granted to the Jamadoba mine vide Letter No.J-11015/91/2017-IA.II (M) 30.11.2017 and its amendment on 16<sup>th</sup> October 2019

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

Earlier, the project was deliberated on 8<sup>th</sup> meeting held on 11<sup>th</sup> February, 2021 and 19<sup>th</sup> EAC meeting held during 23<sup>rd</sup> September, 2021 for grant of Environmental Clearance wherein EAC desired certain information from the PP and deferred the proposal. PP has now submitted the compliance of observation of EAC and provided additional information which are enlisted below:

S. No.	Observation of EAC	Reply by PP
1	PP shall submit the past records of CTO obtained by SPCB with production figure	From 1997 onwards the project have been granted CTO from State Pollution Control Board and from 2014 onwards, the production capacity is being mentioned in the CTO letter as received from Jharkhand State Pollution Control Board (JSPCB).
2	PP to provide a status of partially /non- compliances reported with its time bound action plan in Certified Compliances dated 23.07.2018 of Jamadoba Coal Washery.	There was no non-compliances reported by the Regional Office of MoEFCC however there were few partial compliances for which actions has been taken and the report was submitted to the Regional Office of MoEFCC vide letter No. JMB/ ENV/ JCPP /38/ 901/ 2018 dated: 27/09/2018.
3	PP shall inform mode of utilization of rejects generated from washery and transportation mechanism.	Jamadoba Washery produces two kind of by-products tailings transported through Roadways and rejects via Railways during the process of coal beneficiation.
4	PP to explain current benefits of modernization in terms of environment improvement since its inception.	The modernization with use of Continuous Miner (CM) is an environment technology and the major environmental benefits are as follows:- i) No release of gaseous emissions as it is a blast less technology ii) No vibrations are created, and less noise levels as there is no blasting. iii) The roof of the underground mine remains intact, and therefore, less resources like wooden props and sleepers are used for roof support. iv) Productivity enhancement and optimization of

		manpower
5	PP shall submit details report on Cumulative impacts of all the existing industries activities in the study area and also those in the pipeline/proposed, shall be studied to arrive at a comprehensive picture and planning of adequate environmental safeguards.	<p>Cumulative air dispersion modeling studies were conducted considering Jamadoba underground coal mine of 0.34 MTPA and 2 MTPA coal washery along with other industries/mines located within the study area of 10 km radius. About 56 existing mines/industries and 5 proposed mine/industries have been considered for detailed cumulative impact assessment study</p> <p>The short-term air dispersion model simulations indicate that the cumulative predicted maximum Ground Level Concentrations (GLCs) of PM<sub>10</sub> will be about 241.0 µg/m<sup>3</sup> ‘without control measures’ at the Bastacolia area near Jharia due to the mining activity of Bastacolia, Bera, Dobari, Ghanoodih and Kuya collieries.</p> <p>Further, assuming all the mines/industries operating and proposed will operate with overall combined 60% control measures in compliance with Environmental Clearances &amp; Consent to Operate. The predicted incremental Ground Level Concentrations (GLCs) of PM<sub>10</sub> ‘with control measures’ will be 96.40 µg/m<sup>3</sup>.</p> <p>Similarly, cumulative Ground Level Concentrations (GLCs) of PM<sub>2.5</sub> will be about 147.0 µg/m<sup>3</sup> ‘without control measures’ at the Bastacolia area near Jharia due to the mining activity of Bastacolia, Bera, Dobari, Ghanoodih and Kuya collieries. These concentrations will be further reduced after implementation of EMP control measures.</p> <p>The predicted incremental Ground Level Concentrations (GLCs) of PM<sub>2.5</sub> ‘with control measures’ will be 58.8 µg/m<sup>3</sup>.</p> <p>The Maximum cumulative concentration of NO<sub>2</sub> &amp; CO is about 56.7 µg/m<sup>3</sup> &amp; 33.9 µg/m<sup>3</sup> which are likely to occur at the Bastacolia area near Jharia due to the mining activity of Bastacolia, Bera, Dobari, Ghanoodih and Kuya collieries, whereas for SO<sub>2</sub> the maximum cumulative concentration is about 39.8 µg/m<sup>3</sup> occurring due to the activity of coking industries located in and around Dhanbad and Jharia</p>

	area.
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Based on the submission of records by PP, following are summarized.

Consent issuing authority	Date of issue of CTO	Area (Ha)	Sanctioned Production Capacity (MTPA)	Validity
Bihar SPCB	31.12.1997	-	-	30.12.1998
Bihar SPCB	31.12.1998	-	-	30.12.1999
Jharkhand SPCB	01.01.2014	938.42	0.34	31.12.2014
Jharkhand SPCB	Not provided ( from 2014 to 2019)	938.42	0.34	NA
Jharkhand SPCB	31.12.2019	938.42	0.315	31.12.2020
Jharkhand SPCB	31.12.2020	938.42	0.315	31.12.2021

**25.5.3** *The EAC, after deliberations observed that instant proposal of EC should be considered as fresh EC proposal as this is first time PP is obtaining EC. Earlier, Mine was running on the basis of CTO from State Pollution Control Board. It was also noted that no CTO was submitted from 1994 to 1996 (base year 1993-94) and also CTO's till 1998 were not reflecting the production capacity. Also no copy of CTO is provided from 1998 to 2014. However, PP submitted that letter from Dept. of Mines & Geology which shows the production below 0.34, which is based on submission by PP itself without verification of the record.*

*The matter was discussed in earlier meeting and Project proponent (PP) was advised to submit the CTO onward 1993-94. However, PP has not submitted the full documents of CTO in a time series manner. Due to incomplete information, PP is advised to submit copy of application submitted for seeking CTO from SPCB onward 1994 and or otherwise may seek clarification from State Pollution Control Board with respect to production figures beyond CTO during 1993-94 (base year) from the records submitted for taking CTO.*

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

#### **Agenda No. 25.6**

**Expansion of Amadand Opencast Coal Mine from 2.15 to 4.0 MTPA in an area of 1443.02 ha of M/s South Eastern Coalfield Limited located in Tehsil Kotma, Annuppur (Madhya Pradesh) – For Reconsideration of Environment Clearance- reg**

**[Online Proposal No. IA/MP/CMIN/9049/2002; File No. J-11015/46/2002- IA.II(M)]**

**25.6.1** The proposal is for reconsideration of Environmental Clearance of Expansion of Amadand Opencast Coal Mine from 2.15 to 4.0 MTPA in an area of 1443.02 ha of M/s South Eastern Coalfield Limited located in Tehsil Kotma, Annuppur (Madhya Pradesh)

Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No. J-11015/46/2002-IA. II(M) dated 18.03.2015 for 2.15MTPA for an area of 884.71 Ha. Terms of Reference granted to this project granted on 22.12.2017 No. J-11015/96/2017-IA. II (M). Mining Plan (Including Progressive Mine Closure Plan) has been approved by the CIL Board on 05.03.2016.

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

Earlier, the project was deliberated on 20<sup>th</sup> EAC meeting held during 13<sup>th</sup> October, 2021 for grant of Environmental Clearance wherein EAC desired certain information from the PP and deferred the proposal. PP has now submitted the compliance of observation of EAC and provided additional information which are enlisted below:

S. No.	Observation of EAC	Reply by PP						
1	PP shall clarify category of allotment of land whether it is under CBA Act since it is mentioned in EIA that 740.63 ha land will be more acquired and 702 ha is under LA Act. If not then PP shall furnish Letter of Intent (LoI) from concerned State Government	<p>Mining Rights have been vested under CBA Act. Total 702.38 ha land has been acquired under LA Act.in three phases.</p> <p>Out of 740.63 ha land to be acquired, all rights of 560.842 ha have been acquired under CBA Act, possession of 179.798 ha is in process.</p>						
2	PP shall submit EMP budget excluding CSR budget and R&R money and accordingly revise it.	<p>The EMP Budget excluding CSR Budget and R&amp;R money has been proposed by the PP of 1060.00 Rs Lakhs</p> <table border="1"> <tr> <td>1</td><td>Sanctioned EMP Budget as per Approved Project Report</td><td>Capital head- 23.27 cr. Revenue head- 7.77 cr</td></tr> <tr> <td>2</td><td>Additional proposed EMP Budget under revenue head in EIA/EMP report</td><td>Revenue head-10.6 cr</td></tr> </table>	1	Sanctioned EMP Budget as per Approved Project Report	Capital head- 23.27 cr. Revenue head- 7.77 cr	2	Additional proposed EMP Budget under revenue head in EIA/EMP report	Revenue head-10.6 cr
1	Sanctioned EMP Budget as per Approved Project Report	Capital head- 23.27 cr. Revenue head- 7.77 cr						
2	Additional proposed EMP Budget under revenue head in EIA/EMP report	Revenue head-10.6 cr						

		3	Budget proposed in Wildlife Conservation plan	0.99 cr																		
3	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	<p>There is no wildlife corridor exists within the buffer zone of Amadand open cast mine. No forest area is involved in the project and the mine does not involve any violation of forest area.</p> <p>The location and aerial distance of nearest National parks and Wildlife sanctuaries in the vicinity of the Amadand OC project are tabulated below:</p> <table><tr><th>Sr. no</th><th>Name of nearest national park/ wildlife sanctuary/ wildlife corridor</th><th>Aerial distance from the project, (Km)</th></tr><tr><td>1</td><td>Achanakmar Wildlife sanctuary</td><td>64.21</td></tr><tr><td>2</td><td>Bandhavgarh Wildlife sanctuary</td><td>96.20</td></tr><tr><td>3</td><td>Guru Ghasidas (Sanjay) National Park</td><td>54.81</td></tr><tr><td>4</td><td>Tamoringla WildLife sanctuary</td><td>84.74</td></tr><tr><td>5</td><td>Kanha-Boramdev Corridor</td><td>37.96</td></tr></table> <p>Letter has been issued by PCCF (Wildlife), Bhopal and PCCF(LM), Bhopal</p>			Sr. no	Name of nearest national park/ wildlife sanctuary/ wildlife corridor	Aerial distance from the project, (Km)	1	Achanakmar Wildlife sanctuary	64.21	2	Bandhavgarh Wildlife sanctuary	96.20	3	Guru Ghasidas (Sanjay) National Park	54.81	4	Tamoringla WildLife sanctuary	84.74	5	Kanha-Boramdev Corridor	37.96
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3	Guru Ghasidas (Sanjay) National Park	54.81																				
4	Tamoringla WildLife sanctuary	84.74																				
5	Kanha-Boramdev Corridor	37.96																				
4	PP shall submit the comparison of baseline data and air quality impact based on peak value since baseline data collected in 2017 and in 2020 varies.	<p>A comparative study of air quality baseline data collected in 2017 and in 2020</p> <p>Overall an increment was observed in the average values of PM10, PM 2.5 , SO2 and NOx form year 2017 to 2020, though the values were under the prescribed limit</p>																				
5	PP shall submit the time bound action plan to be provided by PP for developing SAL nursery.	<p>Sal nursery for 25000 saplings will be established in Gevra Area by June 2022 that is month of getting Sal seeds. Preparatory works will start by April 2022</p>																				
6	Measure to install a blasting monitoring station near the periphery of the villages.	<p>Blasting monitoring stations near the periphery of the villages has been established and the details were furnished. There are 5 settlements near quarry boundary of Amadand OCP viz., out of which the blasting is monitored in Jhirokhi tola of Nimha village &amp; Timki tola of Amadand Village while blasting</p>																				

		monitoring is proposed Kukha village, Nimha village Amadand Village and Langha village.															
7	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.	House hold survey was done by M/s VRDS Consultants, Aurangabad, Maharashtra in December 2020 is analyzed for Compliance and a comparative assessment provided from the census data of 2011 was submitted along with economic status. Project will contribute for overall economic development through its direct and indirect employment. The CSR activities funded by project will help the nearby needy population in their socio-economic development. In 2021-22 Rs. 161 lakhs have been provisioned under CSR fund for various activities															
8	PP shall submit the recommendation IRR study and action plan	<div>Revised action plan to implement IRR study taken up by IIT Dhanbad on mail dated 19 January, 2022 is as follows</div> <table><tr><th>Sl. No</th><th>Mitigation Measure</th><th>Quantity/ Capacity</th><th>Budget (in crore)</th><th>Timeline</th></tr><tr><td>1</td><td>Mechanized Road Sweeping machine on Hiring basis</td><td>2 no.</td><td>1 (Revenue)</td><td>March, 2023</td></tr><tr><td>2</td><td>Long range fogging machine (40/50 m</td><td>16 Nos</td><td>9.6 (Revenue)</td><td>March, 2023</td></tr></table>	Sl. No	Mitigation Measure	Quantity/ Capacity	Budget (in crore)	Timeline	1	Mechanized Road Sweeping machine on Hiring basis	2 no.	1 (Revenue)	March, 2023	2	Long range fogging machine (40/50 m	16 Nos	9.6 (Revenue)	March, 2023
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1	Mechanized Road Sweeping machine on Hiring basis	2 no.	1 (Revenue)	March, 2023													
2	Long range fogging machine (40/50 m	16 Nos	9.6 (Revenue)	March, 2023													

			throw) on Hiring basis			
		3	Additional Settling tank for mine water disposal	1 no.	0.4	March, 2023
		4	Oil & Grease Trap	60 KLD	0.05	March, 2023
		5	Garland drains	12 km	5	March, 2023
		6	Slop Stability radar	1 no.	7	March, 2023
		7	Sewage Treatment Plant	0.8 MLD	4	March, 2024
		8	Fixed Water Sprinklers /Mist water Spraying/Other dust suppression measures	6 km – fixed type, Mist type in CHP	1.65	March, 2023
		9	Green belt/Avenue Plantation / Plantation along coal transportation road	12 km , 15 meter width- Safety zone, 4.6 km- avenue, 20 km- coal transport road	9.06 (revenue)	March, 2024
		10	Mechanized Sweeping Machine- for buffer zone	1 no.	0.5 (Revenue)	March, 2023
		11	Mobile Water Sprinkler, 9	1 no.	0.45 (Revenue)	March, 2023

			KL - for buffer zone				
9	PP shall submit action plan for implementation of sand segregation plant to extract sand and aggregate (since quantity of OB is higher) to reduce agricultural land degradation.	Action plan for sand segregation plant 1. Study of overburden rock to know the % of sand in it -by February-2022 2. Administrative approval for Plant Establishment-March-2022 3. Collecting offers for establishment of Plant-May 2022 4. Offer finalisation-July-2022 5. Setting of Plant-October-2022					

**25.6.3** The EAC, after deliberation observed the submission of additional details based on observation of earlier EAC meeting. Further, it was checked from kml file that the external OB dump is in the mine lease area. Also, EAC desired that the recommendation of Department of Environmental science & Engg, Centre of Mining Environment, IIT Dhanbad, should be executed by the PP and asked the PP to furnish action plan with budget for IRR study.

Further, based on documents and facts submitted by PP, EAC **recommended** the grant of Environment Clearance for Expansion of Amadand Opencast Coal Mine from 2.15 to 4.0 MTPA in an area of 1443.02 ha of M/s South Eastern Coalfield Limited located in Tehsil Kotma, Annuppur (Madhya Pradesh), under the provisions of EIA Notification, 2006 and its amendments therein with following specific condition for environmental safeguards:

- (i) PP shall obtain Consent to Establish/Operate prior to start of production for 4 MTPA capacity.
- (ii) PP shall use surface miner for extraction of coal and replace shovel dumper within one year.
- (iii) PP shall implement in-pit conveyor belt system with silo loading system at Railway siding within 3 years from the date of issue of letter. No transportation shall be allowed after 3 years and accordingly SPCB should not grant CTO for further road transportation.
- (iv) Third party monitoring by reputed institute for air quality (including heavy metal analysis) shall be carried out at identified locations, both ambient and the process area, to arrive at impact of the proposed expansion at regular interval of 3 years
- (v) PP must carry out the energy audit to reduce the energy demand including submission of time bound plan to install the solar power plants at suitable area.
- (vi) PP shall engage dedicated agency for plantation in mine site by April, 2022 instead of depending on State Forest Department. PP may seek inputs and expertise from forest department.
- (vii) PP shall prepare river conservation plan of Kewai river, Banki Stream/Nallah and Bhedwa stream/nallah from independent expert and recommendation shall be complied. Further quarterly water quality and quantity shall be monitored and submitted to State Pollution Control Board.
- (viii) PP to implement the recommendations of the IRR study conducted by IIT Dhanbad in a time bound manner. Implementation plan shall be submitted to IRO, MoEF&CC. The plan so

*prepared shall be executed within period of 3 years without fail. IRO, MoEF&CC during monitoring/site inspection must make observation on its compliance.*

- (ix) PP must fulfil commitment to issues raised during public hearing with proposed budget plan and complete within period of 3 years with sustainability of activities.*
- (x) PP shall submit the audited figures of investment made so far under CSR activities with latest investment for year 2021-22 of 161 lakhs on various activities to IRO, MoEF&CC. Need based assessment survey to fulfil the demands by CSR activities shall be accomplished for subsequent years.*
- (xi) In addition, PP to spend total of Sanctioned EMP Budget as per Approved Project Report wherein Capital head- Rs. 23.27 cr, Revenue head- Rs. 7.77 cr, Additional budget of Rs. 10.6 cr and Budget proposed in Wildlife Conservation plan of 0.99 cr.*
- (xii) PP shall install radar technology for monitoring slope stability of external OB dump one the height increase beyond 90 meters. Further, slope stability study shall be conducted and its recommendation to be complied with stringent timeline.*
- (xiii) Permission from State Government and village panchayat shall be taken prior to diversion of 4.2 km long road and culverts from Amadand village to Majholi village which falls in core zone of the project and shortest possible and pucca road should be constructed for these village connectivity.*
- (xiv) PP must submit the approval of the Sloth bear conservation plan by the competent Authority and further submit the fund allocated for conservation plan within 4 months.*
- (xv) The Primary Health Centre (PHC), Amadand is located at 1.0 km towards SE from the mine site so proper three tire plantation of 30 m width must be carried out by the PP along the boundary along with avenue plantation. PP must take the responsibility of the maintenance of PHC, Amadand wrt to its infra development.*
- (xvi) PP must follow the proper mitigation measure to combat air pollution like the wind barrier of three tier tree planation must be installed towards the SE boundary of the mine and over the OB dump, sprinkling of water etc, continuous check on air quality.*
- (xvii) 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 to take responsibility of its maintenance. As committed PP to identify the rural areas for installation of solar light with its maintenance in nearby villages zone within one year*
- (xviii) PP shall obtain permission from Central Ground Water Authority for expansion capacity.*
- (xix) PP to provide bio toilets to the villages located within the study areas within 1 year from the grant of this EC*
- (xx) Transportation of coal shall by closed conveyor belts in mine pit to siding through railways*
- (xxi) PP to provide the detail of the SAL nursery at Amadand OCP itself to the IRO- MoEF&CC and concerned pollution board in its six monthly compliance report of June 2022*
- (xxii) PP to carry forward the work of sand segregation plant with time bound manner and should furnish the detail to the IRO- MoEF&CC in its six monthly compliance report of December 2022*
- (xxiii) 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. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.*

- (xxiv) PP shall install fixed fog cannon (mist spayer) all along the haul road till CHP, Railway siding and OB Dump area and accordingly sufficient number of fog cannons (not less than 10 nos.) with 40 mts jet length shall be installed within 6 months.*
- (xxv) The monitoring of blasting at proposed station i.e Kukha village, Nimha village, Amadand Village, Chukan village and Langha village to be done along with the existing ones and peripheral plantation along the villages with proper marking for statutory certification.*
- (xxvi) Project proponent to plant 150,000 nos. of native trees with broad leaves along the transportation route in three years to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.*
- (xxvii) PP shall construct new multispeciality (100 beds) hospital in the 10 km of the project area within 2 years for local people of issue of this letter.*
- (xxviii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (xxix) Project proponent shall supply clean drinking water and for domestic purpose for the people coming under the zone of influence of this mining activity.*
- (xxx) 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.*
- (xxxi) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
- (xxxii) 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*
- (xxxiii) PP shall acquire 10 ha of land for creating new surface water body/rain water harvesting mechanism in order recharge the ground water or as water conservation measure and usage for villagers and domestic animals in addition to the proposed structure within 3 years of issue of EC letter. PP shall carry out regular monitoring of Ground water level and quality.*
- (xxxiv) 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*
- (xxxv) 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.*

*(xxxvi) 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.*

## **Day-2 (19<sup>th</sup> January 2022)**

### **Agenda No. 25.7**

**Expansion of Garjanbahal OC mine for increase in production capacity from 13.0 MTPA to 18.2 MTPA (Peak) in land area of 653.83 ha of M/s Mahanadi Coalfields Limited located at Villages Garjanbahal, Balinga, Karlikachhar, Bankibahal, Bangurkela, Tumulia. Tehsil Hemgir, District Sundargarh (Odisha)- For Environmental Clearance under Ministry OM dated 15<sup>th</sup> September, 2017 – reg.**

**[Online proposal No. IA/OR/CMIN/244474/2021; F No. J-11015/159/2015- IA-II(M)]**

**25.7.1** The proposal is for Environmental Clearance to Expansion of Garjanbahal OC mine for increase in production capacity from 13.0 MTPA to 18.2 MTPA (Peak) in land area of 653.83 ha of M/s Mahanadi Coalfields Limited located at Villages Garjanbahal, Balinga, Karlikachhar, Bankibahal, Bangurkela, Tumulia. Tehsil Hemgir, District Sundargarh (Odisha).

**25.7.2** 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. 64 N/12 & 64 N/16 (RF 1:50000) and is bounded by the geographical coordinates ranging from Latitude- 22o01'16" to 22o02'52" North and Longitude- 83o43'34" to 83o45'14" East.
- (ii) Coal linkage of the project: To various Power Plants (VZP/TNEB, KPKD, KIG, BTMT, BTPC, STDV, MIGK, VSPS etc.)
- (iii) Joint venture cartel has been formed: Not Applicable
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM

dated 13<sup>th</sup> January, 2010 has imposed moratorium on grant of environment clearance.

- (v) Employment generation: Employment to 1567 persons
- (vi) The project is reported to be beneficial in terms of Contribution to the Exchequer (both State and Central Govt.), Improvement of Electrical Power Generation and availability of electricity in rural areas, Overall economic growth of the country.
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification 2006 vide Ministry's letter no. J-11015/159/ 2015.IA. II(M) dated 09.11.2017 for 13.0 MTPA in the mine lease area of 653.83 Ha.
- (viii) Total mining lease area as per block allotment is 653.83 ha. Mining plan (including Progressive Mine closure plan) has been approved by MCL Board on 16.10.2021.
- (ix) The land usage pattern of the project is as under

#### **Pre Mining land Use**

Sl. No.	Type of Land	Within ML area	Outside ML area	Total Area
1	Agricultural	398.65	95.89	494.54
2	Waste land	159.45	45.66	205.11
3	Forest Land	88.90	----	88.90
4	Grazing	Nil	----	Nil
5	Surface water bodies	3.84	-----	3.84
6	Others (specify) settlement	2.99	-----	2.99
<b>Total:</b>		<b>653.83</b>	<b>141.55</b>	<b>795.38</b>

#### **Land Use Break Up- Post-Mining**

Sr. No	Land Use Category	Land use (Area in Ha)					
		Left out void/ water body (partly backfilled )	Afforested or arboriculture (backfilled upto ground level)	Forest land (Returned)	Pubic/ Compa ny use	Undistu rbed Built up area	Total
1.	Quarry excavation area	100.44	200.48	88.90		--	389.82
2.	Safety zone	--	5.17	--		-	5.17

	for blasting						
3.	OB dump (external)	--	62.58			--	62.58
4.	Road & Infrastructure	-	9.93	--	39.73		49.66
5.	Green belt		67.54				67.54
6.	Undisturbed blasting zone & dipside area	--		--		79.06	79.06
<b>A</b>	<b>Mining lease area</b>	<b>100.44</b>	<b>345.70</b>	<b>88.90</b>	<b>39.73</b>	<b>79.06</b>	<b>653.83</b>
1	Residential colony		6.61		26.44		33.05
2	Rehabilitation site		13.70		54.80		68.5
3	Other infrastructures		8.00		32.00		40.0
<b>B</b>	<b>Outside mining lease area</b>		<b>28.31</b>		<b>113.24</b>		<b>141.55</b>
<b>Total Project Area</b>		<b>100.44</b>	<b>374.01</b>	<b>88.90</b>	<b>152.97</b>	<b>79.06</b>	<b>795.38</b>

- (x) Total geological reserve reported in the Geological Block is 333.97 MT with 235.16 MT as mineable reserves. 200.67 MT is available for extraction as on 01.04.2021. Percent of extraction is 66.7%.
- (xi) 2 seams with thickness ranging from 1.04 - 4.45 m & 9.97 – 16.11 m are workable. Grade of Coal is G-13; Stripping ratio is 1.02 while gradient is 3-7 degrees.
- (xii) Method of mining operations envisages by Opencast Mining by Shovel – Dumper/Ripper-dozers in OB/ parting; Surface miner, pay loader & tipper in coal.
- (xiii) Life of mine is 12 years (from 2021-22)
- (xiv) The project has three external OB dump in an area of 62.58 ha with 80m height (maximum) and 13.77 Mm<sup>3</sup> of OB and one internal OB in an area of 289.38 ha with 204.59 Mm<sup>3</sup> of OB is envisaged in the project.
- (xv) Total quarry area is 389.82 ha out of which backfilling will be done in 289.38 ha while final mine void will be created in an area of 100.44 ha of partially backfilled area will remain as final mine void with a maximum depth of 140 m. Backfilled quarry area of 200.48 ha shall be reclaimed with plantation/grass/agriculture. Final mine void will be converted into a water body.

- (xvi) Transportation of coal has been proposed in mine pit to surface by tippers, from surface to siding by conveyors and tippers and at sidings by pay loader/railway rakes. Work order dt: 20-01-2021 issued for 20 MTPA Rapid Loading System with belt & surge bin adjacent to Sardega siding for Rs. 403.66 Cr.
- (xvii) Reclamation Plan in an area of 462.91 ha, comprising of 62.58 ha of external dump, 289.38 ha of internal dump and 67.54 ha of green belt.
- (xviii) 88.90 ha of forest land have been reported to be involved in the project. Stage II FC obtained for 88.90 ha vide letter no: 8-11/2015 dated 06.03.2018.
- (xix) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- (xx) The ground water level has been reported to be varying between 1.15 m to 7.65 m bgl. Total water requirement for the project 4008 KLD (3093 for industrial + 915 for portable use).
- (xxi) NOC from Central Ground Water Authority, New Delhi obtained vide letter no. CGWA/NOC/MIN/ORIG/2021/13468, dated 22.10.2021 and is valid upto 21.10.2023
- (xxii) Public Hearing was held on date 06.04.2016 at 10 AM at Garjanbahal High School of Garjanbahal village under Hemgir Tehsil of Sundargarh District, Odisha for the new project of coal production capacity 13.0 MTPA over an area of 653.83 Ha of Garjanbahal OCP of M/s. Mahanadi Coalfields Limited.
- (xxiii) Consent to Operate for the existing capacity has been obtained vide 5340/IND-I-CON-6641 Dt 27.03.2021 valid till 31.03.2022 from the State PCB, Odisha.
- (xxiv) An unnamed seasonal stream inside the mine lease of the existing project of a span of 930 mtr has already been diverted as per the approved mining plan. No new diversion is required for the proposed expansion project.
- (xxv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to Regional Office, MoEF&CC, and Bhubaneswar and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- (xxvi) No court cases are pending in the court. However, the R&R of all the villages falling in this project area are being carried out under the direction of “Claims Commission” appointed by Hon’ble Supreme Court of India.
- (xxvii) The project does not involve violation of the EIA Notification, 2006 and amendment issued. EC for 13.0 MTPA was granted as per EIA Notification, 2006 and subsequent amendments/circulars. The coal production from the mine was started from the year 2018-19 onwards. The coal production, realized from the project, from 2018-19 onwards, is as under:

<b>Financial year</b>	<b>EC capacity in MTPA</b>	<b>Actual Production MTPA</b>	<b>Excess Production Beyond the EC Sanctioned Capacity (MTPA)</b>
2018-19	13.0	2.81	0.00
2019-20	13.0	7.59	0.00

2020-21	13.0	11.77	0.00
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(xxviii) The project involves 1298 project affected families. R&R of the PAPs is being done as per Orissa Rehabilitation and Resettlement Policy 2006. The R&R of all the villages falling in this project area are being carried out under the direction of “Claims Commission” appointed by Hon’ble Supreme Court of India.

(xxix) Total cost of the project is Rs. 1482.24 Crs. Cost of production is Rs. 359 per tonne, CSR cost is Rs. 2 per tonne or 2% of the average net profit of the Company of the three immediately preceding financial years whichever is higher, R&R cost is Rs. 146.07 Crs. Environment Management Cost is Rs. 29.88 Crores.

### 25.7.3 The EAC during deliberations noted the following:

- The proposal is of Environment clearance for expansion in production capacity under Ministry’s Notification dated 15<sup>th</sup> September, 2017 i.e. without public hearing and no change in mine lease area. Compliance of the requirements of Ministry’s OM dated 15th September, 2017 for 40% expansion without conducting Public Hearing is detailed as below :

Sr. No.	Requirements as per OM	Compliance																				
1	Predicted air quality parameters are within the prescribed norms	<p>The predicted absolute values PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub> and SO<sub>x</sub> are well within the permissible limits at all the locations considering maximum baseline value</p> <table><tr><th>S. No</th><th>Parameter</th><th>Predicted Value</th><th>Permissible Value</th></tr><tr><td>1</td><td>PM10</td><td>228.64</td><td>250</td></tr><tr><td>2</td><td>PM2.5</td><td>88.53</td><td>-</td></tr><tr><td>3</td><td>NO2</td><td>57.08</td><td>80</td></tr><tr><td>4</td><td>SOx</td><td>21.96</td><td>80</td></tr></table>	S. No	Parameter	Predicted Value	Permissible Value	1	PM10	228.64	250	2	PM2.5	88.53	-	3	NO2	57.08	80	4	SOx	21.96	80
S. No	Parameter	Predicted Value	Permissible Value																			
1	PM10	228.64	250																			
2	PM2.5	88.53	-																			
3	NO2	57.08	80																			
4	SOx	21.96	80																			
2	Coal Transportation is through conveyor system up to the silo and then loading to railway wagon, involving no transportation through roads.	<p>Incremental 5.2 MTPA of coal will be dispatched from surface to siding by road to nearby Sardega Siding for further dispatch through rail :</p> <ul style="list-style-type: none"><li>Coal will be dispatched through belt conveyor and RLS, which is coming up adjacent to Sardega siding at an estimated value of Rs 404.87 Cr</li></ul> <p>Work order for the same has been issued on 20-01-2021 and will be completed by Aug, 22.</p> <p>Additional dust control measures such as static fog cannons, fixed sprinklers, mobile fog cannon etc. have already been deployed and further proposed for increasing their quantities.</p>																				

3	The Coal mining is done through deployment of surface miner, replacing three dust generating operations of conventional mining system namely drilling, blasting and crushing in one go	Coal production is being and will be done through eco-friendly surface miner
4	Public hearing already conducted for the total mine lease area involved and no more area is required for the proposed expansion.	Public Consultation has been conducted 06.04.2016 for total ML area of 653.83 Ha. No additional land is required for proposed project
5	Compliance Status of EC conditions monitored by the concerned Regional Office of this ministry is found to be satisfactory	The mine has been inspected by the RO, MoEF&CC on 30.10.2021. Certified Compliance Report was issued by IRO vide letter no. 101-976/EPE/1520 dtd. 29.11.2021. Action taken Report to observations of RO, MoEF&CC during the inspection submitted to RO, MoEF&CC on 03.12.2021. Closure Report obtained vide letter no:01-976/EPE/1610 dated 13.12.2021.
6	Other statutory requirements like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as	<ul style="list-style-type: none"> <li>• EC-Obtained on dated 09-11-17</li> <li>• FC-Obtained on dated 06-03-18</li> <li>• CTE- Obtained on dated 14-12-17</li> <li>• CTO Obtained on dated 27-03-21</li> <li>• Mining Plan Approved on dated 16.10.21</li> <li>• CGWA –Obtained on dated 22-10-21</li> </ul>

**25.7.4** The EAC, after deliberations observed that Garjanbahal OCP is fulfilling the compliance of OM. Dated 15.09.2017 except that the installation of conveyor belt for which PP has submitted the proper time bound action plan. It was submitted that currently coal is being transported through dedicated Coal corridor for 7 Km towards Sardega Siding out of which 2 Kms of transportation will be done by upcoming Rapid Loading System + Conveyor belt System by March 2023 as an intermediate arrangement till the commencement of Barpalli Bulb. Further 20 MTPA Rapid loading system with belt conveyor will be completed by March, 2023 for which Rs 311.69 cores was sanctioned and Rs 39.02 crores has already been paid to the executing agency. Further PP informed that Widening of Sardega Railway siding 1 & 2 & Doubling of Jharsuguda Barpalli Sardega Rail line + Barpalli loop will be completed by May 2022 & October, 2025 respectively by Southeastern Railways.

EAC found that the mine had started from 2018 and asked to increase plantation activity. As on date the external dump and backfilled area are active and have not reached its desired RL, hence plantation can be taken from 2023-24 and 2024-25 respectively. The PP had communicated its proposed plantation details for next three years as 7.50 Ha (2022-2023), 5 ha (2023-2024), 5 ha (2024-2025) at

overall cost of Rs. 7.80 Crores.

EAC also observed a water body located within the mine site and there is no proposal to disturb it, so it was asked to protect it and check its quality regularly. PP had also mentioned that small stretch of unnamed nala was diverted as per the approved mine plan and EAC found that it may be a part of Basundhara River which is one of the important drainage basin of estimated catchment of 608 km<sup>2</sup> and which is also a tributary of Mahanadi River. EAC mandatorily asked PP to prepare a River augmentation plan for such streams by developing pond and Basundhara River conservation plan with respect to its quality check, beatification, plantation along the boundary and construction of over bridge if required. The PP to consult the state government to dovetail their plan with respective state government and state pollution boards in river rejuvenation plan.

EAC found that the average annual value as per CAAQMS is slightly on higher side of PM<sub>10</sub> near sardega Siding. Time bound action plan for adopting the mitigation measures along the dedicated haul and railway siding was also submitted vide mail dated 24.01.2022 and gave details of Rs. 14.73 Crores with listed activities with different timeline till December, 2022. The main issue of public hearing was on supply of drinking water facility, which is committed to adhere to.

Further, based on documents and facts submitted by PP, EAC **recommended** the proposal for **20 % (stage-I) Expansion** under O.M. dated 15.09.2017 of Expansion of Garjanbahal OC mine for increase in production capacity from **13.0 MTPA to 15.6 MTPA (Peak)** in land area of 653.83 ha of M/s Mahanadi Coalfields Limited located at Villages Garjanbahal, Balinga, Karlikachhar, Bankibahal, Bangurkela, Tumulia. Tehsil Hemgir, District Sundargarh (Odisha) under 7 (ii) clause of EIA Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions for environmental safeguards:

- (i) PP shall obtain CTO for 15.6 MTPA from State Pollution Control Board.
- (ii) PP must comply with all the non-compliances or partially compliances as per the certified compliance report wrt all the EC conditions stipulated in J-11015/159/ 2015.IA.II(M) dated 09.11.2017
- (iii) Further expansion 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.
- (iv) PP shall implement in-pit conveyor system with silo loading facility till railway siding and No road transportation shall be allowed after December, 2022 and accordingly, SPCB shall not grant CTO for road transportation after December, 2022.
- (v) PP shall conduct carrying capacity assessment study within 1 year and submit to Ministry's IRO and further recommendation shall be complied with strict timeline.
- (vi) PP shall engage third party independent expert agency for monitoring/auditing of compliance of EC conditions every year.
- (vii) PP shall engage dedicated agency for plantation in mine site by April, 2022 instead of depending

*on State Forest Department. PP may seek inputs and expertise from forest department*

- (viii) PP should not transport coal through road passing through any village and further ensure that its consumers of coal are also not using village road and passing through any sensitive location such as schools, hospitals etc. PP shall take legal undertaking from its consumers accordingly.*
- (ix) PP shall obtain No Objection Certificate (NOC) for extraction of Ground Water from Central Ground Water Authority for expansion capacity.*
- (x) PP shall implement all listed activities which includes Fixed type sprinklers, trolley mounted and mobile fog cannons of 100 mtrs and 40 mts throw, wind barrier at coal stockyard, plantation etc with different timeline till December, 2022 at a cost of Rs. 14.73 Crores. The numbers of fog cannons shall be increased to 10 (atleast) and commenced within one year of this EC letter.*
- (xi) PP shall implement proposed plantation for next three years as 7.50 Ha (2022-2023), 5 ha (2023-2024), 5 ha (2024-2025) at overall cost of Rs. 7.80 Crores and further plant 150,000 nos. of native trees with broad leaves along the transportation route in three years to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.*
- (xii) PP shall commence Rapid loading system with conveyor belt system by December, 2022 and no road transportation shall be carried out by road towards Sardega siding after December, 2022.*
- (xiii) PP shall deploy only 40-50 tonnes covered trucks/dumper to reduce fleet size till Rapid loading system and conveyor belt system is commenced (i.e. till December, 2022).*
- (xiv) PP shall develop the pond present near the OB dump and develop aquatic life within 2 years and provide access to villagers as recreational place.*
- (xv) PP shall prepare Basundhra River conservation plan with respect to its quality check, beatification, plantation along the boundary and construction of over bridge if required and collaborate with state government in river rejuvenation plan.*
- (xvi) PP shall conduct substantial numbers of tree plantation in the villages of Kushra, Siarmal, Himgir, Kathapall for dust mitigation measures within 2 years and mark it for certification of Ministry's IRO.*
- (xvii) PP shall implement Peripheral tree plantation along the mine lease area with miyawaki method of 50 mts width within 2 years through independent expert*
- (xviii) PP shall explore an action plan for implementation of sand segregation plant to extract sand and aggregate (since quantity of OB is higher) to reduce agricultural land degradation*
- (xix) PP also to provide drinking water facilities like installation of RO with proper water supply pipe fittings to nearby rural areas and also to install hand pumps by seeking consent from panchayat of the villages located within the study area of 10 km radius buffer zone within two years*
- (xx) 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*
- (xxi) PP to provide sanitation facility like bio toilets to the villages located within the study areas within 1 year from the grant of this EC*
- (xxii) PP to install 1 more 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.*

- (xxiii) PP shall construct new multispecialty (100 beds) hospital in the 10 km of the project area within 2 years for local people out of approved budget.*
- (xxiv) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (xxv) Project proponent shall supply clean drinking water and for domestic purpose for the people coming under the zone of influence of this mining activity.*
- (xxvi) 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.*
- (xxvii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
- (xxviii) 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*
- (xxix) 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.*
- (xxx) PP shall pay to farmers of agricultural land if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms*
- (xxxi) 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. 25.8**

**Expansion of Kulda Opencast Coal Mine Project from 16.8 MTPA to 19.6 in an ML area of 634.205 ha M/s Mahanadi Coalfields Limited, located in at village Balinga, Tumulia, Siarmal, Kulda & Bankibahal, Tehsil: Hemgir, District Sundargarh (Odisha) - For Environmental Clearance under Ministry OM dated 15th September, 2017 (Second Stage)- Reg. Reg.**

**[Online Proposal No. IA/OR/CMIN/246444/2021; File No. J- 11015/10/1995-IA-II(M)]**

**25.8.1** The proposal is for Environmental Clearance Expansion of Kulda Opencast Coal Mine Project from 16.8 MTPA to 19.6 in an ML area of 634.205 ha M/s Mahanadi Coalfields Limited, located in Post Jagruti Vihar, District Sambalpur (Odisha)

**25.8.2** 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. 64 N/12 & 64 N/16 (RF 1:50000) and is bounded by the geographical coordinates ranging from Latitude- 21° 42' 00" to 21° 44' 30" N and Longitude- 83° 43' 00" to 83° 46' 30" E
- (ii) Coal linkage of the project: Power Plants and basket linkage.
- (iii) Joint venture cartel has been formed: Not Applicable
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation: Direct employment to 343 persons
- (vi) The project is reported to be beneficial in terms of Contribution to the Exchequer (both State and Central Govt.), Improvement of Electrical Power Generation and availability of electricity in rural areas, Overall economic growth of the country.
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification 2006 vide Ministry's letter no. No. J-11015/10/1995-IA. II (M) dated 02.03.2021 from 14 to 16.8 MTPA (1st Phase) in the mine lease area of 634.205 Ha under 7 (ii) clause of EIA notification 2006 and MoEF&CC's O.M dated 15.09.2017.
- (viii) Total mining lease area as per block allotment is 634.205 ha. Mining plan (including Progressive Mine closure plan) has been approved by MCL Board on 30.11.2020.
- (ix) The land usage pattern of the project is as under

**Pre Mining Land Use**

Sl. No.	Type of Land	Within ML area	Outside ML area	Total Area
1	Agricultural	259.794	37.500	494.54
2	Waste land	227.890	Nil	205.11
3	Forest Land	146.521	22.900	88.90
4	Grazing	Nil	Nil	Nil
5	Surface water bodies	Nil	Nil	3.84

6	Settlements	Nil	Nil	Nil
7	Others (specify) settlement	Nil	Nil	2.99
<b>Total:</b>		<b>653.83</b>	<b>634.205</b>	<b>60.400</b>

#### Land Use Break Up- Post-Mining

Sl. No.	Category	Land use (in Ha)					
		Plantation / grass carpeting	Water body	Dip side slope & haul road	Undisturbed	Built-up area	Total
1	Excavation Area	211.47	17.64	92.80	-	-	321.91
2	OB dump Area (External)	160.502	-	-	-	-	160.502
3	Infrastructure	25.23	-	-	-	100.927	126.157
4	Embankment	3.51	-	-	-	14.049	17.559
5	Other area incl safety zone & Road/Nallah Diversion	8.077	-	-	-	-	8.077
	<b>Total Mining Lease</b>	<b>408.789</b>	<b>17.64</b>	<b>92.80</b>	<b>-</b>	<b>114.976</b>	<b>634.205</b>
6	Resettlement site	-	-	-	-	37.5	37.5
7	Rehabilitation Site	-	-	-	-	22.9	22.9
	<b>Total Project Area</b>	<b>408.789</b>	<b>17.64</b>	<b>92.80</b>	<b>-</b>	<b>175.376</b>	<b>694.605</b>

- (x) Total geological reserve reported in the Kulda Geological Block is 245.71 MT with 172.49 MT (including the depleted reserve) as mineable reserves. 70.05 MT is available for extraction as on 01.04.2021. Percent of extraction is 70.20%.
- (xi) 3 seams with thickness ranging from 0.12-1.84 m & 30.05 to 34.07 m are workable. Grade of Coal is G-14; Stripping ratio is 1.02 while gradient is 50 to 80.
- (xii) Method of mining operations envisages by Opencast Mining by Shovel – Dumper/Ripper-dozers in OB/ parting; Surface miner, pay loader & tipper in coal.
- (xiii) Life of mine is 4 years (from 2021-22)
- (xiv) The project has only one external OB dump in an area of 69.04 ha with 80-90 m height and 37.33 Mm<sup>3</sup> of OB and one internal OB in an area of 82.41 ha with 32.63Mm<sup>3</sup> of OB is envisaged in the project.
- (xv) Total quarry area is 321.91 ha out of which backfilling will be done in 211.47 ha. while final mine void will be created in an area of 17.64 ha of partially backfilled area will remain

as final mine void with a maximum depth of 200 m. Backfilled quarry area of 211.47 ha shall be reclaimed with plantation/grass/agriculture. Final mine void will be converted into a water body.

- (xvi) Transportation of coal has been proposed in mine pit to surface by tippers, from surface to siding by tippers and dumpers and at sidings by pay loader/railway rakes. Work order dt: 20-01-2021 issued for 20 MTPA Rapid Loading System with belt & surge bin adjacent to Sardega siding for Rs. 404.87 Cr.
- (xvii) Reclamation Plan in an area of 420.789 ha, comprising of 160.502 ha of external dump, 211.47 ha of internal dump and 8.077 ha of green belt, etc.
- (xviii) 227.89 ha of forest land have been reported to be involved in the project. Stage II FC obtained for 227.89 ha vide no.- F.No.8-176/1997-FC, Dt.- 08.08.2007.
- (xix) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- (xx) The ground water level has been reported to be varying between 1.15m to 8.42 m bgl. Total water requirement for the project is 3913 KLD.
- (xxi) Approval of the Central Ground Water Authority has been submitted vide letter no. 21-4/2112/OR/MIN/2018, Dt: - 28.09.2018 for Ground water withdrawal and NoC from CGWA, New Delhi obtained on 09.12.2020.
- (xxii) Public Hearing was held on date 10.01.2018 at 11 AM at Stadium field near Jagannath Mandir, Basundhara Area, Tikilipada of Hemgir Tahasil of Sundargarh District, Odisha for the Expansion of coal production capacity from 10.0 MTPA to 15.0 MTPA over an area of 634.205 Ha of Kulda OCP of M/s. Mahanadi Coalfields Limited.
- (xxiii) Consent to Operate for the existing capacity has been obtained vide 5525/IND-I-CON-5125 Dt 31.03.2021 valid till 31.03.2022 from the State PCB, Odisha.
- (xxiv) Chhatan Jhor is passing through mine lease area, hence, straightening of Jhor is required. The permission for straightening of Chhatan Jhor, has been granted from State Authority vide letter no.-2609/dt. -17.12.2019. The straightening work has been completed at the project cost of 33.83 Lakh, and stone pitching as well as culverts has been provided to strengthen the embankment. Diversion of Raigarh-Sundergarh state highway crossing through the mining area is completed. Alternative diversion road has been provided on the top of the embankment provided against Basundhara river and Chattarjhor nallah.
- (xxv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to Regional Office, MoEF&CC, and Bhubaneswar and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- (xxvi) No court cases are pending in the court. However, the R&R of all the villages falling in this project area are being carried out under the direction of "Claims Commission" appointed by Hon'ble Supreme Court of India.
- (xxvii) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under. after obtaining EC for 10 MTPA in the year 2002, under the provisions of EIA

Notification, 1994 as amended on 04.05.1997 and 10.04.1997. EC for 14MTPA was granted as per EIA Notification, 2006 and subsequent amendments/circulars. And under 7ii clause of EIA notification 2006 and O.M dated 15.09.2017 of MoEF&CC, EC was granted for 16.8MTPA. The coal production from the mine was started from the year 2007 onwards. The coal production, realized from the project, from 2007-08 onwards, is as under:

Financial year	EC capacity in MTPA	Actual Production MTPA	Excess Production Beyond the EC Sanctioned Capacity (MTPA)
2007-08	10.00	0.15	--
2008-09	10.00	2.47	--
2009-10	10.00	3.43	--
2010-11	10.00	5.02	--
2011-12	10.00	5.54	--
2012-13	10.00	5.50	--
2013-14	10.00	5.27	--
2014-15	10.00	4.80	--
2015-16	10.00	8.02	--
2016-17	10.00	10.00	--
2017-18	14.00	10.07	--
2018-19	14.00	12.81	--
2019-20	14.00	13.62	--
2020-21	16.80	15.74	--
2021-22(up to 02.01.2022)	16.80	13.71	--
	Total	116.14	-

(xxviii) The project involves 572 project affected families. R&R of the PAPs is being done as per Orissa Rehabilitation and Resettlement Policy 2006. The R&R of all the villages falling in this project area are being carried out under the direction of “Claims Commission” appointed by Hon’ble Supreme Court of India.

(xxx) Total cost of the project is Rs. 622.21 Crs. Cost of production is Rs.255.59 per tonne, CSR cost is Rs.2per tonne or 2% of the average net profit of the Company of the three immediately preceding financial years whichever is higher, R&R cost is Rs.63.40 Crs. Environment Management Cost is Rs 76.90 Crores.

### 25.8.3 The EAC during deliberations noted the following:

- Earlier, the environment clearance to the project was obtained under EIA Notification 2006 vide Ministry’s letter no. No. J-11015/10/1995-IA. II (M) dated 02.03.2021 from 14 to 16.8 MTPA (1st Phase) in the mine lease area of 634.205 Ha under 7 (ii) clause of EIA notification 2006 and

MoEF&CC's O.M dated 15.09.2017.

- Compliance of the requirements of Ministry's OM dated 15<sup>th</sup> September, 2017 for 20% expansion without conducting Public Hearing is detailed as below :

•

Sr. No.	Requirements as per OM	Compliance																				
1	Predicted air quality parameters are within the prescribed norms	<p>The predicted absolute values PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub> and SO<sub>x</sub> are well within the permissible limits at all the locations considering maximum baseline value</p> <table><tr><th>S.No</th><th>Parameter</th><th>Predicted Value</th><th>Permissible Value</th></tr><tr><td>1</td><td>PM10</td><td>193.03</td><td>250</td></tr><tr><td>2</td><td>PM2.5</td><td>61.00</td><td>-</td></tr><tr><td>3</td><td>NO2</td><td>50.74</td><td>80</td></tr><tr><td>4</td><td>SOx</td><td>27.85</td><td>80</td></tr></table>	S.No	Parameter	Predicted Value	Permissible Value	1	PM10	193.03	250	2	PM2.5	61.00	-	3	NO2	50.74	80	4	SOx	27.85	80
S.No	Parameter	Predicted Value	Permissible Value																			
1	PM10	193.03	250																			
2	PM2.5	61.00	-																			
3	NO2	50.74	80																			
4	SOx	27.85	80																			
2	Coal Transportation is through conveyor system up to the silo and then loading to railway wagon, involving no transportation through roads.	<p>Incremental 2.8 MTPA of coal will be dispatched from surface to siding by road to nearby Sardega Siding for further dispatch through rail :</p> <ul style="list-style-type: none"><li>• Coal will be dispatched through belt conveyor and RLS, which is coming up adjacent to Sardega siding at an estimated value of Rs 404.87 Cr</li></ul> <p>Work order for the same has been issued on 20-01-2021 and will be completed by Aug, 22.</p> <p>Additional dust control measures such as static fog cannons, fixed sprinklers, mobile fog cannon etc. have already been deployed and further proposed for increasing their quantities.</p>																				
3	The Coal mining is done through deployment of surface miner, replacing three dust generating operations of conventional mining system namely drilling, blasting and crushing in one go	Coal production is being and will be done through eco-friendly surface miner																				
4	Public hearing already conducted for the total mine lease area involved and no more area is required for the proposed expansion.	<p>Public Consultation has been conducted 10.01.2018 for total ML area of 634.205 Ha</p> <p>No additional land is required for proposed project</p>																				

5	Compliance Status of EC conditions monitored by the concerned Regional Office of this ministry is found to be satisfactory	The mine has been inspected by the RO, MoEF&CC on 29.10.2021. and observation was communicated to PP vide letter dtd. 11.11.2021. Action taken Report to observations of RO, MoEF&CC during the inspection submitted to RO, MoEF&CC on 21.11.2021. Closure Report obtained vide letter no dated 07.12.2021.
6	Other statutory requirements like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as	EC-Obtained on dated 02-03-2021 FC-Obtained on dated 08-08-2007 CTE- Obtained on dated 04-03-2021 CTO Obtained on dated 31-03-21 Mining Plan Approved on dated 30-11-2020 CGWA –Obtained on dated 09-12-20

- It was further noted that monitoring of environment pollutants parameters are conducted by CMPDI and analysis are being at laboratory in Bhubneswar which is about 450 km distant. It was desired that CMPDI must establish its laboratory and take NABL accreditation.

**25.8.4** *The EAC, after deliberations observed that the instant case of expansion under OM has been applied 2<sup>nd</sup> time. It was observed that mine has also a patch of isolated area of about 85 Ha towards South west, so it was desired that Eco Park along with plantation shall be developed at present. The PP has submitted details of SAL nursery which is presently developing @ 2500 saplings per year and it shall be expanded to 5000 saplings per year. EAC mandatorily asked PP to develop a nursery of with 80 % dedicated to Sal trees and 20 % to other native species in that patch of 85 ha until the mining activity will be commenced and for that purpose suitable contractor/agency may be hired and should be completed within 3 years as per commitment.*

*The EAC inquired about the status of coal transport towards Raigarh, Chattisgarh, PP had replied vide mail dated 24.01.2022 that Coal transportation done via Sundargarh Raigarh District Road towards Raigarh is being concreted by the agency- RKD Constructions Pvt Ltd with an agreement value of Rs 102.65 Cr and the stipulated date of completion for this work is 26.10.2023 which will address the issues of villages namely- Siarmal, Gopalpur, Ratansara, Ratanpur, Billaimunda, Kandhadhora, Chatabar and Taparia. EAC asked PP to properly address the issue of air pollution, and later PP had provided a time bound action plan with 17.59 Crore budget with activities such as sprinkler, fog cannon, wheel washing, wind barrier, plantation etc. A total budget of Rs. 24 Crore has been earmarked for this which include activities listed in mine closure plan at external dump, backfilled area, safety zone and outside mile lease area.*

*PP had mentioned that the straightening work of Chhattan Jhor rivulet has been completed and stone pitching as well as culverts has been provided to strengthen the embankment. The Project proponent vide mail dated 24.01.2022 had committed to EAC that will desilt the mine periphery along Basundhara River stretch wherever required and will provide stone pitching along with plantation to*

*avoid soil erosion into the river and to strengthen embankment of the river.*

*Further, based on documents and facts submitted by PP, EAC **recommended** the proposal for **20 % Expansion** under O.M. dated 15.09.2017 of Expansion of Kulda Opencast Coal Mine Project from **16.8 MTPA to 19.6** in an ML area of 634.205 ha M/s Mahanadi Coalfields Limited, located in Post Jagruti Vihar, District Sambalpur (Odisha) under 7 (ii) clause of EIA Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions for environmental safeguards:*

- (i) PP shall obtain Consent to Establish/Operate for 19.6 MTPA capacity prior to production.*
- (ii) PP shall comply as per time bound action plan submitted with 17.59 Crore budget with activities such as sprinkler, fog cannon, wheel washing, wind barrier, plantation etc*
- (iii) PP shall implement activities listed for plantation of Rs. 24 Crore within 3 years at external dump, backfilled area, safety zone and outside mile lease area.*
- (iv) PP to address the issues raised during public hearing with proposed respective budget like development of providing drinking facilities, control blasting, settling the land issues etc.*
- (v) PP shall implement in-pit conveyor system with silo loading facility till railway siding and No road transportation shall be allowed after December, 2022 and accordingly, SPCB shall not grant CTO for road transportation after December, 2022.*
- (vi) PP shall conduct carrying capacity assessment study within 1 year and submit to Ministry's IRO and further recommendation shall be complied with strict timeline.*
- (vii) PP shall engage third party independent expert agency for monitoring/auditing of compliance of EC conditions every year.*
- (viii) PP shall engage dedicated agency for plantation in mine site by April, 2022 instead of depending on State Forest Department. PP may seek inputs and expertise from forest department*
- (ix) PP should not transportation of coal through road passing through any village and further ensure that its consumers of coal are also not using village road and passing through any sensitive location such as schools, hospitals etc. PP shall take legal undertaking from its consumers accordingly.*
- (x) PP had diverted a State highway so the plantation along the alternative diversion road provided on the top of the embankment against Basundhara river and Chattarjhor nallah to be taken up by PP, along with its proper maintenance. The detail of this alternative road (length, width, carrying capacity in respect to the State highway) with photographs to be furnished with six monthly compliance report of IRO and respective state pollution board.*
- (xi) PP in collaboration with CMPDI must develop a dedicated laboratory with NABL certification for measuring water quality, soil quality and heavy metals in water, air and soil etc at its operational place, which would also serve for other nearby mines of M/s MCL.*
- (xii) PP to develop one more plant nursery with 80 % dominance of Sal trees and 20 % other trees in 85 Ha scatter patch area located at south west and its detail with photographs to be provided to IRO, MoEF&CC and concerned pollution board in its six monthly compliance report of June 2022.*

- (xiii) PP also to provide drinking water facilities like installation of RO with proper water supply pipe fittings to nearby rural areas and also to install hand pumps by seeking consent from panchayat of the villages located within the study area of 10 km radius buffer zone within two years
- (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) PP to provide bio toilets to the villages located within the study areas within 1 year from the grant of this EC.
- (xvi) PP shall deploy only 40-50 tonnes covered trucks/dumper to reduce fleet size till Rapid loading system and conveyor belt system is commenced.
- (xvii) PP shall obtain No Objection Certificate (NOC) for extraction of Ground Water from Central Ground Water Authority for expansion capacity.
- (xviii) Adequate effectiveness of EMP should be analyzed from the offset/hike of air pollution data from continuous monitoring stations and quarterly report shall be generated and submitted with 6 monthly compliance report to RO, MoEF&CC.
- (xix) PP to install 1 more 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.
- (xx) PP shall conduct substantial (at least 50000 nos.) tree plantation at village namely Teleimal, Tumulia, Chakarpur and Kaletpani within 2 years and mark it for certification for any statutory authorities.
- (xxi) PP shall install fixed fog cannon (mist sprayer) all along the haul road till CHP, Railway siding and OB Dump area and accordingly sufficient number of fog cannons (not less than 10 nos.) with 40 mts jet length shall be installed within 6 months. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB.
- (xxii) Project proponent to plant 150,000 nos. of native trees with broad leaves along the transportation route in three years to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.
- (xxiii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (xxiv) Project proponent shall supply clean drinking water and for domestic purpose for the people coming under the zone of influence of this mining activity.
- (xxv) 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.*

- (xxvi) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
- (xxvii) 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*
- (xxviii) 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.*
- (xxix) 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.*
- (xxx) 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. 25.9**

**Expansion of Manuguru Opencast coal mining Project from 1.8 MTPA to 2.1 MTPA in ML area 668.42 ha of M/s. The Singareni Collieries Company Limited located near Village Rajupeta, Manuguru Mandal, Bhadradi Kothgudem District, Telangana-For Environmental Clearance Ministry OM dated 15<sup>th</sup> September, 2017 (Second Stage)-reg.**

**[Online Proposal No IA/TG/CMIN/114765/2019; File No.11015/905/2007- IA-II(M)]**

**25.9.1** The proposal is for Environmental Clearance for expansion of Manuguru Opencast coal mining Project from 1.8 MTPA to 2.1MTPA in ML area 668.42 ha of M/s. The Singareni Collieries Company Limited located near Village Rajupeta, Mandal Manuguru, District Bhadradi Kothgudem (Telangana).

**25.9.2** 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 Mine take area is covered under Survey of India Topo Sheet No. 65 C/13 and is bounded by the geographical co-ordinates ranging from Latitudes 17°57'48" to 17°59'19" N and longitudes

80°48'58" to E 80°51'11" E.

- (ii) Coal linkage of the mine is proposed to Bhadradi Thermal Power Station (BTPS) of TSGENCO and other industries situated at Bhadradi Kothagudem District, of Telangana State, as per Fuel Supply Agreement of the Company.
- (iii) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13<sup>th</sup> January, 2010 has imposed moratorium on grant of environment clearance.
- (iv) Employment generation, Permanent / Contractual employment to about 408 persons out of which about 220 permanents and 188 contractual (men on roll) will be provided from the project.
- (v) The project is reported to be beneficial in terms of socio-economic and improving living standards.
- (vi) Mining Plan including Mine Closure Plan of Manuguru OC mine was approved by vide PCA-38011/12/2017 dt. 22.04.2019.
- (vii) Earlier, Environment clearance to the Mine was obtained from MoEF&CC vide Lr. No. J-11015/905/2007-IA-II (M), dated 06<sup>th</sup> December 2019 for a rated capacity of 1.80 MT under the provisions of the O.M. issued vide F.No. J-11015/224/2015-IA.II dated 15.09.2017.
- (viii) MNG OC mine is covered under two mining leases.
  - i. 294.52 ha of Lease area is covered in 1st renewal of Mining Lease for coal over an extent of 2082 ha obtained vide G.O.Ms. No. 217 dt. 12.08.2008 which is valid up to 22.07.2035 i.e., for a period of 30 years.
  - ii. 373.90 ha is covered in Mining lease for coal over an extent of 373.90 ha of NFL for a period of 20 years from the year 2015, obtained vide G.O.Ms No.6, dated 06.02.2015, which is valid up to 15.04.2035.
- (ix) The land usage pattern of the project is as under

#### Pre Mining land Use

Description	Type	Within ML area (ha)	Outside ML area (ha)	Total (ha)
Tenancy/Private Land	Agricultural	324.28	0	324.28
	Water Bodies	0.45	0	0.45
	Road	1.47	0	1.47
	Village	5.16	0	5.16
<b>Sub total</b>		<b>331.36</b>	<b>0</b>	<b>331.36</b>
Govt /Non Forest	Agricultural	270.30	0	270.30
	Township	22.78	0	22.78
	Road	0.86	0	0.86
	Water body	8.17	0	8.17
<b>Sub total</b>		<b>302.11</b>	<b>0</b>	<b>302.11</b>
Forest	<b>Reserve</b>	34.95	0	34.95
<b>Total Project area</b>		<b>668.42</b>	<b>0</b>	<b>668.42</b>

### Land Use Break Up- Post-Mining

Type	Land Use (Post Closure) ( in ha)				
	Plantation	Water Body	Public/ Company Use/ undisturbed	Forest Land to be returned	Total
Excavation Area					
i. Backfilled Area	49.96				49.96
ii. Excavated Void		134.98		23.98	158.96
Without plantation					
OB Dump & top soil dump	244.56				244.56
Safety Zone / Rationalization area:	49.72	23.96	17.50	9.14	100.32
Service Buildings & Infrastructure area			34.05		34.05
Embankment	44.03			1.83	45.86
Green Belt	34.71				34.71
<b>Total</b>	<b>422.98*</b>	<b>158.94</b>	<b>51.55</b>	<b>34.95</b>	<b>668.42</b>

\* In addition to the above in the FL land of 34.95 ha an area of 6.85 ha area will be reclaimed and plantation will be done before being handed over to Forest Department. So, the gross plantation is 429.83 ha.

- (x) Total geological reserve reported in the mine lease area is 19.96 MT with 16.66 MT mineable reserves. Out of total mineable reserve of 16.66 MT, 13.69 MT are extractable, out of which 7.05 MT were already extracted by Fy 2020-21 and 6.64 MT are available for extraction. Percent of extraction is 68.58 %.
- (xi) Out of 10 seams present 8 seams viz., H1, H2, H3, H4 Top, H4 Bottom, TS Top, TS Bottom and Index-1 with thickness ranging from 0.17 m to 5.89 m are workable. Grade of coal is in the range of G-9 to G-12. Stripping ratio 13.92 Cum of OB per 1 tonne of coal, while gradient is varying from 1 in 3.3 to 1 in 5.5.
- (xii) Method of mining operations envisages is by opencast method with shovel and dumper combination.
- (xiii) Life of mine is 4 years from 2021-22.
- (xiv) The project has one external OB dump in an area of 244.56 ha with 90 m height and 132.66 Mm<sup>3</sup> of OB including top soil (2.04 Mm<sup>3</sup>). One internal OB dump in an area of 49.96 ha with 50 m height and 41.83 Mm<sup>3</sup> of OB including top soil (0.69Mm<sup>3</sup>) is envisaged in the project.

- (xv) Total quarry area is 208.92 ha out of which backfilling will be done in 49.96 ha and while final mine void will be created in an area of 158.96 ha with a depth of 200 m. Backfilled quarry area of 49.96 ha shall be reclaimed with plantation. Final void will be converted into water body.
- (xvi) Transportation of coal has been proposed by Trucks / Dumpers in mine pit head, from surface to siding by covered trucks and at siding by rail.
- (xvii) Reclamation Plan in an area of 429.83 ha, comprising of 49.96 ha of internal dump, 244.56 ha on the external dump, 34.71 ha of green belt area, 49.72 ha of the safety zone/rationalization/others area in addition to this, an area of 44.03 ha of the embankment area has also been proposed for green belt development and 6.85 ha of forest land diversion area will be reclaimed during the post closure stage.
- (xviii) 34.95 ha of forest land is involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 33.58 ha of forest land was obtained vide F.No. 8-73/2005-FC(vol-1) dt 09.05.2016 and diversion of remaining 1.37 ha of land was obtained vide F.No. 8-73/2005-FC dated 06.11.2009.
- (xix) Ecologically Sensitive zone (ESZ) of Kinnarsani wild life sanctuaries is at a distance of about 5.67 km from the project boundary
- (xx) Wild life conservation plan and Mitigative measures for schedule-I species in Manuguru area was prepared by the forest department and approved by PCCF&CWW, Hyderabad with a budgetary provision of ₹1668.00 Lakhs and SCCL has deposited the amount to forest department towards implementation of conservation plan.
- (xxi) The ground water level has been reported to be varying between 3.00 m to 19.30 m during pre-monsoon and between 1.66 to 17.58 during post-monsoon period. Total water requirement for the mine is about 1680 KLD.
- (xxii) Ground Water Clearance was issued by the State Government vide Memo No.:2182/HgI/2018-1, dated:05.05.2021.
- (xxiii) Consent to Operate was obtained vide order No. 210523379738 dt. 29.12.2021 by TSPCB, Telangana state and is valid up to 31th October, 2026.
- (xxiv) No River/ major Nallahs/Streams are flowing across the boundary of the mining lease and no diversion is proposed in the present proposal. However, river Godavari is flowing along the North East of the Mine and Flood Protection Bund of 5.7 km with no disturbance to the downstream users is constructed.
- (xxv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to State Pollution Control Board and also to MoEF & CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed the specific local conditions during the day of sampling.
- (xxvi) No court cases, violation cases are pending against the project of the PP.
- (xxvii) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under.
- (xxviii) The coal production from the mine was started from the year 2016-17 onwards. No

excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations.

(xxix) The coal production, realized from the project, from 2016-17 onwards, is as under:

Year	EC capacity (MT)	Actual production in MT
2016-17	1.50	0.45
2017-18		1.50
2018-19		1.50
2019-20	1.80	1.80
2020-21		1.80
Total		7.05

(xxx) The present proposal does not involve any R&R. Earlier R&R of the project was completed for the 4 villages with 1124-PAFs/PDFs and an Compensation amount of Rs. 62.17 Crores paid to the land losers as per the directions of the State Govt under LARR ACT 2013.

(xxxi) Total cost of the project is Rs.415.70 Crores. The cost of production is Rs.2136 per tonne and CSR cost is 2% of average net profits of the company made during last three years will be allocated for CSR at company level. R&R cost is Rs.62.17 Crores. Environmental Management cost is Rs.8.20 Crores (Direct cost is Rs. 4.02 crores and Indirect cost is Rs. 4.18 Crores) has been provided towards Environmental related direct cost, which includes Effluent Treatment Plant/ oil & Grease Trap, Green belt development around the quarry, service buildings, pollution abatement cost, construction of toe walls & rock filler dams etc. Revenue cost for EMP related works is ₹30.97 per tonne of coal

### 25.9.3 The EAC during deliberations noted the following:

- Earlier, Environment clearance to the Mine was obtained from MoEF&CC vide Lr. No. J-11015/905/2007-IA-II (M), dated 6<sup>th</sup> December 2019 for a rated capacity of 1.80 MT under the provisions of the O.M. issued vide F.No. J-11015/224/2015-IA.II dated 15.09.2017
- Compliance of the requirements of Ministry's OM dated 15<sup>th</sup> September, 2017 for another 20% expansion without conducting Public Hearing is detailed as below :

Sr. No.	Requirements as per OM	Compliance
1	Predicted air quality parameters are within the prescribed norms	The predicted absolute values PM <sub>10</sub> , PM <sub>2.5</sub> , NO <sub>2</sub> and SO <sub>x</sub> are well within the permissible limits at all the locations considering maximum baseline value

2	Coal Transportation is through conveyor system up to the silo and then loading to railway wagon, involving no transportation through roads.	At present, coal transportation from the project to Kondapuram CHP is being carried out through covered trucks for a distance of 10 km. The same will be continued for the proposed expansion of the project. Out of the transport route of 10 km, about 8 km is dedicated coal corridor road constructed by SCCL and is being used exclusively for transport of coal. Coal is being transported through railway wagons from Kondapuram CHP to the customers and the same will continue.
3	The Coal mining is done through deployment of surface miner, replacing three dust generating operations of conventional mining system namely drilling, blasting and crushing in one go	Deployment of surface miner requires continuity of coal seams & large operating space for movement of the machine on continued virgin coal seams. The proposed project is conversion of the closed PK-2 Incline underground mine in which the coal seams are already developed and standing on pillars, the gradient of the seams is steep i.e., 1 in 3.3 to 1 in 5.5 the seams are thin and hence are not favorable for deployment of surface miner. Hence, shovel-dumper combination will be continued by taking all mitigation measures to reduce the dust generation.
4	Public hearing already conducted for the total mine lease area involved and no more area is required for the proposed expansion.	Public Hearing was conducted for the total mine lease area of 668.42 ha on 04.04.2008 and no more area is required for the proposed expansion.
5	Compliance Status of EC conditions monitored by the concerned Regional Office of this ministry is found to be satisfactory	Compliance Status of EC conditions was monitored by the Regional Officer, Integrated Regional Office, MoEF&CC, Hyderabad on 25.11.2021. The report was issued vide E-File No: ENV/IRO-HYD/CC-25/A/2021/184, Dated 28.12.2021.
6	Other statutory requirements like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as	<ul style="list-style-type: none"> <li>• Consent for Establishment was granted vide order no.01/TSPCB/CFE/RO-KGM/HO/2020, dt.17.06.2020.</li> <li>• Consent for Operation was granted vide order no. 2510523379738, dated: 29.12.2021, valid up to 31.10.2026.</li> <li>• Mining Plan including Mine Closure Plan was approved vide Lr. No. PCA-38011/12/2017-PCA dt 22.04.2019.</li> </ul>

		<ul style="list-style-type: none"> <li>• Mining Leases: Total project area is 668.42 ha, in which: 294.52 ha is covered in the 1st Renewal of Manuguru mining lease issued vide G.O.Ms.No.217, dated 12.08.2008 valid up to 22.07.2035; 373.90 ha is covered in the Additional Mining Lease issued vide G.O.Ms No.6, dated 06.02.2015 valid up to 15.04.2035</li> <li>• Forest Clearances: <ul style="list-style-type: none"> <li>• Out of 34.95 ha of forest land, – diversion of 33.58 ha was obtained vide Lr No. F.No.8-73/2005-FC (Vol.I) dt.09.05.2016 valid up to 09.07.2028 and diversion of remaining 1.37 ha was obtained vide F.No.8-73/2005-FC dated 06.11.2009 valid up to 09.07.2028.</li> </ul> </li> <li>• Ground water clearance was obtained vide Memo No.:2182/HgI/2018-I, dated 05.05.2021.</li> </ul>
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**25.9.4** The EAC, after deliberation observed that instant proposal is expansion under Ministry's notification dated 15<sup>th</sup> September, 2017. It was found that Manuguru OCP has a very high stripping ratio which leads to higher generation of overburden and PP had left the OB dump barren. PP told that the height of the OB dump was yet to be achieved so was devoid of plantation, EAC mandatorily suggested the PP to carry plantation in top 2-4 benches. Further, mine void of 240 m shall be backfilled to reduce the depth of reservoir proposed to accommodate the OB dump and reduce the land degradation and that will also help in labelling the dump with a better land scape.

As the PP want to continue with road transportation due to life of mine is only 3 years and while asking pollution control measures adopted it was informed that provision of mist spray units at crushers and coal yards, regular water sprinkler, water spraying arrangement at transfer points maintaining of moisture in CHP has been taken care of. EAC also enquired about the location Kinnarsani Wild life sanctuary, PP informed that the mine site is located at around 4-5 km from its ESZ area It was also found that PP had acquired 4 star rating in 2018-19 and is expecting more for the result awaited for next session.

Further, based on documents and facts submitted by PP, EAC **recommended** the proposal for 20 % Expansion under O.M. dated 15.09.2017 of Expansion of Manuguru Opencast coal mining Project from **1.8 MTPA to 2.1 MTPA** in ML area 668.42 ha of M/s. The Singareni Collieries Company Limited located near Village Rajupeta, Manuguru Mandal, Bhadradi Kothgudem District, Telangana under 7 (ii) clause of ELA Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions for environmental safeguards:

(i) PP must comply with all the non- compliances or partially compliances as per the certified

*compliance report wrt all the EC conditions and furnish the status in the six monthly compliance report of IRO and respective state pollution board of June, 2022.*

- (ii) PP must work on River conservation plan of Godavari River flowing adjacent to the boundary of the mine lease with respect to its quality check, beatification, plantation along the boundary and construct over bridge if required within 6 months. The PP must collaborate with respective state government and state pollution boards in regards to converge with river rejuvenation plan of the River Godavari*
- (iii) PP should provide the detail of the time bound activities to be followed and proposed in FY 2021-2022 to 2024-2025 with respect to the annual recurring EMP cost of 6.50 crores including annual CER cost of 3.11 crores with the six monthly compliance report submitted to the IRO and State Pollution Board*
- (iv) The need based survey with the time bound activities to be followed and proposed under CSR activity within the study area of 10 km radius to be provided by the PP for FY 2021-2022 to 2024-2025 with budgetary provision must be carried out and provided with six monthly compliance report to the IRO and state pollution board*
- (v) PP shall install fixed fog cannon (mist spayer) all along the haul road till CHP and OB Dump area and accordingly sufficient number of fog cannons (not less than 10 nos.) with 40 mts jet length shall be installed within 6 months. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB*
- (vi) Project proponent to plant 150, 000 nos. of native trees with broad leaves along the transportation route in three years to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer. PP shall conduct plantation with two tier all along the road route from Manuguru OCP to Bhadradri Thermal Power Station (BTPS) of TSGENCO, located at a distance of around 14 km within two years.*
- (vii) PP shall reduce the depth of mine void from current 200 mts to 150 mts (atleast) and height of OB dump and regrade it for better landscaping.*
- (viii) PP shall deploy only 40-50 tonnes of dumpers/trucks to reduce the fleet size for transportaton of coal.*
- (ix) PP shall obtain No Objection Certificate (NOC) for extraction of Ground Water from Central Ground Water Authority for expansion capacity.*
- (x) PP shall implement Peripheral tree plantation along the mine lease area with miyawaki method of 50 mts width within 2 years through independent expert*
- (xi) PP also to provide drinking water facilities like installation of RO with proper water supply pipe fittings to nearby rural areas and also to install hand pumps by seeking consent from panchayat of the villages located within the study area of 10 km radius buffer zone within two years*
- (xii) 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*
- (xiii) PP to provide bio toilets to the villages located within the study areas within 1 year from the grant of this EC*

- (xiv) Adequate effectiveness of EMP should be analyzed from the offset/hike of air pollution data from continuous monitoring stations and quarterly report shall be generated and submitted with 6 monthly compliance report to RO, MoEF&CC.
- (xv) Project proponent to plant 150, 000 nos. of native trees with broad leaves along the transportation route in three years to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.
- (xvi) PP shall propose to develop two water harvesting pond of 15 days storage capacity of washery operations and also PP shall develop water harvesting pond near the villages of suitable area as suggested by Gram Panchayat
- (xvii) PP shall develop water harvesting pond near the villages of suitable area as suggested by Gram Panchayat
- (xviii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (xix) No untreated mine water shall be discharged in Godavari river and online monitoring of water quality shall be installed in consultation of SPCB and its data shall be shared with SPCB.
- (xx) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (xxi) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours
- (xxii) PP shall pay to farmers of agricultural land if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms
- (xxiii) 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. 25.10**

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

**[Online proposal No. IA/CG/CMIN/248029/2021; F No. IA-J- 11015/112/2021-IA-II(M)]**

**25.10.1** The proposal is for Terms of Reference of Wet Type Coal Washery Project Based on Heavy Media Cyclone with a capacity of 2.5 MTPA in an area of 3.598 Ha by M/s Horizon Coal Beneficiation Private Limited located at Village -Bhaneshar, Tehsil- Masturi, District-Bilaspur (Chattisgarh).

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

- (i) The project area is covered under Survey of India Topo Sheet No F44K8 and is bounded by the geographical coordinates ranging from 22° 2'7.14"N to 22° 2'9.08"N and longitudes 82°18'35.93"E and 82°18'29.24"E.
- (ii) Name of the industries Linked: Finished Coal will be supplied to Nearby Integrated Steel Plant, Cement Plant & M/s Prakash Industries.
- (iii) Distance from the project site: 50 to 100 Kms
- (iv) No Joint venture cartel has been formed
- (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) 75 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.)
1.	Plant Area	1.0976
2.	Coal Storage Yard	0.3544
3.	Green belt area	1.188
4.	Internal Road	0.5812
5.	Parking Area	0.091
6.	Canteen	0.1036
7.	Open Area	0.1834
<b>Total</b>		<b>3.598</b>

(ix) The ROM coal from the SECL mines, located within approx. 60 km, namely, Dipka 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 490 KLD.

(xii) Application for obtaining the approval of the Central Ground Water Authority for 490 KLD has been submitted on 14th Jan, 2022.

- (xiii) Consent to Operate for the existing crusher was obtained from the Chhattisgarh Environment Conservation Board and is valid till 31.03.2022.
- (xiv) Lilagar River is flowing 2.1 Km away from boundary of Project site.
- (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.

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

- No forest land is involved in the project area.
- Total land is 3.598 ha out of which 3.17 ha is diverted for industrial use and remaining 0.425 ha is in under process of diversion into industrial use.
- M/s. Tirupati Minerals Pvt. Ltd. has purchased the land from M/s Mahavir Coal Washeries Pvt. Ltd. Thereafter, M/s. Horizon Coal Beneficiation Pvt. Ltd. has taken the land on lease from M/s. Tirupati Minerals Pvt. Ltd. Copy for 30 years.
- There is a pre-existing Coal Crusher of 0.96 MT/Annum capacity at project site for which EC is not applicable. CTE and CTO was obtained for the coal crusher from Chhattisgarh. Environment Conservation Board by M/s. Mahavir Coal Washeries Pvt. Ltd.
- Rejects generated will be given to nearby captive power plants.

**25.10.4** *The EAC after deliberations observed the instant proposal is a green field project. It was observed that a pond is located near the project boundary. PP was advised to seek permission from the competent authority to withdraw water requirement from the pond while maintaining it wrt desiltation, deepening etc and upgrading it aesthetically too. PP agreed to explore the possibilities, EAC said that it will reduce the usage of ground water so accordingly water balance chart should be prepared by PP. EAC asked mandatorily to opt for 33% three tier plantation within the project site as proposed by the PP with also in nearby areas. It was also found that the PP is going to dismantle the existing units on the project site so EAC suggested the proper disposal of the waste and materials as per the norms.*

*Finally The EAC **recommended** the proposal for Terms of Reference to Wet Type Coal Washery Project Based on Heavy Media Cyclone with a capacity of 2.5 MTPA in an area of 3.598 Ha by M/s Horizon Coal Beneficiation Private Limited located at Village -Bhaneshar, Tehsil- Masturi, District- Bilaspur (Chhattisgarh) and specific conditions as below and as defined in the Standard ToR issued by this Ministry for such projects/activities under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto*

*(i) Public Consultation, including public hearing, shall be conducted through concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal should*

*be need/requirement based of local people.*

*(ii) 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*

*(iii) 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.*

*(iv) 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.*

*(v) PP should submit the real time aerial footage and video of the Coal Washery made through drone*

*(vi) PP must submit the land use change obtained by PP of the total area of 3.598 Ha.*

*(vii) PP shall furnish the MoU for its raw coal, washed coal and reject management, as per the respective MoC guidelines*

*(viii) 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.*

*(ix) 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.*

*(x) PP shall propose to develop two water harvesting pond of 15 days storage capacity of washery operations.*

*(xi) The socio-economic study to 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.*

*(xii) 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.*

*(xiii) 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.*

*(xiv) Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.*

- (xv) 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
- (xvi) Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report Sulphur content.
- (xvii) The parameters Arsenic, Lead and Silica shall also be analyzed in ambient air quality.
- (xviii) The washing technology so chosen should conform to 'Zero Liquid Discharge'.

### **Agenda No. 25.11**

**Sirka Opencast mine project of 1 MTPA with project area of 277.09 ha of M/s Central Coalfields Limited, located in District Ramgarh (Jharkhand) - For Amendment in Terms of Reference – reg.**

**[Proposal No. IA/JH/CMIN/250045/2022; File No J-11015/30/2020-IA- II(M)]**

**25.11.1** The proposal is for amendment in Terms of Reference to Sirka Opencast mine project of 1 MTPA with project area of 277.09 ha of M/s Central Coalfields Limited, located in District Ramgarh (Jharkhand).

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

- (i) Earlier, the project Argada-Sirka Group Mixed Mines with mine lease area of 907.74 Ha and capacity (1.125/1.293 MTPA) was given EC vide: J-11015/462/2008-IA.II(M) on 25.09.2014, as per EIA Notification 2006 for Sirka OCP(1.0/1.15 MTPA) with a life of 4 Years, Sirka UGP(0.040/0.046) with life of >30 years, Argada UG(0.085/0.097 MTPA) with a life of >30 Years.
- (ii) Further, ToR was granted on 01.02.2021 vide F.No. IA-J-11015/30/2020-IA-II(M) for a project Area of 277.09 Ha.
- (iii) PP has not requested for amendment of ToR to a revised project area from 277.09 ha to 110.94 Ha. Accordingly, Revised Mining Plan for 110.94 Ha is to be approved by CCL Board. Accordingly, the details of project and land use pattern changes.
- (iv) The land usage pattern of the project is as follows:

Pre-mining land use details (Area in ha)

S.N	Land Use during Mining	Area (in Ha)
		Total
1	Quarry	49.36
2	External OB Dump	21.88
3	Built Up Area (W/S, CHP, Office, Colony, Road etc)	24.94
4	Safety Zone/Vacant Land	14.76
	<b>Total</b>	<b>110.94</b>

Post Mining Land Use Details (Area in ha)

<b>Post Mining Land Use Plan</b>		
<b>S. No</b>	<b>Particulars</b>	<b>Area (Ha.)</b>
1	Plantation on Backfilled Area	15.33
2	Void filled with water	34.03
3	Plantation on External Dump	21.88
4	Plantation on Green Belt/Safety Zone	14.76
5	Built Up Area (W/S, CHP, Office, Colony, Road etc)	24.94
	<b>Total Project Area</b>	<b>110.94</b>

(v) Total Net geological reserve is 15.92 MTe. The remaining mineable reserve is 3.74 MT, extractable reserve is 3.74 MT. The percent of extraction would be 100 %.

(vi) There will be 03 seams (Argada A, Argada, Sirka) with seam thickness from 3.00 to 35.15 m. The coal grade is G-6. The stripping ratio is 2.21 Cum/tonne. The average Gradient is 20 to 30 degree.

(vii) The Method of mining would be opencast method of mining with shovel-dumper combination.

(viii) Balance life of mine is 5 years as on 01.04.2020.

(ix) The total volume of OB to be removed from Sirka OCP is estimated as 8.27 Mcum including 1.90 Mcum of OB as rehandling. It is envisaged to dump 4.10 Mcum externally on External Dump. The external dumping would be undertaken from 1st year to 2nd year of mine operation. From 2nd year onwards the dumping will start to fill void area of mine. At the final stage, external dump will be maintained at the height of +50 m AGL.

External Dump: Area – 21.88 Ha, Highest dump level- +380m and Capacity- 4.10 Mcum.

Internal Dump: Area – 27.49 Ha, Highest dump level- +350m and Capacity- 4.17 Mcum.

(x) Total quarry area is 49.36 ha out of which backfilling will be done in 15.33 ha while final mine void will be created in an area of 34.03 ha with a depth range of 20m-100m. Backfilled quarry area of 15.33 ha shall be reclaimed with plantation. Final mine void will be converted into water body.

(xi) Transportation: Coal transportation in pit by Rear dumpers; Surface to Siding by Trucks; siding at loading by pay loader.

(xii) At the post mining stage, 15.33 Ha. of internal dump, 21.88 Ha of external dump, 14.76 Ha of safety zone/ green belt shall be converted into plantation.

(xiii) The project area consists of no forestland.

(xiv) Application for ground water clearance vide application no: 21-4/407/JH/MIN/2019 Dated: 29.03.2019

(xv) Last Consent to Operate for the existing capacity was obtained from the Jharkhand State Pollution Control Board on 18.03.2018 and is valid till 31.03.2019. The project is not operational since 01.04.2019.

(xvi) An ephemeral stream, called Pararu nalla flows in the east of the property, along N-S alignment, discharging water in the Damodar River. The Damodar River flows along the western and southern boundary of Sirka block.

(xvii) Cost: Total capital cost of the project was Rs. 38.18 Crores as per granted EC. CSR Cost As per CSR policy & Companies Act, 2013. The Environmental Management Cost Rs 18.30 Crore.

(xviii) The project involves violation of the EIA Notification 2006. The coal production from the mine was started since before the year 1993-94. The coal production, realized from the project, from 1993-94 onwards, is as under

Year	Coal (in MT)	Year	Coal (in MT)
1993-94	0.611	2007-08	0.225
1994-95	0.535	2008-09	0.212
1995-96	0.310	2009-10	0.242
1996-97	0.300	2010-11	0.213
1997-98	0.363	2011-12	0.169
1998-99	0.369	2012-13	0.170
1999-2000	0.327	2013-14	0.111
2000-2001	0.379	2014-15	0.047
2001-2002	0.238	2015-16	0.088
2002-03	0.221	2016-17	0.059
2003-04	0.163	2017-18	0.061
2004-05	0.211	2018-19	0.085
2005-06	0.113	2019-20	Nil
2006-07	0.256	2020-21	Nil

**25.11.3** *The EAC, after detailed deliberations observed that the proposal is of opencast mine in which the change area of mine lease is due to exclusion of forest and some other area as such the area is reduced. EAC **recommended** the proposal for grant of Amendment in Terms of Reference to Sirka Opencast mine project of 1 MTPA with project area from 277.09 to 110.94 ha of M/s Central Coalfields Limited, located in District Ramgarh (Jharkhand), under EIA Notification, 2006 and subsequent amendments/circulars thereto subject with all the conditions stipulated in ToR dated 1<sup>st</sup> February, 2021.*

**Agenda No. 25.12 (Additional item with permission of Chairman)**

**Subhadra Open Cast Mine for production capacity of 25 MTPA in mine lease area of 1111.85 ha of M/s Mahanadi Coal field Limited located at Village Gopal Prasad, Kumuda, Nisha, Kankarei, Rajjharan, Nisha P.S Angul, Tehsil Tachler and Chhendipada, District Angul (Odisha) - For reconsideration of Amendment in Terms of Reference- reg (Under permission of Chairman)**

**[Online proposal No. IA/OR/CMIN/244489/2021; F No. IA-J-11015/72/2021- IA-II(M)]**

**25.12.1** The proposal is for amendment in Terms of Reference to Subhadra Open Cast Mine for production capacity of 25 MTPA in mine lease area of 1111.85 ha of M/s Mahanadi Coal field

Limited located at Village Gopal Prasad, Kumuda, Nisha, Kankarei, Rajjharan, Nisha P.S Angul, Tehsil Tachler and Chhendipada, District Angul (Odisha).

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

PP vide its letter dated 10<sup>th</sup> January, 2022 requested amendment in minutes of meeting of 24<sup>th</sup> EAC meeting held on 30<sup>th</sup> December, 2021. PP asked the EAC for relaxation of conditions nos. (ii) and (v) given in ToR amendment's . The related conditions are reproduced herein;

- (i) PP shall not divert the Singhada Jhor stream and will not disturbed the forest area or green patch located towards North eastern boundary for 10 years of the mine life. PP shall propose list of activities in EIA/EMP to protect this greenery*
- (ii) PP shall reduce the area of project implementation by excluding the green patch towards the North eastern boundary*
- (iii) PP shall install inpit conveyor system with silo loading facilities for transportation of coal till railway siding. PP shall propose air pollution mitigation measures along the haul road till Inpit conveyor system.*
- (iv) PP shall prepare feasibility report for implementation of LNG/CNG dumpers and explore to use it for its mining operations*
- (v) PP shall revise the mine plan accordingly on the above amendments.*

PP informed that by going by the point no. (i), the project is allowed to divert the Singhada Jhor stream and PP would take out the coal from the said north eastern green patch only after ten years. It also include the revising the mine plan. It constitutes that incorporating the above ToR conditions in the already approved mining plan, will result in further delay in the schedule of the project implementation.

The said green patch towards the North-eastern boundary lies within the geological block boundary allocated to MoC. Further, while preparing Geological repor and Mining Plans, winning of coal was given due importance. Excluding the green patch towards North-eastern part covering an area of 28.67 ha out of which 17.47 ha forest land approximately will cause large amount of highly economical coal (70 MT) remaining un-extracted i.e. thick coal seam of 70-80m lying at shallow depth of coal will be blocked.

**25.12.3** *The EAC, after deliberations observed that PP want to seek withdrawal of the point no ii and v of the minutes of meeting of the agenda 24.6 by providing the justification that any revision in Mining plan will not be feasible for the PP. PP in principle has agreed to not destroying or diverting the Singhada Jhor for initial 10 years as per approved Mine Plan. Accordingly, the conditions (v) may be excluded from the earlier recommendation and further condition (ii) may be modified as below:*

- *PP shall protect the green patch and Singhada Jhor for initial 10 years and accordingly fencing will be laid down all along the boundary.*

**(Day-3- 20<sup>th</sup> January, 2022)**

**Agenda No. 25.13**

**Expansion of Parsa East and Kanta Basan (PEKB) Opencast Coal Mine from 15 MTPA to 21 MTPA in total ML area of 2682.856 ha of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd. located in villages Salhi, Hariharpur, Ghatbarra, Parsa, Kente, Parogiya and Basan, Tehsil Ambikapur, District Sarguja (Chhattisgarh)- For Environment Clearance under Ministry OM dated 15<sup>th</sup> September, 2017 – reg.**

**[Online Proposal No. IA/CG/CMIN/235298/2021; File No. J- 11015/03/2008-IA- 11(M)]**

**25.13.1** The proposal is for Environmental Clearance regarding Expansion of Parsa East and Kanta Basan Opencast Coal Mine from 15 MTPA to 21 MTPA in total ML area of 2682.856 ha of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd. located in villages Salhi, Hariharpur, Ghatbarra, Parsa, Kente, Parogiya and Basan, Tehsil Ambikapur, District Sarguja (Chhattisgarh).

**25.13.2** 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. 64J/13 and is bounded by the geographical coordinates ranging from latitude 22° 47'39" to 22°51'12" N and longitude 82° 46'38" E to 82°50'51" E.
- (ii) Coal linkage of the project is proposed for captive use for various linked Thermal Power Plants.
- (iii) Joint venture cartel has been formed-Not applicable.
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation to 1805 persons will be provided from the project.
- (vi) The project is reported to be beneficial in terms of coal to be used in power generation in Rajasthan, which will help in reducing gap in demand and production of electricity in the state. Based on the requirement of the people of the project area, the development activities are being taken up. The basic requirement of the community is being strengthened by extending health care, educational facilities developed in the township to the community, providing drinking water to the villages affected, building/strengthening of existing roads in the area etc. Project is also generating direct as well as indirect employment in the area.
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No. J-11015/120/2014-IA-II(M) dated 10<sup>th</sup> August 2018 for 15 MTPA in mine lease area of 2682.856 ha.
- (viii) Total mining lease area as per block allotment is 2767 ha and as per approved mining plan is

2682.856 ha Mining Plan (Including Progressive Mine Closure Plan) has been approved by Ministry of Coal on 12th August 2016.

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

**Pre-Mining land Use**

S.N.	LANDUSE	Within ML Area	Outside ML Area (ha)	TOTAL (ha)
1.	Agricultural land, Tenancy & settlement etc.	701.786	Nil	701.786
2.	Forest land	1871.118	Nil	1871.118
3.	Others (Government Land)	109.952	Nil	109.952
	<b>TOTAL</b>	<b>2682.856</b>	Nil	<b>2682.856</b>

**Land Use Break Up- Post-Mining**

S. N.	Type	During Mining (ha)	End of Life (ha)	Land Use (ha)					TOTAL
				Plantation Grass/greenbelt	Water Body	Public Use	Agriculture land	Disman tled	
1.	External OB Dump	112.655	112.655	112.655	-	-	-	-	112.655
2.	Topsoil Dump	5.000	5.000	5.000	-	-	-	-	5.000
3.	Excavation Area	2328.247		2127.555	260.692				2328.247
	(i) Backfilled area		2157.560						
	(ii) Excavated void		230.687						
4.	Road & Infrastructure area	137.435	137.435	13.744	-	32.601	-	91.090	137.435
5.	Rationalization Area	39.518	39.518	35.931	-	3.588	-	-	39.518
	<b>TOTAL</b>	<b>2682.856</b>	<b>2682.856</b>	<b>2294.884</b>	<b>260.692</b>	<b>36.189</b>	<b>-</b>	<b>91.090</b>	<b>2682.856</b>

(x) Total geological reserve reported in the mine lease area is 516.40 Million Tonnes with 452.46 Million Tonnes mineable reserve. Out of total mineable reserve of 452.46 Million Tonnes, 452.46 MT are available for extraction. Percent of extraction is 87.62 %.

(xi) Three (Seam-VI, Seam-V & Seam-IV) seams with thickness ranging from 2.27 m 9.72 m are workable. Average Grade of coal is F, stripping ratio 5.24 m<sup>3</sup>/T, while average gradient

is 40 (1 in 15).

- (xii) Method of mining operations envisages by Opencast method with Overburden removal by shovel-dumper & coal mining by surface miner.
- (xiii) Life of mine will be 19 years.
- (xiv) The project has two external OB dumps in an area of 112.655 ha with 60 m height and 43.52 Mm<sup>3</sup> of OB. Two internal OB dumps in an area of 2157.560 ha with 2325.20 Mm<sup>3</sup> of OB is envisaged in the project.
- (xv) Total quarry area is 2388.247 ha out of which backfilling will be done in 2157.560 ha while final mine void will be created in an area of 230.687 ha with a depth of 30 m. Backfilled quarry area of 2127.555 ha shall be reclaimed with plantation. Final mine void will be converted into a water body.
- (xvi) Transportation of coal has been proposed by in mine pit head, from surface to siding by conveyor and at sidings by Railway.
- (xvii) Reclamation Plan in an area of 2294.884 ha, comprising of 112.655 ha of external dump, 2157.560 ha of internal dump and 54.675 ha of green belt including safety zone/rationalization area.
- (xviii) 1871.118 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 1871.118 ha of forest land for non-forestry purposes has been obtained vide MoEF&CC letter F.no.8-31/2010-FC dated 15th March 2012.
- (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 Pre-monsoon- 3.50 to 8.20 m bgl to Post-monsoon- 0.30 to 3.20 m bgl.
- (xxi) Total water requirement for the project is 13,195 KLD.
- (xxii) NOC of the Central Ground Water Authority for has been obtained on 23rd September 2009.
- (xxiii) Public hearing- Present Application is for expansion of EC (15 to 21 MTPA) which does not attract PH, being applied under MoEF&CC's OM dated 15.09.2017. Last Public Hearing for the project of 15 MTPA capacity in an area of 2682.856 ha was conducted. on 11th September 2016 at Village- Basan, District Surguja, Chhattisgarh.
- (xxiv) Consent to Operate for the existing capacity of 15 MTPA was obtained from the State PCB on 01/12/2021 and is valid till 30/11/2024.
- (xxv) River/nalla is flowing 2.7 Km boundary from Northern Boundary of the block of lease. No nalla diversion is involved.
- (xxvi) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to SPCB and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- (xxvii) Court cases pending area-

- (i) Civil Appeal no(s). 4395 of 2014 Rajasthan Rajya Vidyut Utpadan Nigam Ltd vs Sudiep

Shrivastava & Others pending before the Hon'ble Supreme Court of India

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

(xxviii) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the mine was started from the year 2013 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations.

Year	EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
2012-13	10	0.29	Nil
2013-14	10	1.20	Nil
2014-15	10	3.44	Nil
2015-16	10	6.21	Nil
2016-17	10	8.27	Nil
2017-18	10	8.33	Nil
2018-19	15	15	Nil
2019-20	15	15	Nil
2020-21	15	15	Nil
2021-22	15	7.653	Nil
	<b>Total</b>	<b>80.39</b>	

(xxix) Total cost of the project is Rs. 236900 lakhs. Cost of production is Rs. 1494 per tonne., R&R cost is Rs 82 crores. Environment Management Cost is Rs. 1000 Lakh (Capital), Rs. 550 Lakh (Recurring).

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

- The proposal is for Environmental Clearance regarding Expansion of Parsa East and Kanta Basan Opencast Coal Mine from 15 MTPA to 21 MTPA in total ML area of 2682.856 ha of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd. located in villages Salhi, Hariharpur, Ghatbarra, Parsa, Kente, Parogiya and Basan, Tehsil Ambikapur, District Sarguja (Chhattisgarh).
- PP is requesting for expansion of under Ministry's OM dated 15.09.2017 wherein expansion are allowed upto 40% in 2-3 stages subject to compliance of certain stipulation given in said OM.
- Earlier, the environment clearance to this project was obtained under EIA Notification, 2006 vide Ministry's letter No. J-11015/120/2014-IA-II(M) dated 21<sup>st</sup> December, 2011 for 10 MTPA, and further EC for expansion from 10 MTPA to 15 MTPA was granted on 10<sup>th</sup> August

2018 within mine lease area of 2682.856 ha including coal washery operation of 15 MTPA. Subsequently, Amendment in existing EC was granted by Ministry on 19<sup>th</sup> July, 2019 regarding transportation of coal reject for one year and again this amendment was granted on 23<sup>rd</sup> December, 2021.

- iv. It was also noted that PP has been issued show-cause notice earlier by Ministry for non-compliance of EC condition and currently being processed by Ministry.
- v. Compliance of the requirements of Ministry's OM dated 15<sup>th</sup> September, 2017 for 40% expansion is detailed as below:

Sr. No.	Requirements as per OM	Compliance
1	Predicted air quality parameters are within the prescribed norms	The air quality impact prediction study has been carried out by using AERMOD. The net incremental GLC for pm 10 is 7.13 µg/m <sup>3</sup> , for PM2.5 is 4.40 µg/m <sup>3</sup> , for SO <sub>x</sub> is 0.0067 µg/m <sup>3</sup> and for NO <sub>x</sub> is 0.00526 µg/m <sup>3</sup> . The resultant concentration is predicted to be within prescribed limit. The meteorological data generated from March to May 2021 has been utilised for the purpose of modelling.
2	Coal Transportation is through conveyor system up to the silo and then loading to railway wagon, involving no transportation through roads.	Coal Transportation is being done through in-pit conveyor system upto Coal washery & through conveyor to Silo through conveyor loading into railway wagons. A dedicated 75 Km pit head Railway siding has been developed from PEKB coal mine to Surajpur Railway Station of SECR. No road transportation of coal is involved.
3	The Coal mining is done through deployment of surface miner, replacing three dust generating operations of conventional mining system namely drilling, blasting and crushing in one go	Coal Mining is being done through Surface Miners.

4	Public hearing already conducted for the total mine lease area involved and no more area is required for the proposed expansion.	Public Hearing for expansion of Mine from 10 MTPA to 15 MTPA was conducted involving entire mining lease area of 2682.856 Ha on 11 <sup>th</sup> September 2016 for which Environment Clearance was issued vide letter No. J-11 015/03/2008-IA-II (M) dated 10th August 2018, no additional area is required for further expansion from 15 MTPA to 21 MTPA.
5	Compliance Status of EC conditions monitored by the concerned Regional Office of this ministry is found to be satisfactory	Compliance of the EC conditions of existing mine of 15 MTPA were monitored by IRO, Raipur in its site visit held on 17th -18th November 2021. Certified EC compliance received on 19 <sup>th</sup> January 2021, wherein almost all the conditions have been found to be complied. Action Taken Report shall be submitted to IRO for non-compliance (one) & partial compliance (two).
6	Other statutory requirements like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as	<p><u>NOC for abstraction of Groundwater</u> – Renewal of NOC for groundwater abstraction has been obtained vide 21-4 (44) NCCR/ CGWA/ 2009-763 on dated 05.09.2019 valid from 19.07.2019 to 18.07.2024</p> <p><u>Consent to Establish:</u> CTE has been obtained from Chhattisgarh Environment Control Board vide letter no 5119/TS/CECB/ 2018 dated 17.09.2018.</p> <p><u>Consent to Operate:</u> The consent to operate has been renewed by Chhattisgarh Environment Control Board vide letter no. 5986/TS/CECB/2021 dated 25.11.2021 valid from 01.12.2021 to 30.11.2024</p> <p><u>Forestry Clearance –</u> MoEF&amp;CC granted Forest Clearance stage -I for Parsa East and Kanta Basan Coal blocks vide F.No.- 8- 31/2010 – FC dated 06th July, 2011 &amp; Stage-II FC accorded on 15th March 2012 for diversion of 1898.328 Ha of forest land. Increase in peak capacity upto one hundred and fifty percent of sanctioned rated capacity is allowed as per office memorandum of Ministry of Coal issued vide F. No. 34011/28/2019-CPAM</p>

		dated 29 <sup>th</sup> May 2020 without modification of Mining Plan 2021. Ministry of Coal has instructed and given concurrence for enhancement of capacity by 40% vide its letter dated 25 <sup>th</sup> October 2021
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- vi. This proposal is only for expansion in capacity of coal mine only and no expansion in washery capacity is being considered.
- vii. It was informed that increase in peak capacity upto 150 % of sanctioned rate capacity is allowed as per office Order of Ministry of coal issued F.No. 34011/28/2019-CPAM dated 29<sup>th</sup> May 2020 without modification of Mine plan. The copy of 15 MTPA mine plan provided by PP and the Ministry of Coal has given concurrence for enhancement of capacity by 40 % vide its letter dated 25<sup>th</sup> October, 2021 which is furnished by PP. Further it is noted that PP has prepared background report on mining plan for enhancement of coal production.
- viii. Stage II approval of FC for entire 1898.238 ha forest land has been granted on 15.03.2012. Mine plan was revised by MoC with project area 2682.856 Ha for which includes 1871.118 Ha of Forest land inclusive in 1898.238 Ha.
- ix. PP vide its letter dated 25<sup>th</sup> January, 2022 has submitted additional information regarding current status of the court cases, action taken on the non-compliances of the certified compliance report dated 19.01.2022 on plantation, OB dump stabilization, submission of air quality report w.r.t to heavy metals & surface water quality report of upstream and downstream, measure to reduce energy consumption, timeline for enhancement of railway siding transportation etc.
- x. Further, PP was requested to furnish the reply of representation received through mail by EAC's Chairman & Members against this project. PP accordingly submitted its reply to the representation vide no RVUN/ ACE(Fuel)/ SE(Fuel)/D 3233 dated 25.01.2022. Representations mainly involving the issues of forest diversion, which has been justified by PP by providing the record of forest clearance obtained for phase I and the application for phase II for its diversion is within the mine lease area. There are two cases mentioned by PP and its status was briefed during deliberations. Both are sub-judice.

**25.13.4** *The EAC, after deliberations observed that the instant proposal of expansion under Ministry's OM dated 15<sup>th</sup> September, 2017 (i.e. without public hearing and increase in mine lease area). Compliance of requirement of the said OM conditions was deliberated and proposal was found suitable for consideration. Further, EC involves coal mine and coal washery, however, PP has to submit separate proposal for expansion for coal washery as per EIA Notification, 2006 since this OM does not apply for coal washery.*

*The PEKB OC mine is having the transportation by in pit conveyor belt, silo loading up till railway siding of existing capacity and also coal mining is done through surface miner. The EAC further enquired that what is the preparedness of PP regarding the expansion with respect to enhancement of belt conveyor, silo loading, coal washery etc and also asked the PP to submit the mine plan for which the concurrence in increase in production within 150 % is for 40 % is received by PP. The PP informed about the Silo -1 having capacity of 4000, silo 2 with capacity of 2000 tonnes which is able to handle 21 MTPA coal & also silo-3 of capacity 2000 tonnes is under construction and will be completed by October, 2022. Regarding approved Mine Plan, PP has cited the guidelines dated 29th May 2020 of Ministry of Coal wherein production can be increased by 150% of approved capacity without Mine Plan.*

*The EAC observed that the PP had consulted for energy audit conducted by its MDO to minimize the energy consumption of the mine site but had not taken any initiative towards the installation of renewable energy sources like solar plants etc. As per Certified Compliance report of IRO and Action taken report/plan submitted by PP, EAC desired that it should be complied within given timeline. PP also submitted action plan for non-compliance/partial compliance of EC conditions, implementation of silo loading with conveying facility of additional 2000T/day, alongwith submission of current status of court cases.*

*Based on documents and facts submitted by PP, EAC finally **recommended** the proposal for only **20 % Expansion** under O.M. dated 15.09.2017 of Expansion of Parsa East and Kanta Basan (PEKB) Opencast Coal Mine from **15 MTPA to 18 MTPA** in total MLarea of 2682.856 ha of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd. located in villages Salhi, Hariharpur, Ghatbarra, Parsa, Kente, Parogiya and Basan, Tehsil Ambikapur, District Sarguja (Chhattisgarh) under 7 (ii) clause of EIA Notification, 2006 and subsequent amendments/circulars thereto subject to outcome of Civil Appeal no(s). 4395 of 2014 Rajasthan Rajya Vidyut Utpadan Nigam Ltd vs Sudiep Shrivastava & Others pending before the Hon'ble Supreme Court of India and the compliance of the following terms & conditions / specific conditions for environmental safeguards:*

- (i) PP shall obtain the Consent to Establish/Consent to Operate for 18 MTPA of mine production from SPCB prior to production.*
- (ii) PP must comply with all the non- compliances or partially compliances as per the certified compliance report w.r.t EC conditions stipulated in EC dated 10th August 2018 and EC dated 21st December, 2011 and EC amendment dated 24th July, 2019, and furnish the detail of the compliance of EC conditions prescribed with amendment in EC vide letter dated 23rd December, 2021 in the six monthly compliance report of IRO and respective state pollution board.*
- (iii) PP shall construct 3rd silo of 2000 Tonnes and commission by October, 2022 and onward no additional coal will be transported through road.*
- (iv) Third party monitoring by reputed institued for air quality (including heavy metal analysis) shall be carried out at identified locations, both ambient and the process area, to arrive at impact of*

*the proposed expansion at regular interval of 3 years.*

- (v) PP must carry out the energy audit to reduce the energy demand including submission of time bound plan to install the solar power plants at suitable area.*
- (vi) PP to obtain 5-star rating from Ministry of Coal.*
- (vii) PP shall construct a multispecialty hospital of 100 beds for local people within 10 km buffer area of coal mine within 2 years of issue of this EC letter. Further, this hospital will accept Pradhan Mantri Jan Arogya Yojana for medical facilities to nearby villagers.*
- (viii) PP shall make slope stabilization of the OB dump 2 of 82 ha and plantation of only Sal trees will be done within 2 years.*
- (ix) Monitoring of Atem river and Tara stream shall be conducted quarterly for drinking water parameter including trace metals and data so generated submitted to CECB and Ministry's IRO Raipur.*
- (x) PP shall submit river conservation plan of Atem river from independent expert and submit it to Ministry's IRO within one year and further implement the recommendation of this conservation plan with strict timeline. If feasible, river conservation plan shall be dovetailed with State's river conservation plan to supplement their efforts.*
- (xi) PP shall explore to deploy CNG/LNG or electrical power run dumpers or equipment's for mining operations.*
- (xii) PP shall implement Peripheral tree plantation with miyawaki method of 50 mts width within 2 years through independent expert.*
- (xiii) PP shall install fixed fog cannon (mist sprayer) all along the haul road till CHP, Railway siding and OB Dump area and accordingly sufficient number of additional fog cannons (not less than 10 nos.) with 40 mts jet length shall be installed within 1 year. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB.*
- (xiv) PP shall obtain No Objection Certificate (NOC) for extraction of Ground Water from Central Ground Water Authority for expansion capacity*
- (xv) PP to provide bio toilets to the villages located within the study areas after consultation with gram panchayat or any other sanitation scheme as feasible within 2 years from the grant of this EC.*
- (xvi) PP to install 1 more 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.*
- (xvii) PP shall develop water harvesting pond near the villages of suitable area as suggested by Gram Panchayat.*
- (xviii) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles*
- (xix) Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.*

- (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. The above said laboratory should be established and certified by NABL within one year of issue of this letter.*

#### **Agenda No. 25.14**

**Expansion of North Urimari OCP from 3 to 4.2 MTPA in total ML area of 535.82 ha of M/s Central Coalfield Limited located in village Urimari, Tehsil Barkagaon, District Hazaribagh (Jharkhand) For Environment Clearance under Ministry OM dated 15th September, 2017– reg.**

**[Online Proposal No. IA/JH/CMIN/182314/2020; File No. J- 11015/307/2005-IA- 11(M)]**

**25.14.1** The proposal is for Environmental Clearance to Expansion of North Urimari OCP from 3 to 4.2 MTPA in total ML area of 535.82 ha of M/s Central Coalfield Limited located in village Urimari, Tehsil Barkagaon, District Hazaribagh (Jharkhand).

**25.14.2** 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 is covered in Survey of India toposheet no. 73E/6 and is bounded by latitudes 23° 42' 04" N to 23° 43' 20"N and longitudes 85°16' 06" E to 85° 19' 36" E.
- (ii) Coal linkage of the washery is proposed through basket linkage & e-auction.
- (iii) No Joint venture cartel has been formed for the project.
- (iv) Project does not fall in Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation, project is source to direct employment of about 282 persons.
- (vi) The project is reported to be beneficial in terms of employment opportunities both for skilled and semi-skilled persons in the area. Business opportunity in secondary & Tertiary sectors will increase. The proposed project will also bring about enhanced socio-economic benefits to local population due to expenditure in CSR activities, post-mining enhancement of green cover, contribution to exchequer etc.
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification-1994 vide Ministry's letter No: J-11015/307/2005-IA.II(M) Dated: 08.02.2006 for 3 MTPA. The EC was revalidated on 07.11.2019, under EIA-2006, for a capacity of 3 MTPA in an area of 516.90 Ha (Total area: 535.82 Ha)
- (viii) Total mining lease area as per block allotment is 650 Ha. Mining Plan (Including Progressive

Mine Closure Plan) has been approved in the 467th CCL Board meeting on 19.12.2018.

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

#### Pre Mining Land Use

Description	Forest in Ha	GMK JJ in Ha	Non Forest ( Tenancy+ GMK) Ha	Total Area in Ha.
Quarry	43.95	75.34	135.11	254.4
External OB dump	12.47	72.56	83.91	168.95
Safety Zone	0.95	13.60	29.74	44.28
Haul road		2.8	1.70	4.5
Nalla diversion and garland drain	0.31	-	10.28	10.59
Industrial construction	-	4.53	16.89	21.42
<b>Total Project Area</b>	-	-	-	<b>504.14</b>
Colony area	-	-	18.92	18.92
<b>Total Land</b>	<b>57.68</b>	<b>168.83</b>	<b>296.55</b>	<b>523.06</b>

#### Land Use Break Up- Post-Mining

Description	Plantation	Water body	Public Use	Un-disturbed	Total Area in Ha.
Quarry	182.40	72	0	0	254.4
External OB dump	168.95	0	0	0	168.95
Safety Zone	44.28	0	0	0	44.28
Haul road	4.5	0	0	0	4.5
Nalla diversion and garland drain	0	10.59	0	0	10.59
Industrial construction	0	0	21.42	0	21.42
<b>Total project area</b>	<b>400.13</b>	<b>82.59</b>	<b>21.42</b>	<b>0</b>	<b>504.14</b>
Colony area	0	0	18.92	0	18.92
<b>Total Area</b>	<b>400.13</b>	<b>82.59</b>	<b>40.34</b>	<b>0</b>	<b>523.06</b>

(x) As per the approved Mining Plan, total geological reserve reported in the mine lease area is 139.38 MT with 80.81 MT mineable reserve. Out of the total mineable reserve of 80.81 MT, 80.81 MT is mineable reserve. Percent of extraction is 100 %.

(xi) 15 seams with thickness ranging from 0.27 meter to 22.60 meter are workable. Grade of coal is G-8. Stripping ratio is 1.69 while gradient is 8 degree to 35 degree.

- (xii) Method of mining operation is by open-cast mining using shovel dumper mining system and surface miner.
- (xiii) Life of mine is 22 years
- (xiv) The project has 1 external OB dumps in an area of 168.95 ha with 90 m height and 59.60 Mm<sup>3</sup> of OB. 1 internal OB in an area of 182.40 ha with 70 Mm<sup>3</sup> of OB is envisaged in the project.
- (xv) Total quarry area is 254.40 ha out of which backfilling will be done in 182.40 Ha area. Final mine void will be created in an area of 72 Ha with depth of 60-1400 m. Backfilled quarry area of 182.40 Ha shall be reclaimed with plantation. Final mine void will be converted into a water body.
- (xvi) Transportation of coal has been proposed by tipping trucks from mine pit head, from surface to siding at present by covered tipping trucks and at sidings by payloaders. A proposal for the construction of 'North Urimari Railway siding' is under process. RITES has started the work of Railway Siding. The coal shall be transported from the said siding after its completion.
- (xvii) Reclamation Plan in an area of 400.13 Ha comprising of 182.40 Ha of internal dump, 168.95 Ha of external dump and 44.28 Ha of green belt and safety zone. In addition to this, an area of 4.5 ha, included for Haul Road, has also been proposed for green belt development.
- (xviii) 226.51 ha of forest land has been reported to be involved in the project. Total Forest land involved in project area, 226.51 Ha. has been diverted (Stage II) vide letter no: F. No. 8-54/2008-FC Dt. 03.08.2011.
- (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 5.3-9.6 m (Pre monsoon) and 2.18-7.44m (Post monsoon). Total water requirement for the project is 1009 KLD.
- (xxi) NOC of the Central Ground Water Authority has been issued vide no: CGWA/NOC/MIN/ORIG/2021/14192 Dated: 30.12.2021.
- (xxii) Public hearing for the project of 3 MTPA capacity was conducted on 08.10.2004 at Guest House, Urimari Project, Post- Sayal D, District- Hazaribagh. Major issues raised in the public hearing include impact due to Possible water and air pollution and compensation to the affected PAPs etc. Appropriate action to address the issues raised in the Public Hearing have been taken.
- (xxiii) Consent to Operate for the existing capacity was obtained from the Jharkhand State PCB on 25.07.2018 and is valid upto 30.06.2023.
- (xxiv) Damodar River is flowing in the south of the block. There are two seasonal tributaries flows near the North Urimari project i.e. Potanga stream and Tiliya stream. The opencast project was divided in two quarries by Potanga stream flowing across the project from north to south. Whereas, Tiliya stream flows from north to south in the west of the project and discharge its load into Damodar river. The stream will be diverted in consultation with the Water Resource Department of the State Government.

- (xxv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to JSPCB & MOEF&C with six monthly compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- (xxvi) No court cases, violation cases are pending against the project of the PP.
- (xxvii) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under. 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 past years, is as under:

<b>Year</b>	<b>Production in MTPA</b>
2010-11	0.323
2011-12	0.339
2012-13	0.372
2013-14	0.154
2014-15	0.503
2015-16	0.78
2016-17	0.813
2017-18	1.727
2018-19	2.967
2019-20	2.823
2020-21	2.651
2021-22(as on 14.01.2022)	2.350

- (xxviii) The project involves 540 project affected families. R&R of the PAPs will be done as Per as per R&R Policy of CIL and RFCTLARR Act 2013.
- (xxix) Total cost of the project is Rs. 232.90 Crores. Cost of production is Rs. 1024/Tonne. The fund for the CSR should be allocated based on 2% of the average net profit of the Company for the three immediately preceding financial years. Environment Management cost is Rs. 32.42 Crore (Capital).

#### **25.14.3** The EAC during deliberations noted the following:

- The proposal is for Environmental Clearance to Expansion of North Urimari OCP from 3 to 4.2 MTPA in total ML area of 535.82 ha of M/s Central Coalfield Limited located in village Urimari, Tehsil Barkagaon, District Hazaribagh (Jharkhand) under the provisions of Ministry's OM dated 15<sup>th</sup> September, 2021 (i.e. for 40% capacity expansion with exemption of Public Hearing).
- Compliance of the requirements of Ministry's OM dated 15<sup>th</sup> September, 2017 for 40% expansion is detailed as below :

Sr. No.	Requirements as per OM	Compliance									
1	Predicted air quality parameters are within the prescribed norms	<p>Yes. The predicted ground level concentration at various receptors around the mine are well within the limits.</p> <p>The ambient air quality parameters are being monitored by CMPDIL every fortnight and the values are within the limits as per NAAQS for buffer zone and G.S.R 742 (E) dt. 25.09.2000 for core zone</p>									
2	Coal Transportation is through conveyor system up to the silo and then loading to railway wagon, involving no transportation through roads.	<p>At present, the coal from this project is being transported to Saunda B railway siding which is at a distance of 8 km from the face of the quarry by covered tipping trucks and adequate dust control arrangement (Water Sprinkling, periodic removal of loose material on the road) has been made. Also, a proposal for the construction of 'North Urimari Railway siding' is under process. Rites has started the work of Railway Siding.</p> <table border="1"> <thead> <tr> <th>Particulars</th><th>% work Completed</th><th>Expected Time of Completion</th></tr> </thead> <tbody> <tr> <td>North Urimari Railway Siding</td><td>74</td><td>September 2022</td></tr> <tr> <td>CHP with Silo</td><td>44</td><td>February 2023</td></tr> </tbody> </table>	Particulars	% work Completed	Expected Time of Completion	North Urimari Railway Siding	74	September 2022	CHP with Silo	44	February 2023
Particulars	% work Completed	Expected Time of Completion									
North Urimari Railway Siding	74	September 2022									
CHP with Silo	44	February 2023									
3	The Coal mining is done through deployment of surface miner, replacing three dust generating operations of conventional mining system namely drilling, blasting and crushing in one go	The method of mining adopted to extract coal and OB is inclined slicing with Shovel-Dumper combination and surface miner considering the geo-mining condition. Approx. 85% of coal is extracted through surface miner.									
4	Public hearing already conducted for the total mine lease area involved and no more area is required for the proposed expansion.	Public Hearing for the total project area of 535.82 Ha was held on 08.10.2004									

5	Compliance Status of EC conditions monitored by the concerned Regional Office of this ministry is found to be satisfactory	Site inspection for monitoring of compliance status of EC conditions was carried out by the IRO, MoEF&CC on 25.11.2021 and communicated vide letter no: 103-97/05/EPE/5155 Dt. 03.01.2022. Previous site inspection were done on 12.08.2020, 08.11.2019 and 17.08.2018.
6	Other statutory requirements like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as	Statutory requirements like CTO, Project Report, Mine Closure Plan, Forest Clearance, etc have been satisfactorily fulfilled. <ul style="list-style-type: none"> <li>• Consent to Operate (CTO) issued vide Ref. No. JSPCB/HO/RNC/CTO-2149892/2018/ 1251, Dated 25.07.2018 for a capacity of 3 MTPA valid upto 30.06.2023</li> <li>• Ground water clearance issued vide letter no CGWA/NOC/MIN/ORIG/2021/14192 valid from 30.12.2021 to 29.12.2023</li> <li>• Mining Plan &amp; Mine closure Plan of North Urimari OCP (4.2 MTPA and 523.06 Ha Project area) has been approved by CCL Board on 19.12.2018.</li> <li>• Forest Clearance for 226.51 Ha of Forest land was granted stage-II FC vide No: 8-54/2008-FC dated: 03.08.2011</li> </ul>

- iii. PP submitted that Only one Schedule I species found in the core/buffer zone of the Project i.e peafowl or mor. The conservation plan of peafowl was made and submitted to DFO Haz(W) for approval from competent authority.
- iv. There are two quarry in single mine. PP informed that the opencast project was divided in two quarries by Potanga nalla flowing across the project from north to south and Tiliya stream flowing within the mine site from north to south in the west and discharge its load to Easterly flowing Damodar river in the south. The EAC asked to take proper measure to protect the Patunaga and Tiliya streams. PP desired to divert the stream for least 4.5 km length. EAC clearly denied for any diversion of the Patunga or Tiliya stream as these are carrying high drainage from upstream of mines with steep gradient and it will have negotive impact upon their diversion. Further the Committee noted that PP had already divided the mine into two quarry.

*25.14.4 The EAC, after deliberations observed that instant proposal for expansion under Ministry's OM dated 15<sup>th</sup> September, 2017 (i.e. without public hearing) and within same mine lease area. The requirement of OM was observed to be satisfactory with respect to target date of commencement of Railway siding and silo loading system. PP showed the construction status with photographs of this*

conveying system. Currently, it was observed that PP is using shovel dumper method as well surface miner as per the geo-mining condition and the transportation is through the road. However, mining operations for current expansion will only be conducted by surface miner. The EAC asked PP to expedite and get it completed by December, 2022.

EAC enquired about the transportation route used for coal and found that the road is passing near to the hospital and school, also Giddi railway siding is located nearby. Finding high level of PM10 near sensitive area around mine, EAC asked the PP to take proper measures and develop a green belt along the boundary of the school and hospital. Also it was advised to install a wind shield around the railway siding where chance of dust emission is prominent considering the dominant wind direction. EAC asked PP to sprinkle in the affected villages too. It was also found inadequate plantation along the boundary of the mine though the habitation is seen around the mine site & OB dump where no benches were seen.

EAC asked about status of the non- compliances and partial compliances of the CCR report, PP had provided the Action Taken report (ATR) vide letter no Letter No 103-97/05/EPO/5155(H) Dated 03.01.2022. The EAC also recommended the ground water modelling to predict the impact of mining with seasonal variation.

Based on documents and commitments submitted by PP, EAC **recommended** the proposal for **20 % Expansion** under O.M. dated 15.09.2017 of Expansion of North Urimari OCP from **3 MTPA to 3.6 MTPA** in total ML area of 535.82 ha of M/s Central Coalfield Limited located in village Urimari, Tehsil Barkagaon, District Hazaribagh (Jharkhand) under 7 (ii) clause of EIA Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions for environmental safeguards:

- (i) PP to obtain the CTO for 3.6 MTPA capacity of mine production.
- (ii) PP must comply all the non- compliances and partial compliances as per Action Taken Report submitted for eg. regarding the RCC boundary along the Saunda –B siding, PAF covered, construction of toe wall, Flora and Fauna conservation plan, ground water modelling report to the CGWA (Acknowledgment of CGWA to be submitted to IRO), and 1 km avenue planation along the road and railway siding etc. Status of these should be submitted to IRO, MoEF&CC in 6 monthly report. IRO, MoEF&CC , which shall assess compliance status accordingly.
- (iii) Further expansion in capacity will only be considered by EAC when at least 75% of EC conditions are complied fully and PP obtains 5-star rating from Ministry of Coal.
- (iv) PP shall implement the work of North Urimari Railway siding on or before September, 2022 and Belt conveyor system with CHP and Silo loading system till December, 2022.
- (v) PP shall implement in-pit conveyor system with silo loading facility till railway siding and No road transportation shall be allowed after December, 2022 and accordingly, SPCB shall not grant CTO for road transportation after December, 2022.
- (vi) PP shall conduct carrying capacity assessment study within 1 year and submit to Ministry's

*IRO and further recommendation shall be complied with strict timeline.*

*(vii) PP shall engage third party independent expert agency for monitoring/auditing of compliance of EC conditions every year.*

*(viii) PP shall engage dedicated agency for plantation in mine site by April, 2022 instead of depending on State Forest Department. PP may seek inputs and expertise from forest department*

*(ix) PP shall not divert Patunga and Tiliya nala and must take proper measures to conserve it with sal trees plantation along the bank on both side or any other native species.*

*(x) PP shall plant only Sal trees on the OB dump and develop of nursery of 10 ha (within 1 year). Further, Peripheral tree plantation with miyawaki method of 50 mts width should be done within 2 years.*

*(xi) PP shall construct centralized STP for colony of North Urimari with proper well designed conveyance system.*

*(xii) PP shall plant trees with broad leaves in the periphery of Bhurkunda hospital and schools.*

*(xiii) PP shall install fixed fog cannon (mist spayer) all along the haul road till CHP, Railway siding and OB Dump area and accordingly sufficient number of new fog cannons (not less than 10 nos.) with 40 mts jet length shall be installed within 1 year. It should be ensured that air pollution level conform to the standards prescribed by the MOEFCC/CPCB.*

*(xiv) PP shall install wind shield around the railway siding to prevent movement of dust through wind to sensitive areas like school, hospital etc.*

*(xv) PP also to provide drinking water facilities like installation of RO with proper water supply pipe fittings to nearby rural areas and also to install hand pumps by seeking consent from panchayat of the nearby villages within two years.*

*(xvi) PP shall obtain No Objection Certificate (NOC) for extraction of Ground Water from Central Ground Water Authority for expansion capacity.*

*(xvii) 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 to also install solar light with its maintenance within the study area of 10 km radius buffer zone within one year.*

*(xviii) Third party monitoring by reputed instituted for air quality (including heavy metal analysis) shall be carried out at identified locations, both ambient and the process area, to arrive at impact of the proposed expansion at regular interval of 3 years*

*(xix) PP shall explore sand/aggregate segregation plant from Overburden (OB) for suitable capacity to extract sand and construction aggregate within 2 years of issue of this letter*

*(xx) PP to install 1 more 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.*

*(xxi) Project proponent to plant 150, 000 nos. of native trees with broad leaves along the transportation route in three years to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.*

*(xxii) PP to take grassing and vegetation of OB dump and PP must 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.*

*(xxiii) 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.*

*(xxiv) 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*

*(xxv) 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.*

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

### **Agenda No. 25.15**

**Expansion of Jhingurda Opencast Coal Project of 3 to 5 MTPA capacity in ML area of 1200 ha for M/s Northern Coalfields Limited located in Jhinguda, Tehsil Morwa, district Sidhi (Madhya Pradesh)- Reconsideration of Extension of Validity of Environmental Clearance -reg**

**[Online proposal No. IA/MP/CMIN/236778/2021; F No. J-11015/171/2003- IA.II(M)]**

**25.15.1** The proposal is for Extension of validity of Environmental Clearance to Expansion of Jhingurda Opencast Coal Project of 3 to 5 MTPA capacity in ML area of 1200 ha for M/s Northern Coalfields Limited located in Jhinguda, Tehsil Morwa, district Sidhi (Madhya Pradesh)

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

Earlier, the project was deliberated on 23<sup>rd</sup> EAC meeting held during 6<sup>th</sup> December, 2021 for grant of extension of Validity Environmental Clearance wherein EAC desired certain information from the PP and deferred the proposal. PP has now submitted the compliance of observation of EAC and provided additional information which are enlisted below:

S. No.	Observation of EAC	Reply by PP
1	PP shall submit third party audit report by independent Agency of EC condition dated 11.05.2005 and 12.02.2021	The field visit by ICFRE, Dehradun for third party audit of the EC conditions has been carried out in December, 2021 and report of the same will be submitted as soon as it is received. An undertaking regarding this is provided by PP.
2	PP shall provide the list of mine closure activities carried out by the PP as per the mine closure plan approved by the M/s NCL Board of Directors..	Status of Mine Closure activities carried out as per approved mine plan at Jhingurda OCP area as follow: A. Dismantling of Structure will be carried out at the time of final mine closure. Draft PR of bottom seam has been prepared and as per that PR, life of mine is approximately 10 years. B. Permanent fencing of Mine Void and other dangerous area Trenches and gabion walls have been provided along the periphery of mine voids. C. Grading of High Wall Slopes Grading of high wall benches is a part of regular mining operations and is being ensured. D. OB Dump Reclamation Handling/Dozing of OB dump and backfilling Technical and biological reclamation of external OB Dumps is being done on regular basis. Proper terracing & benching of OB Dumps are being ensured to maintain overall slope of 28° or less. E. Landscaping Landscaping of the open space in leasehold area for improving its aesthetics and eco value F. Plantation Plantation over cleared area obtained after dismantling Will be carried out at the time of final mine closure. Garland drain of appropriate size, gradient and length has been constructed for both mine pit and for waste dump.
3	The justification of the readings of the two piezometer installed as shown must also be provided	There are two piezometers in Jhingurda OCP, one shallow and one deep piezometer which were installed in the year 2016. Monitoring of water level of piezometers started in May' 2016 Ground Water Trend Analysis: Water level trend analysis has been done for both the piezometers. Water level in both the piezometers

		shows very less fluctuation and normal water level trend. The water level trend is neither decreasing nor increasing in nature. Impact: The impact of mining on groundwater system is limited to few hundred meters from the periphery of the quarry area. There are no villages/habitation inside the radius of influence. Jhingurdah mine falls in Chitrangi block of Singrauli district which is under safe category as per CGWB resource assessment in 2020. The stage of groundwater development of Chitrangi block and Singrauli district is 21.7% and 38.27% respectively. The water balance study shows that there will be surplus ground water resources after considering the recharge of 10 km radius area and total discharge from mining, industrial and other usage.																													
4	PP shall apply for star rating (If not yet applied) and should provide the details of its result.	The Jhingurda had received 4 star rating for the session 2018-2019 as per annexure B of MoC vide F.No. CCSD-51013/9/2018-CCSD dated 2 <sup>nd</sup> February, 2021																													
5	PP also to furnish the annual average value of air quality as per the readings of the CAAQMS installed at site of last five years	CAAQMS has been installed and commissioned in Jhingurda OCP on 28.05.2019 <table><tr><th rowspan="2">Year</th><th colspan="5">Parameters –Annual Average</th></tr><tr><th>PM 10 (µg/m3 )</th><th>PM 2.5 (µg/m3 )</th><th>NOX (µg/m3 )</th><th>SO2 (µg/m3 )</th><th>CO (mg/m3 )</th></tr><tr><td>2018-19 (from 28.05.19)</td><td>102.32</td><td>36.61</td><td>35.00</td><td>33.18</td><td>0.75</td></tr><tr><td>2019-20</td><td>93.40</td><td>32.97</td><td>26.77</td><td>27.09</td><td>0.55</td></tr><tr><td>2020-21 (till 30.11.21)</td><td>108.37</td><td>50.73</td><td>34.34</td><td>27.13</td><td>0.51</td></tr></table>	Year	Parameters –Annual Average					PM 10 (µg/m3 )	PM 2.5 (µg/m3 )	NOX (µg/m3 )	SO2 (µg/m3 )	CO (mg/m3 )	2018-19 (from 28.05.19)	102.32	36.61	35.00	33.18	0.75	2019-20	93.40	32.97	26.77	27.09	0.55	2020-21 (till 30.11.21)	108.37	50.73	34.34	27.13	0.51
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6	PP shall provide the appropriate explanation of condition No. (vi) regarding the CER (1.5 times of the total project cost) of the project and list of activity as committed made during public consultation instead of EMP measures.	In accordance with the Project Report prepared for Jhingurda Expansion OCP in Aug’2002, the total capital expenditure of the Jhingurda Opencast Mine is Rs 211.92 Crores, which includes Rs 106.10 Cr initial capital and Rs 105.82 Cr replacement capital. As per OM dated 01.05.2018 on CER / commitment made during public hearing, the fund required to be allocated for fulfillment of condition No. 4(vi) of the EC revalidation letter No. J11015/171/2003-IA.II(M) dated 12.02.2021 comes out to be Rs 1.58 Cr (Considering capital investment of Rs 105.82 Cr as mentioned above). Following activities have been identified (to be carried out in FY 2022-23)																													

S.No	Name of Work	Estimated Cost (in Rs Lakhs)
1	Widening and Resurfacing of existing Road in R&R site of Jhingurda i.e. Chandrapur Village	40.0
2	Renovation of Govt. Primary School in Chandrapur Village by provision of Drinking water facility, upgradation of toilet, upgradation of existing classrooms, heightening of Boundary Wall and provision of platform & shed for cultural program & dining etc.	40.0
3	Smart Classroom for Govt. Primary School, Chandrapur Village and Govt. High School, Churki Village.	4.0
4	Renovation of Govt. High School in Churki Village by provision of Drinking water facility, upgradation of toilet, upgradation of existing classrooms, construction of Boundary Wall and provision of platform & shed for cultural program & dining etc.	80.0
	<b>Total in Lakhs</b>	<b>164.0</b>

Following activities are being taken up for improvement of Environment in the adjoining villages in the current financial Year (FY 2021-22)

S. No	Name of Work	Value of work (in Rs Lakhs)	Status
1	Construction of 2 Nos. of Check Dams & Chath Ghat on the	25.89	Work in progress and will be completed in FY 2021-22

			banks of Chatka Nalla		as per work order.	
		2	Construction of CC Road from Bhusamore to Budhi Mai Mandir via Ambedkar School (4.7 Kms)	180.22	Work will be completed by May, 2022 as per work order	

**25.15.4** The EAC, after deliberations observed that instant proposal is for extension in validity of EC and observed the earlier compliance of points raised. The mine closure activity, in some deficiency area as proposed by PP as per mine plan should be followed properly. EAC also recommended mandatorily that 748 Ha of the forest area is to be reclaimed and returned to the concerned forest department. There are about ~250 ha which have to be reclaimed and plantation is required. EAC desired, PP shall only plant Sal tress in this whole area and develop 10 ha of sal trees nursery.

The project lies in Severely Polluted Area (SPA) of Singrauli District wherein pollution level is high due to presence of various coal mines, thermal power plants and other sources. It was also found by the PP that the annual average value of CAAQMS seems is on higher side while comparing with the NAAQS value. EAC asked PP to take proper mitigation measures as the value was found high in colliery guest house also, PP informed that 2 fog cannon and one fixed water sprinkler has been proposed. It was advised that recommendation of third party audit on existing EC shall be complied within 6 months. Finding weak compliance status EAC was of the view to permit the 2 year extension, meanwhile PP to adhere with all non-compliance of existing EC.

Further, based on documents and facts submitted by PP, EAC **recommended** the extension of validity of Environmental Clearance to Jhingurda Opencast Coal Project of 3 to 5 MTPA capacity in ML area of 1200 ha for M/s Northern Coalfields Limited located in Jhinguda, Tehsil Morwa, district Sidhi (Madhya Pradesh) for a period of 2 years, under the provisions of EIA Notification, 2006 and its amendments therein with following specific condition for environmental safeguards:

- (i) PP shall submit the compliance of all the EC conditions vide No. J-11015/171/2003-IA.II(M) dated 11.05.2005 and 12.02.2021 certified by Ministry's IRO for further extension in validity of EC.
- (ii) PP to submit the third party audit report by ICFRE, Dehradun w.r.t EC conditions by March, 2022 and submit the report to IRO by May 2022.

- (iii) PP to complete the activities as per proposed the CSR budget for year 2021-22 for an amount of Rs 208.11 lakhs.
- (iv) PP shall widen and resurface of existing road (Rs. 40 lakhs), renovation of Govt. Primary School, provision of drinking water, upgradation of toilet, class rooms, heightening boundary wall, platform & shed for cultural program etc. (Rs. 40 lakhs) of Chandrapur village and Smart Class for Govt. Primary School of Chandrapur and Churki village (Rs. 4 lakhs) and Renovation of Govt. High School in Churki Village by provision of Drinking water facility, upgradation of toilet, upgradation of existing classrooms, construction of Boundary Wall and provision of platform & shed for cultural program & dining (Rs. 80 Lakhs)
- (v) Construction of 2 Nos. of Check Dams & Chath Ghat on the banks of Chatka Nalla and Construction of CC Road from Bhusamore to Budhi Mai Mandir via Ambedkar School (4.7 Kms) (Rs. 180.22 Lakhs) shall be completed by May, 2022
- (vi) PP shall plant only Sal trees on 250 ha area (already existing and proposed to be biologically reclaimed) and develop 5 ha of Sal tree nursery (within in two year).
- (vii) PP also to provide drinking water facilities like installation of RO with proper water supply pipe fittings to nearby rural areas and also to install hand pumps by seeking consent from panchayat of the villages located within the study area of 10 km radius buffer zone within two years
- (viii) PP to install solar lights within 1 year from the grant of this letter 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
- (ix) PP to provide bio toilets to the villages located within the study areas within 1 year from the grant of this EC
- (x) PP shall install fixed fog cannon (mist spayer) all along the haul road till CHP, Railway siding and OB Dump area and accordingly sufficient number of fog cannons (not less than 10 nos.) with 40 mts jet length shall be installed within 6 months. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB
- (xi) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (xii) 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.
- (xiii) 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*

- (xiv) *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.*
- (xv) *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. 25.16**

**Expansion of Makardhokra- I OC mine (Phase-I) for increase of production capacity from 2 MTPA to 3.50 MTPA of M/s Western Coalfields Limited in mine lease area of 614.69 ha located near Tehsil Umrer, District Nagpur (Maharashtra)- For Amendment in Environmental Clearance- reg.**

**[Online proposal No. IA/MH/CMIN/250943/2022; F No. J-11015/54/2006-IA.II (M)]**

**25.16.1** The proposal is for amendment in Environmental Clearance to Expansion of Makardhokra- I OC mine (Phase-I) from 2 MTPA to 3.50 MTPA of M/s Western Coalfields Limited in mine lease area of 614.69 ha located near Tehsil Umrer, District Nagpur (Maharashtra).

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

- i. Environmental Clearance was granted to the project, which was obtained under EIA Notification, 2006 vide Ministry's letter No. J-11015/54/2006-IA-II (M) dated 20/05/2021.
- ii. PP has requested for amendment in EC conditions in the above mentioned EC in compliance of the directives of EAC in its 24<sup>th</sup> meeting held on 30.12.2021 while deliberating on the application of enhancement of capacity of Makardhokra I OC from 3.50 MTPA to 4.90 MTPA as detailed below:

Condition No.	Description as per Approved ToR	Description as per Proposal
(vii)	PP to plant 1,00,000 nos. of Sal tress and 10 ha Sal Tree nursery	Condition may be revisited for deletion of

		the condition
(viii)	Mining plan should be carried out with surface miner for the project and silo loading till railway siding through in pit conveyor should be avoid to installed to avoid the road	Amendment of this part of the condition

- iii. Also, IRO Nagpur vide its letter dated 5<sup>th</sup> November, 2021 has informed regarding condition (vii) that the Sal species distribution is not in Maharashtra and more particularly in Nagpur District. Raising/ planting Sal will not be suitable in this area and the very purpose of reclamation/ stabilization of OB dumps will be defeated if suitable indigenous species are not planted.
- iv. M/s WCL has signed MoU with Madhya Pradesh Rajya Van Vikas Nigam has signed on 13.10.2020 for plantation of works of 5 years from 2021-2024 for WCL mines in Maharashtra State. In line with MoU, requisition has been made to MPRVVN for plantation of 50,000 sal trees in 2022-23 and remaining 50,000 sal trees in 2023-24 and for preparation of Sal tree nursery.
- v. The proposed area of Expansion of Makardhokra-I OC mine is traversed by 10 faults. Considering the production from multiple seams having average seam thickness ranging from 1.18m to 4.69 m and number of faults encountering in the property, Shovel Dumper System of mining was proposed in approved PR of Makardhokra-I OC mine. Accordingly, the existing mine is being worked by Shovel Dumper method of mining through out-sourcing agency. In addition to the above geo-technical constraints, surface miner introduction would lead to eliminating Drilling, Blasting and Crushing activities for coal only. Drilling and blasting for OB benches and parting will still have to be carried out.

**25.16.3** *The EAC, after detailed deliberations observed that current proposal of EC amendment has been submitted once PP unable to comply the condition and on insistence by EAC otherwise, PP could have kept non-complying the EC condition. PP should be proactive enough to submit such proposal as soon as possible if the stipulated conditions cannot be implemented due to some technical and practical reasons. EAC desired that PP should be able to provide the alternate plan of plantation while seeking the amendment for condition no. vii. EAC asked to submit time bound action plan with budgetary provision for planation of the native species selected by the PP and consultant instead of Sal trees.*

*In view of above, EAC finally recommended the amendment in EC by replacing the conditions to Expansion of Makardhokra- I OC mine (Phase-I from 2 MTPA to 3.50 MTPA of M/s Western Coalfields Limited in mine lease area of 614.69 ha located near Tehsil Umrer, District Nagpur (Maharashtra) under the provisions of EIA Notification, 2006 and its amendments therein. All other*

conditions stipulated in EC. J-11015/54/2006-IA-II (M) dated 20/05/2021 shall remain unchanged with following revision in specific conditions (vii) and (viii) to be followed:

- PP shall construct pucca/concrete haul road within the mine lease with proper widening and adequate plantations, up till receiving at in pit.
- PP must follow all the mitigative measure to avoid dust pollution.
- PP to plant 150,000 nos of only fruit bearing native trees and develop a nursery of native and fruit bearing trees (of 10 ha) for free distribution in nearby areas other than the Thick green belt of adequate 50 mts width at the final boundary within 2 years
- PP shall implement tree plantation along the transportation route in the down wind direction of the project site. A proper mechanism to be put in place for massive plantation by hiring agency in 2 years for proper survival of trees instead of depending on other Government Agencies.
- PP shall carry the mining through shovel-dumper as per the approved mine plan with all dust control measures.

#### **Agenda No. 25.17**

**Expansion of Makardhokra- I OC mine (Phase-I) for increase of production capacity from 3.50 MTPA to 4.90 MTPA in land area of 614.69 ha of M/s Western Coalfields Limited located near village Shirpur, Tehsil Umrer, District Nagpur (Maharashtra)- For reconsideration of Environmental Clearance - under MoEF&CC O.M. dated 15.09.2017 (1<sup>st</sup> Stage)**

**[Online proposal No. IA/MH/CMIN/240491/2021; F No. J-11015/54/2006-IA.II(M)]**

**25.17.1** The proposal is for Environment Clearance of Expansion of Makardhokra- I OC mine (Phase-I) for increase of production capacity from 3.50 MTPA to 4.90 MTPA in land area of 614.69 ha of M/s Western Coalfields Limited located near village Shirpur, Tehsil Umrer, District Nagpur (Maharashtra)

**25.17.2** The EAC during deliberations noted the followings:

Earlier the proposal was considered by EAC in its 24<sup>th</sup> EAC meeting held on 30<sup>th</sup> December, 2021 and was deferred for want of additional information. The reply to the ADS was submitted by the PP on date 12.01.2022. PP has submitted the Compliance of the ADS raised by the EAC in 24<sup>th</sup> EAC meeting held on 30.12.2021 is detailed as below:

Sr. No.	ADS	Compliance

1	PP must apply for amendment if not able to fulfil any condition with justification like as the EC condition No. viii of EC vide letter no J-11015/54/2006-IA. II (M) dated 20.05.2021 wrt to deployment of surface miner and transportation silo loading till railway siding through in pit conveyor belt is neither complied by PP nor amendment regarding it is filed	As directed, application for amendment in EC condition (Specific condition vii, viii) pertaining to Expansion of Makardhokra I OC mine (Phase-I) for production capacity of 3.50 MTPA in ML area of 614.69 ha located in Umred tehsil, Nagpur district, Maharashtra, has been submitted to MOEF & CC vide application no. IA/MH/CMIN/ 25943/2022 dated 11.01.2022.
2	Justification regarding the commencement of coal transportation by belt conveyor and railway siding located at Dinesh OC after 2024-25 once the life of Makardhokra – I Mine which is estimated to be 3 years.	<p>The life of Makardhokra I OC (Phase-I) as per the proposed enhancement in capacity i.e. 4.90 MTPA is 03 years. It may kindly be noted here that this life is for Phase-I Only.</p> <p>As per the approved Mining plan of enhancement in capacity upto 4.90 MTPA (Phase – I &amp; II), the life of phase-II is 02 years @4.90 MTPA. In addition to the above, there is coal locked below the railway line (which will get dismantled after exhaustion of Umrer OC &amp; installation of belt conveyor system for coal transportation from Makardhokra – I OC) and coal locked in pillars in the erstwhile underground mine amounting to about 23 Mt which will also be extracted through Makardhokra – I OC only for which a Revised Project Report dovetailing the belt conveyor system will be prepared in 2022-23.</p> <p>Thus if the enhancement of capacity upto 4.90 MTPA is agreed upon, the mine will have life of 8-9 years and as such, the inclusion of belt conveyor system is justified</p>
3	PP to comply all the non-compliances and partially complied EC conditions	<p>PP has requested for amendment in EC conditions for two non-compliance conditions i.e. deletion of planation of Sal trees and developing the nursery and deployment of surface miner for mining activity. Justification was provided in details during amendment in EC proposal.</p> <p>Plantation along boundary has been started with 12000 nos. of saplings planted during Monsoon of</p>

		<p>2021 along 1600 m of length (total length being 3300 m) and average width of 20 m.</p> <p>. Plantation along the remaining stretch of 1700 m, will be taken up in monsoon of 2022 &amp; 2023 with plantation of 34000 nos. of saplings with an average width of 50 m.</p> <p>Year-wise Summary of Development of Green Belt / Plantation Program along with budget was submitted.</p> <p>WCL has already entered into a long term MOU with Madhya Pradesh Rajya Van Vikas Nigam (MPRVVN), a State level Expert Agency for planation in its Mining areas with four years maintenance after each year of plantation</p> <p>10 nos. long ranging Fog Canon system have been installed to reduce the impact of air pollution on haul road, OB dump, mining areas, CHP and railway siding as per EC condition no. (x) as on 17.01.2022.</p>
4	<p>PP to take need base survey of the study area regarding the issue raised in public hearing and must come out with practical approach to fulfil the demands of the public.</p>	<p>Various issues raised during Public Hearing conducted for the subject project are comprised of two heads viz. Generic issues which were raised and are being complied with as day to day/ routine activities in mine. Specific issues related to specific activities to be undertaken in particular village are dealt accordingly.</p> <p>Regarding, need base survey of the study area following is submitted: -</p> <p>There is a structured System in place which takes care of the needs of the local populace and the same is detailed out as below: -</p> <p>In order to address the issues of villagers / local populace regular visits are being carried out at various Gram Panchyats and surrounding villages by Umrer Area Team headed by General Manager (Operation) accompanied by officers from Civil Deptt, Personnel Deptt., Land and Revenue Deptt as well as Area Hospital.</p> <p>The needful works for resolving the issues raised during aforementioned visits are assigned to</p>

		<p>respective departments and subsequently resolved by the concerned department of the Area.</p> <p>In addition to this, regular meeting (once in two months - average) are arranged at office of Area General Manager, Umrer Area under the chairmanship of local MLA along with representatives of the local gram Panchayats wherein the Area General Manager along with his team also remain present</p>
5	PP must apply for star rating as per the guidelines of MoC wherein environmental concerns have been given high weightage and must furnish the rating points obtained before EAC	As per Ministry of Coal's letter dated 06.04.2021, Star rating performance for FY 2019-20 has been applied and had achieved the 3 star as per the performance report card
6	PP shall deposit an amount of Rs. 14 lakhs for conservation plan for Schedule I species i.e. Indian Monitor Lizard which prepared for earlier expansion to state forest/wildlife department	In this regard, it is submitted that, the amount of Rs 14.0 lakhs for Conservation of Schedule I species is to be deposited to State Forest Department. The demand notice yet to be received from State Forest Department. The amount as per the demand note will be deposited to state Govt. without fail
7	Predicted Air quality to be carried out after achieving around 3 MTPA out of current sanctioned production of 3.50 MTPA	<p>Makardhokra – I Expansion OC has been granted Environmental clearance for 3.50 MTPA on 20.05.2021. Project has achieved production level of 3.00 MT in December 2021 on 20.12.2021.</p> <p>Air quality impact prediction exercise has been carried out for proposed capacity of 4.90 MTPA w.r.t current sanctioned production of 3.50 MTPA by modeling.</p> <p>It can be seen that resultant pollutant levels at the proposed peak capacity of 4.90 MTPA are well within the permissible limit.</p>
8	PP shall submit compliance to activities being done with respect to progressive mine closure as per already approved mine closure plan as part of approved mine plan	The Mine Closure Plan (included in PR of Makardhokra I OC) was approved by WCL Board on 27.09.2014 and revised Mine Closure Plans on 01.08.2019 & 02.11.2021. Around 6961.16 lakhs Rs is the estimated cost of mine closure plan

9	PP shall submit the plan of action for compliance of issues raised during public hearing with remaining work to be completed	<p>The action plan was submitted by the PP. Various issues raised during Public Hearing are comprised of two heads as follows:</p> <ul style="list-style-type: none"> <li>a) Generic issues which were raised and are being complied with as day to day/ routine activities in mine.</li> <li>b) Specific issues related to specific activities to be undertaken in particular village.</li> </ul>
10	PP shall submit plan of action (year wise and with budget) for plantation of 50 mts width final boundary, alternate road from Hewati to Makardhokra and other plantation at OB Dump	<p>Regarding Plantation at final boundary: Development of Green Belt along boundary has been started with 12000 nos of saplings planted during Monsoon of 2021 along 1600 m of length and average width of 20 m. As directed, this green belt will further strengthen making average width of 50 m by planation of 20000 saplings in Monsoon of 2022.</p> <p>Ad addition to the above, plantation along stretch of 1700 m, will be taken up in monsoon of 2022 &amp; 2023 with plantation of 34000 nos of saplings with an average width of 50 m</p> <p>Regarding Plantation at OB dump: 30,000 nos of plants were planted on 12.10 ha of external OB dump in FY 2016-17. Further plantation on OB dump finalised in the FY 2022-23 will be done in Monsoon of 2023.</p>
11	PP shall submit plan of action with time and budget for implementing 10 long range fog cannon system	<p>As on date, it is mentioned here that, 19 nos. of trolley mounted 100m throw fog cannon (including 1 no. for Umrer Area) have already been ordered in WCL through centralized procurement in GEM portal. Out of that, 7 nos. have already arrived at respective sites and 06 nos. are expected by this weekend i.e. 15/01/2022. As such, for complying with the EC (dated 20/05/2021) condition of Makardhokra – I OC (for 10 nos. of fog cannons), after due approval of Competent Authority, in – house depot transfer has been made for 9 nos. of fog cannons. Accordingly, 05 nos. of trolley mounted Fog cannons are commissioned on 11.01.2022. Remaining 05 nos. of trolley mounted Fog cannon are expected to be commissioned within a week.</p>

**25.17.3** *The EAC, after deliberations observed that M/s WCL has again submitted the proposal in short duration. Regarding technical problem of not deploying surface miner for mining due to thinner seams and number of seams is understandable however, PP is to justify further with alternate options as it has to eliminate the process of drilling, blasting of coal seams and crusher/sizing, that causing dust emission and intent of Ministry's OM dated 15.09.2017 is to reduce the dust emission with mechanized system. The committee took a note of PP's submission on transportation of coal by road till Umrer Railway, and not carrying through conveyor and silo loading. PP informed that by 2024-25, it is proposed that coal from Makardhokra-I Phase II Expansion OC will be transported through a belt conveyor system from pithead to a new railway siding with CHP & Silo arrangement located within Dinesh OC leasehold boundary which is adjacent to Makardhokra - I OC. In this regard, EAC suggested to make strict timelines for implementation of railway siding for this project.*

*Also, as informed by PP, mine was commenced in 2014 and currently only 30,000 plantations have been carried over and now at the verge of closure of mine in three years, PP is proposing tree plantation to justify the instant expansion proposal. PP should have been proactive towards compliance of EC conditions. it was observed that non-compliances like plantation on OB dump and route of Hewati to Markadhokra, it was found that PP is proposing plantation in 2023 and 2024 and as of current situation only 30,000 plantations was done over OB dump.*

*In view of above lines, EAC **deferred** the proposal on the following points.*

- (i) PP shall submit alternate options regarding advance technology of mining methods instead of surface miner*
- (ii) PP shall submit action plan for peripheral tree plantation of 50 mts width and other plantation (as activity of Mine closure plan) with allocated budget and timeline.*
- (iii) PP shall submit action plan for implementation of in-pit conveyor system with silo loading facility at nearest railway siding with strict timeline for this project and allocated budget.*

#### **Agenda No. 25.18**

**Increase of area of railway siding from 11.5 ha to 20 Ha towards the forest area located 4 km from West Bokaro Mine, Jharkhand by M/s Tata Iron & Steel Limited (M/s Tata Steel Limited) – Regarding clarification on applicability of EIA, Notification, 2006**

**25.18.1** IRO, Ranchi, MoEF&CC has sought Clarification on applicability of EIA, Notification, 2006 on requirement of Environmental Clearance for expansion of Tata steel railway siding from 11.5 ha to 20 Ha (for 9.886 ha) located at forest area located 4 km from West Bokaro Mine, Jharkhand

**25.18.2** The EAC during deliberations noted the following: -

- i. The Tata steel railway siding is located 4 km away from West Bokaro mine and is operating individually by seeking CTO since 2003-2004 for railway siding.

- ii. PP want to expand the area of coal stock yard and increase of railway siding from 11.5 ha to 20 ha which will fall in forest land.
- iii. M/s Tata Iron & Steel Limited (M/s Tata Steel Limited) has obtained the EC vide no. No. J-11015/108/2006-IA.II(M) on 17<sup>th</sup> May 2007 for West Bokaro Open Cast Coal mine project of 4.7 MTPA to 7.00 located, in villages Bharagutu, Tehsil Ghatotand, District Hazaribagh, Jharkhand.
- iv. The clarification is being sought on applicability of EIA, Notification 2006 while applying for FC for diversion of forest land of about 9.886 ha that whether a EC is required for such expansion

**25.18.3** *The EAC, after deliberations noted that the land parcel, which is being requested for clarification, is separately located at distance of 4 km, quite away from the mine lease area. PP has also obtained EC for the operation of West Bokaro mine for capacity of 7MTPA, it is inferred that this land parcel is only for storage of coal yard taking coal from mine lease area and this coal is to be transported through railway siding. Hence, this activity on piece of land does not attract the provision of EIA, Notification, 2006 for grant of EC. Since, this land is receiving coal from the West Bokaro mine on which EC has been granted, this EC, therefore, requires additional condition of coal transportation with environment safeguard. Existing EC of West Bokaro Mine, therefore, requires the inclusion of existing Railway siding, if it does not mention. PP requested EAC to exempt the site from requirement of such EC amendment but EAC enquired whether there is a reference of this area in the EC of West Bokaro Mine. PP was not able to clarify so EAC finally opined that in view of likely impact of coal yard due coal storage and transportation point of view, West Bokaro Mines must seek amendment of existing EC by apply through the PARIVESH Portal. The clarification, therefore no requirement of EC of storage land is recommended subject to fulfillment of taking amendment in existing EC.*

**Site Visit report in reference of proposal of Terms of Reference to Expansion of Gevra Opencast Coal Mine, from 49 MTPA to 70 MTPA with increase of mine in lease area from 4184.486 Ha to 4781.798 Ha of M/s South Eastern Coalfields Limited located in Tehsil Katghora, District Korba (Chhattisgarh) – reg**

## **Background of the project**

### **Details of Environment Clearance**

- Environmental Clearance of Gevra opencast was accorded by the Ministry on 03.06.2009 for expansion from 25 MTPA to 35 MTPA and in leasehold area of 4184.486 ha, under the provisions of the EIA Notification, 2006 with public hearing. Public hearing was held on 22.08.2008
- The project was accorded Environmental Clearance vide letter no. J-11015/85/2010-IA.II (M) dated 31.01.2014 for expansion from 35 MTPA to 40 MTPA under clause 7(ii) of EIA

Notification, 2006 and subsequent OM J-11015/30/2004.IA.II(M) dated 19.12.2012.

- The project was further accorded amendment in the EC vide letter No. J-11015/85/2010-IA.II (M) dated 06.02.2015 for incremental difference in the production capacity from 40 MTPA to 41 MTPA in accordance to OM J-11015/30/2004.IA.II (M) dated 2.9.2014.
- On the basis of OM no. J-11015/224/2015-IA.II (M) dated 15.09.2107; a fresh application was submitted by PP for expansion of Gevra Opencast coalmine project from 41 MTPA to 49 MTPA without public hearing in mining lease area of 4184.486 ha vide his letter no. SECL/BSP/Envvt/Gevra OC\_49/17/6772 dated 20.10.2017.
- The project was accorded EC for production capacity from 41 MTPA to 45 MTPA in an area of 4184.486 ha vide File no. J-11015/85/2010-IA.II (M)pt Dated: 21.02.2018 with validity upto 31.03.2019. As per approved EC of 45 MTPA, para no 4(i), the continuance of the project thereafter at the increased capacity shall be based on the evaluation of the proposed control measures and its impact on the ambient air quality by the EAC in later half of the FY 2018-19.
- Ministry vide J-11015/85/2010-IA.II(M) dated 10<sup>th</sup> May 2021 granted expansion from 45 MTPA to 49 MTPA in mine lease area of 4184.486 ha. in district Korba CG- Environment Clearance under clause 7 (ii) (under Ministry OM dated 15th Sept 2017) of EIA Notification, 2006

#### Details of Forest Clearance/land

- (i) 1110.705 ha of forest land has been reported to be involved in the project. The status of diversion of forest land for non - forestry purposes is as under:-

Area (in ha)	Stage-1 /Final FC issued vide letter no. and date	Validity period of FC
100.898	vide MoEF Clearance F no.8-33/2005-FC dated 05.05.2008	Co-terminus with the mining lease or 20 years
46.198	vide MoEF Clearance F no.8-81/ 2006-FC dated 20-04-2015	Co-terminus with the mining lease
192.046	vide MoEF Clearance F no.8-77/2006 – FC, dated 20-04-2015	Co-terminus with the mining lease
564.885	vide MoEF Clearance F no.8-79/2006 – FC, dtaed 20-04-2015	Co-terminus with the mining lease
112.385	vide MoEF&CC Clearance F.No. 8-41/2017-FC dated 27.09.2017.	Co-terminus with the mining lease
1016.412	Total forest land for which Stage-1 Forestry Clearance obtained	

Proposal for Stage-1 FC for 94.293Ha of additional Forest land has been applied vide no. FP/CG/MIN/41389/2019.

#### Site visit details

The proposal is of Terms of reference of Expansion of Gevra Opencast Coal Mine from 49 MTPA to 70 MTPA with increase of mine in lease area from 4184.486 Ha to 4781.798 Ha submitted by Project Proponent. The EAC after deliberation observed that PP should comply with previous EC conditions on priority and obtain Consent to Establish/Operate from concerned Pollution Control Board. Further, it was also noted that there is public representation against the project wherein it has been stated that various court cases regarding R & R, commitment of employment by PP, adequate compensation for procurement of land, effect on nearby rivers and streams, impact of blasting activity etc. EAC desired that it would be appropriate to conduct site visit by EAC subcommittee before grant of any expansion proposal in the area.

In compliance of observation of sectoral Expert Appraisal Committee in its 18<sup>th</sup> meeting held on 2<sup>nd</sup> September, 2021 to conduct site visit by EAC subcommittee before grant of any expansion proposal in the area. EAC constituted subcommittee as discussed during the meeting were; Chairman (EAC), Shri, N P Shukla (Member), Shri S. Vora (member), Prof. S S Rai and representative of MoEF&CC.

Based on observation of EAC, Ministry constituted a sub-committee comprising of following members which would carry out site inspection to assess the effect on nearby rivers and streams, impact of blasting activity, compliance of EC condition, feasibility of evacuation of extracted coal etc.

- |      |  |                             |
|------|--|-----------------------------|
| i.   | Shri G. P Kundargi                     | - Chairman                  |
| ii.  | Shri N. P. Shukla                      | - Member                    |
| iii. | Prof. S. S. Rai                        | - Member                    |
| iv.  | Shri Lalit Bokolia, Director, MoEF&CC  | - Representative of MoEF&CC |
| v.   | Munna Kumar Shah, Scientist D, MoEF&CC | - Representative of MoEF&CC |

3. Accordingly, the Sub-committee carried out site visit on 5<sup>th</sup> October, 2021.

### **Observations the sub-committee**

- At the time of visit, the committee spotted mining activity was carried out by surface miner and OB removal by shovel and dumper method. Usage of surface miner instead of conventional drilling, blastings, shovel and dumper method remove Coal Handling Plant (i.e crushing, grinding and sieving) which is one of major source of emission of fugitive dust. One sample blasting on overburden was carried out and committee observed that mechanism to be developed to reduce fugitive dust emission during the blasting activity. Transportation of coal on haul road with proper sprinkling of water on it, however it can be implied that during dry time due to transportation on haul road, fugitive emission is likely to be generated which impart deterioration ambient air quality.
- Coal cutting by surface miner with continuous water spraying was observed to be one of finest method in terms of reduction of fugitive dust. The committee emphasised that PP should undertake study on, fuel/energy consumption vis-à-vis CO<sub>2</sub> emission with respect to mining method of shovel dumper in combination with Surface miner methods.
- Transportation of coal from operational site to conveyor system was being done during the time

of visit on 25-30 ton dumpers and its sprinkler system at unloading location in hopper of conveyor system was operational and adequate. Further improvement to provide enclosures along the hopper is required to reduce the fugitive dust. Overburden was being transported through one of 250 Tonne dumper and other 100 tonne. It was suggested the in order to reduce the fleet size, large size dumpers for transportation of coal should also be used.

- Coal from Gevra mine was being evacuated from silo loading on rail wagons at its railway siding. Loading of coal from silo to wagons was observed during the visit. The system of transportation through silo loading is observed to be efficient in terms of reduction of dust and also energy efficiency by reducing multiple handling. Presently 04 nos. of Silos (1&2, 3&4) with rapid loading System for transportation of Coal through rail are in operation. Additional 02 nos. Silos (no. 5& 6 capacity 30MTY) with Rapid Load Out System (Capacity- 20 MTY) will be constructed under FMC project, which completely remove the coal transportation through road. Work Order has been issued in Oct 2020. Target timeline for completion is March 2023. The Work for erection of wind shield/breaker arrangement for an amount of 186 lakhs along the railway siding no. 4 & 5 has been completed. The length of wind barrier is 1.5 KM & the height is taken as 6 meters from top of pedestal which is 0.5 meters above FGL (Finished Ground Level).
- Committee observed that there is various location on OB dump where plantation has not been carried out and urgently required plantation to reduce dust emission as per the conditions wherein active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles
- PP has installed on Continuous Ambient Air Quality Station for monitoring of ambient air quality and during the time of site visit, it was found to be operational with requisite data on the screen.
- Sal Nursery developed by M/s SECL is one of the kind of facility and has to be motivated and implemented by other coal mine companies. Proposed 10 ha sal nursery as per EC conditions should also be expedited.
- As per standard EC conditions for Measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented. It was submitted that work of riverine/riparian ecosystem conservation and management plan is proposed through CSIR NEERI on Dt: 09.08.2021. Offer has been requested from NEERI on 09.09.2021. TCR under preparation. Work order likely to be issued by Oct 2021. Comprehensive Catchment area treatment plan within 5 KM from Mine Lease Boundary was awarded to Chhattisgarh Council of Science & Technology, Govt. of CG, Raipur vide no. 259 Dt: 23.03.2018 (Rs. 12 Lakh). Final report submitted on 17.03.2020. The work will be implemented through State Forest Dept. Final Report submitted to DFO on 15.07.2020. Estimate for an amount of Rs. 84.48 Lakhs for structural work submitted on 03.09.2020. Similarly, Wildlife conservation plan has been submitted by PP however recommendation of its still not being implemented. Proposal for

Development of 10 ha Sal Nursery is being prepared by Chhattishgarh Rajya Van Vikas Nigam (CGRVVN)

- In view of above para, Subcommittee suggested to PP merely submitting the allocated money for catchment area treatment, plantation, Wildlife conservation plan, 10 ha Sal nursery and riverine/riparine ecosystem conservation and management to concerned forest department is not adequate response since the compliance of recommendation of reports and EC conditions is the domain and responsibility of PP. Regular needs follow up and engagements with District forest officials should be done and matter should be raised up to higher authority in case of failure even after submission of allotted fund. It should be complied by PP if state forest department is not able to complete the recommendation. PP may engage third party for speedy compliance of all the recommendation and EC conditions instead to engaging Forest Department.
- Sal Nursery of 25000 saplings near Water Treatment Plant of Gevra has been established through Chhattishgarh Rajya Van Vikas Nigam (CGRVVN) (Rs. 1006500/-). PP has identified 10 Ha. site has been identified for Nursery and the proposal under preparation at CGRVVN. This needs to be expedited.
- From the submission of PP, it was observed that Bioassay test of Hasdeo river has not been done yet though as it was to be done half yearly. It was observed PP being Public Sector gets involved in the procedure of its tendering and bidding instead of focussing on compliance of conditions.
- Presently the R&R work is under progress as per laid down norms of CIL. The R & R details are as under:
  - Employment given till date: 2867 ; Balance : 843
  - PAFs: 3376; At Rehabilitation Site: 840; Cash Grant 872 ; Balance: 1209 ; Not Eligible: 455
- Earlier, No Objection Certificate for 11487 m<sup>3</sup>/day withdrawal of ground water was obtained vide NOC no. CGWA/NOC/MIN/ORIG/2018/4474 Dt: 22.01.2019, from Central ground water Authority, Ministry of water Resources Govt. of India. PP has submitted application for renewal of NOC has been made online (Application no. 21-4/630/CT/MIN/2017 Dt: 02.12.2020) and is awaited. Further, it was observed that application of CTE/CTO for 49 MTPA has been applied to CECB, Raipur, but no approval has so far been received. Also, PP had applied application for diversion of additional forest land of 94.293 ha in 2019 itself and presently at DFO Katghora since 22.03.2021.

Land Reclamation Status as on 01.04.2021 is as below:

Total Quarriable area	Void be left at closure	Total area excavated	Prorata area not required to be backfilled
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2037.250 Ha	659.250 Ha	1668.720 Ha	539.994 Ha
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Internal dump (ha)		External dump(ha)		Total technically Reclaimed area (ha)	Total biologically reclaimed area (ha)
Technically reclaimed area	Biologically reclaimed area	Technically reclaimed area	Biologically reclaimed area		
852.229	122.600	374.331	367.200	1226.560	489.800

The overburden material consists of different variety having rocks, boulders, sand, clay etc. It was observed that physical and strength analysis of OB should be conducted and accordingly sand segregation plant and aggregate plant (for big rocks and boulders) shall be explored to reduce the OB handling. This inturn will reduce the impact of sand mining and aggregate extraction for construction purpose.

### **Recommendation of the committee**

The EAC sub-committee found that PP needs to comply EC conditions in time bound manner and also to achieve the production level of existing EC. While increasing in production capacity, there is requirement of focusing more on compliance of earlier ECs conditions. PP committed that funds have been submitted to Forest Department and work orders has been issued for compliance. It was informed that compliance of conditions is the responsibility of Project Proponent and not of Forest Department and issuance of work order does not reduces impact on ground and accordingly it shall be complied within time bound manner. Mitigation measures proposed by PP during EC of 49 MTPA is not yet complied only work order has been given.

The sub-committee though recommended the proposal of ToR for the instant project of expansion from 49 MTPA to 70 MTPA keeping its reservation regarding compliances. Further, it was desired proposal of EC shall include stage-wise plan of mining activity/production/OB Generation (year-wise) vis-à-vis its impacts and mitigation measures and shall be considered only on compliance of the following additional specific ToR conditions along with standard conditions.

- (i) PP shall collect three months baseline data for preparation of EIA-EMP in commensurate with production capacity mentioned in existing EC.
- (ii) PP shall comply 90% of all EC conditions (EC dated 21<sup>st</sup> February, 2018, 4<sup>th</sup> June, 2020 and 10<sup>th</sup> May, 2021) before application for EC and accordingly it should be authenticated/certified in Certified compliance report by IRO's Statement
- (iii) PP shall obtain 5-star rating in terms of Environment Compliance from Ministry of Coal as per rating system implemented by Ministry of Coal

- (iv) PP shall display data of CAAQMS by online information/Display system at gate of Gevra OCP and link with company website and with Chhattisgarh Environment Conservation Board
- (v) PP shall carryout Cumulative Impact Assessment and Source Apportion study considering all the industries within 15 km of the area. Detailed source inventory of the area and its impact shall be studied.
- (vi) PP shall provide the details of Korba Action Plan of State Pollution Control Board and action taken by PP, since earlier it came under Critically Polluted Area as per CPCB's CEPI score
- (vii) Detailed report on comparison of diesel consumption and CO2 emission by using conventional shovel dumper method and surface miner cum shovel dumper (for OB) shall be prepared and submitted.
- (viii) PP shall provide enclosures with sprinkler system around the coal unloading facility in hopper of conveyor system.
- (ix) Haul road from mine operation site till conveyor system shall be provided with fog canon to reduce fugitive dust.
- (x) Operational OB dump should be provided with necessary pollution control facility for fugitive dust control and should not kept open.
- (xi) PP shall plant three tier green belt and with 10 mts height of wind barrier all along the railway siding.
- (xii) PP shall submit action plan with timeline for coal evacuation from silo loading through railway siding as such that it should be implemented within 3 years.
- (xiii) PP shall submit carrying capacity of the area from reputed institutes for its proposed production of 70 MTPA from Gevra and already present 60 MTPA from Kusmunda OCP and 35 MTPA of Dipka OCP (Including any proposed future expansion)
- (xiv) PP shall implement 90% of recommendation of report by BHU regarding ecosystem carrying capacity, Comprehensive catchment area treatment plan prepared by Chhattisgarh council of Science and Technology, Govt. of Chhattisgarh during the time of EC. The same shall be certified by Ministry's IRO.
- (xv) PP shall submit biological reclamation of external and internal OB interms of area with timeline. Also, PP shall reduce the void area of 659.240 ha by increasing the external OB dump (if any) any further and submit the plan of biological reclamation.
- (xvi) PP shall submit plan of R & R involved in the project, status of R&R already conducted with photographs and detailed Social Impact Assessment for proposed expansion project.
- (xvii) PP shall submit action plan for using and developing Renewable Energy for its consumption in its utilities/machinery/equipment's instead of using electricity from Grid/generated from Thermal Power Plants.
- (xviii) PP shall only use surface miner for 100% extraction of coal instead of conventional method of

drilling, blasting, shovel and dumper method

- (xix) PP shall conduct physical and strength analysis and accordingly propose to install Sand Segregation Plant within certain timeframe.
- (xx) PP shall submit three-dimensional (3D) Modelling of progress of mining activity (stage wise) vis-à-vis impact of extraction of ground water.

After the deliberation, the Expert appraisal committee accepts the recommendation of sub-committee and finally recommended the proposal for grant of TOR with additional above specific conditions along with Standard TOR condition already issued to project proponent.

**The meeting ended with thanks to the Chair.**

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**LIST OF PARTICIPANTS OF EAC (COAL) IN 25<sup>th</sup> MEETING OF HELD DURING 18 to 20 January, 2022 THROUGH VIDEO CONFERENCING**

1.	<b>Shri G.P Kundargi</b>	-	<b>Chairman</b>	<b>DAY</b> <b>P</b>
2.	Dr. N. P. Shukla	-	Member	P
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. Gowrappan ji	-	Member included by Chairman for one violation project	P
14.	Shri Lalit Bokolia, Director, MoEFCC	-	Member Secretary	P