

**GOVERNMENT OF INDIA**  
**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE**  
**(IMPACT ASSESSMENT DIVISION)**  
**(COAL MINING SECTOR)**

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**SUMMARY RECORD OF 52<sup>nd</sup> MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006, HELD ON 24<sup>th</sup> JANUARY, 2020.**

The 52<sup>nd</sup> meeting of the Expert Appraisal Committee (EAC) for Coal mining projects was held on 24<sup>th</sup> January, 2020 in the Ministry of Environment, Forest and Climate Change at Teesta Meeting Hall, Vayu Wing, First Floor, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi to consider the proposals relating to coal mining sector. The following members were present:

1.	Dr. Navin Chandra	-	Chairman
2.	Dr. N. P. Shukla	-	Member
3.	Shri. S. D. Vora	-	Member
4.	Shri N. Mohan Karnat	-	Member
5.	Dr. J.K. Pandey	-	Member
6.	Dr. S.K Gupta	-	Member
7.	Dr. R K. Giri	-	Member
8.	Dr. R.B. Lal, Scientist 'E', MoEFCC	-	Member Secretary
MoEF&CC			
9.	Shri Munna Kumar Shah, Scientist 'D'	-	MoEFCC

**Confirmation of Minutes of 51<sup>st</sup> meeting of EAC**

There being no comments from any of the members of the Committee, minutes of the 51<sup>st</sup> meeting of the EAC held on during 5<sup>th</sup> December, 2019 were confirmed in the presence of the members who had been present in the 51<sup>st</sup> meeting of EAC.

Details of the proposals considered during the meeting, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:-

After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

**Agenda No. 52.1**

**Basundhara (West) Extension OCP of 8.75 MTPA by M/s Mahanadi Coalfields Limited in a mine lease area of 323.92 ha (Total Project Area of 369.77 ha) located in village(s) Gopalpur (Part) and Ratansara in Tehsil Hemgir, District Sundergarh, Odisha – For Environmental Clearance – reg.**

**[Proposal No. IA/OR/CMIN/63468/2017; F.No. J-11015/26/2017-IA-II(M)]**

**52.1.1** The proposal is for environmental clearance for Basundhara (West) Extension Opencast Project of 8.75 MTPA capacity of M/s Mahanadi Coalfields Limited in mine lease area of 323.92 ha (Total Project Area of 369.77 Ha) located in village(s) Gopalpur (Telendih) and Ratansara in Tehsil Hemgir, District Sundergarh, Odisha.

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

- (i) The project area is covered under Survey of India Topo Sheet No 64 N/12 and is bounded by the geographical coordinates ranging from latitude 22°03'38.33" N to 22°04'40.65" N and longitudes 83°40'17.78" E to 83°42'22.16" E
- (ii) Joint Venture: There no Joint Venture
- (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) Coal Linkage: Thermal Power Plant & Basket Linkage
- (v) Employment generated I to be generated: Approximately 854 nos. of direct employment will be generated
- (vi) Benefits of the project:
  - a. Improvement in Physical Infrastructure
  - b. Improvement in Social Infrastructure
  - c. Increase in employment potential
  - d. Contribution to the Exchequer (both State and Central Govt.)
  - e. Post mining enhancement of Green Cover
  - f. Improvement of Electrical Power Generation & availability of electricity for 24x7 in rural areas
  - g. Overall economic growth of the country.
- (vii) The land usage of the project will be as follows:

(i) Pre-Mining:

SI. No.	Type of Land	Within ML area (ha)	Outside ML area (ha)	Total area (ha)
1	Agricultural/Tenancy	51.29	--	51.29
2	Waste land / Govt.land	45.01	45.85	90.86
3	Forest Land	227.62	--	227.62
4	Grazing	--	--	--
5	Surface water bodies	--	--	--
Total:		323.92	45.85	369.77

Sl.No.	Particulars	Forest	Non-Forest	Total
1	Excavation Area	207.30	92.57	299.87
2	Safety Zone	2.75	3.73	6.48
3	Infrastructure	17.57	--	17.57
4	External OB dumps	--	--	--
5	Mine Lease Area	227.62	96.30	323.92
6	Rehabilitation site	--	45.85	45.85
7	Outside lease area	--	45.85	45.85
	Total	227.62	142.15	369.77

(ii) Post-closure land use (Core zone)

SI. No	Land Use during Mining	Land Use (Ha)				
		Plantation	Water Body	Public Use	Undisturbed/ Dip side slope	Total (ha)
1	External OB Dump	Nil				
2	Top Soil Dump	Will be spread concurrently in the backfilled area				
3	Excavation	168.35	130.64	--	0.88	299.87
4	Built up area	17.57		--	--	17.57
5	Green Belt	6.48	--	--	--	6.48
	Mine lease Area	192.40	130.64	--	0.88	323.92
Note: Apart from above 9.17 Ha Plantation will be done at R&R site outside the lease area.						

- (viii) Total geological reserve is 101.06 MT. The mineable reserve 92.73 MT, extractable reserve is 92.73 MT with per cent of extraction as 91.75%.
- (ix) The coal grade is average G12 to G13. The stripping ratio is 1.05 cum/tonne. The average gradient is 3° to 8°. 6 seams with thickness ranging from 1.0 m – 15.0 m are workable.
- (x) Total estimated water requirement is 2010 m<sup>3</sup>/day. The level of ground water ranges from 2.56 mbgl to 6.27 mbgl.
- (xi) The method of mining would be Opencast by Shovel - Dumper/ Ripper-dozer in OB/ parting; Surface miner, pay loader & tipper in coal.
- (xii) There is no external OB dump and two internal dumps with Quantity of 97.22 Mcum in an area of 334.99 ha. To avoid external dumping, 7.66 MM<sup>3</sup> of OB generated during initial three years will be dumped on the partially filled voids of adjoining Basundhara (West) Expansion OCP.
- (xiii) The final mine void would be in 130.64 ha with depth varying from 30 m to 56 m and the total quarry area is 299.87 ha. Backfilled quarry area of 168.35 ha shall be reclaimed with plantation. A void of 130.64 ha with depth 30 m which is proposed to be converted into a water body

- (xiv) Baseline Data Generation: The seasonal data for ambient air quality has been documented for a period of 04-11-2017 to 03-02-2018 and all results at all stations are within prescribed limits
- (xv) The life of mine is 12 Years
- (xvi) Transportation: The entire coal production of 8.75 MTPA will be by Surface Miner. The coal will be dispatched from coal face to railway siding at Sardega by coal trucks. The coal will be dispatched through the RLS at Sardega siding to different thermal power stations.
- (xvii) There is R & R involved. There are 222 PAFs.
- (xviii) Cost: Total capital cost of the project is Rs. 755.13 Crores. CSR Cost - 2% of the average net profit of the company for the three immediately preceding financial years or Rs. 2.00 per tonne of coal production of the previous year whichever is higher. R&R Cost Rs. 71.43 Crores. Environmental Management Cost – Rs. 21.95 Crores
- (xix) Water body : Basundhara River flows adjacent in East direction, Telendra Nalla flows at a distance of 94 m in south direction, Barhajharia Nalla flows at a distance of 230 m in west direction, Bhaina Jhor flows at a distance of 3.4 km in North East, Ichcha Nadi flows at a distance of 8.65 km in North East direction, Albahal jhor flows at a distance of 6.64 km in south West direction.
- (xx) Applications for obtaining the approval of the Central Ground Water Authority has been submitted vide application no. 21-4/2296/OR/MIN/2019 dt: 09-08-2019.
- (xxi) Approvals: Mining Plan was approved by MCL Board in its meeting held on 28.02.2017 & by MoC vide letter no. 34012/4/2011-CPAM dt: 22-03-2017.
- (xxii) Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10km buffer zone. There are no Schedule-1 species found.
- (xxiii) Forestry issues: The total forest area involved in the project is 227.62 ha. Online application for forest clearance has been submitted on 22nd July, 2016 vide ref. no. FP/OR/MIN/20559/2016.
- (xxiv) Total afforestation plan shall be implemented covering an area of 201.57 ha at the end of mining. Green Belt over an area of 6.48 ha. Density of tree plantation 2500 trees/ ha of plants.
- (xxv) There are no court cases/violation pending against the project proponent. However, the R&R of some villages falling in this project area are being carried out under the direction of "Claims Commission" appointed by Hon'ble Supreme Court of India.
- (xxvi) Public hearing for the project of 8.75 MTPA capacity in an ML area of 323.92 ha was conducted on 14.02.2019 at 10.30 Am at Stadium field near Jagannath Mandir, Tilklipada village, Himgir Block of Sundergarh District. Major issues raised in the public hearing include (1) Land Acquisition, Payment of compensation and R&R (2) Employment to locals (3) Air Pollution. (4) Water Pollution Appropriate action to address the issues raised in the Public Hearing is proposed to be taken up.

**52.1.3** During deliberations on the proposal, the Committee noted the following: -

The proposal is for environmental clearance for Basundhara (West) Extension Opencast Project of 8.75 MTPA capacity of M/s Mahanadi Coalfields Limited in mine lease area of 323.92 ha (Total Project Area of 369.77 Ha) located in village(s) Gopalpur (Telendih) and Ratansara in Tehsil Hemgir, District Sundergarh (Odisha).

ToR was granted by Ministry on 2<sup>nd</sup> Feb, 2018. Public hearing for the project of 8.75 MTPA capacity in an ML area of 323.92 ha was conducted on 14.02.2019 at Stadium field near Jagannath Mandir, Tilkipada village, Himgir Block of Sundargarh District. Project involves forest land of 227.62 ha for diversion for non-forestry activity. Stage-1 FC for the forest land has not yet been granted by the Ministry.

Baseline data collection was conducted during winter season i.e. 04-11-2017 to 03-02-2018. Mine Plan including Mine Closure Plan for production capacity of 8.75 MTPA in an ML area of 323.92 ha has been approved by Ministry of Coal dated 22<sup>nd</sup> March 2017.

**52.1.4** The EAC, after deliberation observed that there are various deficiencies in the proposal found in submission of project proponent and even the basic Form#2 on parivesh portal is not being filled properly. **EAC categorically noted that PP's and consultants (M/s CMPDI) are wasting the time by submitting immature proposals to the Committee. The content in the EIA Report are incorrect such as value of TDS, BOD, COD and fluoride content in surface water. There are various incorrect details filled in Form#2 and need to be corrected.**

**The Committee also took serious note on the quality of the EIA/EMP report prepared by the consultant (M/s CMPDI) and underrated the consultant. The Committee desired that the Ministry/QCI shall take action as appropriate on the matter against the consultant for wrong and inconsistent information the EIA/EMP and presentation.** The EAC, after detailed deliberations **decided to return the proposal in its present form** and have asked for clarification/inputs, in respect of the following:-

- (i). Brief Compliance of each ToR conditions and further referencing for details of compliance shall be provided correctly.
- (ii). Form#2 on Parivesh should be filled with all details and correct information.
- (iii). Stage-I FC for forest land of 227.62 ha for diversion of non-forestry activity shall be submitted.
- (iv). Carrying capacity of the region shall be carried out considering the presence of the other coal mines and mitigation measures shall be proposed accordingly from recognised institutes.
- (v). Values of PM10 are reported to be high. PP shall be present mitigation measures to reduce PM10 in details.
- (vi). River Conservation Plan along with fund and timeline shall be prepared to protect pollution of Basundhara River.
- (vii). Ground Water Recharge Estimation of buffer zone shall be done as per guidelines of GEC 2015 instead of 1997 guidelines.

- (viii). Air Quality modelling of pollutant NO<sub>x</sub> is shall be submitted vis-à-vis its impacts/mitigation measures.
- (ix). Clarification and confirmation from District Forest Officer that no presence of Tiger/or any wildlife corridor were found in the said area of coal mine/forest area considering Sanjay National Park.
- (x). List of species of flora and fauna shall be vetted by DFO after conducting primary survey of buffer zone.
- (xi). EIA report shall include details of Project displaced families or Project displaced person. Detailed Break up of activities of R&R and CSR shall also be included.
- (xii). Impact and Mitigation measures of transportation of coal by road from coal mine to desired destination (linked railway siding or linked Power Plant) shall be included in EIA Report.
- (xiii). Permission of extraction of ground water intersection/extraction from Central Ground Water Authority shall be taken.
- (xiv). Details of hazardous waste generation (if any) during mining operations and further handling/disposal shall be provided in details.
- (xv). Impact on villages due to mining activity present in core zone or in buffer zone (not proposed to be displaced) shall be provided.
- (xvi). Proposed plan for development of green belt shall be provided with fund allocated and year wise plantation plan
- (xvii). Management of Top Soil shall be provided as per best environmental procedure and provision of storage of top soil in mine plan shall be produced.
- (xviii). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1<sup>st</sup> May, 2018.

The proposal was accordingly **returned** in its present form.

**The Committee recommended to visit the project by a sub-committee of EAC members namely Dr. S. D. Vora, Dr. N. P. Shukla, Dr. J.K. Pandey, and. The representative from the MoEFCC may also assist the Sub-Committee.**

### **Agenda No. 52.2**

**One Time Expansion of Marki Mangli-I Coal Mine from 0.30 MTPA to 0.333 MTPA (Normative) / 0.42 MTPA (Peak Capacity) with change in Lease hold area from 731.42 ha to 694.20 ha of M/s Topworth Urja and Metals Ltd in village Pardi, Pandharkawda (Lahan), Marki (Bu), Marki (Kh) & Ganeshpur (Kh), Tehsil Zari Zamni, District Yavatmal, Maharashtra- Environmental clearance under the provision of clause 7(ii) of EIA Notification, 2006**

**[Proposal No. IA/MH/CMIN/96726/2005; F. No. J-11015/256/2006-IA. II (M)]**

**52.2.1** The proposal is for environmental clearance for Marki Mangli-I Coal Mine Project of 0.333 MTPA(Normative)/0.42 MTPA (Peak) capacity in mine lease area of 694.20 ha of M/s Topworth Urja and Metals Ltd. located in village Pardi, Pandharkawda

(Lahan), Marki (Bu), Marki (Kh) & Ganeshpur (Kh), Tehsil Zari Zamni, District Yavatmal (Maharashtra), under the provision of clause 7(ii) of EIA Notification, 2006.

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

- (i) The project area is covered under Survey of India Topo Sheet No 56I/13 and is bounded by the geographical coordinates ranging from 19.84101 to 19.86539 N and longitudes 78.76265 N and 78.80951 E.
- (ii) Coal linkage of the project is proposed for Captive use for various end use plant of Topworth Urja and Metals Ltd at mauza Ukkarwahi Tq. Umred Dist Nagpur.
- (iii) No Joint venture cartel has been formed. Marki Mangli-I Coal Mine is solely vested to M/s Topworth Urja and Metals Ltd.
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13<sup>th</sup> January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation, Out of 994 employment, 261 persons for opencast Mine and 733 persons for underground Mine will be provided from the project.
- (vi) The project is reported to be beneficial in terms of employment generation, socioeconomic upliftment through project's CSR, CER funds and through contribution to District Mineral Foundation, development of green belt
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J-11015/256/2006-IA.II(M) dated 17.05.2007 and transferred dated 9.2.2016. for 0.30 MTPA in mine lease area of 731.42ha.
- (viii) Life of the Mine is 30 years as per EC dated 17<sup>th</sup> May, 2007. Balance life of mine is 17 years.
- (ix) Total mining lease area as per block allotment is 731.42 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by Ministry of Coal, Govt. of India vide letter No. 34011/30/2017-CPAM on 5.10.2018.
- (x) The land usage pattern of the project is as follows:

**Pre-mining land use details**

(Area in Ha)

S. No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agricultural Land	639.252	00	639.252
2	Forest Land	00	00	00
3	Wasteland	12.95	00	12.95
4	Grazing Land	00	00	00
5	Surface Water Bodies	00	00	00
6	Settlements	00	00	00
7	Others (Specify)			
	Area under Pit	13.30	00	13.30
	Area under OB Dump	0.840	7.8	8.4
	Area under Soil Dump	2.37	00	2.37

	Area under infrastructure and built up	0.00	1.87	1.87
	Area under Haul Road	1.82	00	1.82
	Area under Plantation	4.00	00	4.00
	Area under Nalla Diversion and Drains	10.00	00	10.00
	Total Project Area =	684.532	9.67	694.202

### Post Mining

S. No.	Land use	Land use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	External OB Dump	28	00	00	00	28
2	Top Soil Dump	12	00	00	00	12
3	Excavation	81.96	15.24	00	00	97.2
4	Roads	9.70	00	8.42	00	18.12
5	Built-up Area		00	00	00	
6	Green Belt	1.96	00	00	00	1.96
7	Undisturbed Area	5.00	00	00	501.92	506.92
8	Safety Zone / Rationalization Area	20	00	10	00	30
9	Diversion / Below River / Nala / Canal	00	00	00	00	
10	Water Body	00	00	00	00	
11	Staff Colony	00	00	00	00	
	Total Area =	158.62	15.24	18.42	501.92	694.20

- (xi) Total geological reserve reported in the mine lease area is 24.26 MT with 21.17MT mineable reserve. Out of total mineable reserve of 21.17MT, 10.49 MT are available for extraction. Percent of extraction is 49.55%
- (xii) 01 seams with thickness ranging from 2.4 m 3.881 m are workable. Grade of coal is G-12, stripping ratio 1:6.43, while gradient is 1 in 8 to 1 in 13.
- (xiii) Method of mining operations envisages by (Mixed) Opencast and Underground methods
- (xiv) The project has 01 external OB dumps in an area of 28 ha with 25 m height and 5.98 Mm<sup>3</sup> of OB. Existing OB Dumps shall be re-handled and backfilled in 10th, year onwards. The OB from the current mining operations shall be backfilled from 5<sup>th</sup> year onwards. 03 internal OB in an area of 12ha with 12.27Mm<sup>3</sup> of OB is envisaged in the project.
- (xv) Total quarry area is 97.20 ha out of which backfilling will be done in 81.96ha while final mine void will be created in an area of 15.24 ha with a depth of 18 m. Backfilled quarry area of 81.96 ha shall be reclaimed with plantation. Final mine void will be converted 15.24

- (xvi) Transportation of coal has been proposed by Dumpers in mine pit head, from surface to end use plant by trucks only.
- (xvii) Reclamation Plan in an area of 158.62 ha, comprising of 28 ha of external dump, 12 ha of Top soil dump and 1.96 ha of green belt. In addition to this, an area of 30 ha, included in the safety zone/rationalization area, has also been proposed for green belt development.
- (xviii) No National Park, Wild Life Sanctuaries and Eco- Sensitive Zones have been reported within 10 KM boundary of the project.
- (xix) The ground water level has been reported to be varying between 18.66m to 5.80 m during pre-monsoon and between 2.30 m to 8.50 m during post-monsoon. Total water requirement for the project is 839 KLD.
- (xx) Application for obtaining the approval of the Central Ground Water Authority for Renewal has been submitted on 02<sup>nd</sup> February, 2019.
- (xxi) Public hearing for the project of 0.30 MTPA capacity in an area of 731.42ha was conducted on 1<sup>st</sup> January 2003 & 2<sup>nd</sup> December 2003 at Raj Rajeshwar Temple premises, Mukutban, Tahsil – JahriJamni, Dist - Yavatmal at 11.00 am. Major issues raised in the public hearing include Ground Water Depletion and land acquisition Appropriate action to address the issues raised in the Public Hearing have already been taken.
- (xxii) Consent to Operate for the existing capacity was obtained from the State PCB vide BO/JD(APC)/UAN No. 4115 /R/CC-1267 Dt.23.02.2017 and is valid till 31.03.2021
- (xxiii) Upasa nalla is flowing along South East boundary of lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government.
- (xxiv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to State Pollution Control Board, Regional Office Chandrapur 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.
- (xxv) No court cases, violation cases are pending against the project of the PP
- (xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the mine was started from the year 19.04.2017 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations. The coal production, realized from the project, from 1993-94 onwards, is as under:
- (xxvii)The project involves 180 project affected families (Land Losers). R&R of the PAPs will be done as per in provisions of the Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation and Resettlement Act,2013
- (xxviii) Total cost of the project is Rs. 10000 lakhs. Cost of production is Rs. 2250/tonne., CSR cost is Rs. 5 per tonne, R&R cost is Rs. 75 crores. Environment Management Cost is Rs. 258 Lakhs as capital cost and 24.50 lakhs as recurring cost.

Further PP submitted the Compliance to Office Memorandum J11015/224/2015.-  
Ia.II dated 15.09.2017 :

Sr. No.	Requirements of Office Memorandum	Compliance
1	Prediction of air quality parameters are within the prescribed norms	Air quality parameters are within prescribed limits of Industry Specific limits and NAAQ standards 2009
2	Coal transportation is through conveyor system up to silo and then landing to railway wagons, involving no transportation through roads.	Not applicable as end use plant is at 190 Km from the Marki Mangli-I Coal Mine and railway siding is at 24 Kms from the mine site.
3	Coal mining is done through deployment of surface miners, replacing three dust generating operations of the conventional mining system namely drilling,blasting,crushing in one go.	Not Applicable as the annual production capacity is very low and unfavorable mining conditions for use of surface miners.
4	Public hearing already carried conducted for the total mine lease area involved and no more area is required for proposed expansion.	Yes, complied.
5	Compliance status of EC conditions monitored by the concerned Regional Office of this Ministry is found to be satisfactory.	Yes, complied.
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 applicable, Forest Clearance etc are satisfactorily fulfilled.	<p>1. Consent to establish : Obtained</p> <p>2. Consent to Operate : Obtained and valid till 31.03.2021</p> <p>3. CGWA Clearance: Obtained, applied before the expiry of validity to CGWA for renewal and renewal is under process. Renewal application with CGWA clearance is enclosed</p> <p>4. Mining Plan and Mine Closure Plan is approved on 05.10.2018</p> <p>5. Mine Closure Status Report : Progressive Mine closure will be started from December 2020 as per approved closure plan.</p> <p>Forest Clearance : Not Applicable.</p>
7	The proposed expansion can go up to a maximum 40 % of capacity wherein the last public hearing was conducted.	Proposed Expansion is @ 11 %. The Proposal is for one time expansion of Marki Mangli - I Coal Mine from 0.30 MTPA to 0.333 MTPA (Normative)/ 0.42 MTPA (Peak Capacity) without change in Leasehold area, Mining Method

8	There is no increase in area of the proposed expansion vis-à-vis the mine area in EC, wherein last public hearing was conducted.	The Proposal is for one time expansion of Marki Mangli-I coal mine from 0.30MTPA to 0.333 PA(Normative)/ 0.42 MTPA(Peak Capacity) without change in Leasehold area, Mining Method.
9	Coal transportation is through conveyor system up to the silo and loading to the railway wagons, and not by road.	Not applicable as end use plant is at 190 Km from the Marki Mangli-I Coal Mine and railway siding is at 24 Kms from the mine site.

Project proponent has also submitted Plantation Program: Practice of green belt development will be continued throughout the mining operations. Till date inventory of 2425 trees is developed as specified in Section 4.5 of addendum EIA- EMP report.

Green belt development plan for mine lease area is scheduled for next 10 years as below

Sr. No.	Year from 2019 onwards	No. of Saplings
1	2019	100000
2	2020	100000
3	2021	100000
4	2022	100000
5	2023	100000
6	2024	100000
7	2025	100000
8	2026	100000
9	2027	100000
10	2028	100000
	Total	1000000

Location of saplings to be planted as below :

Sr. No.	Location for plantation	Area in Ha	No. of Saplings
1	Around OB dumps	40.00	25,000
2	Backfilling Area	75.88	1,15,000
3	Along Haul Roads	10.82	15,000
4	Other Areas within Mine Lease	10.00	20,000
5	Along State Highway for Marki Mangli-I Coal Mine	Stretch of 10 Kms on both side @ 1 sapling per 3 meter in two rows	30,000

6	Along approach road Marki Mangli-I Coal Mine	Stretch of 1.5 Km on both side @ 1 sapling per 3 meter in two rows	6,000
7	Area of 158 ha specified for plantation	2500 Saplings /ha	3,95,000
8	Undisturbed Area considered for UG Operations	----	4,00,000
<b>Total</b>			<b>10,06,000</b>

**52.2.3** The EAC during deliberation noted the following: -

The proposal is for environmental clearance for Marki Mangli-I Coal Mine Project of 0.333 MTPA(Normative)/0.42 MTPA(Peak) capacity in mine lease area of 694.20 ha of M/s Topworth Urja and Metals Ltd. located in village Pardi, Pandharkawda (Lahan), Marki (Bu), Marki (Kh) & Ganeshpur (Kh), Tehsil Zari Zamni, District Yavatmal (Maharashtra), under the provision of clause 7(ii) of EIA Notification, 2006.

The Environment clearance was obtained under EIA Notification, 2006 vide Ministry's letter dated 17<sup>th</sup> May, 2007 to M/s B.S. Ispat Ltd. Further EC was transferred to M/s Topworth Urja & Metals Limited on 9<sup>th</sup> February, 2016 for 0.30 MTPA in mine lease area of 731.42 ha.

The Ministry of Coal vide Vesting Order under Clause (b) of sub-rule (2) of rule (7) and sub rule(1) of rule 13 and order No. 104/32/2015/NA dated 30<sup>th</sup> September, 2015 has allocated the Marki Mangli- I Coal Mine Project of 0.30 MTPA in an area of 731.42 ha to M/s Topworth Urja & Metals Limited.

Upasa nalla is flowing along South East boundary of lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government.

Project proponent has submitted the Compliance of the Ministry's Office Memorandum J-11015/224/2015.-IA.II dated 15.09.2017 for exemption of public hearing of proposed expansion in capacity. The Committee deliberated the compliance status.

There is no forest land involved in the project area. PP committed to plant 1 lakh trees in next 10 years and submitted the undertaking for the same.

Total mining lease area as per block allotment is 731.42 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by Ministry of Coal, Govt. of India vide letter No. 34011/30/2017-CPAM on 5.10.2018.

PP submitted essential details dated 1<sup>st</sup> June, 2019 regarding clarification about the land area and reason of decrease in mine lease area.

Compliance of EC conditions are certified by Regional Office, Nagpur vide its Letter No. EC-286/RON/20147-NGP/2245 on 9<sup>th</sup> August, 2017. The Committee deliberated the compliance status.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**52.2.4** The EAC, after detailed deliberation, **recommended** the proposal for grant of environmental clearance to Marki Mangli-I Coal Mine Project of 0.333 MTPA (Normative)/0.42 MTPA(Peak) capacity in mine lease area of 694.20 ha of M/s Topworth Urja and Metals Ltd. located in village Pardi, Pandharkawda (Lahan), Marki (Bu), Marki (Kh) & Ganeshpur (Kh), Tehsil Zari Zamni, District Yavatmal (Maharashtra), under the provision of clause 7(ii) of EIA Notification, 2006 and under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions:-

- (i). Validity of EC is life of the mine or 30 years whichever is earlier as per EIA Notification, 2006
- (ii). The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 0.333 MTPA(Normative)/0.42 MTPA(Peak) prior to commencement of the increased production.
- (iii). Transportation of coal from Coal Handling Plant shall be through covered trucks.
- (iv). To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.
- (v). Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.
- (vi). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

- (vii). Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (viii). Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.
- (ix). Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.
- (x). The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 0.333 MTPA(Normative)/0.42 MTPA(Peak).
- (xi). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (xii). A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.
- (xiii). Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles
- (xiv). Permission of diversion of nallah from concerned statutory authority
- (xv). Compliance of the non-compliance/partial compliance conditions certified by Regional Office, Nagpur vide its Letter No. EC-286/RON/20147-NGP/2245 on 9<sup>th</sup> August, 2017. The PP shall take all the mitigation measures and the Action taken report shall be submit the Regional Office of the MoEFCC.
- (xvi). Project proponent to plant 100,000 nos. of native trees with broad leaves along the villages and transportation route to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.
- (xvii). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1<sup>st</sup> May, 2018.
- (xviii). 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.
- (xix). The Project Proponent shall complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (xx). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be

submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

- (xxi). 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 antsnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- (xxii). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- (xxiii). 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.
- (xxiv). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- (xxv). 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 MoEFCC.

### **Agenda No.52.3**

### **Batura Opencast Coal mining Project with production capacity of 2.00 MTPA Normative and 3.00 MTPA Peak, Project Area 967.473 ha of M/s South Eastern**

**Coalfields, located in District Shahdol and Anuppur, Madhya Pradesh – For Re-Consideration of Environmental Clearance**

**[Proposal No. IA/MP/CMIN/60381/2016; F.No. J-11015/65/2016-IA.II(M)]**

**52.3.1** The proposal is for grant of Environmental Clearance to Batura Opencast Project 2 MTPA Normative & 3 MTPA Peak in ML area of 967.473 ha of M/s South Eastern Coalfields Limited in District Shahdol and Anuppur (Madhya Pradesh).

**52.3.2** The proposal was earlier considered by the sectoral EAC in its meeting held on 24<sup>th</sup> January, 2019, wherein the Committee desired for information in respect of the following:-

- (i). Base line air quality data more than three years old and thus not in conformity with the extant norms/guidelines in this regard.
- (ii). Air quality for PM<sub>10</sub> (98<sup>th</sup> percentile values) already on much higher side at many of the locations, would not allow more mining operations without adequate mitigating measures.
- (iii). Diversion plan for Katna Nallah requires approval of the concerned regulatory authority (Water Resources/Irrigation Department).
- (iv). Mine Plan for the project duly approved by the competent authority.
- (v). R&R Plan for the project affected families.
- (vi). Diversion of 24.6 ha of forest land for non-forestry purposes.

**52.3.3** In response to the above observations of EAC, para-wise replies submitted by the project proponent are as under: -

S. No.	Observations	Comments/Compliance
1	Base line air quality data more than three years old and thus not in conformity with the extant norms/guidelines in this regard	The baseline air quality data is generated for April to June, 2019
2	Air quality for PM <sub>10</sub> (98 <sup>th</sup> percentile values) already on much higher side at many of the locations, would not allow more mining operations without adequate mitigating measures.	The baseline air quality data is generated for April, to June, 2019 and values are well within limit. Previously, values were higher due to road construction activities on the Nearby National Highway
3	Diversion Plan for Katna Nallah requires approval of the concerned regulatory authority (Water Resources/Irrigation department)	Water Resource Division, Shahdol issued permission for diversion of Katna Nala vide his letter no 1317 dated 23.08.17
4	Mine Plan for the project duly approved by the competent authority.	The mine plan for the project has been approved by the SECL Board on 16.09.2008.

5	R&R Plan for the project affected families	In this project total Tenancy Land notified is around 709 ha and thus 875 direct employments are to be provided. Total PAFs are 1870. The R&R for the project affected families is proposed to be done under the CIL R&R Policy 2012. R&R cost accumulates to Rupees 29.29 Crores.
6	Diversion of 24.60 ha of forest land for non-forestry purposes.	Forest land is diverted to the extent of bare minimum requirement, though as per PR, total Forest land has been indicated as 101.44 ha. The minimum requirement for working of mine is of 76.84 ha for which final stage II clearance has been obtained. Since no working is proposed in balance 24.60 ha of land falling in mining safety zone, diversion for non-forestry purpose is not required.

**52.3.4** EAC deliberated the proposal again on 22<sup>nd</sup> October, 2019 and observed the following: -

Project proponent shall prepare EIA report as per Ministry's guidelines. The report should include chapter wise details such as project details, description of the baseline environment, impact assessment and environment management, action plan for points raised during public hearing which is specific to the project. The latest methodology for ground water estimation shall be done by using GEC-2015.

**52.3.5** In response to the above observations of EAC, para-wise replies submitted by the project proponent are as under:-

S. No.	Observations	Comments/Compliance
1	Project proponent shall prepare EIA report as per Ministry's guidelines. The report should include chapter wise details such as project details, description of the baseline environment, impact assessment and environment management, action plan for points raised during public hearing which is specific to the project.	The EIA report for the proposal has been revised accordingly and submitted with all desired details.
2	The latest methodology for ground water estimation shall be done by using GEC-2015.	Ground Water Estimation has been submitted by using GEC-2015.

**52.3.6** During deliberations on the proposal, the EAC took note

The proposal is for grant of Environmental Clearance to Batura Opencast Project

2 MTPA Normative & 3 MTPA Peak in ML area of 967.473 ha of M/s South Eastern Coalfields Limited in District Shahdol and Anuppur, Madhya Pradesh.

Terms of Reference for the proposal was granted by Ministry on 21<sup>st</sup> March, 2017.

**Earlier, it was submitted that Mine Plan has approved for the proposed peak capacity of 3 MTPA by the M/s SECL Board on 16th September, 2008. However, after checking the Mine Plan document, it was observed that Mine Plan for peak capacity of 3 MTPA is still not approved.**

Project involves total 101.440 ha (76.84 ha in mine lease and 24.60 ha outside mine lease) of forest land for diversion of non-forestry activity. There is one water reservoir in the study area developed by MPEB.

**52.3.7** The EAC, after deliberations observed that the instant proposal

The proposal was earlier considered by the sectoral EAC in its meeting held on 24<sup>th</sup> January, 2019 and October 2019, However the Committee observed that PP has not submitted the basic documents which are required for appraisal of the projects. The Committee took serious note on the quality of the EIA/EMP report prepared by the consultant and underrated the consultant. The Committee desired that the Ministry/QCI shall take action as appropriate on the matter against the consultant for wrong and inconsistent information. The Committee mentioned that due to wrong information the appraisal of the projects delayed.

The EAC, after deliberations observed that proposal for environmental clearance has various lacunae and following points needs to be addressed by PP. **Gross mistakes are being conducted by PP/consultant that even a basic approved mine plan for Peak capacity is not being submitted.** It is astonishing that Consultant has taken surface water sample for katna nalla which is proposed for diversion and not monitored surface water quality of Son River which is 6 km away from site (in buffer zone). Form # 2 on Parivesh portal is not filled up properly and sometime PP submits in correct and incomplete details on Portal. EAC observed that consultant is not doing his work properly and warns the consultant and ask this Ministry to inform the Ministry of Coal about the concerns of EAC and further sought requisite details as under: -

- (i). Project area mentioned in mine plan is 967.475 ha and it is mentioned that 24.60 ha for less forest land in safety zone not to be acquired. Grant Total area is reduced to 942.87 ha. Also in EIA Report and Presentation, project area is 967.473. PP shall explain the deviation and exact area of project.
- (ii). PP shall demarcate and explain the exact area and location for storage of top soil in mine plan.
- (iii). Revised Mine Plan for 3 MTPA (Peak) capacity shall be submitted by PP.
- (iv). Public Hearing with action plan with issued based fund allocation including time line in separate column shall be submitted.
- (v). Permission for extraction of ground water from Central Groundwater Authority shall be taken.

- (vi). Explore the possibility of relocating 2000 Nos of trees instead of cutting.
- (vii). R & R site is not yet decided yet. So, it is required to submit R & R Plan and report shall be submitted.
- (viii). Surface water quality of upstream and downstream of Son River shall be collected and analysed.
- (ix). Permission for diversion of Katna Nalla shall be taken from concerned regulatory authorities.
- (x). There is a Hilllock present in the area. What is plan for this.
- (xi). Justify why OB dump is being proposed at about 2.5 km distance which is likely to increase air pollution due to transportation.
- (xii). Air quality modelling for PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub> shall also be done instead of only PM<sub>10</sub>.
- (xiii). Railway line is 20 km away from the site. Mode of transportation and its impact needs to be studied
- (xiv). Explore inpit conveyor system for coal transportation shall be explored instead of trucks/dumpers from the start or in 1 year only.

The proposal was **deferred** as it is for compliance of observations of EAC

#### **Agenda No.52.4**

#### **Proposed 2x2 MTPA Coal Washery in an area of 8.195 ha of M/s CG Coal & Power Limited located at Village Batari, Tehsil Khatgora, District Korba (Chhattisgarh)- For Reconsideration of Environmental Clearance**

#### **[Proposal No. IA/CG/CMIN/25774/2014; F.No. J-11015/512/2014-IA. II (M)]**

**52.4.1** The proposal is for Environmental Clearance of proposed 2 x 2 MTPA Coal Washery (Wet Process) in two phases using heavy media cyclone technology in an area of 8.195 ha of M/s CG Coal & Power Limited located at Batari, Tehsil - Khatgora, District – Korba (Chhattisgarh)

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

The proposal was earlier considered by the EAC (Coal Mining Projects) in its meeting held on 21<sup>st</sup> February, 2019 wherein the Committee desired for information in respect of the following:

- (i). Carrying capacity of the road for the increased traffic due to transportation of Raw/washed coal from NH to Bilaspur Pali and 400 m stretch of village road.
- (ii). MoUs/agreements for linkage of washed coal to the potential consumers
- (iii). Land records and actual possession of land for the proposed washery
- (iv). Permission for withdrawal of ground water from CGWB, if so required Traffic density study to be carried out and air pollution modeling due to movement of trucks
- (v). Proper EMP to address the air quality concern and/or impact on nearby areas (to Kanya ashram)

(vi). Disposal of washery rejects in conformity with the extant norms/guidelines in this regard.

In response to the above observations of EAC, para-wise replies submitted by the project proponent are as under:-

Sl.	Observation	Reply by Project Proponent
1.	Carrying capacity of the road for the increased traffic due to transportation of Raw/washed coal from NH to Bilaspur Pali and 400 m stretch of village road.	<p>(i) The existing road width of 400m stretch is 3.5 meter. Application submitted to PWD, Korba, Chhattisgarh for obtaining design and estimate.</p> <p>(ii) Information with regard to design and budget is given by PWD for strengthen and widening of road for movement of 40 Ton (Max) trucks, The proposed width of road will be 14.85 M</p> <p>(iii) NOC is given by Gram Panchayat, Batari for construction of road</p> <p>(iv) The details of existing and proposed traffic load provided</p>
2.	MoUs/agreements for linkage of washed coal to the potential consumers.	<p>(i) Proposed coal washery is situated nearer to the pit head of the existing operational coal mines of SECL on Korba-Bilaspur-Pali Road and most of the successful bidders having FSA with SECL or procuring coal by road mode from SECL coal mines in spot e-auction, forward e-auction, exclusive e-auction, special e-auction, are transporting their coal through Korba – Bilaspur - Pali road.</p> <p>(ii) Further, the company is hopeful for getting requisite raw coal from the aforesaid parties for washing. Presently, some of the prospecting job providers are reluctant and afraid to execute any kind of MOU, without physical existence /establishment of coal washery.</p> <p>(iii) PP assures to submit copies of MOU on receipt of EC and after commissioning the proposed coal washery before commencement of operations.</p>
3.	Land records and actual possession of land for the proposed washery	<p>(i) The copy of lease deed dated 25<sup>th</sup> Feb 2008 for 10.25 acre of land is provided.</p> <p>(ii) The copy of lease deed dated 02<sup>nd</sup> June 2014 for 10.00 acre of land is provided.</p> <p>(iii) Possession letter for 10.25 acre of land is provided.</p> <p>(iv) Possession letter for 10.00 acre of land is provided</p> <p>(v) Khasra No of 20.25 acre of land is provided.</p>

Sl.	Observation	Reply by Project Proponent
4.	Permission for withdrawal of groundwater from CGWB, if so required	<p>(i) Water requirement is 1300 KLD which will be sourced from Fulzar Anicut (Surface water).</p> <p>(ii) Water Allocation (Sanctioned) Letter obtained from Water Resources Department Chhattisgarh for drawl of 1300 m<sup>3</sup>/day is provided</p> <p>(iii) No ground water required for the proposed coal washery. Hence CGWB permission not required.</p>
5.	Traffic density study to be carried out and air pollution modeling due to movement of Trucks	<p>The volume of transport due to the proposed activity and the impact on the surrounding area studied.</p> <p>(i) It is estimated that around 656 Trucks per day will be plying over the road.</p> <p>(ii) AERMOD model was used for this study</p> <p>(iii) The cumulative conc. levels (ambient +proposed incremental) revealed that the concentration levels for PM, NOx and CO likely to be encountered in the operation of the project occurring at 0.5 to 2 km distance in SE direction with a concentration level of 57.14 ug/m<sup>3</sup> 22.03 ug/m<sup>3</sup> and 396.41 ug/m<sup>3</sup> respectively.</p>
6.	Proper EMP to address the air quality concern and/or impact on nearby areas (to Kanya ashram)	<p>Mitigation measures proposed are as follows:-</p> <p>(i) Sensor based water sprinkling will be installed at loading, unloading, internal roads etc.</p> <p>(ii) Jet Sprinklers (automatic) to control fugitive emission will be there.</p> <p>(iii) Retention wall of 25 feet height over 335 running common boundary will be constructed.</p> <p>(iv) Arrangement of washing of wheels of the transportation vehicles.</p> <p>(v) Closed internal belt conveyors will be provided</p> <p>(vi) Fixed water sprinklers for coal stockyard</p> <p>(vii) Provision of Bag filters at coal crusher will be provided</p>
7.	Disposal of washery rejects in conformity with the extant norms/guidelines in this regard.	<p>Washery Reject Coal</p> <p>(i) 0.80 MTPA washery reject coal will be generated out of which 0.02 MTPA shale will be used for land filling and road construction activities whereas 0.78 MTPA will be sold to Power plant/other user industries.</p> <p>(ii) M/s. CG Coal &amp; Power Ltd. have made MoU with D B Power Ltd for procurement/purchase of 8,00,000 tons of washery reject coal.</p> <p>(iii) The rejects will be transported by road through covered trucks up to user Industries and/or by covered truck up to railway siding</p>

Sl.	Observation	Reply by Project Proponent
		and then loaded in wagons. (iv) Thus, entire washery reject coal will be utilised in the power generation and there will not be any coal rejects storage or disposal required from the proposed coal washery.

Further, EAC in its meeting held on 22<sup>nd</sup> August, 2019, During deliberations on the proposal, the EAC took note of the order dated 10th July, 2019, passed by Hon“ble NGT, Principal Bench, New Delhi and observed that “No further industrial activities or expansion be allowed with regard to “red” and “orange” category units till the said areas are brought within the prescribed parameters or till carrying capacity of area is assessed and new units or expansion is found viable having regard to the carrying capacity of the area and environmental norms.”

The Committee further noted that for utilization of washery rejects (0.8 MTPA) in the proposed power plant of M/s DB Power Ltd, the project proponent should explore for MoU with other potential consumers due to delay in its installation/commissioning, and also to utilize all the rejects for power generation rather than in proposed landfilling. The Committee also desired for further study in respect of impact on habitation/nearby villages (Village Batari) due to truck movement along approach road near washery. The Committee asked the project proponent to submit timelines for compliance of the conditions stipulated by Water Resources Department, Government of Chhattisgarh and source of water during lean period (mainly in summer season) of proposed water sources.

Detailed replies of project proponent are as under:

Sl.	Observation	Reply by Project Proponent
1.	No further industrial activities or expansion be allowed with regard to “red” and “orange” category units till the said areas are brought within the prescribed parameters or till carrying capacity of area is assessed and new units or expansion is found viable having regard to the carrying capacity of the area and environmental norms.	As per MoEFCC, New Delhi Letter No. F. No. 22-23/ 2018-IA.III (Pt) dtd. 31 <sup>st</sup> October, 2019 pertaining to mechanism formulated for environmental management of critically and severely polluted areas for consideration of new activities/expansion by Red & Orange Category. M/s. C.G. Coal and Power Ltd. hereby committed to abide all stipulated Environmental Conditions and have submitted following undertaking: 1. That, the Green Belt area will be increased to 40% out of the total project area of 8.195 Hectare. We also undertake to plant around 6600 trees within the plant premises, considering 2000 trees / per hectare. 2. PP undertake to plant around 50,000 trees along both side of Bilaspur-Pali road, 400 m stretch from Bilaspur-Pali road to plant site, from plant site to Batari village 1200 m, within the Village Batari and other allocated

Sl.	Observation	Reply by Project Proponent
		<p>area and sites in phased manner; with the consent, advice and permission etc of Gram Panchayat-Batari, Chhattisgarh Environment Conservation Board, State Government of Chhattisgarh and other local authorities etc within a period of 3 years from the date of commercial production.</p> <p>3. That, for abatement of air pollution, necessary arrangements will be made for wheel washing of vehicles at the exit point of project, Water Sprinklers, Jet Sprinklers, Sensor based dry fog dust suppression system, Bag filters and covered transportation facilities etc. will be provided.</p> <p>4. That, the total cost of project is around Rs. 60 Crore; we undertake to increased CER funds to 4% of the total project cost i.e. 2.40 Crores and the same shall be utilized for peripheral development at site in consultation with District Collector and local body.</p> <p>5. PP undertake to carry following CER activities for improvement of basic infrastructure facilities namely drinking water facilities, primary health center facilities, plantation in an around the village, skill development, woman empowerment, sanitation and drainage, improvement of village road, rainwater harvesting and solar power facilities along with scientific support and awareness to local farmers to increased yield of crop and fodder in consultation with the Gram Panchayat-Batari, District Collector and local body authorities.</p> <p>6. That, the proposed coal washery will be operated on 'Zero Liquid Discharge Principle'. There will not be any effluent discharge from the coal washery plant. Domestic effluent will be treated in STP. Treated water will be used for gardening within the plant premises. We also undertake to install 30 KLD STP based on MBBR technology.</p> <p>7. PP undertake and committed to abide all the terms and conditions etc stipulated by the EAC on grant of EC.</p>
2.	Utilization of washery rejects	<ul style="list-style-type: none"> <li>The entire quantity of proposed coal</li> </ul>

Sl.	Observation	Reply by Project Proponent
	<p>(0.8 MTPA) in the proposed power plant of M/s DB Power Ltd, the project proponent should explore for MoU with other potential consumers due to delay in its installation/commissioning, and also to utilize all the rejects for power generation rather than in proposed landfilling.</p>	<p>washery rejects (0.8 MTPA) will be utilized in 2 x 600 MW power plants by M/s. DB Power Limited situated at Nandili Road, Badadarha, District Janggir-Champa, Chhattisgarh.</p> <ul style="list-style-type: none"> <li>• The 1<sup>st</sup> unit of 600 MW plant is in operations since 3<sup>rd</sup> Nov 2014 and 2<sup>nd</sup> unit of 600 MW plant is in operation since 26<sup>th</sup> March 2016</li> <li>• The MoU is executed between M/s. CG Coal &amp; Power Ltd. and M/s DB Power Ltd and D B Power Ltd has provided status report of 2*600 MW Power plants.</li> <li>• PP has submitted a letter of communication from DB Power Limited agreeing for purchase of 0.8 MTPA reject coal to be used in 2*600 MW Plants situated at Nandili Road, Badadarha, District Janggir-Champa, Chhattisgarh.</li> </ul>
3.	<p>The Committee also desired for further study in respect of impact on habitation/nearby villages (Village Batari) due to truck movement along approach road near washery.</p>	<p>PP mentioned that any development project/activities have impact on air quality, water quality, health aspects, land as well as crop productivity. The detailed study report submitted with following major mitigation measures:</p> <p><b>Air Environment:</b></p> <ul style="list-style-type: none"> <li>• Existing road width of 400m stretch is 3.5 m. After proposed implementation of project, road widening, width of road will be 14.85 M and 40 Ton (max.) trucks can be easily plied. The road widening activity will be undertaken during project implementation stage and will be completed before commercial operations of the project.</li> <li>• Plant boundary and approach road side plantation will also be undertaken simultaneously.</li> <li>• Regular sprinkling of water on 400m stretch for dust suppression</li> <li>• Wheels washing arrangement for transportation vehicles before exit from plant premises.</li> <li>• Overloading of trucks will not be allowed.</li> <li>• Speed limit of trucks will be maintained 20 KM/Hr.</li> <li>• All vehicles will have Pollution Control Certificate, (PUC) will be monitored</li> </ul>

Sl.	Observation	Reply by Project Proponent
		<p>regularly for proper maintenance of trucks deployed for coal transportation. This will also be ensured during construction phase for material transport.</p> <ul style="list-style-type: none"> <li>• Covered trucks will avoid fugitive emission during transport.</li> <li>• Periodic preventive maintenance of equipment and Machineries for coal washing for efficient performance output.</li> <li>• Voluntary audits will be conducted for ISO 9001, ISO 14001 and OHSAS 18001 and the audit systems and procedures will be followed. Mock drills will also be conducted as part of audit and environment compliance.</li> </ul> <p><b>Water Environment:</b></p> <ul style="list-style-type: none"> <li>• All the process effluent generated in the plant will be treated in thickeners and will be reused in the coal washing process. The plant will be operated on 'Zero Liquid Discharge Principle'. There will not be any effluent discharge from the coal washery plant.</li> <li>• Domestic effluent will be treated in state of art Sewage treatment plant, (MBBR based). It is proposed to install 30 KLD STP. Treated water will be used for gardening within the plant premises.</li> <li>• Thus, there will not be any significant impact, anticipated on village batari and nearby habitation.</li> </ul> <p><b>Health Aspects:</b></p> <ul style="list-style-type: none"> <li>• The impact of washery project on health of Batari village and other nearby habitation will be insignificant because of systematic implementation of pollution control measures. Green belt development all along the project boundary will confine air emission. Plantation all along approach road will further enhance aesthetic environ.</li> </ul> <p><b>Crop Productivity:</b></p> <ul style="list-style-type: none"> <li>• The impact of the washery project on the crop yield along the approach road due to</li> </ul>

Sl.	Observation	Reply by Project Proponent
		<p>truck movement of the project will be insignificant due to plantation and water sprinkling measures. Covered trucks will avoid fugitive emission during transport.</p> <p><b>Major pollution control activities:</b></p> <ol style="list-style-type: none"> <li>1. Plantation of 50,000 Nos. native species will be undertaken along both side of Bilaspur-Pali road, 400 m stretch from Bilaspur-Pali road to plant site, from project site to Batari village 1200 m (road distance) and within the Village Batari as well as other nearby villages subject to the permission of Chhattisgarh State Government, Chhattisgarh Energy Conservation Board and Local authorities. Plantation will be completed within a period of 3 years.</li> <li>2. The project cost is Rs. 60 Crore. The fund allocation for CER activities will be increased to 4% of the total project cost i.e. 2.4 Crores and will be utilized for peripheral development at site in consultation with District Collector and local body. CER activities will include improvement of basic infrastructure facilities namely drinking water facilities, primary health center facilities, plantation in an around the village, skill development, woman empowerment, sanitation and drainage, improvement of village road, rainwater harvesting and solar power facilities along with scientific support and awareness to local farmers to increased yield of crop and fodder.</li> <li>3. The proposed coal washery will be operated on 'Zero Liquid Discharge Principle'. There will not be any effluent discharge from the coal washery plant. Domestic effluent will be treated in STP. Treated water will be used for gardening within the plant premises. It is proposed to install 30 KLD STP based on MBBR technology</li> </ol>
4.	The project proponent to submit timelines for compliance of the conditions stipulated by Water	<ul style="list-style-type: none"> <li>• As per the terms of sanctioned letter vide letter no. 912/F 4-294/S-2/31/OJP/15, Naya Raipur dtd. 06.02.2019 of water</li> </ul>

Sl.	Observation	Reply by Project Proponent
	Resources Department, Government of Chhattisgarh and source of water during lean period (mainly in summer season) of proposed water sources.	resource department, Govt. of Chhattisgarh; the water Reservoir of 20000 Cu.M. Capacity shall be constructed to cater for 15 days requirement. The detailed compliance of the conditions stipulated by WRD, Chhattisgarh is provided. Application is filed for extension of validity period of sanction letter.

PP reported that the proposed coal washery is situated nearer to the pit head of the existing operational Dipika coal mines of SECL on Korba-Bilaspur-Pali Road and most of the successful bidders having Fuel Supply Agreements (FSA) with SECL or procuring coal by road mode from SECL coal mines in spot e-auction, forward e-auction, exclusive e-auction, special e-auction, are transporting their coal through Korba – Bilaspur - Pali road. The company is hopeful for getting requisite raw coal from the aforesaid parties for washing.

Terms of Reference (TOR) granted vide letter no. No. J-11015/512/2014-IA-II (M) dated 18th August 2015. The capital cost of the proposed coal washery project is Rs.60 Crore. Total water requirement for the project is 1300 m<sup>3</sup>/day

PP reported that the source of water will be from proposed Fulzar Anicut on Ganjha nallah (Saliha nallah), near village Fulzar. Water Allocation Letter (Sanctioned) obtained from Water Resources Department Chhattisgarh for drawl of 1300 m<sup>3</sup>/day makeup water. Vide Letter No. 912/F 4-294/S-2/31/OJP/15 Naya Raipur, 06/02/2018. Application is filed for obtaining extension of validity period.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Committee deliberated the compliance of the Ministry's OM No. 22-23/ 2018-IA.III (Pt) dtd. 31<sup>st</sup> October, 2019 pertaining to mechanism formulated for environmental management of critically and severely polluted

areas. The Committee found the plan is on order. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**52.4.3** The EAC, after detailed deliberation, **recommended** the proposal for grant of environmental clearance for proposed 2 x 2 MTPA Coal Washery (Wet Process) in two phases using heavy media cyclone technology in an area of 8.195 ha, under the provision of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars and OM dated 31.10.2019 thereto subject to the compliance of the following terms & conditions / specific conditions:-

- (i) Necessary Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA), if applicable.
- (ii) The coal washery shall be operated on 'Zero Liquid Discharge Principle'. There will not be any effluent discharge from the coal washery plant. Domestic effluent will be treated in STP. Treated water will be used for gardening within the plant premises.
- (iii) Disposal of washery rejects shall be in accordance with the extant policy and guidelines, and environment friendly.
- (iv) Thick green belt of adequate width to be provided around the washery to mitigate/check the dust pollution. A 3-tier avenue plantation should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads.
- (v) Ash content below 34% should be maintained in washed coal to be transported beyond 500 km for use in thermal power plants.
- (vi) The State Pollution Control Board, while considering consent to operate for the project, may stipulate stringent conditions as per Ministry's OM dated 31.01.2019 (CPA) to ensure that with the proposed transportation of washery rejects by road, air quality would remain within the national ambient air quality standards.
- (vii) The Green Belt area will be increased to 40% out of the total project area of 8.195 Hectare. PP shall plant around 6600 trees within the plant premises, considering 2000 trees / per hectare.
- (viii) PP shall also plant around 50,000 trees along both side of Bilaspur-Pali road, 400 m stretch from Bilaspur-Pali road to plant site, from plant site to Batari village 1200 m, within the Village Batari and other allocated area and sites in phased manner; with the consent, advice and permission etc. of Gram Panchayat-Batari, Chhattisgarh Environment Conservation Board, State Government of Chhattisgarh and other local authorities. Plantation will be completed within a period of 3 years.
- (ix) As committed by the PP, the fund allocation for CER activities shall be Rs. 2.4 Crores and will be utilized for peripheral development at site in consultation with District Collector and local body.

- (x) Impact of proposed project/activity on hydrological regime of the area shall be assessed and report be submitted.
- (xi) The project proponent shall prepare a species Specific Conservation Plan for Schedule-I Species and the same may be approved by the Chief Wildlife Warden of State Govt.. The recommendations of the approved Site-Specific Conservation Plan shall be implemented in consultation with the concerned State Department. The implementation report shall be furnished along with the six-monthly compliance report.
- (xii) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.
- (xiii) The project proponent shall conduct periodical training for the truck drivers for imparting safety training. The safety audit shall be conducted through a third party once in every two years.

### **Agenda No. 52.5**

#### **Expansion of Topa-reorganization Open Cast Coal Mining Project from 1.2 MTPA to 1.68 MTPA in an area of 276.66 ha of M/s Central Coalfields Limited located in District Hazaribagh (Jharkhand)- For consideration of Environmental clearance under the provision of clause 7(ii) of EIA Notification, 2006**

#### **[Proposal No. IA/JH/CMIN/9359/2007; F No. J-11015/632/2007-I.A II(M)]**

**52.5.1** The proposal is for environmental clearance under the provision of clause 7(ii) of EIA Notification, 2006 to Expansion of Topa RO OCP of 1.68 MTPA capacity in an area of 276.66 ha of M/s Central Coalfields Limited located in village Mangardaha, Banwar and Ravidostala of Topa Tehsil Mandu, District Ramgarh (Jharkhand).

**52.5.2** Details of the proposal, are given as under:

- (i) The project area is covered under Survey of India Topo Sheet No 73E/6 and is bounded by the geographical coordinates ranging from 23° 43' 31" N to 23° 44' 50" N and longitudes 85°28'10" E and 85°29'31" E.
- (ii) No Joint venture cartel has been formed for Topa Reorganisation OCP
- (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: Total Employment proposed is 306 of which employment for 205 was already generated.

- (v) People will be benefitted due to direct and indirect employment opportunities. This will continue throughout the life of the project. Activities will lead to overall socio economic growth of the area. Socio- economic benefits of the projects will accrue to local population also.
- (vi) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 Ministry's letter No J-11015/632/237-IA-II (M) dated 31.07.2008 for 1.2 MTPA in an area of 577 ha.
- (vii) Total area as per block allotment is 3.56 sq km. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the CCL Board on 18.09.2018.
- (viii) The land usage pattern of the project is as follows:

SL No	Description	Forest land in Ha.	Non Forest Land (Ha)		Total land in Ha.
			GMK	Tenancy	
1	Quarry	18.37	25.07	48.69	92.13
2	External OB	0.00	4.76	46.52	51.28
3	Infrastructure	0.16	3.55	5.50	9.21
4	Rehabilitation site	0.23	0.08	10.48	10.79
5	Existing colony	38.19	2.04	0.27	40.50
6	Safety zone	0.00	8.37	31.93	40.30
7	Vacant land/ Green Belt	12.23	8.90	11.31	32.45
	<b>Total</b>	<b>69.18</b>	<b>52.77</b>	<b>154.71</b>	<b>276.66</b>

Sl. No.	During Mining		Post Mining	
	Particulars	Total Area in Ha	Particulars	Total Area in Ha
1	Quarry	92.13	Plantation on backfilled Quarry	49.85
			Mine void filled with water	42.28
2	External OB	51.28	Plantation on External Dump	51.28
3	Infrastructure	9.21	Infrastructure for future use	9.21
4	Rehabilitation site	10.79	Colony for CCL Use	51.29
5	Existing colony	40.50		
6	Safety Zone	40.30	Plantation on safety Zone and vacant Land	72.75
7	Vacant land/ Green Belt	32.45		
	<b>Total</b>	<b>276.66</b>	<b>Total</b>	<b>276.66</b>

- (ix) Total geological reserve reported in the mine lease area is 119.92 MT with 10.20 MT mineable reserve. Out of total mineable reserve of 10.20 MT, 10.20 MT are available for extraction. Percent of extraction is 100%.
- (x) 7 seams with thickness ranging from 0.55 m – 13.45 m are workable. Grade of coal is W-III & W-IV, stripping ratio 1.73 Cum/ Tonne, while gradient is 5° to 14°.
- (xi) Method of mining operations envisages by Shovel Dumper combination method
- (xii) Life of mine is 7 years.
- (xiii) The total volume of OB to be removed from Topa OCP is estimated as 17.60 Mcum. It is proposed to dump OB externally and internally both in an area of 51.28 ha and 49.85 ha respectively.
- (xiv) Total quarry area is 92.13 ha out of which backfilling will be done in 49.85 ha while final mine void will be created in an area of 42.28 ha. Backfilled quarry area of 49.85 ha shall be reclaimed with plantation. Final mine void will be filled with water.
- (xv) Transportation of coal has been proposed by dumper in mine pithead, from surface to siding by tipping trucks.
- (xvi) Reclamation Plan in an area comprising of 51.28 ha of external dump, 49.85 ha of internal dump and 72.75 ha of green belt/safety zone/vacant land.
- (xvii) 69.18 Ha of forestland has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 77.30 ha of forest land for non-forestry purposes has been obtained vide MoEF&CC letter No 8-77/2003-FC.dated 30.07.2008 and 17.30 ha of forest land for non-forestry purposes has been obtained vide MoEF&CC letter No 8-82/90-FC.dated 27.03.1997.
- (xviii) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- (xix) The ground water level has been reported to be varying between 6.7 m to 10.4 m during pre-monsoon and between 3.65 m to 7.22 m during post-monsoon. Total water requirement for the project –Potable water demand -197.26 KLD and Industrial Water demand- 246.50 KLD.
- (xx) Application for obtaining the approval of the Central Ground Water Authority has been submitted vide no:21-4/393/JH/MIN/2019 dated: 30.03.2019.
- (xxi) Public hearing for the project of 1.2 MTPA capacity in an area of 577 ha was conducted on 16.03.2007 at Topa Project Office.
- (xxii) Consent to Operate for the existing capacity was obtained from the State PCB on 18.03.2018 and is valid till 31.12.2022.
- (xxiii) Topa nalla is flowing at a distance of 1 km in the north of boundary and no diversion is required.
- (xxiv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to JSPCB 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.
- (xxv) No court cases, violation cases are pending against the project of the PP.

(xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production, realized from the project is as under.

(xxvii) Past production of the mine is as follows:

<b>Year</b>	<b>Production in</b>
2008-09	0.58
2009-10	0.70
2010-11	0.63
2011-12	0.67
2012-13	0.41
2013-14	1.03
2014-15	1.11
2015-16	0.88
2016-17	0.79
2017-18	1.12
2018-19	1.20

(xxviii) The project involves 272 project-affected families. R&R of the PAPs is being done as per R & R policy of CIL.

(xxix) Total cost of the project is Rs.58.4 Crores. Cost of production is Rs. 1297.30/- per tonne at 100 % production level and 1448.74. per tonne at 85 % production level, CSR cost is as per CSR Policy & Companies Act,2013, R&R cost is as per R & R policy of CIL.

#### **52.5.4** The committee during deliberation noted the following:-

The proposal is for environmental clearance under the provision of clause 7(ii) of EIA Notification, 2006 to the project for expansion of Topa-reorganization Opencast Coal Mining Project from 1.2 MTPA to 1.68 MTPA in an area of 276.66 ha of M/s Central Coalfields Limited located in villages Mangadaha, Banwar and Ravidostala, Tehsil Mandu, District Ramgarh, Jharkhand.

Environment clearance to the project was obtained under EIA Notification, 2006 Ministry's letter No J-11015/632/237-IA-II (M) dated 31.07.2008 for 1.2 MTPA in an area of 577 ha (including forest land of 123.58 ha) based on public hearing conducted by the State Pollution Control Board on 16<sup>th</sup> March, 2007.

Mining Plan (Including Progressive Mine Closure Plan) within project area of 277.66 ha has been approved by the CCL Board on 18.09.2018.

Earlier the proposal was considered by EAC during its meeting held on 13-14 December, 2018 and desired that for action taken report duly endorsed by the Regional Office based on monitoring report dated 12<sup>th</sup> December, 2018. The Committee also

desired that air quality data and the modeling exercise, needs to be revisited by the project proponent to ensure consistency

Ministry's Regional Office, Ranchi inspected the project on 17<sup>th</sup> January, 2020 and the report was submitted on 22<sup>nd</sup> January, 2020. PP has submitted action plan for compliance of partial conditions of Topa OCP as per the latest RO Monitoring Report wherein total cost with time line has been submitted. Further Air quality impact assessment was presented by project proponent and additional control measures has been proposed.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with report prepared and submitted by the Consultant on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the report is in compliance for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**52.5.5** The EAC, therefore, after deliberations **recommended** for grant of environmental clearance for expansion of Topa-reorganization Opencast Coal Mining Project from 1.2 MTPA to 1.68 MTPA in an area of 276.66 ha of M/s Central Coalfields Limited, located in villages Mangadaha, Banwar and Ravidostala, Tehsil Mandu, District Ramgarh (Jharkhand), under the provision of clause 7(ii) of EIA Notification, 2006 and under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto in addition to the standard environmental conditions notified by the Ministry and mentioned below:

- (i). EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc
- (ii). Compliance of EC conditions will be again reviewed by EAC after one year as most of the condition are partially complied yet. If he conditions are not satisfactorily complied then EC will be revoked by the Ministry.
- (iii). All the non-compliances and partially complied condition reported by Regional Office in its report dated 22<sup>nd</sup> January, 2020 has to be complied by March-June, 2020 (as committed by PP during EAC appraisal).
- (iv). Project proponent to plant 50,000 nos. of native trees with broad leaves along the

transportation route from mine to railway siding in one year of the issue of this letter. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer

- (v). The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 1.68 MTPA prior to commencement of the increased production.
- (vi). Wire fencing of west old abandon quarry shall be carried out and shall be completed in one year.
- (vii). Transportation of coal from Coal Handling Plant shall be through covered trucks.
- (viii). To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.
- (ix). Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.
- (x). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (xi). Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (xii). Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.
- (xiii). Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.
- (xiv). The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 1.68 MTPA.
- (xv). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (xvi). A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.
- (xvii). Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles
- (xviii). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1<sup>st</sup> May, 2018.
- (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). The Project Proponent shall complies with all the statutory requirements and

judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.

- (xxi). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.
- (xxii). 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 antsnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- (xxiii). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- (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). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- (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 Ministry.

## **Agenda No.52.6**

### **Expansion of Bhatadi Opencast Coal Mine from 0.975 MTPA to 1.465 MTPA (Peak) of M/s Western Coalfields Limited in mine lease area of 847.37 ha, located in Village Bhatadi, District Chandpur (Maharashtra) – Re-Consideration of Environmental Clearance**

**[IA/MH/CMIN/72758/2018; F.No. J-11015/151/2014-IA-II(M)]**

**52.6.1** The EAC during deliberation noted the following:-

The proposal of M/s Western Coalfields Limited is for grant of environmental clearance for expansion of Bhatadi Opencast expansion or increase in production capacity from 0.975 MTPA to 1.465 MTPA within ML area of 847.37 ha, located at District Chandrapur, Maharashtra.

The proposal was earlier considered by the EAC in its meeting held on 17-18 April, 2018, 31<sup>st</sup> August, 2018 and 24<sup>th</sup> January, 2019. During the meeting, the Committee noted that the last public hearing for the project was conducted by the State Pollution Control Board on 20<sup>th</sup> July, 2004 i.e. much before the inception of the EIA Notification, 2006 presently in force. The Committee desired for compliance of the present provisions of the said Notification, and insisted for fresh public hearing for the proposed expansion from 0.975 MTPA to 1.465 MTPA, even if the project area remains same and the same was reiterated in other EAC meetings also. In line with observation of EAC, Project proponent has conducted Public Hearing on 13<sup>th</sup> September, 2019 at WCL Durgapur Auditorium, Tehsil Durgapur, District. Chandrapur, Maharashtra under the chairmanship of District Magistrate, Chandrapur

PP has submitted the Action Taken Report along with issues based fund allocation and timeline.

Further EAC in its meeting held on 15<sup>th</sup> November, 2019 observed that as the project involves schedule 1 species, PP has to submit conservation plan duly approved by concerned statutory authority as the buffer zone area falls under buffer zone of Tadoba Andhari Tiger Reserve. Details of pollution mitigation measures for villages (if any) to be affected by mining operations." Further, EAC desired that no OB dump or mining activity shall be dumped/carried out in and around 150 m of distance from bank of river.

PP submitted the Conservation Plan of Schedule – I species found in study area of the current proposal to EAC (Coal Mining Sector). Also it was noted that in a letter of communication to Director (Technical, P&P) from Principal Chief Conservator of Forest (Wildlife), Maharashtra State dated 30<sup>th</sup> December, 2019.

It has been submitted that as per directions of MoEF&CC to ensure compliance of recommendation of department related Parliamentary Standing Committee on Science & Technology Environment & Forests a detailed comprehensive study for Environmental Impact assessment of coalmines of WCL & Chandrapur Super Thermal Power Station on the wildlife of TATR (Tadoba Andhari Tiger Reserve) & preparation of conservation plan through WII & CSRI incorporating remedial measures in respect of adverse impact of the same NEERI is already underway. Therefore, it was of the opinion that a separate wildlife conservation plan only with respect to Bhatadi OC mines is not required.

Details of pollution mitigation measures for villages has been submitted by PP such as 16 nos of fixed sprinklers (@ coal transportation road), 30 Nos of mist sprinklers (@CHP), 3 nos of mobile tankers, etc. Further CHP side cladding with GI sheets, Black topping/concreting of coal transportation of road of approx.. 10.80 kms, Tarpaulin covering of Coal Transportation Trucks, Regular monitoring of air quality and additionally, on cluster basis, for continuous monitoring, CAAQMS is installed at Durgapur OC. Additional measures such as 1 no of truck mounted mist fogger, 1 nos of mechanical sweeping machine, pipe conveyor of approx. 6.25 km length to be commissioned by September, 2020.

It was submitted that presently the mining activities & dumping of OB are atleast 350 m away from the river bank. In future, the minimum distance of 150 m between the bank of the river (all along the bank) and mining activities/OB dump will always be maintained.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**52.6.2** The EAC, therefore, after deliberations **recommended** for grant of environmental clearance for expansion of Bhatadi Opencast Coal Mine from 0.975 MTPA to 1.465 MTPA (Peak) of M/s Western Coalfields Limited in mine lease area of 847.37 ha, located in Village Bhatadi, District Chandpur, Maharashtra, under the provisions of

the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto in addition to the standard environmental conditions notified by the ministry and mentioned below:

- (i). Distance from the mine and OB Dump shall be 150 m away from river.
- (ii). All additional mitigation measures proposed shall be implemented in 1 year of issue of this letter.
- (iii). Project proponent to plant 100,000 nos. of native trees with broad leaves along the periphery of the mine to prevent the effect of air pollution in 3 years of the issue of this letter. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer
- (iv). Validity of EC is life of the mine or 30 years whichever is earlier as per EIA Notification, 2006
- (v). The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 1.465 MTPA prior to commencement of the increased production.
- (vi). Transportation of coal from Coal Handling Plant shall be through covered trucks.
- (vii). To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.
- (viii). Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.
- (ix). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (x). Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (xi). Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.
- (xii). Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.
- (xiii). The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 1.465 MTPA.
- (xiv). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (xv). A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.
- (xvi). Active OB Dump should not be kept barren/open and should be covered by

temporary grass to avoid air born of particles

- (xvii). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1<sup>st</sup> May, 2018.
- (xviii). 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.
- (xix). The Project Proponent shall complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (xx). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.
- (xxi). 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 antsnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- (xxii). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- (xxiii). 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.
- (xxiv). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A

copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

- (xxv). Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8<sup>th</sup> 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 Ministry.

### **Agenda No.52.7**

**Rajmahal ( Expansion) opencast coal mine project ( 17.0 MTPA capacity) an ML area of 1978.0 ha of M/s Eastern Coalfields Limited, located, in villages Bara Borai, Chhota Borai, Lohandiya, Paharpur and Talijhari, Tehsil Boarijore, District Godda, State (Jharkhand) - For Environmental Clearance – reg.**

**[Proposal No. IA/JH/CMIN/128369/2004; F.No. J-11015/30/2004-IA.II(M)]**

**52.7.1** The proposal was deliberated in EAC in its meeting held on 5<sup>th</sup> December, 2019 with the permission of Chairman, EAC. The proposal was already **recommended** by the EAC for grant of environmental clearance under clause 7(ii) of EIA Notification, 2006.

### **Agenda No.52.8**

**Expansion of Pauni- II Opencast Coal Mining Project with increase in production capacity from 0.60 MTPA to 3.25 MTPA in mine lease area of 1095.52 ha of M/s Western Coalfields limited located in village Sakhri, Tehsil Rajura, District Chandrapur (Maharashtra). – Extension of validity of Environmental Clearance**

**[IA/MH/CMIN/133855/2019; J-11015/80/2016-IA-II(M) ]**

**52.8.1** The proposal is of extension of validity of Environmental Clearance to the Expansion of Pauni- II Opencast Coal Mining Project with increase in production capacity from 0.60 MTPA to 3.25 MTPA in mine lease area of 1095.52 ha of M/s Western Coalfields limited located in village Sakhri, Tehsil Rajura, District Chandrapur (Maharashtra).

**52.8.2** The EC for the Expansion of Pauni- II Opencast Coal Mining Project with increase in production capacity from 0.60 MTPA to 3.25 MTPA in mine lease area of 1095.52 ha of M/s Western Coalfields limited located in village Sakhri, Tehsil Rajura, District Chandrapur, Maharashtra for a period of one year subject to compliance of terms and conditions as applicable, and the additional conditions as under:-

- (i) The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.
- (ii) The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 3.25 MTPA prior to commencement of the increased production
- (iii) Transportation of coal from face to Coal heap shall be carried out by truck. Further, the coal transportation from Coal heap to Coal Handling Plant shall be carried out through covered trucks.
- (iv) To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers
- (v) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.
- (vi) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 3.25 MTPA.
- (vii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (viii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable
- (ix) To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.
- (x) Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.
- (xi) Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.
- (xii) A third party assessment of EC compliance shall be undertaken once in three

years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

**52.8.3** During deliberations, the EAC noted the following:

The proposal is for extension of validity of environmental clearance dated 28<sup>th</sup> March, 2019 to the Expansion of Pauni-II Opencast coal mining project from 0.60 MTPA to 3.25 MTPA capacity in mine lease area of 1095.52 ha of M/s Western Coalfields limited located in village Sakhri, Tehsil Rajura, District Chandrapur (Maharashtra)

Para wise compliance of the earlier observations are reported to be as follows:-

<b>S. No.</b>	<b>Observations</b>	<b>Compliance status</b>
1	The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.,	The one season data for environmental parameters / one season baseline data has been collected during Pre-Monsoon Season i.e. October 2019 to December 2019. The Baseline monitoring report along with EC Compliance has been submitted to MoEF & CC through online portal vide dated 28-12-2019
2	The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 3.25 MTPA prior to commencement of the increased production	The consent to establish & operate has been recommended by MPCB in its CAC meeting held in August 2019. Awaiting for formal letters
3	Transportation of coal from face to Coal heap shall be carried out by truck. Further, the coal transportation from Coal heap to Coal Handling Plant shall be carried out through covered trucks.	Transportation of coal from coal face to coal heap is carried out by trucks. Coal transportation from coal heap to coal handling plant at Gouri is done through tarpaulin covered trucks.
4	To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers	The mine has started its operation in FY 16-17. In the last FY 18-19 it has produced only 0.60 MTPA against the EC of 3.25 MTPA. CHP hasn't been constructed yet. Adequate dust suppression arrangement will be put into operation once it comes up. At present coal from Pauni II Expansion OC is crushed in Gouri I&II(A) OC CHP premises. Dust suppression measures at Gouri are 3 nos departmental mobile tankers with capacity 28 KL each and 1 no hired tanker with capacity 12 KL. 9 nos of sprinklers are installed at CHP in Gouri I&II(A)

S. No.	Observations	Compliance status				
		OC . Dust suppression measures at Pauni II Expansion OC are 10 nos of rain guns installed at coal stock. 8 nos rainguns installed at weighbridge. Portable sprinklers with flexible pipes are provided at coal stock yard for dust suppression. Additional 10 nos rainguns to be installed at coal stock in FY 2019-20. 2 hired mobile water tankers of capacities 20 KL are in operation.				
5	Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.	Adequate mitigation measures have been put in place at various dust generating sources to control dust and other fugitive emissions. The details of existing systems are as follows: <ul style="list-style-type: none"> <li>• 10 nos of rain guns installed at coal stock.</li> <li>• 8 nos rainguns installed at weighbridge.</li> <li>• Portable sprinklers with flexible pipes are provided at coal stock yard for dust suppression.</li> <li>• Additional 10 nos rainguns to be installed at coal stock in FY 2019-20.</li> <li>• 2 hired mobile water tankers of capacities 20 KL are in operation.</li> </ul>				
6	The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 3.25 MTPA.	Approval for Groundwater from CGWA has been obtained vide letter no. CGWA/NOC/MIN/ORIG/2019/6229 valid from 30/09/2019 to 29/09/2021.				
7	Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.	Initial medical examination (IME) is done for every worker. Moreover regular health checkups through periodical medical examination (PME) of all the workmen once in 5 years as per the statue and workers above 55 years of age once in a year is conducted. All the works are being carried out with all the safety measures and awareness is being created among employees for safety and to avoid any accidents. Details of IME done in last 3 years are given below: <table border="1" data-bbox="735 2024 1463 2085"> <thead> <tr> <th data-bbox="735 2024 1027 2085">Year</th> <th data-bbox="1032 2024 1463 2085">IME</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Year	IME		
Year	IME					

S. No.	Observations	Compliance status	
		Contractual	Departmental
		2016-17	37
		2017-18	45
		2018-19	77
		2019-20 (upto Jun'19)	31
8	Persons of nearby villages shall be given training on livelihood and skill development to make them employable	<p>Skill development programs are being done along with CSR activities in nearby villages for improving skills and for enhanced employment opportunities. Nearby villagers are bring given preference for employment in contractual means.</p> <p>Following skill development programmes have been undertaken:</p> <p>i. Mobile repairing training programme from/ 19/02/2019 to 19/03/2019(25 nos. participants)</p> <p>ii. Beautician course from 03/03/2019 to 31/03/2019(25 nos. participants), was organized for local communities in 2018-19 with an expenditure of 2.82 lakhs.</p> <p>iii. Tailoring Programme for 25 nos. participants from local communities is planned in FY 19-20.</p>	
9	To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.	<p>Health camps are being conducted in nearby villages with our company doctors and staff for improving awareness and health consciousness among people.</p> <p>Medical camp has been conducted at Sasti village on 12/07/2019.</p> <p>Regular medical camps are also conducted at Area Hospital for all nearby villages in Ballarpur area.</p> <p>CSR clinic is provided at area hospital which has attendance of 150 persons (avg) per month from different villages surrounding mines of Ballarpur Area.</p>	
10	Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check	<p>Till date, 25000 nos of plantation in approximately 10.0 Ha on plain land near External OB dump has been carried out in July 2017. Types of species planted are as detailed below:</p>	

S. No.	Observations	Compliance status																																							
	the dust pollution.	<table border="1"> <thead> <tr> <th data-bbox="732 219 855 275">Sr no</th> <th data-bbox="860 219 1214 275">Species</th> <th data-bbox="1219 219 1466 275">Numbers</th> </tr> </thead> <tbody> <tr> <td data-bbox="732 282 855 331">1</td> <td data-bbox="860 282 1214 331">Amla</td> <td data-bbox="1219 282 1466 331">500</td> </tr> <tr> <td data-bbox="732 338 855 387">2</td> <td data-bbox="860 338 1214 387">Jamun</td> <td data-bbox="1219 338 1466 387">500</td> </tr> <tr> <td data-bbox="732 394 855 443">3</td> <td data-bbox="860 394 1214 443">Ganga Imli</td> <td data-bbox="1219 394 1466 443">115</td> </tr> <tr> <td data-bbox="732 450 855 499">4</td> <td data-bbox="860 450 1214 499">Neem</td> <td data-bbox="1219 450 1466 499">6450</td> </tr> <tr> <td data-bbox="732 506 855 555">5</td> <td data-bbox="860 506 1214 555">Karanj</td> <td data-bbox="1219 506 1466 555">3000</td> </tr> <tr> <td data-bbox="732 562 855 611">6</td> <td data-bbox="860 562 1214 611">Sissoo</td> <td data-bbox="1219 562 1466 611">2000</td> </tr> <tr> <td data-bbox="732 618 855 667">7</td> <td data-bbox="860 618 1214 667">Peltafarm</td> <td data-bbox="1219 618 1466 667">3500</td> </tr> <tr> <td data-bbox="732 674 855 723">8</td> <td data-bbox="860 674 1214 723">Babool</td> <td data-bbox="1219 674 1466 723">925</td> </tr> <tr> <td data-bbox="732 730 855 779">9</td> <td data-bbox="860 730 1214 779">Teak</td> <td data-bbox="1219 730 1466 779">1000</td> </tr> <tr> <td data-bbox="732 786 855 835">10</td> <td data-bbox="860 786 1214 835">Gulmohar</td> <td data-bbox="1219 786 1466 835">4000</td> </tr> <tr> <td data-bbox="732 842 855 891">11</td> <td data-bbox="860 842 1214 891">Casia</td> <td data-bbox="1219 842 1466 891">2000</td> </tr> <tr> <td data-bbox="732 898 855 949"></td> <td data-bbox="860 898 1214 949"><b>TOTAL</b></td> <td data-bbox="1219 898 1466 949"><b>25010</b></td> </tr> </tbody> </table>	Sr no	Species	Numbers	1	Amla	500	2	Jamun	500	3	Ganga Imli	115	4	Neem	6450	5	Karanj	3000	6	Sissoo	2000	7	Peltafarm	3500	8	Babool	925	9	Teak	1000	10	Gulmohar	4000	11	Casia	2000		<b>TOTAL</b>	<b>25010</b>
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11	Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.	<p>There is no utilization of surface water in mine. The entire demand viz. for dust suppression, plantation, washing etc. is met from the pumped out mine water.</p> <p>The mine water/seepage water is being collected in mines in the sump, initially it is being sedimented to free from any particles. The same water is being used for firefighting and dust suppression in mines.</p>																																							
12	A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.	<p>The third part assessment of EC compliance has been undertaken through CSIR-NEERI (Expert Agency identified by Ministry).</p> <p>The third party assessment of EC compliance report has been secured from CSIR-NEERI vide its letter dated 03.12.2019.</p>																																							

Further Certified Compliance Report of Ministry's Regional Office, Nagpur dated 5<sup>th</sup> December, 2019 was reviewed by EAC. The site visit by Regional Office has been conducted on 26<sup>th</sup> July, 2019. It was directed that all the conditions of EC shall be complied by PP within certain timeframe. Also, it is noted that Total land is 1152.66 ha which involves 12.07 ha of forest land however EC granted is for 1095.52 ha.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the report is in compliance, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**52.8.4** The EAC, after detailed deliberations and duly considering compliance of EC dated 28<sup>th</sup> March, 2019, and also those of the third Party assessment of EC conditions by CSIR-NEERI vide their letter dated 03<sup>rd</sup> December, 2019, **recommended** for continuance of the environmental clearance dated 28<sup>th</sup> March, 2019 for life of the mine or 30 years whichever is earlier, as per provisions of EIA Notification, 2006 with the conditions remaining the same in earlier EC and in addition to the conditions as mentioned below:-

- (i). EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc
- (ii). All the partially complied condition observed by Ministry's Regional Office in certified compliance report dated 5<sup>th</sup> December, 2019 shall be completed in 3 years.
- (iii). PP shall implement in-pit belt conveyor system in next 3 years from the issue of this letter.
- (iv). Project proponent to plant 100,000 nos. of native trees with broad leaves along the periphery of the mine to prevent the effect of air pollution in 3 years of the issue of this letter. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer
- (v). The Project Proponent shall complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (vi). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be

submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

- (vii). 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 antsnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- (viii). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- (ix). 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.
- (x). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- (xi). Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8<sup>th</sup> 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 Ministry.

## **Agenda No.52.9**

**Expansion of Gondegaon Extension OC Coal Mining Project for a production capacity of 3.50 MTPA in an area of 917.0 ha (mine lease area of 845.74 ha) of M/s Western Coalfields Limited, Located in Tehsil Parseoni District Nagpur, (Maharashtra) – For extension in Environmental Clearance**

**52.9.1** The proposal is for amendment in Environmental Clearance for Expansion of Gondegaon Extension OC coal mining project for a production capacity of 3.50 MTPA in an area of 791.40 ha of M/s Western Coalfields Limited, located in Teshil Parseoni, District Nagpur (Maharashtra)

**52.9.2** During deliberations, the EAC noted the following:

Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No. J-11015/106/2009- IA. II (M) dated 14<sup>th</sup> March, 2018 for 3.5 MTPA in mine lease area of 917.0 ha with one year validity. Further extension in validity of EC was given another one year on 28<sup>th</sup> March, 2019.

PP has submitted proposal in amendment in EC, however Ministry's in its letter dated 6<sup>th</sup> December, 2019 desired that both the cases of amendment and extension shall be taken up together and therefore earlier recommendation of EAC in its meeting held on 22<sup>nd</sup> October, 2019 was held up.

The Revised Mining Plan (built-in Mine Closure Plan) of Expansion of Gondegaon Extension OC has been approved by WCL board its Board vide its resolution no. WCL/BD/ SECTT/ BM-314/ 2019/ 852 dated 12<sup>th</sup> September, 2019 with a production capacity of 3.50 MTPA for lease area of 791.40 ha

In compliance of MoEF & CC directives, Certified Copy of Compliance for Expansion of Gondegaon Extension opencast coal mine project has been secured from RO, MoEF & CC, Nagpur vide its letter no. EC -766 /RON/ 2018/ NG/ 6001 dated 20<sup>th</sup> December, 2019. Site visit was conducted on 25<sup>th</sup> September, 2019 by Regional Office. The action taken report on Partial Non-compliance has been submitted to RO, MoEF & CC, Nagpur vide dated 23<sup>rd</sup> December, 2019. The Committee deliberated the same.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the report is in compliance, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**52.9.3** The EAC, after detailed deliberations and duly considering compliance of EC dated 28<sup>th</sup> March, 2019 as certified by Ministry's Regional Office, **recommended for continuance of the environmental clearance dated 28<sup>th</sup> March, 2019 for life of the mine or 30 years whichever is earlier**, as per provisions of EIA Notification, 2006 with the conditions remaining the same in earlier EC and in addition to the conditions as mentioned below:-

- (i). EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc
- (ii). All the partially complied condition observed by Ministry's Regional Office in certified compliance report dated 20<sup>th</sup> December, 2019 shall be completed in 3 years.
- (iii). Project proponent to plant 100,000 nos. of native trees with broad leaves along the periphery of the mine to prevent the effect of air pollution in 3 years of the issue of this letter. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer
- (iv). PP shall ensure no pollution to Kanha river and accordingly minimum distance of 150 m all along the bank of river shall be maintained.
- (v). All the recommendation of carrying capacity of riverine ecosystem being conducted by NEERI shall be implemented in timebound manner.
- (vi). The Project Proponent shall complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (vii). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.
- (viii). 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 antsnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

- (ix). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- (x). 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.
- (xi). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- (xii). Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8<sup>th</sup> 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 Ministry.

## **Agenda No.52.10**

**KDH extension OCP Project of (4.5 MTPA Normative) to (5.0 MTPA Peak) Project in an ML area 489.30 ha of M/s Central Coalfields Limited located in village Bistrampur, District Ranchi, (Jharkhand) – For EC Amendment**

**[IA/JH/CMIN/131319/2019] F.No. J-11015/311/2010-IA-II(M)**

**52.10.1** The EAC during deliberation noted the following:-

The proposal is for Extension in mine life of KDH Extension OCP Project of 4.5/5 MTPA capacity in an area of 489.30 Ha of M/s Central Coalfields Limited located in village Bishrampur, District: Ranchi (Jharkhand).

Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 Ministry's letter No J-11015/311/2010-IA.II (M) dated 30<sup>th</sup> January, 2015 in an area of 489.30 Ha for 4.5(Normative) / 5 (Peak) MTPA capacity. The life of the mine was 5 Years as per EC.

Mining Plan (Including Progressive Mine Closure Plan) has been approved by the CCL Board on 19.08.2010. Revised mine plan was approved on 04.11.2014.

Proposal is submitted for extension in mine life of KDH OCP as balance reserve in mine is about 1.82 MT and accordingly the mine life will be about 2 years at an average production from 2015-16 to 2019-20 (Till 15 Dec 2019) i.e. 0.85 MTY.

As per Ministry's notification dated 29<sup>th</sup> April, 2015 regarding validity of environmental clearance and its extension, it states as below:-

(i) The "Validity of Environmental Clearance" is meant the period from which a prior environmental clearance is granted by the regulatory authority, or may be presumed by the applicant to have been granted under sub paragraph (iv) of paragraph 7 above, to the start of production operations by the project or activity, or completion of all construction operations in case of construction projects (item 8 of the Schedule), to which the application for prior environmental clearance refers. The prior environmental clearance granted for a project or activity shall be valid for a period of ten years in the case of River Valley projects (item 1(c) of the Schedule), project life as estimated by Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee subject to a maximum of thirty years for mining projects and seven years in the case of all other projects and activities.

(ii) In the case of Area Development projects and Townships [item 8(b)], the validity period shall be limited only to such activities as may be the responsibility of the applicant as a developer:

Provided further that the regulatory authority may also consult the Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee, as the case may be, for grant of such extension.

(iii) Where the application for extension under sub-paragraph (ii) has been filed-

(a) within one month after the validity period of EC, such cases shall be referred to concerned Expert Appraisal Committee (EAC) or State Level Expert Appraisal Committee (SEAC) or District Level Expert Appraisal Committee and based on their recommendations, the delay shall be condoned at the level of the Joint Secretary in the Ministry of Environment, Forest and Climate Change or Member Secretary, SEIAA, as the case may be;

(b) more than one month after the validity period of EC but less than three months after such validity period, then, based on the recommendations of the EAC or the SEAC or the DEAC, the delay shall be condoned with the approval of the Minister in charge of Environment, Forest and Climate Change or Chairman, as the case may be:

Provided that no condonation for delay shall be granted for any application for extension filed 90 days after the validity period of EC."

The Committee noted that the proposal for extension of validity of environmental clearance was submitted by project proponent on 16<sup>th</sup> December, 2019 i.e. within the one month of the validity period of EC letter dated 30<sup>th</sup> January, 2015.

**52.10.2** The EAC after deliberation observed that though the application for extension is eligible under Ministry's Notification dated 29<sup>th</sup> April, 2015, however PP has not revised the Mine Plan (including Mine Closure Plan). It was noted by EAC that valid plan is very basic document for any coal mine project and PP and their consultants should atleast not do such silly mistake. EAC desired that the MoC may direct CIL subsidiaries to comply with these documents and come prepared with all relevant documents. For further extension it was desired that PP must submit approved revised Mine Plan and certified compliance status of EC conditions duly certified by Ministry's Regional Office, Ranchi.

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

### **Agenda No 52.11**

**Dipka Opencast Coal Mine Expansion Project of 35 MTPA in an ML area of 1999.293 ha M/s South Eastern Coal Fields Limited. Located in village Dipka Tehsil Korba (Chhattisgarh)- For extension in validity of Environmental Clearance – reg.**

**[IA/CG/CMIN/127735/2019] F.No. J-11015/487/2007-IA-II(M)**

**52.11.1** The proposal is for expansion of EC validity beyond 20<sup>th</sup> March, 2020 in respect of Dipka Opencast coal mine in mining lease area of 1999.293 ha of M/s South Eastern Coalfields Limited in District Korba (Chhattishgarh).

**52.11.2** During deliberations, the EAC noted the following:-

The proposal is for continuation of environmental clearance dated 20<sup>th</sup> March, 2019 to the Dipka Opencast Coal Mine Expansion Project of 35 MTPA in an ML area of 1999.293 ha M/s South Eastern Coal Fields Limited. Located in village Dipka Tehsil Korba (Chhattisgarh).

The project was granted environmental clearance by the Ministry vide letter dated 20<sup>th</sup> March, 2019, subject to compliance of certain terms and conditions, inter-alia including the following:-

“subject to review of compliance status of the conditions by the EAC to consider continuance of the project after one year”.

The Ministry's Regional Office at Nagpur has conducted site inspection of the project site on 5<sup>th</sup> November, 2019 to monitor the status of compliance of conditions stipulated in the environmental clearance dated 20<sup>th</sup> March, 2019 and submitted report vide their letter dated 27<sup>th</sup> November, 2019. The project proponent has submitted action plan to the EAC. The same was, however, yet to be endorsed by the Regional Office.

The Compliance of specific conditions and action plan mentioned in EC was presented to EAC. Further Action taken report shall be submitted to Ministry's Regional Office.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended the Proposal.

**52.11.3** The EAC, after detailed deliberations duly considering observations of the Ministry's Regional Office in their letter dated 27<sup>th</sup> November, 2019, **recommended for continuance of the environmental clearance dated 20<sup>th</sup> March, 2019 for a period of 30 years or life of the mine,** whichever is earlier, subject to the terms and conditions stipulated therein remaining the same.

The Committee also recommended the additional conditions

- (i). EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc.
- (ii). Also, EAC asked project proponent to plant 50,000 nos. of native trees (excluding other conditions of plantation given by this Ministry) with broad leaves along the villages and transportation route to prevent the effect of air pollution in three years. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Office.
- (iii). All Partially and non-complied conditions reported by Ministry's Regional Office in its certified compliance report dated 27<sup>th</sup> November, 2019 shall be completed in 2 years from the date of issue of this letter.
- (iv). The Project Proponent shall complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (v). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table.

The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

- (vi). Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antsnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- (vii). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- (viii). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
- (ix). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- (x). Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8<sup>th</sup> 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 Regional Office of the Ministry.

## **Agenda No 52.12**

**Argada Sirka Group of Mines (Sirka OCP, Sirka UGP & Argada UGP) for 1.125 MTPA normative and 1.293 MTPA peak in a total ML area of 907.04 ha of M/s Central Coalfields Limited, Located in, District Ramgarh, (Jharkhand) – For EC Amendment**

**[IA/JH/CMIN/19287/2008] F.No. J-11015/462/2008-IA-II(M)**

**52.12.1** The EAC during deliberation noted the following details:-

The proposal is for amendment in environmental clearance dated 25<sup>th</sup> September, 2014 to Argada-Sirka Group Mixed Mines (Argada UG, Sirka OC & Sirka UG) for 1.125 MTPA (Normative) and 1.293 MTPA (Peak) in a total mine lease area of 907.74 Ha of M/s Central Coalfields Limited located in District Ramgarh (Jharkhand).

Earlier EC was granted for life of mine 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, Argadda UG (0.085/0.097 MTPA) with a life of >30 Years.

The current proposal is extend the life of mine of Sirka OCP for a further period of 3 years. Final closure activities are being implemented

Validity of EC was already expired in 25<sup>th</sup> September, 2018 considering life of mine of Sirka OCP ( 4 years mine life).

**52.12.2.** The EAC, after deliberations, observed that in view of the mine life earlier estimated to be of 4 years for one of the mine, environmental clearance dated 25<sup>th</sup> September, 2014 was valid till 25<sup>th</sup> September, 2018 only. There being no amendment so far in the said environmental clearance and the same no more valid as of now, ongoing/continuing mining would be seen as violation of the EIA Notification, 2006.

The proposal was **returned** as it is in present form.

**Agenda No 52.13**

**Bharatpur Opencast (Expansion) Coal Mine Project of 20 MTPA capacity of in mine lease area of 1386.20 ha of M/s Mahanadi Coalfields Limited (MCL) located in Tehsil Talcher, District Angul (Odisha) - Amendment in Environmental Clearance.**

**[IA/OR/CMIN/9356/2007, F. No - J-11015/630/2007-I. A- II(M)]**

**52.13.1.** The proposal is for amendment in environmental clearance dated 31<sup>st</sup> October, 2008 granted by the Ministry in favour of M/s Mahanadi Coalfields Ltd to Bharatpur Opencast Expansion project (15 MTPA to 20 MTPA) located in Talcher Coalfields, Tehsil Talcher, District Angul (Odisha).

**52.13.2.** The proposal was earlier considered by the EAC in its meeting held during 31<sup>st</sup> August, 2018 & subsequently in its 45<sup>th</sup> meeting dated 27.05.2019 wherein the EAC observed that "The EAC, in the first instance was agreed in-principle for the proposed amendment for reduction in mine lease area from 1324.80 ha to 927.42 ha, and thus

amendment in environmental clearance dated 31st October, 2008 with all other terms and conditions stipulated therein remaining unchanged. At the same time, the committee talking note of its earlier observations (overlapping of land areas involved in the said coal mining projects, simultaneously figuring in the respective ECs) regarding non-compliance of the conditions stipulated in the respective ECs, insisted that the Ministry may first take a view in complete perspective".

**52.13.3.** During Deliberations the EAC noted the following

The proposal is for amendment in environment clearance dated 31<sup>st</sup> October, 2008 granted by the Ministry to the project for expansion of Bharatpur Opencast Coal mine from 15 to 20 MTPA of M/s Mahanadi Coalfields Limited in mine lease area of 1324.80 ha (includes 185.08 ha of forest and 1139.72 ha of non-forest land) located at Tehsil Talcher, District Angul (Odisha).

The common safety zone between Bharatpur and Ananta OCPs which was proposed to be worked by Ananta OCP was regularized in the Ananta OC Expn. 20.00 MTPA EC dated 10th December, 2014 and the said area is yet to be worked.

Similarly, the common safety zone between Bharatpur and Jagannath OCPs which was worked by Jagannath OCP was regularized in the Jagannath OC Expn. 7.5 MTPA EC dated 6th September, 2018.

This proposal submitted by Bharatpur OCP is for removal of these overlapping of land areas and thus for amendment in its environmental clearance dated 31st October, 2008 due to reduction in mine lease area from 1324.80 ha to 927.42 ha.

Though the overlapping areas are lying in common blasting safety zone of adjacent mines of M/s Mahanadi Coalfields Limited, the mines have been/are working in their respective EC areas.

**52.13.4.** The EAC after deliberations observed that by bringing such proposals for change in area of three mines although all these mines belong to same project proponent thereby creating unnecessary issues. It was desired that PP must first produce the mine plan all three adjacent mines with the said proposed changes in area (i.e. Bharatpur, Ananta, Jagannath). If the Ananta OCP and Jagannath OCP has been regularised and being worked out, without revised mine plan (including area of Bharatpur OCP) then it's a gross non-compliance. Also, it was noted that there cannot be common safety zone, if the projects having separate EC then each projects need to have a separate safety zone of each. **During the EAC, PP could not explain properly the requisite information as sought by the EAC.** Further, it was suggested that if needed, PP may merge these ECs and take a single EC. Thereafter, after detailed deliberation, the EAC **deferred** the proposal.

**Agenda No 52.15**

**Cluster 12 comprising of 19 mines of a combined production capacity of 27.16 MTPA (Normative)/31.83 MTPA (Peak) in a combined ML area of 13759.55 ha M/s Eastern Coalfields Limited located in Raniganj Coalfields in Tehsil Haripur**

**Block, District Burdwan (West Bengal) – Amendment in Environmental Clearance – reg.**

**[IA/WB/CMIN/9503/2011; F.No. J-11015/76/2011-IA.II(M)]**

**52.15.1** The EAC during deliberations noted the followings: -

The proposal is for Amendment in EC condition of Cluster 12 comprising of 15 mines of a combined production capacity of 27.16 MTPA (Normative)/31.83 MTPA (Peak) in a combined ML area of 12736 ha M/s Eastern Coalfields Limited located in Raniganj Coalfields in Tehsil Haripur Block, District Burdwan (West Bengal).

Earlier, amendment in environment clearance dated 9<sup>th</sup> February, 2015 was made and communicated to the project proponent vide letter dated 3<sup>rd</sup> March, 2016, on account of reorganisation of mines resulting in number of mines reduced from 19 to 15 and the combined mine lease area from 14047 ha to 12736 ha with restructuring of production of individual mines however without any change in the overall production capacity

EC amendment dated 3<sup>rd</sup> March, 2016 includes restructuring of production of Jhanjra UGP was enhanced from 3.50 MTPA to 5.0 MTPA with additional specific conditions as stated below:-

“the silo loading facility at Jhanjra should be completed within three years, and the production from Jhanjra should be enhanced to 5.0 MTPA only after commissioning both of the new railway siding, and the silo loading facilities”

PP submitted that production has been limited to 3.5 MTPA till now and commissioning of Railway Siding & Silo loading facilities is yet to be initiated

Amendment has been sought for allowing production up to 4.0 MTPA with existing system of transport i.e. exempting above condition.

**52.15.3** Earlier, EAC in its meeting held on 31<sup>st</sup> August, 2018 observed that the proposal for construction of railway siding was still in the initial stages as only work order for preparation of DPR was issued on 22nd December, 2017. Further, no acquisition of land was done and as such, no satisfactory progress was observed.

Further, the Committee especially in view of no forest clearance available for 38.44 ha of forest land involved under one of the constituent mines namely, Tilaboni UG, did not agree to the proposed amendment in the environmental clearance dated 9th February, 2015, amended on 3rd March, 2016.

**52.15.3** The EAC after deliberations reiterated the earlier observation as mentioned in para 52.15.2. Also, committee noted that these amendments would not be required if PP comply all the conditions however PP does not bother to comply and keep on seeking amendments and relaxation. PP should strictly abide the conditions and should not increase the production beyond 3.5 MTPA till the compliance of conditions are completed. Further, committee desired that this Ministry may communicate to Ministry

of Coal that enforcement and regulating the compliance status of EC conditions should be on top priority.

The proposal was **deferred** on the above line.

**Agenda No 52.16**

**Batura Highwall Project of 0.5 MTPA of M/s South Eastern Coalfields Limited in an area of 397.776 ha located in Tehsil Solapur, District Shahdol (Madhya Pradesh) – For Terms of Reference**

**[IA/MP/CMIN/105100/2019; F.No. IA-J-11015/54/2019-IA-II(M)]**

**52.16.1** The proposal is for Terms of Reference for Batura Highwall Project of 0.5 MTPA of M/s South Eastern Coalfields Limited in an area of 397.776 ha located in Tehsil Solapur, District Shahdol, Madhya Pradesh.

**52.16.2.** 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 Batura HW Block located in the western part of Sohagpur Coalfield lies in Tahsil Annuppur, District Annuppur and about 20 Km North of Annuppur town and about 50 Km South east of Shahdol, the district headquarters
- (ii) Joint Venture: No
- (iii) The latitude and longitude of the project are Latitude-23<sup>0</sup>13'00" to 23<sup>0</sup>14'00" N, Longitude-81<sup>0</sup>37'00" to 81<sup>0</sup>41'00" E, respectively.
- (iv) Mining Plan for the project, including Progressive Mine Closure Plan, was approved by the Board of M/s South Eastern Coalfields Ltd was approved in its meeting held on 25/07/2015.
- (v) The project involves total land of 397.776 ha for quarry, industrial, residential complex, safety zone, and roads. The detailed land use pattern is as under:

**Pre mining Land Use pattern**

S.N.	Land use	Within ML Area (ha)	Outside ML Area (ha)	Total
1	Agricultural Land	353.662	0.000	353.662
2	Forest Land	0.000	0.000	0.000
3	Waste Land	0.000	0.000	0.000
4	Grazing Land	0.000	0.000	0.000
5	Surface water bodies	4.880	0.000	4.880
6	Others (Govt. land)	39.234	0.000	39.234
	<b>TOTAL</b>	<b>397.776</b>	<b>0.000</b>	<b>397.776</b>

**Post mining Land use:**

S.N.	Land use during Mining	Land Use (Ha)

		Plantation	Water Body	Public Use	Undisturbed	TOTAL
1.	External OB Dump	20.820	0	0	0	20.820
2.	Top soil Dump	1.000	0	0	0	1.000
3.	Internal OB Dump	51.000	0	0	0	51.000
4.	Roads	0	0	9.480	0	9.480
5.	Built up area	0	0	5.100	0	5.100
6.	Green Belt	71.760	0	0.000	0	71.760
7.	Undisturbed Area	0.000	0	0.000	238.616	238.616
	TOTAL	144.580	0	14.580	238.616	397.776

- (vi) The project does not have any forest land involved.
- (vii) There are no ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves is not available within 10 km radius of the project. There are no Schedule-I species as per Wildlife (Protection) Act, 1972 in the core and buffer zones of the project.
- (viii) There are no court cases/litigations pending against the project.
- (ix) As coal demand for TPS has no firm linkage, the project may be linked to new upcoming thermal power projects likely to come in nearby Coalfield. The coal from the mine to surface will be transported through trucks and from siding to consumers with rail.
- (x) Total net geological reserve is 5.57 MT. Total mineable reserves of the proposed mine have been estimated as 5.25 Million Tonnes. The percent of extraction would be 60%. There is only one major coal seams with thickness ranging from 0.38 - 2.05 m, respectively. The grade of the coal is G-4 and the stripping ratio is 25 cum/tonne. The average gradient is 1 in 30 m.
- (xi) Highwall Miner has been proposed to work for extraction of coal based on geo-mining parameters of the quarry. Coal production will be done through outsourcing. Coal mined by the Highwall miner will be transported by trucks/dumpers from the pit to coal stock yard, coal stock yard to railway siding and also by road.
- (xii) The estimated life of the mine is 08 years.
- (xiii) Top soil over the trenches will be removed, stock-piled and redistributed to achieve uniform thickness consistent with the post mining land uses, contours and surface water drainage system.
- (xiv) The total 51 Ha area will be back filled and reclaimed by spreading top soil and planting native species. Internal dumping will start from 5<sup>th</sup> year onwards. Total of 2 no of external OB dumps will be there in an area of 20.82 Ha of a volume 6M Cum and a max height of 60m.

Type of Dump	Area (ha)	Quantity of Overburden(Mm3)
Internal Dump	51.00	12.75
External Dump	20.82	6.0 (back filling 6 <sup>th</sup> to 8 <sup>th</sup> years)

- (xv) Total water demand for this Project works out to be around 78.007 m<sup>3</sup>/day (Industrial 74.25 KL source: mine water and domestic: 3.757 KL, source: borewell). Ground water clearance will be obtained.
- (xvi) The pre-monsoon of ground water levels in the study area are in the range of 6.09m (min) to 12.70 m (max). Post-monsoon of ground water levels in the study area are in the range of 1.75m to 10.90m.
- (xvii) The number of affected land oustees has been estimated as 582 and the number of families to be displaced from the villages falling within the mine block as 582.
- (xviii) The estimated project cost is Rs.231.9209 crores. The capital cost of Environmental Protection Measures (EMP) is Rs. 2.141 Crores, R&R cost of Rs. 51.1651 Crores. The recurring cost of Environmental Protection Measures (EMP) is Rs. 0.206 Crores/Annum. The estimated employment generation is 69 nos (Department) and approx 500 nos. (Allied services manpower).
- (xix) Benefits of the project: Project will considerably improve the socio-economic status of the adjoining areas. This will result in benefits such as improvements in physical infrastructure; improvements in social infrastructure, increase in employment potential, contribution to the exchequer, meet energy requirement and post-mining enhancement of green cover.

**52.16.3** The EAC after deliberation noted the following:-

The proposal is for Terms of Reference for Batura Highwall Project of 0.5 MTPA of M/s South Eastern Coalfields Limited in an area of 397.776 ha located in Tehsil Solapur, District Shahdol, Madhya Pradesh.

The project does not have any forest land involved for non-forestry activity. Mining Plan for the project, including Progressive Mine Closure Plan, was approved by the Board of M/s South Eastern Coalfields Ltd was approved in its meeting held on 25/07/2015

**52.16.4** The Committee, after deliberations, **recommended** for grant of terms of references Batura Highwall Project of 0.5 MTPA of M/s South Eastern Coalfields Limited in an area of 397.776 ha located in Tehsil Solapur, District Shahdol (Madhya Pradesh) 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). Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA), if applicable
- (ii). Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report
- (iii). PP shall demarcate and explain the exact area and location for storage of top soil in mine plan

**Agenda No 52.17**

**Gandhigram UG coal mine Project of 1.60 MTPA in an area of 734.378 ha of M/s Western Coalfields Limited, located in, Tehsil Ghoradongri, District, Betul, (Madhya Pradesh) – For Amendment in ToR**

**[IA/MP/CMIN/127278/2019] F.No. J-11015/27/2017-IA.II(M)**

**52.17.1** The proposal is for obtaining amendment in ToR for Gandhigram UG mine for 1.26 MTPA within area of 734.378 ha of M/s Western Coalfields Limited located in Ghoradongri tehsil of Betul district (Madhya Pradesh).

**52.17.2** The EAC during deliberation noted the following :-

The proposal is for obtaining amendment in ToR for Gandhigram UG mine for 1.26 MTPA within area of 734.378 ha of M/s Western Coalfields Limited located in Ghoradongri tehsil of Betul district, Madhya Pradesh.

Earlier, Terms of References (ToR) for Gandhigram UG coal mine project was granted by MoEF & CC vide its letter no. J- 11015/27/2017-IA-II(M) dated 20.07.2017 for a production capacity of 1.60 MTPA in an area of 735.073 ha.

Subsequently, Project report for Gandhigram UG mine has been recast in May - 2019. The Recast Project Report (including Mining Plan with built-in Mine Closure Plan) of Gandhigram UG Mine has been approved by WCL board vide its resolution no. WCL/BD/ SECTT/ BM-314/ 2019/842 dated 12.09.2019 with a production capacity of 1.26 MTPA for an area of 734.378 ha (721.190 ha within ML area + 13.188 ha outside ML area).

The comparative chart showing change in configuration as per approved Recast Project Report is as follows:

Sl. No.	Land Use	Configuration as per ToR dated 20.07.2017			Proposed configuration as per approved Recast Project Report in amended ToR solicited for		
		Within ML Area (ha)	Outside ML Area (ha)	Total	Within ML Area (ha)	Outside ML Area (ha)	Total (ha)
1	Agricultural land	62.496	10.86	73.356	50.970	9.73	60.700
2	Forest land	628.067	6.14	634.207	648.37	2.446	650.816
3	Waste land/Govt. land	27.51	-	27.51	21.850	1.012	22.862
4	Grazing land	--	--	--	--	--	--
5	Surface water	--	--	--	--	--	--

	bodies						
6	Settlements	--	--	--	--	--	--
7	Others (specify)	--	--	--	--	--	--
	<b>Total</b>	<b>718.073</b>	<b>17.00</b>	<b>735.073</b>	<b>721.190</b>	<b>13.188</b>	<b>734.378</b>

As such, this application for amendment of ToR for Gandhigram UG coal mine project for a production capacity of 1.26 MTPA in an area of 734.378 ha (721.190 ha within ML area + 13.188 ha outside ML area) is being made as required under EIA notification, 2006.

The total land requirement for this project is 734.378 ha, out of this 650.816 ha is forest land, 22.862 ha is government land and balance land 60.70 ha is tenancy/agriculture land.

It was noted the there are changes in agricultural land area and forest land area. The agricultural land area has now decreased and forest land area has increased with overall slight reduction in area from 735.073 ha to 734.378 ha.

Changes in Land use details are as follows:

Sl. No.	Land Use	Rights	Type of land	Area (Ha)
<b>A)</b>	<b>Infrastructure</b>			
	Two no. of Inclines, Air shaft, approach to airshaft, Service Buidings, Road from Satpura Dam to Mine site etc.	Surface / all Rights	Tenancy	15.340
			Govt.	2.598
			Forest	7.616
	<b>Sub-Total (A)</b>			<b>25.554</b>
<b>B)</b>	<b>Mining Area</b>			
	For UG mine working	ALL Right	Tenancy	45.360
			Govt.	20.264
		Mining Right	Forest	643.200
	<b>Sub-Total (B)</b>			<b>708.824</b>
	<b>Total</b>			<b>734.378</b>

**52.17.3** The EAC after deliberation **recommended** the proposed changes desired for amendment in ToR for the project Gandhigram UG coal mine Project of 1.60 MTPA in an area of 734.378 ha of M/s Western Coalfields Limited located in Tehsil Ghoradongri, District, Betul, (Madhya Pradesh) with all the conditions remaining same and with additional conditions as follows:

- (i). Application for stage – I forest clearance for the increased area
- (ii). Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report

- (iii). Certificate of Ground water clearance from CGWA
- (iv). Compensatory afforestation to be done and native trees to be planted/transplanted preferably subject to permission granted by the State Government.

### **Any other Item deliberated with the permission of the Chairman**

#### **Agenda No 52.18**

#### **Sayal D Opencast Coal Mine Project of 1.0 MTPA (Normative)/1.35 MTPA (Peak) of M/s Central Coalfields Ltd in a project area of 286.98 ha in District Ramgarh (Jharkhand) – Environmental Clearance**

The EAC during deliberations noted the following:-

The above proposal is for grant of environmental clearance to Sayal D Opencast Coal Mining Project of 1.0 MTPA Normative and 1.35 MTPA Peak Capacity in project area of 286.98 ha of M/s Central Coalfields Limited located in Bakra Syal area, District Ramgarh (Jharkhand).

Mine Plan including Mining Closure Plan for Sayal D OCP was approved on 03th November, 2017 for a mine closure cost of Rs. 3033.62 Lakhs.

The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Projects in its 24<sup>th</sup> meeting held on 11<sup>th</sup> January, 2017. The EAC, after deliberations, recommended the project for grant of environmental clearance.

The Ministry, after examination of the recommendation of the EAC and further deliberations on the reported mining operations in the past desired following details:

- (i) Detail of EC granted by the Ministry/SEIAA for the reported mining operations in the past at the project site.
- (ii) Year wise production detail since the year 2000-01, as reported to the Coal Controller Organization
- (iii) Mine Closure status submitted to the DGMS and the compliance thereof.

It was noted that a meeting between representative of the PP was convened under the chairmanship of Joint Secretary on 16th March, 2018 and above details were sought again. However, PP in its reply did not provided the details of Mine Plan and Mine Closure Report, year wise details of activities carried out and expenditure incurred in the mine closure since inception.

Also, it is to be noted that Project Proponent has submitted the Consent to Operate (CTO) of the mine. Emission Consent order under Air (Pollution & control of Pollution) Act since the year 1994 to 2005 and Discharge Consent Order under Water (Prevention & control of pollution) since the year 1989-2001 has been submitted by PP. No CTO has been submitted by project proponent from 2005 to 2017. It is to be noted that consent document does not mention the capacity of production.

Further, the past production details of the mine since 1973-74 to 2018-19 wherein data of production depicts that production started way back in 1980-81 till 2000-01. There was no production carried out after 2000-01. Also, it has been submitted that there is no requirement of Mining Lease and its renewal as the land was acquired under Coal Bearing Area (Acquisition & Development) Act, 1957.

It is observed from the production data that PP has not exceeded from base year of 1993-94 i.e. production is not more than 0.394 MTPA.

Mine Plan/Scheme of earlier production since 1980 - 2000-01 has not been submitted by PP yet after reputed request. Also, nothing has been informed about the Mine Closure report, its requirement and/or the applicability for the said mine.

The proposal cannot have considered as green field project as already coal has been extracted earlier as per production and without environmental clearance under 1994 and 2006 notification. However, mining is non-operational since 2000-01.

In a repeated communication with PP and the Ministry, PP has not yet submitted Mine Plan and Mine Closure Report Status for the previous mining activity.

The EAC after deliberations and in view of facts on project file observed that PP must provide the details about earlier mining activity and therefore must submit the details of Mine Plan and Mine Closure Report for the previous mining operation. Also as the CTO's does not mention the quantity, earlier mine plan will support in ascertaining about violation from base year production of i.e. 1993-94. In case of non-submission of relevant documents by PP, the proposal may be kept on hold and earlier recommendation of EAC shall be kept in abeyance till further submission by project proponent.

### **Agenda No 52.19**

### **Amrapali Opencast coal mining project of 12 MTPA in an area of 619.87 ha of M/s Central Coalfields Limited, located in Tehsil Tandwa, District Chatra (Jharkhand) - Revalidation of Environmental Clearance**

The EAC during deliberations noted the following:-

The proposal is for revalidation of the environmental clearance dated 3<sup>rd</sup> January, 2006 granted by the Ministry in favour of M/s Central Coalfields Ltd for Amrapali Opencast Coal Mining Project of 12 MTPA in mine lease area of 1426.08 ha located villages KhumarangKhurd, KhumarangKalan, Ursu, Binglat, Honhe, tehsil Pachra Block, District Chatra (Jharkhand), as mandated under the Ministry's Notification dated 6<sup>th</sup> April, 2018.

The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Sector in its 44<sup>th</sup> meeting held on 24-25 April, 2019 has recommended the project for grant revalidation of environmental clearance based on Ministry's Notification dated 6<sup>th</sup> April, 2018

The Ministry, after examination of the recommendation of the EAC and further deliberations observed that EC was granted for an area of 1426.08 ha however during

revalidation PP has reduced the area from 1426.08 to 619.87 ha and accordingly revised the mine plan with the capacity remaining the same.

It was noted that reduction in area is due to involvement of forest land (793.08 ha) wherein PP has obtained Stage-II for 531.64 ha and remaining forest land is still under process. Further, as per Ministry's OM dated 31<sup>st</sup> March, 2011 and its further clarification dated 9<sup>th</sup> September, 2011 based on Judgement of Hon'ble Supreme Court dated 6<sup>th</sup> July, 2011 in the case of Lafarge mining. Therefore, PP has reduced the area and revised the Mine Plan excluding the balance forest land for which Stage-I FC is not available.

The EAC after deliberation observed that, in view of facts above, the proposal may be considered for revalidation of Environmental Clearance and also of amendment in Environmental Clearance due to change in area. The EAC recommended the change in area which is due to unavailability of Stage-I FC and further reiterated the earlier recommendation of revalidation of EC.

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

**\*\*\*\*\***

**Annexure-I**

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

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

**(a) Statutory compliance**

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iii) The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).

- (iv) The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (vi) Solid/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.

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

- (i) Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
- (ii) The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25<sup>th</sup> September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- (iii) Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM<sub>10</sub>/PM<sub>2.5</sub>) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- (iv) The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
- (v) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- (vi) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered

to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

- (vii) Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

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

- (i) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25<sup>th</sup> September, 2000 and as amended from time to time by the Central Pollution Control Board.
- (ii) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27<sup>th</sup> May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- (iii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- (iv) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- (v) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- (vi) Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.

- (vii) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).
- (viii) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.
- (ix) The water pumped out from the mine, after siltation, shall be utilized for industrial purpose *viz.* watering the mine area, roads, green belt development *etc.* The drains shall be regularly desilted particularly after monsoon and maintained properly.
- (x) The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake *etc.*, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.
- (xi) The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

**(d) Noise and Vibration monitoring and prevention**

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

**(e) Mining Plan**

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

**(f) Land reclamation**

- (i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- (ii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27<sup>th</sup> August, 2009 and subsequent amendments.
- (iii) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining"/"post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
- (iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- (v) Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue

until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.

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

**(g) Green Belt**

- (i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
- (ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.

**(h) Public hearing and Human health issues**

- (i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis.
- (ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.
- (iii) Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- (iv) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
- (v) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29<sup>th</sup> October, 2014, titled

'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

**(i) Corporate Environment Responsibility**

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

**(j) Miscellaneous**

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

- (iv) The project proponent shall monitor the criteria pollutants level namely; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- (v) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (vi) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29<sup>th</sup> October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.
- (vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- (viii) The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
- (xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- (xvi) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and

Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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

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

**I. Statutory compliance:**

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

**II. Air quality monitoring and preservation**

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

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

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

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

constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

- iv. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- v. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- vi. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.
- vii. Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff
- viii. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
- ix. Industrial waste water from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste water.
- x. Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- xi. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/GoI Authority. The construction of

embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.

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

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

- i. Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in underground mining operations, operation of HEMM, etc. shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms/guidelines in this regard. Progress in usage of such accessories to be monitored. Adequate awareness programme for users to be conducted.
- ii. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

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

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

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

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment,

Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).

- ii. Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- iii. Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.
- iv. Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3<sup>rd</sup> November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, alongwith fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- v. A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.
- vi. Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.
- vii. Native tree species shall be selected and planted over areas affected by subsidence.
- viii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

## **VII. Green Belt**

- i. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. Action plan, in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
- ii. Greenbelt, consisting of three-tier plantation, of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The green belt

comprising of a mix of native species shall be developed all along the major approach roads/ coal transportation roads.

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

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
- ii. The Project Proponent shall undertake Occupational Health survey for initial and Periodical medical examination of the workers engaged in the Project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS Circulars. Besides carrying out regular periodic health check-up of their workers, 20% of the workers engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.
- iii. Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.
- v. Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
- vi. Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/ or the National R&R Policy/ R&R Policy of the State Government, as applicable
- vii. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29<sup>th</sup> October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

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

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms

/ conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

## **X. Miscellaneous**

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

- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**Standard EC Conditions for Coal Washery Project**

**I. Statutory compliance:**

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

**II. Air quality monitoring and preservation**

- i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO<sub>2</sub> and NO<sub>x</sub>. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months.
- ii. Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. Location of the stations shall be decided based on the meteorological data, topographical features and

environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.

- iii. Transportation of coal by road shall be carried out by covered trucks/conveyors. The transportation of clean coal and rejects shall be by rail with wagon loading through silo. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulates such as roads, belt conveyors, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled at source. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board
- iv. All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered trucks.
- v. Covered trucks shall be engaged for mineral transportation outside the washery upto the railway siding, shall be optimally loaded to avoid spillage en-route. Trucks shall be adequately maintained and emissions shall be below notified limits.
- vi. Facilities for parking of trucks carrying raw material from linked mine shall be created within the unit.
- vii. Vehicular emissions shall be kept under control and regularly monitored. The vehicles having 'PUC' certificate from authorized pollution testing centres shall be deployed for washery operations.
- viii. Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.
- ix. The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.
- x. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.

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

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.

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

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

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

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

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

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

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

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

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

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six-monthly basis.
- ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel

identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any. as amended time to time.

- iii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
- v. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29<sup>th</sup> October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

#### **VIII. Corporate Environment Responsibility**

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

#### **IX. Miscellaneous**

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**Generic ToR for coal washery**

- i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washery preferably through closed conveyer belt to avoid air pollution.
- ii. The washery shall not be located in eco-sensitive zones areas.
- iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
- iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
- v. A brief description of the plant alongwith a layout, the specific technology used and the source of coal should be provided.
- vi. The EIA-EMP Repot should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
- vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Govt.
- viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub> and NO<sub>x</sub>, noise, water (surface and groundwater), soil be submitted.
- ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
- x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
- xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail

is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in EIA/EMP report.

- xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.
- xiii. Impacts of CHP, if any, on air and water quality should also be spelt out alongwith Action Plan.
- xiv. O.M.no.J-II0I3/25/2014-IA.I dated 11<sup>th</sup> August, 2014 to be followed with regard to CSR activities.
- xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.
- xvi. Analysis of samples indicating the following be submitted:
  - Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc).
  - Characteristics and quantum of coal after washing.
  - Characteristics and quantum of coal rejects.
- xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.
- xviii. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.
- xix. Corporate Environment Responsibility:
  - a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
  - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
  - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
  - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- xx. A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.
- xxi. Permission of drawl of water shall be pre-requisite for consideration of EC.
- xxii. Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986
- xxiii. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

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

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

should be shown in the map along with the status of the approval of the competent authority.

- (xi) Break up of lease/project area as per different land uses and their stage of acquisition should be provided.

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

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

- (xii) Break-up of lease/project area as per mining plan should be provided.
- (xiii) Impact of changes in the land use due to the project if the land is predominantly agricultural land/forestland/grazing land, should be provided.
- (xiv) One-season (other than monsoon) primary baseline data on environmental quality - air (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub> and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xv) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.
- (xvi) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.
- (xvii) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme

until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.

- (xviii) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xix) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xx) Detailed water balance should be provided. The break-up of water requirement for the various mine operations should be given separately.
- (xxi) Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users in the upstream and downstream of the project site. should be given.
- (xxii) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xxiii) Impact of blasting, noise and vibrations should be given.
- (xxiv) Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.
- (xxv) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xxvi) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xxvii) Details of waste OB and topsoil generated as per the approved calendar programme, and their management shown in figures as well explanatory notes tables giving progressive development and mine closure plan, green belt development, backfilling programme and conceptual post mining land use should be given. OB dump heights and terracing based on slope stability studies with a max of 28° angle as the ultimate slope should be given. Sections of final dumps (both longitudinal and cross section) with relation to the adjacent area should be shown.
- (xxviii) Efforts be made for maximising progressive internal dumping of O.B., sequential mining, external dump on coal bearing area and later rehandling into the mine void.--to reduce land degradation.
- (xxix) Impact of change in land use due to mining operations and plan for restoration

of the mined area to its original land use should be provided.

(xxx) Progressive Green belt and ecological restoration /afforestation plan (both in text, figures and in the tabular form as per the format of MOEFCC given below) and selection of species (native) based on original survey/land-use should be given.

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

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

\*As a representative example

Table 2 : Stage Wise Cumulative Plantation

S. No.	YEAR*	Green Belt	External Dump	Backfilled Area	Others(Undisturbed Area/etc)	TOTAL
1.	1 <sup>st</sup> year					
2.	3 <sup>rd</sup> year					
3.	5 <sup>th</sup> year					
4.	10 <sup>th</sup> year					
5.	15 <sup>th</sup> year					
6.	20 <sup>th</sup> year					
7.	25 <sup>th</sup> year					
8.	30 <sup>th</sup> year					
9.	34 <sup>th</sup> year(end of mine life)					
10.	34- 37 <sup>th</sup>					

	Year (Post-mining)										
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\*As a representative example

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

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

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

- (xxxix) Flow chart of water balance should be provided. Treatment of effluents from workshop, township, domestic wastewater, mine water discharge, etc. should be provided. Details of STP in colony and ETP in mine should be given. Recycling of water to the max. possible extent should be done.
- (xxxix) Occupational health issues. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower in the mine should be given.
- (xxxix) Risk Assessment and Disaster Preparedness and Management Plan should be provided.
- (xxxix) Integration of the Env. Management Plan with measures for minimizing use of natural resources - water, land, energy, etc. should be carried out.
- (xxxix) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxxix) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.
- (xxxix) CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be

given.

(xxxix) Corporate Environment Responsibility:

- a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
- b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
- c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
- d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

- (xl) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.
- (xli) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xlii) Status of any litigations/ court cases filed/pending on the project should be provided.
- (xl iii) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.
- (xliv) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

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

TOTAL ML/PROJECT AREA (ha)	TOTAL FORESTLAND (ha)	Date of FC	Extent of forestland	Balance area for which FC is yet to be obtained	Status of appl for. diversion of forestland
		If more than , provide details of each FC			

**GENERIC TORs FOR AN UNDERGROUND COALMINE PROJECT**

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

S.N	ML/Project use	Land	Area under Surface Rights(ha)	Area Under Mining Rights (ha)	Area under Both (ha)
1.	Agricultural land				

2.	Forest Land			
3.	Grazing Land			
4.	Settlements			
5.	Others (specify)			

#### Area under Surface Rights

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

- (viii) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.
- (ix) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.
- (x) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xi) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub> and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xiii) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One

station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.

- (xiv) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xv) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.
- (xvi) Detailed water balance should be provided. The break up of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.
- (xvii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.
- (xviii) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xix) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xx) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.
- (xxi) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.
- (xxii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.
- (xxiii) Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the pre- mining status should be provided. A Plan for the ecological restoration of the mined out area and post mining land use should be prepared with detailed cost provisions. Impact and management of wastes and issues of re-handling (wherever applicable) and backfilling and progressive mine closure and reclamation should be furnished.
- (xxiv) Greenbelt development should be undertaken particularly around the transport

route and CHP. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be submitted.

- (xxv) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxvi) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.
- (xxvii) CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be given.
- (xxviii) Corporate Environment Responsibility:
  - a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
  - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
  - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
  - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- (xxix) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.
- (xxx) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xxxi) Status of any litigations/ court cases filed/pending on the project should be provided.
- (xxxii) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.
- (xxxiii) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

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

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

**GENERIC TORs FOR AN OPENCAST-CUM-UNDERGROUND COALMINE PROJECT**

- (i) An EIA-EMP Report would be prepared for a combined peak capacity of .....MTPA for OC-cum-UG project which consists of .... MTPA in an ML/project area of ..... ha for OC and .... MTPA for UG in an ML/project area of ..... ha based on the generic structure specified in Appendix III of the EIA Notification 2006.
- (ii) An EIA-EMP Report would be prepared for..... MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for..... MTPA of coal production based on approved project/Mining Plan for.....MTPA. Baseline data collection can be for any season (three months) except monsoon.
- (iii) The ToRs prescribed for both opencast and underground mining are applicable for opencast – cum-underground mining.

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Email

rb.lal@nic.in

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**Approval of MoM of EAC (coal Mining) held in January, 2020.**

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**From :** navin chandra <navinchandrarrl@yahoo.com>

Fri, Feb 07, 2020 04:49 PM

**Subject :** Approval of MoM of EAC (coal Mining) held in January, 2020.

**To :** National Informatics Centre (NIC) <rb.lal@nic.in>

**Reply To :** navin chandra <navinchandrarrl@yahoo.com>

Dear Dr. R.B. Lal,

I have gone through the Minutes of the Meeting of EAC (Coal Mining) held in January 2020. The Minutes are in order and ready to be uploaded on the website of the MoEF&CC.  
Regards,

yours sincerely,

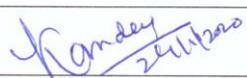
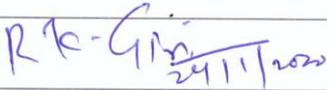
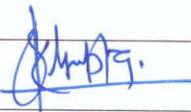
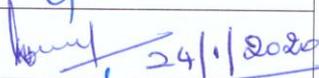
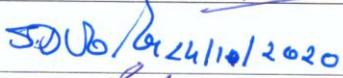
(NAVIN CHANDRA)

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Dr. Navin Chandra,  
Vice Chancellor, IES University, Bhopal  
Chairman, Coal Mining & Thermal Power,  
MoEF&CC, GOI, New Delhi.  
Ex-Director General MPCST, Bhopal,  
(Retd.) Director (Actg.), CSIR-AMPRI, Bhopal  
Member, RC, CSIR-AMPRI, Bhopal.  
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navinchandrarrl@yahoo.com, navinchandraampri@gmail.com

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<sup>52nd</sup>  
**PARTICIPANTS IN 52nd EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 24<sup>th</sup> January, 2020. ON COAL SECTOR PROJECTS.**

Sl. No.	List of Participants Expert Appraisal Committee (Coal Mining)	Signature
1.	Dr. Navin Chandra Chairman	
2.	Dr. N. P. Shukla Member	
3.	Dr. Jai Krishna Pandey Member	
4.	Dr. Sharachchandra Lele Member	
5.	Dr. G.P.Kundargi Member	
6.	Sh. N.S. Mondal Member	
7.	Dr. R.K.Giri Member	
8.	Dr. Manjari Srivastava Member	
9.	Dr S.K.Paliwal Member	
10.	Dr. S.K.Gupta Member	
11.	Shri N. Mohan Karnat Member	
12.	Sh. S.D.Vora Member	
13.	Dr. R.B. Lal Member Secretary	

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