

## **Minutes of the 44<sup>th</sup> meeting of the Expert Appraisal Committee held on 24-25 April, 2019 for appraisal of coal mining projects at Indira Paryavaran Bhawan, Ministry of Environment, Forest and Climate Change, New Delhi-3**

The 44<sup>th</sup> meeting of the Expert Appraisal Committee (EAC) for Coal mining projects was held during 24 and 25<sup>th</sup> April, 2019 in the Ministry of Environment, Forest & Climate Change at Brahmaputra and Narmada Meeting Hall, Vayu/Jal Wing, Ground 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.	Dr. Manjari Srivastava		Member
4.	Shri Surmya D Vora		Member
5.	Dr. G.P. Kundargi	-	Member
6.	Shri N.S.Mondal		Member (Representative of CEA)
7.	Dr. R. K. Giri	-	Member (Representative of IMD)
8.	Dr. S. K. Paliwal		Member (Representative of CPCB)
9.	Dr. Jai Krishna Pandey	-	Member
10.	Shri S. K. Srivastava	-	Member Secretary

### **Confirmation of minutes**

There being no comments from any of the members of the Committee, minutes of the 43<sup>rd</sup> meeting of the EAC held on 21<sup>st</sup> February, 2019 were confirmed in the presence of the members who had been present in the 43<sup>rd</sup> meeting.

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:-

### **Agenda No.44.1**

**Kistaram Opencast Project Capacity 2.0 MTPA in a mine lease area of 435.68 ha of M/s The Singareni Collieries Company Limited located near Kistaram Village, Sathupalli Mandal of Khammam District (Telangana) - Environmental Clearance**

**[IA/CMIN/TG/23509/2014 F.No- J-11015/212/2014-IA-II(M)]**

**44.1.1** The proposal is for environmental clearance to Kistaram Opencast Coal Mining Project of capacity 2 MTPA in mine lease area of 435.68 ha of M/s Singareni Collieries Company Limited located in village Kistaram, Tehsil Sathupalli, District Khammam (Telangana).

**44.1.2** The proposal was earlier considered by the EAC in its meeting held during 30-31 January, 2017, wherein the Committee desired that proposal to be submitted after receipt of Stage-I approval under the Forest (Conservation) Act, 1980 in respect of forest land involved in the project.

After receipt of stage-I forest clearance for diversion of 285.44 ha of forest land vide this Ministry's letter dated 11<sup>th</sup> September, 2018, the proposal was again considered by EAC in its meeting held during 13-14 December, 2018. During the meeting, the Committee noted that the said forest clearance dated 11<sup>th</sup> September, 2018 is also subject to the condition as below:-

*'The environmental conditions in and around Sathupalli town may be appraised by the EC Appraisal Committee separately'.*

The proposal was again considered by EAC in its meeting held during 24<sup>th</sup> January, 2019 and further observed that the report submitted by the project proponent was lacking for the requisite details in respect of impact of mining operations on air and water quality, ground water, stability of residential structures, source of livelihood for the locals of Sathupalli town, their dependency on the forest, flora and fauna, methodology for health survey, etc. Further, the report was found generic in nature and not addressing actual assessment and impact on environmental parameters in and around Sathupalli town.

The Committee also observed that the said report was prepared by Kakatiya University in association with the project proponent themselves, which amounts to conflict of interest and thus not acceptable. The proposal was deferred for the needful on the above lines

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

The proposal is for grant of environmental clearance to Kistaram Opencast Coal Mining Project of capacity 2 MTPA in mine lease area of 435.68 ha of M/s Singareni Collieries Company Limited located in village Kistaram, Mandal Sathupalli, District Khammam (Telangana).

Project involves 285.44 ha of forest land. Stage-I forest clearance for diversion of the same for non-forestry use has been obtained vide MoEF&CC letter No.8-55/2014-FC dated 11<sup>th</sup> September, 2018.

Mining Plan for the project of 2 MTPA in mine lease area of 435.68 ha, including Progressive Mine Closure Plan, was approved by the Ministry of Coal vide their letter dated 21<sup>st</sup> March, 2014.

Public hearing for the project of 2 MTPA capacity in an area of 435.68 ha was conducted by the State Pollution Control Board on 19<sup>th</sup> November, 2015. Major issues raised in the public hearing included compensation for project affecter people, mitigation measures for pollution control, employment to land losers, de-siltation of tanks, R&R. The project proponent has proposed an action plan to comply with the commitments made in the public hearing and the same found to be satisfactory.

The in-principle/stage-I approval granted by the Ministry vide letter dated 11<sup>th</sup> September, 2018 for diversion of 285.44 ha of forest land, is inter-alia subject to the condition 'The environmental conditions in and around Sathupalli town may be appraised by the EC Appraisal Committee separately'. In compliance to the said observations, a report has been submitted by the PP based on the study carried out by Environment Protection Training & Research Institute (EPTRI). The desired details vis-à-vis the observations of the EAC, and the mitigating measures proposed are reproduced as under:-

Pollution mitigation measures pertaining to Sathupalli town

<b>S. No.</b>	<b>Item</b>	<b>Mitigating measures</b>
1	Impact on Air	a) Continuous water/mist spraying arrangements shall be made in the mine to keep the particulate emissions within the limits. b) Effective dust suppression measures shall be taken up at pit head coal handling plant (CHP). The crusher house shall be enclosed to the extent possible and dust suppression arrangement shall be provided.

		<ul style="list-style-type: none"> <li>c) Massive afforestation shall be carried out around the project area in general and downward wind direction in particular.</li> <li>d) Plantation on overburden dump shall be taken up with native species.</li> <li>e) Avenue plantation shall be taken up on either sides of the roads in the nearby areas.</li> <li>f) Black topping of permanent roads shall be done.</li> <li>g) Wet drilling shall be implemented.</li> <li>h) Water spraying on haul roads shall be done by using water sprinklers.</li> <li>i) Grading of the haul roads with help of motor grader shall be done.</li> </ul>
2	Water	<ul style="list-style-type: none"> <li>a) Garland drains are to be provided all along the periphery of quarry and dump area. The streamlets originating outside the project are to be re-oriented and joined with the original course.</li> <li>b) The mine seepage water shall be pumped out &amp; discharged into settling tanks where the coal fines will be settled and only clear water will be discharged into the water bodies.</li> <li>c) Water from the workshop is to be circulated through oil and grease trap (ETP) before letting out into the local drainage.</li> <li>d) STP shall be constructed for treatment of domestic sewage.</li> <li>e) De-silting of surrounding tanks shall be taken up to increase the capacity of the tanks and augmentation of ground water.</li> <li>f) Check dams shall be constructed at feasible locations in the buffer area for augmentation of ground water recharge.</li> <li>g) Rainwater harvesting structures like percolation tanks shall be constructed.</li> <li>h) Piezometric wells shall be constructed around the proposed project for monitoring of water levels which helps to know the impact of mining on water regime around the project area.</li> </ul>
3	Noise & vibration  Stability of structures	<ul style="list-style-type: none"> <li>a) For mitigating the blast vibrations, control blasting technique by using NONELs and limiting the charge per delay shall be implemented as per the DGMS permission.</li> <li>b) Regular maintenance of the machinery shall be carried out to reduce the noise.</li> <li>c) Green belt development around the periphery of the project shall be developed.</li> <li>d) Height of fall of coal shall be minimized at coal transfer points.</li> </ul>
4	Socio-economic	<ul style="list-style-type: none"> <li>a) Special emphasis on providing alternate employment avenues to the local villagers like self-employment schemes, training for unemployed youth, etc. shall be given.</li> <li>b) Trainings shall be given to the unemployed youth for improving self-development skills.</li> <li>c) Trainings shall be given to women for self-empowerment.</li> <li>d) As the project involves R&amp;R, the package has to be implemented as per State Government Guidelines for the PDFs.</li> <li>e) 12 families whose rights are recognized under RoFR Act shall also be rehabilitated in accordance with RFCTLARR Act, 2013.</li> <li>f) The funds allocated under CSR Schemes shall be spent for upliftment of the surrounding villages.</li> </ul>
5	Health	<ul style="list-style-type: none"> <li>a) Regular health checkups and health awareness programmes for people residing in the nearby villages shall be taken up as a</li> </ul>

		<p>part of CSR / CER activities.</p> <p>b) Medical camps shall be conducted in Sathupalli Town and surrounding villages as a part of health surveillance.</p> <p>c) Periodical medical examination for all the employees shall be taken up.</p> <p>d) Five lakh trees shall be planted in the vicinity as part of green belt development to curtail pollution.</p>
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#### R&R status of Kistaram OC Project, SCCL

- R&R colony is identified at Cherukupalli Village, Sathupalli Mandal, Khammam District for an extent of Acres 14-05 Guntas.
- Fund provision is made for an amount of Rs.19.525 crores for R&R.
- This colony is about 2.0 km away from the proposed Project Site.
- Revenue Divisional Officer, Kalluru Division, Khammam District has been appointed as R&R Officer for conducting the Socio-economic survey.
- The Survey was conducted in the month of February, 2018.
- Development and shifting works will be carried out immediately.
- 12 families whose rights are recognized under Recognition of Forest Rights (RoFR) Act shall also be rehabilitated in accordance with RFCTLARR Act, 2013. In this connection, an undertaking has been submitted to FC Division, MoEF&CC, Gol.

**44.1.4** *The EAC, after deliberations, recommended for grant of environmental clearance to the Kistaram Opencast Coal Mining Project of capacity 2 MTPA in mine lease area of 435.68 ha of M/s Singareni Collieries Company Limited located in village Kistaram, Mandal Sathupalli, District Khammam (Telangana), subject to compliance of terms and conditions as applicable, and the additional conditions as under:-*

- *The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 2 MTPA prior to commencement of the increased production.*
- *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.*
- *To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.*
- *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.*
- *The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 2 MTPA.*
- *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- *Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
- *To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.*
- *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.*
- *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.*

- 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.
- CSR and CER activity should include action plan for health impacts and its mitigation measures

#### **Agenda No.44.2**

**Tara (East) & Tara (West) Coal Mining Project 4 MTPA Capacity in an area of 937.44 ha of M/s West Bengal Power Development Corporation Ltd, located in Village, Churulia, Chinchurbill, Birkulti, District Paschim Bardhaman , (West Bengal) – For Environmental Clearance**

**[IA/MP/CMIN/76052/2018] F. No. J-11015/22/1996-IA.II (M)**

**44.2.1** The proposal is for EC for Tara (East) & Tara (West) Coal Mine of 4 MTPA capacity in mine lease area of 937.44 ha of M/s West Bengal Power Development Corporation Limited (WBPDC) located in village Churulia, Chinchurbill, Deshermohan, Joynagar, Birkulti, Manpur and Joyantipur of Jamuria Block in District Paschim Bardhaman (West Bengal).

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

- The project area is covered under Survey of India Topo Sheet No 73 M/1 and is bounded by the geographical coordinates ranging from 23<sup>o</sup> 45' 30"N & 23<sup>o</sup> 47' 45"N and Longitude 87<sup>o</sup> 04' 00"E & 87<sup>o</sup> 07' 15"E.
- Coal linkage of the project is proposed for Captive use for M/s WBPDC Thermal Power Plants located in West Bengal
- No Joint venture cartel has been formed
- 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.
- Employment generation: Direct employment to 1161 persons will be provided from the project.
- The project is reported to be beneficial in terms of Environmental, Social, Financial aspects.
- Earlier, the environment clearance to the project was obtained under EIA Notification, 1994 vide Ministry's letter J011016/22/96-IA.II(M) dated 30th January 1997 for 2 MTPA in mine lease area of 361 ha.
- Total mining lease area as per block allotment is 937.44 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the Ministry of Coal on 30.08.2018.
- The land usage pattern of the project is as under

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

<b>Land Use</b>	<b>Within ML Area</b>	<b>Outside ML Area</b>	<b>Total (Ha)</b>
Agricultural Land	262.60	Nil	262.60
Forest Land	0.00	Nil	0.00
Surface Water Bodies	6.10	Nil	6.10
Settlements	62.48	Nil	62.48
Others (Specify):		Nil	
a. Old Excavation Area (East Quarry)	87.02	Nil	87.02
b. Old Excavation Area (West Quarry)	179.02	Nil	179.02
c. Old OB Dumps	96.21	Nil	96.21
d. Roads & Mine Infrastructure	21.27	Nil	21.27
e. R & R Colony	6.0	Nil	6.0

Land Use	Within ML Area	Outside ML Area	Total (Ha)
f. Staff Colony	10.0	Nil	10.0
g. Green Belt	9.96	Nil	9.96
h. Balance Area	196.78	Nil	196.78
<b>Total Project Area</b>	<b>937.44</b>	Nil	<b>937.44</b>

### Post mining Landuse

Sr. No	Land Use During Mining	Post-Mining Land Use (Ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	External OB Dump	96.21	---	---	---	96.21
2	Top Soil Dump	---	---	---	---	---
3	Excavation	350.03	55.03	---	---	405.06
4	Roads	---	---	3.59	---	3.59
5	Built-up Area	---	---	21.27	---	21.27
6	Green Belt	9.96	---	---	---	9.96
7	Undisturbed Area	---	---	---	329.79*	329.79
8	Safety Zone / Rationalization Area	50.58	---	---	---	50.58
9	Diversion / Below River / Nala / Canal	---	6.10	---	---	6.10
10	Water Body	---	4.88	---	---	4.88
11	Staff Colony	---	---	10.00	---	10.00
	<b>Total Area =</b>	<b>506.78</b>	<b>66.01</b>	<b>34.86</b>	<b>329.79</b>	<b>937.44</b>

(x) Total geological reserve reported in the mine lease area is 209.69 MT with 73.58MT mineable reserve for Opencast Mining. Out of total mineable reserve of 73.58 about 17.71 MT are available for extraction. Percent of extraction is 24 %.

(xi) Eleven seams with thickness ranging from 0.15 to 11.69 m are workable. Grade of coal is G7/G8 stripping ratio 1:10.72 while gradient is 12 to 15.

(xii) Method of mining operations envisages by Opencast method

(xiii) Life of mine is 11 years.

(xiv) The project has proposed no external OB dumps. OB concurrently backfilled from 1st year onwards. Internal OB dump in an area of 350.03 ha with 190.56 Mm<sup>3</sup> of OB is envisaged in the project.

(xv) Total quarry area is 405.06 ha out of which backfilling will be done in 350.03 ha while final mine void will be created in an area of 55.03 ha with a depth of 30 m. Backfilled quarry area of 350.03 ha shall be reclaimed with plantation. Final mine void will be converted into water reservoir.

(xvi) Transportation of coal has been proposed by road in mine pit head, from surface to end use plant by road. Upto Bannora Railway Siding (14 Km away) and then by rail to captive Power Plants.

(xvii) Reclamation Plan in an area of 506.78ha, comprising of no external dump, 350.03ha of internal dump and 9.96ha of green belt. In addition to this, an area of 50.58ha, included in the safety zone/rationalization area besides plantation over existing four old OB dumps of 96.21 Ha, has also been proposed for green belt development.

(xviii) No forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of non-forestry purposes is not required

(xix) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.

(xx) The ground water level has been reported to be varying between 4.4m to 15.1 m during pre-monsoon and between 0.5 m to 10.6 m during post-monsoon. Total water requirement for the project is 853 KLD.

(xxi) Approval of the State Ground Water Resource Authority Government of West Bengal for withdrawal of ground water has been obtained vide PO2130220430-4000001 TSE on 30-06-2016.

(xxii) Public hearing for the project of 4 MTPA capacity in an area of 937.44 ha was conducted on 22.02,2019 at Jamuraia Panchayat Samiti Office Compund Major issues raised in the public hearing include CSR activities, employment, Pollution& Environment, health, safety, education etc, Appropriate action to address the issues raised in the Public Hearing have already been proposed to be taken.

(xxiii) Land cost – on negotiation with the land owner, CSR Activities – such as skill development, training, awareness, infrastructure improvement, plantation etc. for which a capital budget of 154.05 Lakhs and 85.95 Lakhs has been proposed. Employment : Direct employment to 1161 persons preferably local. For Pollution and Environmental control various mitigative measures for air, water, noise, groundwater recharge, vibration management, plantation, dust suppression have been proposed in EMP with a financial provision of 997.50Laksh as capital budget and 145 Lakhs as recurring budget have been allocated. In addition CER @ 0.75% of capital cost of the project has also been kept.

(xxiv) Consent to Operate for the existing capacity shall be obtained from the West Bengal State PCB.

(xxv) Local Seasonal Nala is flowing along central part of the lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government.

(xxvi) Regular monitoring of ambient air quality shall be carried out on fortnightly basis. The documented report shall be submitted to WBPCB and also to MoEF&CC along with half yearly EC compliance report.

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

(xxviii) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under. The coal production from the mine was started from the year 1997 onwards by previous Allottee upto 2014-15. Coal block has been allotted to WBPDDCL Ltd on 31.03.2015. WBPDDCL is in the process of obtaining various clearances and has not yet commenced any mining related activity; hence no production has been carried out till date. 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:

Sr. No.	Year	Extracted Coal	OB Removed
		Million Tonnes	Million Cum
<b>I</b>	<b>SEAM VI TO IV</b>		
1	1997-98	0.709	1.34
2	1998-99	1.792	3.69
3	1999-00	2.165	7.3
4	2001-01	2.411	7.78
5	2001-02	2.911	8.27
6	2002-03	3.085	8.5
7	2003-04	3.768	10.94
8	2004-05	3.942	13.21
	<b>Sub Total 1997-98 to 2004-05</b>	<b>20.783</b>	<b>61.03</b>
9	2005-06	3.992	18.24
10	2006-07	4.765	17.12
11	2007-08	4.229	17.86

Sr.	Year	Extracted Coal	OB Removed
12	2008-09	4.134	12.69
13	2009-10	3.303	11.79
14	2010-11	2.876	10.03
15	2011-12	2.598	9.41
16	2012-13	3.005	12.26
17	2013-14	2.294	9.359
18	April-Dec 2014	1.367	2.977
19	Jan-Mar 2015	0.484	Pro rata 0.484
	<b>Sub Total 2005-06 to 2014-15</b>	<b>33.047</b>	<b>122.22</b>
	<b>Grand Total =</b>	<b>53.830</b>	<b>183.25</b>

(xxix) The project involves 103 project affected families. R&R of the PAPs will be done as per LAAR, 2013.

(xxx) Total cost of the project is Rs.33,560 lakhs. Cost of production is Rs.1350/- per tonne, CSR cost is Rs. 2 per tonne, R&R cost will be estimated and disbursed as per the provisions LARR 2013. Environment Management Cost is Rs. 9.97 crores as capital and 1.45 Crores as recurring cost.

(xxxii) Consent to operate (CTO) will be obtained from the West Bengal State Pollution Control Board after obtaining environmental clearance.

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

The proposal is for environmental clearance to Tara (East) & Tara (West) Coal Mining project of 4 MTPA capacity of M/s West Bengal Power Development Corporation Limited (WBPDCL) in an area of 937.44 ha located in villages Churulia, Chinchurbill, Deshermohan, Joynagar, Birkulti, Manpur and Joyantipur, Block Jamuria, District Paschim Bardhaman (West Bengal).

There is no forest area involved.

ToR for the project was granted on 12<sup>th</sup> December, 2018, and the public hearing was conducted by the State Pollution Control Board on 22<sup>nd</sup> February, 2019 at Jamuria Panchayat Samiti Office Compound, Dist Paschim Bardhaman. Main issues raised during the public hearing are abatement Of pollution, creation or water reservoir, Tree plantation included Rehabilitation & resettlement, employment, control of air pollution, water pollution, supply of drinking water, employment rehabilitation proposal for Birkulti village under Hijal gora Gram Panchayat, etc.

Revised Mining Plan and Mine Closure Plan (3rd Revision) for Tara (East) and Tara (West) Coal Mine of M/s West Bengal Power Development Corporation Ltd. (WBPDCL) was approved by Ministry of Coal on 30<sup>th</sup> August, 2018.

Baseline Data was generated for the period of October, 2018 to December, 2018. 13 nos. of location were selected for baseline monitoring. Baseline air quality values at ambient air quality monitoring stations are in the range of PM10 43.5 ug/m<sup>3</sup> (at Shimuldhi village) to 94.3 ug/m<sup>3</sup> (Bhanowara Railway siding), for PM<sub>2.5</sub> 26.1- 59.3 ug/m<sup>3</sup>, SO<sub>2</sub> from 21.1 - 48.50 ug/m<sup>3</sup> and NO<sub>x</sub> from 12.6 - 46.2 ug/m<sup>3</sup>.

The proposed mining methodology would be mechanized opencast with shovel-dumper combination for overburden and surface miner for coal. The project involves diversion of seasonal nallah entering mine lease area from South, and its realignment in a length of 3.2 km. Irrigation & Waterways Department, Government of West Bengal, vide letter dated 25<sup>th</sup> March,



2019, has accorded provisional 'In-principle' approval for the proposed diversion scheme, subject to certain terms and conditions.

The project also envisages for diversion of one Zilla Parishad road located in the project area, permission for the same has been taken on 6<sup>th</sup> March, 2019, by Additional District Magistrate and Additional Executive Officer, Paschim Bardhaman Zila Parishad.

**44.2.4** *The EAC, after detailed deliberations, desired for clarifications/inputs in respect of the following:-*

- (i) Total project area is 937.46 ha, including mine lease area of 800 ha. There is no Letter of Intent (LOI) available for 137.46 ha, to be issued by State Government.*
- (ii) Present compliance status of the in-principle approval for the proposed nallah diversion.*
- (iii) Base line air quality for critical pollutants namely, PM10, PM2.5 at railway siding is on much higher side. Mitigating measures need to be taken for the cumulative values and/or the predicted GLCs to be well within the acceptable limits.*
- (iv) Railway siding is about 14 km from mine. Road widening shall be done before starting of coal transportation.*
- (v) Traffic assessment and impact of air quality and habitation along the route (14km)*
- (vi) Mitigation measures of mining activity for two villages which are coming core zone.*
- (vii) Effect on ecosystem services available in the mining area.*

*The proposal was deferred on the above lines*

### **Agenda No.44.3**

**Cluster No.3 comprising 3 mines in Raniganj Coalfield having total leasehold area of 1628 Ha and capacity of 3.97 MTPA M/s Eastern Coalfield Limited located in Raniganj Coalfields, District Burdwan (West Bengal) - Amendment in Environmental Clearance**

**[IA/WB/CMIN/61639/2014] F.No. J-11015/13/2010-IA-II(M)**

**44.3.1** The proposal is for amendment in environmental clearance dated 20<sup>th</sup> October, 2014 to Cluster No.3 Coal Mining project of 3.97 MTPA capacity of M/s Eastern Coalfields Limited in mine lease area of 1628 ha located in Salanpur CD Block, District Paschim Bardhaman (West Bengal).

**44.3.2** The proposal was earlier considered by the EAC in its meeting held during 24<sup>th</sup> January, 2019 and observed that revised scope of the project was lacking details for opencast and underground mining operations separately (OC&UG), both in terms of mine lease area and the production capacity, which would have different environmental implications. Mine Plan for the Cluster should clearly reflect the proposed changes. The Committee also insisted for past production of coal from the individual mines (OC&UG).

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

The proposal is for amendment in environmental clearance dated 20<sup>th</sup> October, 2014 to Cluster No.3 Coal Mining project of 3.97 MTPA capacity of M/s Eastern Coalfields Limited in combined mine lease area of 1628 ha located in Salanpur CD Block, District Paschim Bardhaman (West Bengal).

Considering the production target set by CIL, re-assessment/rationalization of individual mines is proposed while keeping the combined capacity unchanged in view of the prevailing conditions and potential for achieving optimum production levels.

The proposed restructuring involves stoppage of mining operations from Dabor UG, Bonjemehari UG & Sangramgarh UG coal mines, increase in capacity of Bonjemehari OCP from 0.45 MTPA to 1.47 MTPA and Sangramgarh Extension OC mine from 1 MTPA to 0.20 MTPA.

Revised Mining Plan for the cluster has been approved by the Board of Directors M/s Eastern Coalfields Ltd on 7<sup>th</sup> December, 2018.

The following table given at point 2.vi of the EC letter vide J-11015/13/2010-IA-II.(M) dated 20<sup>th</sup> October, 2014:

SI No	Name of OC Mine	Area (Ha)	Mineable reserves (MT)	Volume of OB to be generated (Million M <sup>3</sup> )	Life in years	Back filling start year	
1	Dabor UG	Dabor- I&II OC Patch/Mine	347 (quarry area 153.1 Ha)	11.78	35.0	10	3 <sup>rd</sup>
2	Bonjemehari UG	Bonjemehari OC Patch	44	1.32	4.05	4	2 <sup>nd</sup>
3	Sangramgarh UG	Sangramgarh Extension Revised OC Patch	25	2.70	10.38	4	2 <sup>nd</sup>
		<b>Total</b>	<b>416</b>	<b>15.8</b>	<b>49.53</b>		

The proposed changes are in line with the revised mining plan for the cluster, duly approved by the Board of Directors of ECL on 7<sup>th</sup> December, 2018, with the details as under:-

SI No.	Name of the Mine	Lease Area (Ha)	Peak Capacity (MTPA)	Revised Life (Yrs)	Remark
1	Dabor OC	1063	2.30	>25	Capacity Reduction and Boundary Adjustment with Bonjemehari UG & OC
2	Bonjemehari OC	304	1.47	>25	Capacity Enhancement & Boundary Adjustment with Dabor UG & OC
3	Sangramgarh OC	261	0.20	>25	Capacity Reduction
	<b>Total</b>	<b>1628</b>	<b>3.97</b>		

**44.3.4** The EAC, after deliberations, recommended for proposed restructuring of individual mines, involving change in capacities of respective mine lease holds as mentioned in para 44.3.3 above, with the combined capacity of 3.97 MTPA and the total mine lease area remaining the same.

#### **Agenda No.44.4**

**Cluster X (6 mines of a combined production of 1.762 MTPA (peak 2.289 MTPA) an ML area of 2057.95 ha and a Coal Washery of 1.6 MTPA (2.08 MTPA) of M/s Bharat Coking Coal Limited. located in (Jharkhand) - For Amendment in Environmental Clearance**

**[IA/JH/CMIN/8812/2010; F.No. J-11015/380/2010-IA.II(M)]**

**44.4.1** The proposal is for amendment in environmental clearance dated 6th February, 2013 granted for the Cluster X (6 mines of peak production of 2.289 MTPA in a combined ML area of 2057.95 ha) and Sudamdih Coal Washery (Within the lease hold of Sudamdih Shaft Mine in an area of 18 ha) of 1.6 MTPA of normative and 2.08 MTPA peak production of M/s Bharat Coking Coal Ltd., located in Jharia Coalfields, Dist. Dhanbad (Jharkhand).

(i) Existing EC Specific Condition (i) vis-à-vis Proposed Amendment is as under:

Sl No	As per specific condition (i) of EC dated 6th February, 2013					
	Name of the Mine	Type of Mine	Normative Production Capacity (MTY)	Peak Production Capacity (MTY)	Lease Area (Ha)	Mine Life (Years)
		UG/OC				
1	Bhowrah North	UG	0.11	0.143	208.83	>30
	Bhowrah North	OC	0.42	0.546		4
2	Bhowrah South	UG	0.29	0.377	571.58	>30
	3 Pit	OC	0.235	0.305		4.5
	Chandan (Bhowrah)	OC	0.158	0.205		2.5
3	Patherdih	UG	0.054	0.07	244.34	>30
	Chandan (Patherdih)	OC	0.22	0.286		4
4	Sudamdih Incline	UG	0.09	0.117	254.27	>30
5	Sudamdih Shaft	UG	0.185	0.24	391.5	>30
6	Amlabad Closed	UG	0	0	386.95	
7	Sudamdih Coal Washery (Within the lease hold of Sudamdih Shaft Mine)		1.6	2.08	18	18
	<b>TOTAL</b>		<b>1.762</b>	<b>2.289</b>	<b>2057.47</b>	

\*Peak of Cluster will remain same, as peak of individual mine will be achieved in different years to offset loss of production in other mines.

(ii) There will be no change in the peak production capacity of 2.289 MTPA and the total area of 2057.47 ha of the cluster X Group of mines.

(iii) The amendment in the EC in respect of capacities of individual mines in the cluster and lease hold areas for implementation of Master Plan for dealing with fire and Subsidence,

**44.4.2** The proposal was earlier considered by the EAC in its 21st meeting held on 27<sup>th</sup> October, 2017 wherein the Committee deferred the proposal for want of Mining Plan for the cluster, revised and duly approved by the Ministry of Coal/Board of M/s BCCL.

PP in compliance to requirement, has submitted approvals of Mining Plans along with mine closure Plans for the Amalgamated Sudamdih Patherdih OC and Bhowrah South OC, the mines undergoing changes for implementation of GOI approved Master Plan for dealing with fire and subsidence, vide letter dated 9<sup>th</sup> February, 2019.

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

The proposal is for amendment in environmental clearance dated 6<sup>th</sup> February, 2013 to Cluster No. X (6 mines) Coal Mining project of 2.289 MTPA peak capacity and Sudamdih Coal Washery (Within the lease hold of Sudamdih Shaft Mine in an area of 18 ha) of 1.6 MTPA of normative and 2.08 MTPA peak production of M/s Bharat Coking Coal Ltd. in combined mine lease area of 2057.95 ha located in Jharia Coalfields, District Dhanbad, (Jharkhand).

The proposal has been submitted after considering the implementation of Master Plan for dealing with fire and subsidence without any change in combined peak production capacity of 2.289 MTPA and the total area of 2057.47 ha of the cluster.

The proposed restructuring involves increase in capacity of Bhowrah South OC from 0.51 MTPA to 1.2 MTPA, amalgamation of Patherdih (UG & OC) mine (i.e UG-0.07 & OC-0.286 with Sudamdih incline (UG - 0.117 MTPA) and increase in capacity as Amalgamated Sudamdih Patherdih OC (0.473 to 0.709 MTPA).

Revised Mining Plan for the changed capacities of individual mines namely, Amalgamated Sudamdih Patherdih OC and Bhowrah South OC, has been approved by the Board of M/s BCCL on 29<sup>th</sup> January, 2019 in its 348<sup>th</sup> meeting.

The proposed changes are in line with the revised mining plan for the cluster, duly approved by the Board of Directors of M/s BCCL on 29<sup>th</sup> January, 2019 with the details as under:-

Sr. No	Name of the Mine	Type of Mine	Peak Production Capacity (MTPA)	Lease Area (Ha)	Mine Life (Years)	
		UG/OC				
1	Bhowrah North	UG	0.143	208.83	>20	
	Bhowrah North	OC	0.546		6	
2	Bhowrah South	UG	0.377	571.58	30	
		OC	1.2		43	Fire dealing
	Amalgamated Sudamdih Patherdih Mine	OC	0.709	498.61	33	Amalgamation of mines for fire dealing
5	Sudamdih Shaft	UG	0.24	391.5	30	
6	Amlabad Closed	UG	0	386.95	NA	
7	Sudamdih Coal Washery (Within the lease hold of Sudamdih Shaft Mine)		2.08	18	18	
	<b>TOTAL</b>		<b>2.289</b>	<b>2057.47</b>		

**44.4.4** The EAC, after deliberations, recommended for the proposed restructuring of individual mines, involving change in capacities of respective mine lease holds as mentioned in para 44.3.3 above, with the combined capacity of 2.289 MTPA and the total mine lease area remaining the same.

#### **Agenda No.44.5**

**Dulanga Opencast Coal Mining Project (8 MTPA) M/s National Thermal Power Corporation Ltd Ib Valley Coalfields, located in District Sundargarh (Orissa) - Amendment in Environmental Clearance**

**[IA/OR/CMIN/10821/2007] F.No. J-11015/1140/2007-IA.II(M)**

**44.5.1** 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 No64 O/9 and 64 O/13 and is bounded by the geographical coordinates ranging from latitude 21°55'37" N to 21°56'43" N and longitudes 83°47'28"E and 83°49'05"E.
- (ii) Coal linkage of the project is proposed for Darlipali Super Thermal Power Project Stage-I (2x800) MW to meet the energy requirements of Odisha State.
- (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 approx.1276 at peak capacity will be provided from the project.
- (v) The project is reported to be beneficial in terms of meet the power requirement of Odisha by supplying coal to Darlipali STPP. It will also cater infrastructure development in nearby areas and improve education and health conditions through CSR activities.
- (vi) Earlier, the Environment Clearance (EC) to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J/11015/11402007-IA.II(M) dated 3<sup>rd</sup> March, 2014 for 7 MTPA in mine lease area of 785.37 ha (803.71- ha -18.34 ha = 785.37 ha).
- (vii) Total mining lease area as per block allotment is 872.29 Ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by Ministry of Coal on 14<sup>th</sup> August, 2012.
- (viii) 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	Private Land	186.91	144.07	330.98
2	Forest Land	251.63	50.88	302.51
3	Reserve Forest land	108.95	0.70	109.65
4	GM Land	106.62	40.87	147.49
	Total Project Area =	654.11	236.52	890.63

**Post Mining land use details**

S. No.	Land use	Land use (ha)					Total
		Plantation	Water Body	Bund	Public Use	Undisturbed	
1	Top Soil Dump	3.84	0	0	0	0	3.84
2	Coal Stock Yard	2.75	0	0	0	0	2.75
3	Surface Dump	106.50	0	0	0	0	106.50
4	Excavation	351.23	159.55	0	0	0	510.78
5	Facilities, Industrial & Residential Buildings	0	0	0	27.73	0	27.73
6	Roads	0	0	0	13.19	0	13.19
7	Surface Water Reservoir	2.14	0	0	0	0	2.14
8	Bund along Garia Nala	0	0	10.03	0	0	10.03
9	Diversion of GariaNala	0	20.48	0	0	0	20.48
10	Undisturbed Area	0	0	0	0	86.25	86.25
11	Staff Colony	0	0	0	20.00	0	20.00
12	Phase II Area	0	0	0	0	86.93	86.93
	Total Area =	<b>466.46</b>	<b>180.03</b>	<b>10.03</b>	<b>60.92</b>	<b>86.93</b>	<b>890.62</b>

- (ix) Total geological reserve reported in the mine lease area is 438.28 MT (excluding blocked reserves) with 156.76 MT mineable reserves. Out of total mineable reserve of 156.76MT, 152.05 MT are available for extraction. Percent of extraction is 77.09 %.
- (x) 15 seams with thickness ranging from 40 m – 45 m are workable. Grade of coal is F & G, stripping ratio 2.59 m<sup>3</sup>/t, while gradient is 5 to 11 degrees.
- (xi) Method of mining operations envisages by Mechanized Open cast mining with shovel-dumper combination & CSM for two seams.
- (xii) Life of mine is 24 years (excluding construction period of 2 years).
- (xiii) The project has 01 No. external OB dumps in an area of 92.66 Ha with 60 m height and 28.5 Mm<sup>3</sup> of OB. 01 internal OB in an area of 413.07 ha with 365.50 Mm<sup>3</sup> of OB is envisaged in the project.
- (xiv) Total quarry area is 510.77 ha out of which backfilling will be done in 413.07 ha while final mine void will be created in an area of 159 ha with a depth of 40-55 m. Backfilled quarry area of 413.07 ha shall be reclaimed with plantation. Final mine void will be converted to afforestation and other area.
- (xv) Transportation of coal has been proposed by dumper in mine pit head, from surface to siding truck and at sidings by belt conveyor. From Mine coal will be transported to MGR. However temporary up to completion of MGR, coal will be transported from mine by Tippers through road.
- (xvi) Reclamation Plan in an area of 466.46 ha, comprising of 92.66 ha of external dump, 413.07 ha of internal dump and 9.91 ha of green belt. In addition to this, an area included in the safety zone/rationalization area, has also been proposed for green belt development.
- (xvii) 304.75 ha of forest land has been reported to be involved in the project. Stage-II approval under the Forest (Conservation) Act, 1980 for diversion of 304.75 ha of forest land for non-forestry purposes has been obtained vides MoEF&CC letter No. 8-23/2013-FC dated 23<sup>rd</sup> December, 2015.
- (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 5 m to 20 m. Total water requirement for the project is 1500 m<sup>3</sup>/day at peak production.
- (xx) Approval of the Central Ground Water Authority obtained on 30<sup>th</sup> September, 2015 and revalidated on 04<sup>th</sup> December, 2017.
- (xxi) Public hearing for the project of 7 MTPA capacity in an area of 785.37 ha was conducted on 2<sup>nd</sup> September, 2010 at G P Office, Sanghumunda, Sundargarh. Major issues raised in the public hearing include employment, education, health, land acquisition etc. Appropriate action to address the issues raised in the Public Hearing has already been taken as far as possible.
- (xxii) Consent to Establish for the existing capacity was obtained from the State PCB on 27<sup>th</sup> November, 2012.
- (xxiii) Garia Nallah flowing through the middle of the property almost along the strike line of the seams. It is a tributary to Basundhara Nalla which joins in Ib River. Ib River is a tributary to Mahanadi over which Hirakud Dam is built. Two subsidiary nallas – Baidhara Nala and Nala B entering the property in the South-Western boundary of the property which also join Garia Nala before exiting the block.
- (xxiv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is being submitted 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 (75 metric tonnes) from the mine was started from the 21<sup>st</sup> March, 2018 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations.

(xxvii) The project involves 778 project affected families. R&R of the PAPs will be done as per approved R&R plan.

(xxviii) Total cost of the project is Rs. 1073 Crores. Cost of production is Rs. 1461.10/- per tonne. CSR and R&R cost is Rs. 339.33 Crore. Rs. 1591.93 Lakh as capital investment. 733.53 Lakh as recurring EMP expenditure during production stage.

(xxix) Consent to operate (CTO) was obtained from the State Pollution Control Board on 25.03.2019 and is valid till 31<sup>st</sup> March, 2020.

(xxx) To assess the impact due to the proposed transportation of coal from Dulanga CMP to Darlipali STPP for temporary period of 25 months, a study was carried out with the following objectives: (i) Traffic and road surveys for assessment of carrying capacity on route.

(ii) Monitoring of air quality and noise levels along the proposed route.

(iii) Air quality modelling for impact assessment of incremental ground level concentration of air pollutants.

(iv) Data collection regarding flora along the road, public health and opinion survey.

(xxxi) (v) Identification of villages and forest within 100 m along the alternate routes. All the above have been described in subsequent sections. The road width measurement, traffic surveys, collection of air quality, noise level, air quality prediction modelling and details of vegetation along the route has been carried out by M/s Min Mec Consultancy Pvt. Ltd. and M/s Min Mec R&D Laboratory, New Delhi (NABL accreditation certificate no. TC6337) between 22nd May - 21st June, 2017. The route that had been surveyed previously were traversed again during 7-8th June, 2018 to reverify road widths and its condition. It has been found that, the patches between Durubaga Chowk to Duduka Chowk, which were under widening during previous survey

#### **44.5.2** During deliberations, the Committee noted the following:-

The proposal is for amendment in environmental clearance dated 3<sup>rd</sup> March, 2014 granted by the Ministry in favour of M/s NTPC Ltd for Dulanga Coal Mining Project (DLCMP) of 7 MTPA in an area of 785.37 ha located in Ib Valley Coalfields, District Sundargarh (Odisha). The EC was subsequently amended vide letters dated 9<sup>th</sup> February, 2016 & 8<sup>th</sup> August, 2018.

Vide letter dated 8<sup>th</sup> August, 2018, earlier stipulated conditions for coal transportation was revised as under:-

*'Coal transportation of 2000 tonnes per day (200 trucks to & fro) from the coal mine to Lara STPP shall be carried out through Route-3 (117.86 km) up to September, 2019 as an interim arrangement only or till commissioning of Darlipali TPP, whichever is earlier. Meanwhile, all efforts shall be made to start production of coal from its linked Talaipalli coal mine and complete the associated MGR system by March, 2020.'*

Darlipalli STPP is having bridge linkage from MCL for 1.719 MT and SECL for 0.252 MT. However to fulfil the entire coal demand for operation, coal will also be required from Dulanga CMP. The dedicated MGR system linking Dulanga CMP to Darlipali STPP is delayed due to land acquisition. Therefore, for sustained coal supply, it is proposed to transport coal from Dulanga CMP to Darlipali STPP by road (35.77 km) for a period of 25 months i.e. from October, 2018 to October, 2020. Accordingly, amendment in EC is required to allow transportation of 6000 TPD of coal from Dulanga CMP to Darlipalli STPP till October, 2020.

**44.5.3** *The EAC, after deliberations, recommended for the proposed amendments subject to construction of 7 m wide road (pucca/bituminous) throughout the transportation route, and taking necessary mitigation and safety measures for habitation along the proposed route. Necessary approval for preparedness of the road shall be obtained from the concerned regulatory authority before transportation of coal through the changed route.*



## Agenda No.44.6

### **North Urimari Opencast Coal Mining Project of 3 MTPA by M/s Central Coalfields Limited in mine lease area of 516.90 ha in Tehsil Barkagaon District Hazaribagh (Jharkhand) - Revalidation of Environmental Clearance**

**[IA/JH/CMIN/75208/2018] F.No. J-11015/51/2018-IA.II(M)**

**44.6.1** The proposal is for revalidation of the environmental clearance dated 8<sup>th</sup> February, 2006 granted by the Ministry in favour of M/s Central Coalfields Ltd for North Urimari Opencast Coal Mine Project of 3 MTPA in mine lease area of 516.90 ha located village & tehsil Urimari, District Hazaribagh (Jharkhand), as mandated under the Ministry's Notification dated 6<sup>th</sup> April, 2018.

**44.6.2** The proposal was earlier considered by the sectoral EAC in its meeting held on 24<sup>th</sup> July, 2018, wherein the Committee desired for information in respect of the following:-

- (i) Public notice to be issued in leading newspapers (one national and two local) for information of the stakeholders about commencement of the project and present coal mining operations of capacity 3 MTPA in mine lease area of 523.06 ha, inviting comments and their redressal,
- (ii) Mining Plan and the Mine Closure Plan duly approved by the competent authority,
- (iii) Forest clearance for diversion of the forest land of 226.51 ha for non-forestry purposes.
- (iv) Compliance status of the conditions stipulated in the environmental clearance dated 8<sup>th</sup> February, 2006 from the Regional Office at Ranchi,
- (v) Consent to operate from the State Pollution Control Board for the present mining operations,
- (vi) Redressal of issues raised during the last public hearing conducted by the SPCB on 8<sup>th</sup> October, 2004, along with the R&R details duly certified by the State Government,
- (vii) Details of court cases and the compliance status,

**44.6.3** In response, parawise details provided are as under:-

S. No.	Additional Information sought by EAC	Compliance
1	Public notice to be issued in leading newspapers (one national and two local) for information of the stakeholders about commencement of the project and present coal mining operations of capacity 3 MTPA in mine lease area of 523.06 ha, inviting comments and their redressal.	The public notice was issued in leading newspapers for information of the stakeholders about commencement of North Urimari OCP as per the Environment Clearance no granted vide letter No.J-11015/307/2005-IA.II(M) dated 8 <sup>th</sup> February, 2006 in The Times of India, Dainik Jagran and Dainik Bhaskar on 7 <sup>th</sup> August, 2018.
2	Mining Plan and the Mine Closure Plan duly approved by the competent authority.	Mining Plan for an area of 523.06 ha was approved by the Board of M/s Central Coalfields Ltd on 18 <sup>th</sup> September, 2018.
3	Forest clearance for diversion of the forest land of 226.51 ha for non-forestry purposes.	The stage-II Forest Clearance vide letter dated 3 <sup>rd</sup> August, 2011 for diversion of the forestland of 226.51 ha.



4	Compliance status of the conditions stipulated in the environmental clearance dated 8 <sup>th</sup> February, 2006 from the Regional Office at Ranchi	The compliance status of the conditions stipulated in the environmental clearance dated 8 <sup>th</sup> February, 2006 from the Regional Office, Ranchi vide letter no: 103-97/05/EPE/2800 Dated: 20/12/2018.
5	Consent to operate from the State Pollution Control Board for the present mining operations	Consent to operate from the State Pollution Control Board for the present mining operations issued vide no: JSPCB / HO / RNC / CTO 2149892 / 2018 / 1251 Dated: 25/07/2018.
6	Redressal of issues raised during the last public hearing conducted by the SPCB on 8 <sup>th</sup> October, 2004, along with the R&R details duly certified by the State Government.	A concise report of action taken by project to redress the issues raised during the last public hearing conducted by the SPCB on 8 <sup>th</sup> October, 2004, along with the R&R details is submitted
7	Details of court cases and the compliance status.	No Court Case is pending

**44.6.4** *The EAC, after detailed deliberations on the proposal and taking note of compliance of its earlier observations (para 44.6.3 above), recommended for revalidation of the environmental clearance dated 8<sup>th</sup> February, 2006, as mandated under the Ministry's Notification dated 6<sup>th</sup> April, 2018, subject to terms and conditions stipulated therein remaining the same.*

#### **Agenda No.44.7**

**Amrapali 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**

**[IA/JH/CMIN/75225/2018 ] F.No. J-11015/52/2018-IA-II(M)**

**44.7.1** 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 Khumarang Khurd, Khumarang Kalan, Ursu, Binglat, Honhe, tehsil Pachra Block, District Chatra (Jharkhand), as mandated under the Ministry's Notification dated 6<sup>th</sup> April, 2018.

**44.7.2** The proposal was earlier considered by the sectoral EAC in its meeting held on 24<sup>th</sup> July, 2018, wherein the Committee desired for information in respect of the following:-

- (i) Public notice to be issued in leading newspapers (one national and two local) for information of the stakeholders about commencement of the project and present coal mining operations of capacity 12 MTPA in mine lease area of 1426.08 ha, inviting comments and their redressal,
- (ii) Mining Plan and the Mine Closure Plan duly approved by the competent authority,
- (iii) Forest clearance for diversion of the forest land of 226.51 ha for non-forestry purposes.
- (iv) Compliance status of the conditions stipulated in the environmental clearance dated 8<sup>th</sup> February, 2006 from the Regional Office at Ranchi,
- (v) Consent to operate from the State Pollution Control Board for the present mining operations,
- (vi) Redressal of issues raised during the last public hearing conducted by the SPCB on 8<sup>th</sup> October, 2004, along with the R&R details duly certified by the State Government,

(vii) Details of court cases and the compliance status,

**44.7.3** In response, parawise details provided are as under:-

S. No.	Additional Information sought by EAC	Compliance
1	Public notice to be issued in leading newspapers (one national and two local) for information of the stakeholders about commencement of the project and present coal mining operations of capacity 3.50 MTPA in mine lease area of 944.65 ha, inviting comments and their redressal	The public notice was issued in leading newspaper for information of the stakeholders about commencement of Amrapali OCP as per the Environment Clearance no granted vide no: J11015/109/2003-IA-II(M) Dated: 03/01/2006 in The Telegraph, Hindustan and Prabhat Khabar on 07/08/2018. No comment has been received against the public notice
2	Mining Plan and the Mine Closure Plan duly approved by the competent authority	Mining Plan and the mine closure plan for an area of 619.87 ha was approved by the Board of M/s Central Coalfields Ltd on 30 <sup>th</sup> October, 2018
3	Forest clearance for diversion of the forest land of 531.64 ha for non-forestry purposes.	The stage-II Forest Clearance letter for diversion of the forestland of 531.64 ha for non-forestry purposes was approved on 12 <sup>th</sup> October, 2010.
4	Compliance status of the conditions stipulated in the environmental clearance dated 3 <sup>rd</sup> January, 2006 from the Regional Office at Ranchi,	The compliance status of the conditions stipulated in the environmental clearance dated 3rd January, 2006 from the Regional Office at Ranchi is being submitted as received vide letter no: 103-80/05/EPE/2596 Dated: 14/09/2018. Action has been initiated to comply with all EC conditions
5	Consent to operate from the State Pollution Control Board for the present mining operations,	Consent to operate from the State Pollution Control Board for the present mining operations issued vide no: JSPCB/HO/RNC/CTO1698172/2017/ 2093 Dated: 31/12/2017.
6	Redressal of issues raised during the last public hearing conducted by the SPCB on 2 <sup>nd</sup> April, 2003, along with the R&R details duly certified by the State Government,	A concise report of action taken by project to redress the issues raised during the last public hearing conducted by the SPCB on 2nd April 2003, along with the R&R details has been submitted
7	Details of court cases and the compliance status	A PIL vide no: WP(PIL) No. 2775 of 2015 Dated: 29/06/2015 is pending in Hon'ble High Court of Jharkhand

**44.7.4** *The EAC, after detailed deliberations on the proposal and taking note of compliance of its earlier observations (para 44.7.3 above), recommended for revalidation of the environmental clearance dated 3<sup>rd</sup> January, 2006, as mandated under the Ministry's Notification dated 6<sup>th</sup> April, 2018, subject to terms and conditions stipulated therein remaining the same.*

#### **Agenda No.44.8**

**North-West (NW) Quarry of Pakri Barwadih Opencast Coal Mine Block M/s National Thermal Power Corporation Ltd located in Tehsil Keredari, District Hazaribag, (Jharkhand) - Terms of Reference**

**[IA/JH/CMIN/82224/2018] F.No. J-11015/38/2007-IA.II(M)**

**44.8.1** The proposal is for obtaining Terms of Reference for North West (NW) Quarry of Pakri Barwadih Coal Mine Project of 3 MTPA capacity in mine lease area of 485.159 ha of M/s NTPC Ltd. located in village Bariatu, Basaria, Beltu, Jabra, Kandaber, Nawadih, Sirma and Urub, District Hazaribagh (Jharkhand).

**44.8.2** 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. 73 E/1 (R.F. 1:50,000) and is bound by the geographical coordinates ranging from 23°54'08" N to 23°55'40"N and longitudes 85°09'19" E to 85°11'11" E.
- (ii) Coal linkage of the project is proposed as basket source for NTPC power projects.
- (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: Employment to about 862 persons will be provided from the project in different categories i.e. management, supervisory, highly skilled, skilled, semi-skilled, and unskilled workmen etc. Opportunity for indirect employment opportunities is also likely to be generated.
- (v) The project is reported to be beneficial in terms of production of coal for meeting requirement of coal and reducing the gap in the demand supply of coal in NTPC Power Stations.
- (vi) Earlier, the Environment Clearance for Pakri Barwadih Coal Mine project (15 MTPA form West & East Quarry) was obtained under EIA Notification, 2006 vide Ministry's letter No. J-11015/692/2007-IA-II(M) dated 19.05.2009 for 15 MTPA in mine lease area of 4141 ha.
- (vii) Total mining lease area as per block allotment is 4626 ha. Mining Plan (Including Progressive Mine Closure Plan) for 15 MTPA (West and East Quarry) has been approved by Ministry of Coal (MoC) on 26.08.2006 and Revised Mining Plan (including the NW area) for a rated capacity of 18 MTPA was approved by MoC vide letter dated 07.03.2016.
- (viii) The land usage pattern of the project is as follows:

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

Sl. No.	Type	Area	
<b>I. Within ML</b>			
1	Tenancy	Agricultural	113.557
		Habitation	
		Grazing	
		Barren	
2	Govt. Non Forest	Agricultural	19.713
		Habitation	
		Grazing	
		Barren	
3	GMJJ	24.666**	
4	Forest	327.224**	
	<b>Total</b>	<b>485.16</b>	
<b>II. Outside the ML</b>			
No additional land is required for the colony of NW Quarry and PAF's of NW Quarry. They may be accommodated /adjusted within the earlier acquired land for Rehabilitation for Colony & Township of PB Coal Block. **Out of total forest 327.224 Ha, an area of 20.692 Ha of forestland was already transferred to NTPC vide MoEF&CC letter dated 17.09.2010.			

### Post Mining Land Use Pattern\* (Ha)

Sl. No.	Type	Area
1	Excavated Void	105.31
2	Backfill area	335.43
3	Barrier zone	1.03
4	Proposed road on North side	1.24
5	Area under Nala/ River	16.00
6	External dump	14.45
7	Top soil dump	2.00
8	Settling pond	1.03
9	Infrastructure area	4.85
10	Rationalisation /Unutilized area	3.81
11	Area for UG entry	0.00
<b>Total</b>		<b>485.16</b>

\* Post mining land use is indicative only as the present proposal is for 25 ears only.

(ix) Total geological reserve reported in the mine lease area is 137.584 MT with 105.78 MT mineable reserves. Out of total mineable reserve of MT, 138.96 MT (including additional reserves of barrier 33.18 MT) are available for extraction. Percent of extraction is 76.88%.

(x) 10 seams with thickness ranging from 3m to 20m are workable. Grade of coal is G-9 to G-10, stripping ratio 3.15 cum/te, while gradient is 10 to 12 degree.

(xi) Method of mining operations envisages by Opencast (OC) Method with mechanized shovel dumper combination method.

(xii) Life of mine is 52 years including 3 years of construction years.

(xiii) The project has No external OB dumps, 438.24 Mm<sup>3</sup> of OB shall be backfilled internally. The OB from the current mining operations shall be backfilled from 1st year onwards. Internal dump in an area of 335.4 ha with 438.24 Mm<sup>3</sup> of OB is envisaged in the project.

(xiv) Total quarry area is 485.159 ha out of which backfilling will be done in 335.4 ha while final mine void will be created in an area of 105.31 ha with a depth of 200 m. Backfilled quarry area of 335.4 ha shall be reclaimed with plantation. Final mine void will be converted into water body.

(xv) Transportation of coal has been proposed by Shovel dumpers in mine pit head, from surface to Banadag Railway Siding by 20T-40T dumpers through Service Road of NTPC 13 km and at sidings by Rail to various projects of NTPC.

(xvi) Reclamation Plan covers an area of 485.159 ha, having no external dump, 335.4 ha of internal dump and 24 ha of green belt. In addition to this, an area of 4.88 ha, included in the safety zone/rationalization area, has also been proposed for green belt development.

(xvii) 331.198 ha of forest land have been reported to be involved in the project. Application for Stage-I Forest Clearance (FC) for diversion of 331.198 Ha of forestland involved in project was submitted online on 07.02.2019 and further clarification on 07.03.2019. The complete set of FC application was submitted to MOEF&CC vide letter dated 14.03.2019.

(xviii) No National Parks, Wildlife 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 5m to 20m during pre-monsoon and between 2m to 15m during post-monsoon. Total water requirement for the project is 810 KLD.

(xx) Khora nalla & Lathorwa Nalla is flowing in West direction and SSE direction respectively adjacent to boundary of Mine lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government.

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

(xxii) The project involves 204 project affected families. R&R of the PAPs will be done as per approved R&R plan formulated in line with R&R Policy 2007, GOI.

(xxiii) Total cost of the project is Rs. 91232 lakhs. Cost of production is Rs. 1331.55/- per tonne., R&R cost is Rs 59.51 crores. Environment Management Cost is Rs. 35.5 crores.

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

The proposal is for grant of terms of reference to the project North West (NW) Quarry of Pakri Barwadih Opencast Coal Mine Project of 3 MTPA capacity in mine lease area of 485.159 ha of M/s NTPC Ltd. located in village Bariatu, Basaria, Beltu, Jabra, Kandaber, Nawadih, Sirma and Urub, District Hazaribagh (Jharkhand).

Project involves 331.198 ha of forest land. Approval under the Forest (Conservation) Act, 1980 for diversion of 331.198 ha of forest land for non-forestry use has been submitted on 7<sup>th</sup> February, 2019 and further clarification on 7<sup>th</sup> March, 2019.

Total mining lease area as per block allotment is 4626 ha. Mining Plan (Including Progressive Mine Closure Plan) for 15 MTPA (West and East Quarry) has been approved by Ministry of Coal (MoC) on 26.08.2006 and Revised Mining Plan (including the NW area) for a rated capacity of 18 MTPA was approved by MoC vide letter dated 07.03.2016.

Environment Clearance for Pakri Barwadih Coal Mine project (15 MTPA form West & East Quarry) was obtained on 19<sup>th</sup> May, 2009 for 15 MTPA in mine lease area of 4141 ha.

Project does not involve violation of the EIA Notification, 2006 and amendment issued thereto. The coal production from the mine was started from the year 1954 onwards. No excess production of coal from the mine has been reported since the commencement of mining operations

**44.8.3** *The Committee, after deliberations, desired for the EIA/EMP report as specified/notified in the standard ToR applicable for Opencast coal mines, along based on one season baseline data along with the details in respect of the following:-*

- *Public Consultation, including public hearing, shall be conducted through concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal*
- *For proper baseline air quality assessment, adequate monitoring stations (4-5 nos.) in the downwind areas need to be set up and included in the air quality modelling*
- *Valid Mining Plan and the Progressive Mine Closure Plan duly approved by the competent authority*
- *Ecological restoration and mine reclamation plan to be prepared with afforestation of local/native species found in the area.*
- *To know the effect on ecosystem services available in the said mining area and assessment of carrying capacity of the extant ecology therein, study shall be carried out by any reputed institution*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Stage-I/Renewal of forest clearance under the Forest (Conservation) Act, 1980, as the case may be, of the forest land involved in the project for non-forestry purposes.*
- *Details of court cases and the compliance status (if any).*



## Agenda No.44.9

**Singhori Opencast Coal Mining Project from 0.8 to 1.12 MTPA capacity in mine lease area of 426.0 ha of M/s Western Coalfields Limited located in village Singhori, Tehsil Parseoni, District Nagpur (Maharashtra) - Environmental Clearance**

**[IA/MH/CMIN/93753/2019;F.No. J-11015/67/2006-IA.II(M)]**

**44.9.1** The proposal is for environmental clearance for expansion of Singhori Opencast project of from 0.8 to 1.12 MTPA capacity in mine lease area of 426.0 ha of M/s Western Coalfields Limited located in village Singhori, Tehsil Parseoni, District Nagpur (Maharashtra).

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 55 O/3 and is bounded by the geographical coordinates ranging from 21°16'36" to 21°18'04" N and longitudes 79°07'39" E and 79°09'26" E.
- (ii) Coal linkage of the project is proposed for MahaGenco use and for various Consumers
- (iii) Joint venture cartel has not been formed.
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13<sup>th</sup> January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation: Employment to 136 nos. persons will be provided from the project.
- (vi) The project is reported to be beneficial in terms of: It will bridge the gap (to the extent of the peak production capacity of the project) between demand & supply of non-coking coal for the power houses and other bulk consumers of western as well as southern part of the country.
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No. J-11015/67/2006 dated 17<sup>th</sup> May, 2007 for 0.80 MTPA in mine lease area of 428.0 ha.
- (viii) Total mining lease area is 426.0 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the WCL Board on Vide letter no WCL/BD/SECTT/BM-307/2019/023 dated 1<sup>st</sup> January, 2019.
- (ix) The land usage pattern of the project is as follows: The total land involved in existing Singhori OC is 425.04 ha. The present proposal of expansion envisages increase in only production capacity from 0.80 MTPA to 1.12 MTPA. The land use changes will remain same as per the previously sanctioned EC letter No J-11015/67/2006-IA.II(M) dated 17<sup>th</sup> May, 2007

### Pre-mining land use details

S.No.	Particulars	Land as per existing EC (ha)	Land as per revised Mining Plan (ha)
1.	Tenancy land	404	394.51
2.	Forest land	16.50	14.23
3.	Government land	5.50	16.30
4.	Land for Colony	2.0	0
	Total	428	425.04

Break up of proposed Land use during Mining as per Revised Mining Plan is as given below

S. NO.	PARTICULARS	AREA(ha)
1	Excavation area	96.50
2	External OB Dump	160.00
3	Infrastructure	8.00
4	Embankment	32.00
5	For rationalization of boundary/ Blasting zone	128.54

	Total	425.04
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(x) Total geological reserve reported in the mine lease area is 35.065 MT with 12.30 MT mineable reserve. Out of total mineable reserve of 12.30 MT, 12.30 MT are available for extraction. Percent of extraction is 35.07%.

(xi) Seven seams with thickness ranging from 0.80 m – 8.06 m are workable. Grade of coal is G-8, stripping ratio 1:5.43, while gradient is 1 in 3.5 to 1 in 4.

(xii) Method of mining operations envisaged by Opencast with shovel dumper Combination

(xiii) Life of mine is 11 Years.

(xiv) The project has two nos. of dumps in an area of 160.0 ha (135.0 ha- external OB dumps & 25.0 ha- top soil dump) with 5m height and (58.73 Mm<sup>3</sup>- external OB dumps & 5.56 Mm<sup>3</sup>- top soil dump) Mm<sup>3</sup> of OB. The OB from the current mining operations will not be backfilled. No internal OB dump is envisaged in the project.

(xv) Total quarry area is 96.50 ha. No backfilling will be made in quarry area. Final mine void will be created in an area of 96.50 ha with a depth of 150.0 m. Final mine void will be converted into water body.

(xvi) Transportation of coal has been proposed by dumpers in mine pit head, from surface to siding by tippers/dumpers and at sidings by pay loaders.

(xvii) Reclamation Plan/afforestation plan in an area of 197.0 ha, comprising of 105.0 ha - external dump, 25.0 – top soil dump, roads - 0.50 ha, built up area – 1.50 ha, undisturbed area- 50.0 ha, embankment – 15.0 ha) (Reclaimed with plantation 16.50 ha of forest land has been reported to be involved in the project. (However as per 7/12 records of state revenue department, total forest land involved is 15.19 ha.)

- FC (Stage II) secured vide FLD-3408/C.R.348/F-10 dated 29<sup>th</sup> November, 2018 for Diversion of 14.23 ha. (Originally proposed 15.19 ha.) of Zudpi Jungle land under Forest (Conservation) Act, 1980 in favor of Western Coalfields Limited (WCL) for Singori Open Cast Mine Project.
- FC (Stage-I) secured vide F. No. FC-I/MH-06/2015-NGP/1318 dated 3<sup>rd</sup> February, 2017 for Diversion of 0.96 Ha of Zudupi Jungle land in favour Executive, Engineer, Civil Construction Circle, Maharashtra for laying of Ash Disposal pipeline from Khaparkheda Thermal Power station to Nandgaon Ash bund in Nagpur District in the state of Maharashtra

(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 10.0m to 14.45 m during pre-monsoon and between 9.30m to 14.40 m during post-monsoon (core zone). Total water requirement for the project is 275 KLD.

(xx) Application for obtaining the approval of the Central Ground Water Authority for withdrawal of groundwater from CGWA has been applied vide 21-4/1161/MH/MIN/2017 dated 21.06.2017. The Project has been recommended for grant of NOC by Regional Office, CGWB, Nagpur and forwarded to CGWA Delhi on 27<sup>th</sup> March, 2019

(xxi) Public hearing for the project of 0.80 MTPA capacity in an area of 428.0 ha was conducted on 26<sup>th</sup> April, 2005 at Bachal Sabhagruha, Collectorate, Nagpur Dist. Nagpur. Major issues raised in the public hearing includes:

- WCL shall take measure to control air, soil & water pollution to maintain ecological balance and environmental degradation.
- In case of mine water in adjacent areas goes down, WCL shall take exhaustive ground water recharging works for recuperation of ground water level and supply of water to the affected villages during scarcity of water.
- For maintaining ecological balance in surrounding area WCL shall carry out massive tree plantation in open areas as well as avenue plantation on public roads.
- As per representation of villagers WCL shall take a repairing works/tarring of roads where trucks are passing.

- WCL shall examine the representation submitted by Sarpanch to carry out social development works in affected villages in consultation with district administration.
- It is recommended that the matter related to acquisition of land employment if any should be done on priority basis.
- The continuous ambient air quality monitoring station shall be installed in mine premises & results shall be displayed at local Panchayat & Maharashtra Pollution control board

All the issues have been duly addressed and the compliance report has been presented before the committee.

(xxii) Consent to Operate for the existing capacity was obtained from the MPCB and valid till 31<sup>st</sup> March 2019. However, further consent renewal application has been made for securing CTO from MPCB.

(xxiii) Kanhan River is flowing in buffer area in west direction of the mine boundary. A seasonal nallah measuring 1.8 km will be diverted.

(xxiv) Regular environment monitoring data generated from September, 2017 till November, 2018. Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to MPCB 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 pertaining to environment.

(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 2017-18 onwards. No excess production of coal from the sanctioned capacity has been realized. The coal production, realized from the project is as under:

Year	EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
2017-18	0.80	0.35	Nil

(xxvii) The project involves 197 project affected families.

(xxviii) Total cost of the project is Rs. 205.4914 crore ((As on Mar 2015, present proposal envisage no additional capital requirement). Cost of production is Rs.1047.37/- per tonne., CSR cost is Rs 2 per tonne, R&R cost is Rs 24.94crores. Environment Management Cost is Rs. 97.09 lakhs (capital) has been made. However, Capital – Rs. 45.23 Lakhs & Rs. 19.55 Lakhs in Revenue expenditure already incurred.

(xxix) Consent to operate (CTO) was obtained from the Maharashtra Pollution Control Board and is valid till 31<sup>st</sup> March, 2019. However, a consent renewal application has been made for securing CTO from MPCB.

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

The proposal is for environmental clearance to the expansion of Singhori Opencast Coal Mining project from 0.80 MTPA to 1.12 MTPA of M/s Western Coalfields Limited in mine lease area of 426 ha located in village Singhori, Tehsil Parseoni, District Nagpur (Maharashtra) in terms of the provisions contained in para 7(ii) of the EIA Notification, 2006.

As per revenue records (7/12) of the State Government, forest land involved is 15.19 ha. Stage-II forest clearance for diversion of 14.23 ha of forest land, has been obtained vide letter dated 29<sup>th</sup> November, 2018. But the remaining forest land of 0.96 ha has been diverted in favour of MAHAGENCO on 3<sup>rd</sup> February, 2017.

Earlier, Singhori Opencast Coal Mining project for its capacity of 0.80 MTPA in an area of 428 ha was granted environmental clearance by the Ministry vide letter dated 17<sup>th</sup> May, 2007. The



land acquisition within sanctioned capital could not be completed due to new R&R policy of Coal India Limited and land acquisition policy of Maharashtra Govt, and thus causing delay in implementation of the project.

The details of production achieved are given below:

Year	EC capacity (MTPA)	Actual production (MTPA)
2017-18	0.80	0.35
2018-19 (up to 31.01.2019)	0.80	0.678

Mining plan including Mine Closure Plan for the project to effect increase in production capacity from 0.80 MTPA to 1.12 MTPA in an area of 426 ha was approved by WCL Board vide resolution no. WCL/BD/SECTT/CR-01-2019-20/2019/430 dated 1<sup>st</sup> January, 2019.

The Ministry's Regional Office at Nagpur has carried out site visit on 3<sup>rd</sup> January, 2019 and submitted monitoring report on compliance status of EC conditions vide their letter dated 31<sup>st</sup> January, 2019.

**44.9.3** *The EAC, after detailed deliberations and in exercise of the provisions contained in para 7(ii) of the EIA Notification, 2006 and consideration of the parameters mentioned in the Ministry's OM dated 15<sup>th</sup> September, 2017, exempted the project from fresh ToR and public hearing, and recommended for grant of environmental clearance to the expansion of Singhori Opencast Coal Mining project from 0.80 MTPA to 1.12 MTPA of M/s Western Coalfields Limited in mine lease area of 426 ha located in village Singhori, Tehsil Parseoni, District Nagpur (Maharashtra) and further subject to compliance of terms and conditions as applicable, and the additional conditions as under:-*

- *Forest clearance for diversion of forest land of 0.96 ha in the name of MAHAGENCO, shall be transferred to the project proponent, or otherwise, Mining Plan to be revised excluding the said forest land.*
- *The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 1.12 MTPA prior to commencement of the increased production.*
- *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.*
- *To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.*
- *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.*
- *The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 1.12 MTPA.*
- *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- *Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
- *To ensure health and welfare of nearby villages, regular medical camps shall be*

organized at least once in six months.

- 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.
- 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.
- 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.

#### **Agenda No.44.10**

#### **Dhankasa UG Mining Project (Capacity 1 MTPA (Normative)/1.25 MTPA Peak Production in ML area 582.651 ha M/s Western Coalfields Limited, located in District Chhindwara, (Madhya Pradesh) - Environmental Clearance**

**[IA/MP/CMIN/72632/2008;F.No. J-11015/451/2008-IA.II(M)]**

**44.10.1** The proposal is for environmental clearance for Dhankasa UG mine project for 1.00 MTPA (Normative) and 1.25 MTPA (Peak) by M/s Western Coalfields Ltd. including forest land in a ML area of 582.65 ha located in Pench Kanhan Coalfields, District Chhindwara (Madhya Pradesh).

**44.10.2** Details of the proposal, as ascertained from the proposal documents and also as informed during the meeting, are reported to be as under:

- The project area is covered under Survey of India Topo Sheet No55 N/3(RF 1:50,000) and is bounded by the geographical coordinates ranging from 22°17'39" to 22°19'33" N and longitudes 78°59'04" E and 79°01'13"E.
- Coal linkage of the project is proposed for MPPGCL use and for various Consumers
- Joint Venture: There is no joint venture.
- 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.
- Employment generation: Total manpower proposed for this project is 490 nos.
- The project is reported to be beneficial in terms of : It will bridge the gap (to the extent of the peak production capacity of the project) between demand & supply of non-coking coal for the power houses and other bulk consumers of western as well as southern part of the country.
- Earlier, the ToR to the project was obtained vide Ministry's ToR letter No. J-11015/451/2008-IA.II(M) dated 11-12-2008 for Normative capacity of 1.0 MTPA and peak capacity of 1.25 MTPA in mine lease area of 582.65 ha.
- Total mining lease area is 582.65 ha. Mining Plan (Including Mine Closure Plan) has been approved by the WCL Board vide dated 29-09-2016.
- The land usage pattern of the project is as follows: The total land involved in Dhankasa UG is 582.65 ha. The present proposal is for EC for Dhankasa UG mine project for normative capacity of 1.00 MTPA and peak capacity of 1.25 MTPA

#### **Pre-mining land use details**

Details of changes in land use is provided below:

Pre-mining land use details

Sl. No.	Particulars	Government and (ha)	Tenancy land (ha)	Forest land (ha)	Total (ha)
1.	All Rights	1.463	85.903	206.927	294.293
2.	Surface Rights	-	33.520	-	33.520
3.	Mining Rights	13.882	62.042	178.914	254.838

	Total	15.345	181.465	385.841	582.651
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### Post Mining – Not Applicable

(x) Total geological reserve reported in the mine lease area is 54.031 MT with 44.421 MT mineable reserve. Out of total mineable reserve of 44.421 MT, 19.00 MT are available for extraction. Percent of extraction is 43%.

(xi) Two seams (Seam II & IV) with thickness ranging from 3.50 m – 4.75 m are workable (excluding intervening parting). Grade of coal is G-7, stripping ratio - Not applicable, Degree of gaseousness is Degree-I while gradient is 1 in 14.

(xii) Method of mining operations envisages Bord and Pillars with continuous miners

(xiii) Life of mine is 23 Years.

(xiv) The details of OB dumping (External and Internal) is not applicable as it is an underground mine

(xv) Quarry details, Final mine void details is not applicable as it is an underground mine.

(xvi) Transportation of coal has been proposed by conveyor belt upto surface, from surface to siding by tippers/dumpers and at sidings by pay loaders.

(xvii) Reclamation details (External dump & internal dump) - Not applicable as it is an underground mine, however Green belt in 10.00 ha area around infrastructure buildings, Roads and in safety zone has been developed

- Stage – I Forestry clearance of 385.841 ha has been obtained vide letter no. F.No.8-45/2017-FC dated 02-01-2018.

(xviii) No National Parks, Wildlife 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 6.90 m to 7.80 m during pre-monsoon and between 1.50 m to 2.10 m during post-monsoon (core zone). Total water requirement for the project is 952 KLD.

(xx) Application for obtaining the approval of the Central Ground Water Authority for withdrawal of groundwater from CGWA is under preparation.

(xxi) Public hearing for the project of normative capacity of 1.00 MTPA and peak capacity of 1.20 MTPA in an area of 582.65 ha was conducted on 02.03.2009 at Dhankasa village, Amarwada Tehsil, Chhindwara, Madhya Pradesh. No comments/suggestions received for public hearing. Major issues raised in the public hearing include:

- Employment to local populace
- Welfare/CSR works like construction of School, temple, roads connecting Villages, playground, culverts BSNL tower, drinking water facilities in surrounding villages etc.
- Plantation for air pollution control
- Tarpaulin covering of coal transportation trucks
- Environment Protection during coal mining (air, water pollution control measures)

(xxii) Consent to Operate – not applicable as its new project

(xxiii) River/Nallah flowing near or adjacent to the mine- Southerly flowing perennial Gunor River and Dhankasa Nallah flowing westerly is a tributary to Gunor River.

(xxiv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to MPPCB 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 pertaining to environment.

(xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. No excess production of coal from the sanctioned capacity has been realized.

(xxvii) The project involves 50 land losers, No village rehabilitation involves.

(xxviii) Total cost of the project is Rs. 458.066 crore. Cost of production is Rs.1545.67/- per tonne., CSR cost is Rs 2 per tonne, R&R cost – Not applicable. Environment Management Cost is Rs. 1.18 Cr. (capital) has been made.

(xxix) Consent to operate (CTO) – Not applicable as it is new project.

**44.10.3** The proposal was earlier considered by the EAC in its meeting held on 17-18 May, 2018, wherein observations of the Committee were as below:

(a) The proposal is for environmental clearance to Dhankasa Underground coal mining project Coal of 1.2 MTPA in a total area of 582.651 ha of M/s Western Coalfields Limited located in Pench Kanhan Coalfields, District Chhindwara (Madhya Pradesh).

(b) Out of the total project area of 582.651 ha, forest land involved is 385.841 ha. Stage-I forest clearance has been obtained vide letter dated 2<sup>nd</sup> January, 2018 for its diversion to non-forestry purposes.

(c) Mining Plan was approved by CIL Board vide letter dated 17<sup>th</sup> August, 2016. Mine closure plan is an integral part of the approved Mining Plan.

(d) Terms of reference for the project was granted on 11<sup>th</sup> December, 2008 and the public hearing was conducted by SPCB on 2<sup>nd</sup> March, 2009. The proposal for environmental clearance was first considered by the EAC in its meeting held on 28-29 October, 2009, wherein the Committee expressed concerns over the coal mine (one of 68 coal blocks/mines in Pench Kanhan Coalfield) located between the Pench and Satpura Tiger Reserves and thus requiring clearance, if any, under the Forest (Conservation) Act, 1980 and/or the Wildlife (Protection) Act, 1972.

(e) Based on the report prepared by the WII Dehradun and subsequent recommendations of the Forest Advisory Committee, the decisions taken by the Ministry regarding EC & FC to coal mining projects in Pench-Kanhan Coalfield in District Chhindwara (MP) vide OM dated 17<sup>th</sup> June, 2011, included the following:-

(i) As per the boundary of the viable wildlife corridor between Pench and Satpura tiger Reserves identified by the WII, Dehradun, out of the total 68 coal blocks located in Pench-Kanhan Coalfield, ten coal blocks bearing number 55 (Rakhikol), 58 (Nandan-II), 50 (Bansi), 60 (Dahu North), 61 (Rakhinala), 62 (Dahu Extn), 63 (Koyalwari), 64 (Tandsi South), 65 (Tandsi North), 66 (Tambia), 67 (Tandsi-III) and 68 (Dhanwa) are located within the migratory corridor between Pench and Satpura tiger Reserves.

(ii) The minimum width of the corridor identified by the WII Dehradun is approx 3 km.

(iii) No approval under the Forest (Conservation) Act, 1980 or the Environment (Protection) Act, 1986 may be accorded for undertaking mining in any of the said ten coal blocks located within the above corridor.

(iv) In case mining is already being undertaken in any of the said ten coal blocks located within the migratory corridor, no approval under the Forest (Conservation) Act, 1980 or the Environment (Protection) Act, 1986, for renewal of mining lease may be accorded. The mining in these mines shall be closed after expiry of the current mining lease after reclamation of the mined over area. The operating mines may be analyzed and monitored for compliance of conditions having bearing with movement of wildlife.

(f) Having resolved that the Dhankasa coal mine is not located within the migratory corridor between Pench and Satpura Tiger Reserves, the proposal for environmental clearance was again considered by the EAC in its meeting held on 18-19 July, 2011 & 26-27 September, 2011. The Committee recommended the project for grant of EC in its meeting held on 26-27 September, 2011. However, there being no stage-I forest clearance for the forest land of

385.841 ha, the proposal was not taken forward and the project proponent were asked by the Ministry vide letter dated 8<sup>th</sup> June, 2012 to furnish the stage-I FC to process the matter further.

The Committee, after detailed deliberations, observed that the public hearing was held on 2<sup>nd</sup> March, 2009, and a long period has since been lapsed. Therefore, public comments/suggestions from the project affected people (PAP) may be invited by publishing the notice in local newspapers/ company website and providing 4 weeks' time for the public to submit their comments/suggestions for further course of action

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

The proposal is for environmental clearance to Dhankasa Underground coal mining project Coal of 1.2 MTPA in a total area of 582.651 ha of M/s Western Coalfields Limited located in Pench Kanhan Coalfields, District Chhindwara (Madhya Pradesh).

Out of the total project area of 582.651 ha, forest land involved is 385.841 ha. Stage-I forest clearance has been obtained vide letter dated 2<sup>nd</sup> January, 2018 for its diversion to non-forestry purposes.

Mining Plan was approved by CIL Board vide letter dated 17<sup>th</sup> August, 2016. Mine closure plan is an integral part of the approved Mining Plan.

Terms of reference for the project was granted on 11<sup>th</sup> December, 2008 and the public hearing was conducted by SPCB on 2<sup>nd</sup> March, 2009. The proposal for environmental clearance was first considered by the EAC in its meeting held on 28-29 October, 2009, wherein the Committee expressed concerns over the coal mine (one of 68 coal blocks/mines in Pench Kanhan Coalfield) located between the Pench and Satpura Tiger Reserves and thus requiring clearance, if any, under the Forest (Conservation) Act, 1980 and/or the Wildlife (Protection) Act, 1972.

In view of compliance of earlier the observations and recommendations of the EAC, public comments/suggestions were invited by publishing the notice in Local newspapers viz. Navbharat (English) and Divya Express (Hindi) on 4<sup>th</sup> July, 2018 as well as company's website for 4 weeks. No comments/suggestions from the public were received within the 4 weeks time.

**44.10.5** *The EAC, in the first instance, observed that the baseline data used for preparation of EIA/EMP report was collected during the year/period 2005, which is not in conformity with the extant norms/guidelines of the Ministry in this regard. The Committee also noted that no proposal was submitted to the concerned regulatory authority for abstraction of ground water.*

*The Committee, after detailed deliberations, insisted for collection of one month baseline data for preparation of an addendum to the EIA/EMP report, and also submission of the proposal for extraction of mine water and/or ground water.*

*The proposal was deferred on the above lines.*

#### **Agenda No.44.11**

**Amlai/New Amlai UG Coal Mine Underground mine in ML area 724 ha of M/s South Eastern Coalfields Limited, located in Village Bargaon, Tehsil Jaithari, District Anuppur (MP) - Revalidation of Environmental Clearance**

**[IA/MP/CMIN/7575/2005; F.No. J-11015/164/2005-IA.II(M)]**

**44.11.1** The proposal is for revalidation of environment clearance dated 9<sup>th</sup> June, 2006 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Amlai/ New Amlai UG Coal Mining Project of 0.45 MTPA in an area of 724 ha located in village Bargaon, tehsil Jaithari, District Anuppur (MP), in pursuance of this Ministry's Notification dated 6<sup>th</sup> April, 2018.

Public hearing for the project was conducted by the State Pollution Control Board on 30<sup>th</sup> August, 2003.

Project area involves 383 ha of forest land, which is reportedly yet to be diverted for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980.

Mine was closed on 20<sup>th</sup> September, 2011 due to exhaustion of coal reserves. Accordingly, revalidation of the said environmental clearance is required not for coal mining operations but to implement the Mine Closure Plan.

**44.11.2** *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 383 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30<sup>th</sup> May, 2018.*

#### **Agenda No.44.12**

**Rajendra Underground mining project of 0.625 MTPA in an area of 590 ha of M/s South Eastern Coalfields Limited, located in Village Chirihiti, Tehsil Burhar, District Shahdol (MP) - Revalidation of Environmental Clearance**

**[IA/MP/CMIN/79714/2005; F.No.J-11015/64/2005-IA-II(M)]**

**44.12.1** The proposal is for revalidation of environment clearance dated 24<sup>th</sup> May, 2005 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Rajendra UG Coal Mining Project of 0.625 MTPA in an area of 590 ha located in village Chirihiti, tehsil Burhar, District Shahpur (MP), in pursuance of this Ministry's Notification dated 6<sup>th</sup> April, 2018.

Project area involves 204.185 ha of forest land. Stage-II forest clearance for diversion of 150.676 ha of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980. Forest land of 36 ha has been surrendered to DFO, District



Shahdol (MP). Remaining forest land of 17.50 ha, still covered under the Mining Plan, is yet to be diverted for non-forestry uses.

Public hearing for the project was conducted by the State Pollution Control Board on 30<sup>th</sup> August, 2003.

Renewal for Consent to operate has been applied on 1<sup>st</sup> November, 2018 to the State Pollution Control Board.

**44.12.2** *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30<sup>th</sup> May, 2018.*

#### **Agenda No.44.13**

**Nawapara Underground Coal Mine Project of 0.18 MTPA in ML area 451.40 ha of M/s South Eastern Coalfields Limited located in, Maheshpur Village, Tehsil Surajpur, District Surguja (Chhattisgarh) - Revalidation of Environmental Clearance**

**[IA/CG/CMIN/21020/2002 F.No. J-11015/3/2001-IA.II(M)]**

**44.13.1** The proposal is for revalidation of environment clearance dated 7<sup>th</sup> January, 2002 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Nawapara Underground Coal Mine Project of 0.18 MTPA in an area of 451.4 ha located in village Maheshpur, tehsil Surajpur Development Block, District Surguja (Chhattisgarh), in pursuance of this Ministry's Notification dated 6<sup>th</sup> April, 2018.

**44.13.2** *The Committee, after deliberations understood that project involves violation of production capacity beyond the capacity in environmental clearance from the year 2009-10 to 2013-14. The project proponent was asked to take the proposal in violation committee for further perusal.*

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

#### **Agenda No. 44.14**

**Singhali Underground Coal Mine Project of 0.42 MTPA in area 862.289 ha of M/s South Eastern Coalfields Limited located in village Singhali, Tehsil Korba/Katghora District Korba , (Chhattisgarh) – For Revalidation of Environmental Clearance**

**[IA/CG/CMIN/7650/2005, F.No. J-11015/179/2005-IA.II]**

**44.14.1** The proposal is for revalidation of environment clearance dated 9<sup>th</sup> May, 2006 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Singhali Underground Coal Mine Project of 0.42 MTPA in area 862.289 ha located in village Singhali, Tehsil Korba/Katghora District Korba, (Chhattisgarh), in pursuance of this Ministry's Notification dated 6<sup>th</sup> April, 2018.

Project area involves 301.48 ha of forest land. Stage-II forest clearance for diversion of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980 on 27/28 March, 1995 and its validity period is 30 years.

Public hearing for the project was conducted by the State Pollution Control Board on 17<sup>th</sup> November, 2004.

Renewal for Consent to operate is obtained and valid upto 30<sup>th</sup> April, 2020 from the State Pollution Control Board.

**44.14.2** *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30<sup>th</sup> May, 2018.*

#### **Agenda No. 44.15**

**Expansion of Bijuri underground coal mining project 0.60 MTPA in ML area 216.146 ha M/s South Eastern Coalfields Limited located, in Village Bijuri Tehsil Kotma District Shahdol, (Madhya Pradesh) – For Revalidation of Environmental Clearance**

**[IA/MP/CMIN/79083/2005 F.No. J-11015/63/2005-IA.II(M)]**



**44.15.1** The proposal is for revalidation of environment clearance dated 24<sup>th</sup> May, 2005 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Expansion of Bijuri underground coal mining project 0.60 MTPA in ML area 216.146 ha in Village Bijuri Tehsil Kotma District Shahdol, (Madhya Pradesh) in pursuance of this Ministry's Notification dated 6<sup>th</sup> April, 2018.

No forest land is involved in this Project area

Public hearing for the project was conducted by the State Pollution Control Board on 14<sup>th</sup> October, 2003.

Renewal for Consent to operate is obtained and valid upto 23<sup>rd</sup> May April, 2019 from the State Pollution Control Board.

**44.15.2** *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30<sup>th</sup> May, 2018.*

#### **Agenda No. 44.16**

**Rajnagar Opencast Coal Mine Project (from 1 MTPA to 1.7 MTPA. of M/s South Eastern Coalfields Limited located in Village Rajnagar, Tehsil Kotma, District Shahdol, (Madhya Pradesh) – For Revalidation of Environmental Clearance**

**[IA/MP/CMIN/11610/2003, F.No. J-11015/66/2005-IA-II(M)]**

**44.16.1** The proposal is for revalidation of environment clearance dated 9<sup>th</sup> May, 2006 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Rajnagar Opencast Coal Mine Project (from 1 MTPA to 1.7 MTPA. of M/s South Eastern Coalfields Limited located in Village Rajnagar, Tehsil Kotma, District Shahdol, (Madhya Pradesh), in pursuance of this Ministry's Notification dated 6<sup>th</sup> April, 2018.

Project area involves 153.371 ha of forest land wherein 68.941 ha has been surrendered. Stage-I forest clearance for diversion of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980 on for 502 ha on 10<sup>th</sup> January, 2008 and 4.20 ha on 26<sup>th</sup> November, 2008 and its validity period is 20 years.

Public hearing for the project was conducted by the State Pollution Control Board on 28<sup>th</sup> August, 2003.

Renewal for Consent to operate was obtained and valid upto 31<sup>st</sup> December, 2018 from the State Pollution Control Board. Further renewal has been applied.

**44.16.2** *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30<sup>th</sup> May, 2018.*

#### **Agenda No. 44.17**

**West Jhagrakhand Underground Coal Mine Project 0.33 MTPA of in ML area 1065.67 ha M/s South Eastern Coalfields Limited located in Village Jhagrakand Tehsil Mahendragarh District Korba, (Chhattisgarh) – For Revalidation of Environmental Clearance**

**[IA/CG/CMIN/7753/2005 F.No. J-11015/196/2005-IA.II(M)]**

**44.17.1** The proposal is for revalidation of environment clearance dated 6<sup>th</sup> September, 2006 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for West Jhagrakhand Underground Coal Mine Project 0.33 MTPA in ML area 1065.67 ha located in Village Jhagrakand Tehsil Mahendragarh District Korba, (Chhattisgarh), in pursuance of this Ministry's Notification dated 6<sup>th</sup> April, 2018.

Project area involves 265.705 ha of forest land. Stage-I forest clearance for diversion of forest land has been obtained for non-forestry purposes in two parts, as mandated under the Forest (Conservation) Act, 1980 for 40.81 ha on 10<sup>th</sup> January, 2008 and 256.545 ha on 16<sup>th</sup> August, 2010.

Public hearing for the project was conducted by the State Pollution Control Board on 8<sup>th</sup> August, 2003.

Consent to operate was obtained and valid upto 31<sup>st</sup> August, 2021 from the State Pollution Control Board.

**44.17.2** *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30<sup>th</sup> May, 2018.*

#### **Agenda No. 44.18**

**Jhirira Underground coal mining project 0.33 MTPA in ML area 557.00 ha M/s South Eastern Coalfields Limited located in Village Dumar Kachhar Tehsil Kotma, District Anuppur , (Madhya Pradesh) – For Revalidation of Environmental Clearance**

**[IA/MP/CMIN/7363/2002 F.No. J-11015/13/2002-IA.II]**

**44.18.1** The proposal is for revalidation of environment clearance dated 4<sup>th</sup> October, 2004 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Jhirira Underground coal mining project 0.33 MTPA in ML area 557.00 ha M/s South Eastern Coalfields Limited located in Village Dumar Kachhar Tehsil Kotma, Districts Anuppur , (Madhya Pradesh), in pursuance of this Ministry's Notification dated 6<sup>th</sup> April, 2018.

Project area involves 557 ha of forest land. Stage-I forest clearance for diversion of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980 on 13<sup>th</sup> November, 2003.

Public hearing for the project was conducted by the State Pollution Control Board on 28<sup>th</sup> May, 2001.

Consent to operate is obtained and valid upto 31<sup>st</sup> August, 2019 from the State Pollution Control Board.

**44.18.2** *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*

- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*

### **Agenda No. 44.19**

**Umaria Underground Mining Project 0.35 MTPA in ML area 512.54 ha M/s South Eastern Coalfields Limited located in village Umaria, Bandogarh Tehsil,, Districts Umaria, (Madhya Pradesh) – For Revalidation of Environmental Clearance**

**[IA/MP/CMIN/77829/2005 F.No. J-11015/90/2005-IA.II]**

**44.19.1** The proposal is for revalidation of environment clearance dated 20<sup>th</sup> May, 2005 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Umaria Underground Mining Project 0.35 MTPA in ML area 512.54 ha M/s South Eastern Coalfields Limited located in village Umaria, Bandogarh Tehsil,, Districts Umaria, (Madhya Pradesh), in pursuance of this Ministry's Notification dated 6<sup>th</sup> April, 2018.

No forest land is involved in the Project area of 512.54 ha.

Public hearing for the project was conducted by the State Pollution Control Board on 16<sup>th</sup> October, 2003.

Renewal of Consent to operate was obtained and valid upto 30<sup>th</sup> April, 2019 from the State Pollution Control Board.

**44.19.2** *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*

- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30<sup>th</sup> May, 2018.*

#### **Agenda No. 44.20**

**Mahan opencast coal mine project 0.36 MTPA in ML area 201.34 ha M/s South Eastern Coalfields Limited located in Village Kapsara, Tehsil Surajpur, Districts Surguja , (Chhattisgarh) – For Revalidation of Environmental Clearance**

**[IA/CG/CMIN/77400/2001, F.No. J-11015/14/2001-IA.II]**

**44.20.1** The proposal is for revalidation of environment clearance dated 31<sup>st</sup> December, 2001 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Mahan opencast coal mine project 0.36 MTPA in ML area 201.34 ha M/s South Eastern Coalfields Limited located in Village Kapsara, Tehsil Surajpur, Districts Surguja , (Chhattisgarh), in pursuance of this Ministry's Notification dated 6<sup>th</sup> April, 2018.

Project area involves 15.42 ha of forest land. Stage-II forest clearance for diversion of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980 for 15.42 ha on 2<sup>nd</sup> September, 1999 and it is valid for 30 years.

Public hearing for the project was conducted by the State Pollution Control Board on 5<sup>th</sup> August, 1999.

Renewal of Consent to operate was obtained and valid upto 28<sup>th</sup> November, 2020 from the State Pollution Control Board.

**44.20.2** *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*



#### **Agenda No.44.21**

**Gayatri Underground Coal Mining Project 0.30 MTPA in ML area 507.472 ha M/s South Eastern Coalfields Limited located in Getra village Tehsil Ambikapur, District Surguja, (Chhattisgarh) - For Revalidation of Environmental Clearance**

**[IA/MP/CMIN/66198/2001,F.No. J-11015/26/2000-IA.II]**

**44.21.1** The proposal is for revalidation of environment clearance dated 27<sup>th</sup> November, 2002 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Gayatri Underground Coal Mining Project 0.30 MTPA in ML area 507.472 ha located in Getra village Tehsil Ambikapur, District Surguja, (Chhattisgarh), in pursuance of this Ministry's Notification dated 6<sup>th</sup> April, 2018.

Project area involves 249.762 ha of forest land. Stage-II forest clearance for diversion of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980 for 249.762 ha on 27<sup>th</sup> September, 2000.

Public hearing for the project was conducted by the State Pollution Control Board on 12<sup>th</sup> November, 1999.

Renewal of Consent to operate was obtained and valid upto 28<sup>th</sup> November, 2019 from the State Pollution Control Board.

**44.20.2** *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*

#### **Agenda No.44.22**

**Parsa East and Kanta Basan Opencast Coal Mine from 10 MTPA to 15 MTPA and Pit Head Coal Washery From 10 MTPA to 15 MTPA of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd. located in Hasdeo-Arand Coalfields in District Surguja (Chhattisgarh) - Amendment in Environmental Clearance**

**[IA/CG/CMIN/22290/2014, F.No.J-11015/120/2014-IA.II]**

**44.22.1** The proposal is for amendment in environmental clearance dated 10<sup>th</sup> August, 2018 granted by the Ministry in favour of M/s Rajasthan Rajya Vidyut Utpadan Nigam Limited to the expansion of Parsa East and Kanta Basan Opencast Coal Mining Project from 10 MTPA to 15 MTPA and Pit Head Coal Washery From 10 MTPA to 15 MTPA located in Hasdeo-Arand Coalfields in District Surguja (Chhattisgarh).

**44.22.2** The said EC stipulates one of the specific conditions no. 4(ix) as 'Transportation of raw coal, washed coal and rejects shall be through rail'.

**44.22.3** The project proponent has now requested to revise the above condition, especially to exempt transportation of washery rejects by road, for the reasons as under:-

(i) Washery Rejects generated from Parsa East Kanta Basan Coal Block are used by nearby Power Plants with inadequate coal linkage to supplement the coal requirement, after proper blending with high GCV coal. Due to high ash content and low energy (GCV) output, economic viability of rejects depends more on the low transportation cost. As such, rejects are commercially suitable to industries located in closer vicinity to Mine/Washery. PEKB mine is located in the Surguja District of Chhattisgarh, which has no such industry to consume the washery rejects. Therefore, rejects are primarily sold to plants located in Bilaspur, Raipur, and Raigarh Districts of Chhattisgarh. Direct Railway connectivity to these power plants from PEKB mine is not available. Railway connectivity to these power plants from PEKB mine washery is via Anuppur on SECR rail section, which takes longer route as compared to road connectivity.

(ii) In view of limited usability and techno-economic viability rejects are sold to various power plants mostly of small capacity, located within a distance of 200 to 300 kilometers from Pit-head of PEKB mine/washery and are transported by the buyers to their respective plants by road only.

(iii) List of key customers with details of nearest sidings and distances by Railway as well as by road are furnished in the table below:

Name of Plant	Name of the nearest Railway Siding from PSRS	Railway Route	Railway Distance to Plant's Nearest Rly Siding from PSRS (PEKB pit head siding)	Distance from Siding to Plant by Road	Total Distance (Rail + Road)	Road Distance PEKB to Plant
Jindal Power Limited, O P Jindal Super Thermal Power Station, Tamnar, Raigarh (CG)	Kharsia (KHS) (SECR)	DTL-BRND-USL-BSP-CPH	455	62	517	275
Indermani Coal Beneficiation Pvt Ltd, Beltara, Ratanpur, Bilaspur (CG)	Uslapur (USL) (SECR)	DTL-BRND	348	35	383	131
Indermani Coal Beneficiation and Energy Pvt Ltd, Phase-II, Siltara, Raipur (CG)	Siliari (SLH) (SECR)	DTL-BRND-USL	441	15	456	262
M B Power (Madhya Pradesh) Ltd, Laharpur, Murra Tola, Jaithari, Anuppur (MP)	Anuppur (APR) (SECR)	DTL-BRND	212	20	232	161

N R Sponge and Power Limited, Phase - II, Industrial Area, Siltara, Raipur (CG)	Siliari(SLH) (SECR)	DTL-BRND-USL	441	15	456	275
G R Sponge and Power Limited, Phase - II, Industrial Area, Siltara, Raipur (CG)	Siliari(SLH) (SECR)	DTL-BRND-USL	441	19	460	280
Indus Udyog Infrastructure Pvt. Ltd., Gautauri, Semartal, Bilaspur (CG)	Uslapur(USL) (SECR)	DTL-BRND	348	25	373	170
TRN Energy Pvt Ltd., Bhengari, Newapara, Ghargoda, Raigarh (CG)	Bhupdeopur(BE F) (SECR)	DTL-BRND-USL-BSP-CPH	473	40	513	229
Nav Durga Fuels and Power Ltd. Saraipali, Gharghora Road, Raigarh (CG)	Bhupdeopur(BE F) (SECR)	DTL-BRND-USL-BSP-CPH	473	34	507	246
Salasar Steel and Power Ltd, Gerwani, 13th mile stone, Ambikapur Road, Raigarh (CG)	Bhupdeopur(BE F) (SECR)	DTL-BRND-USL-BSP-CPH	473	30	503	250

\*\* DTL- Daritolla Jn.; BRND – Boridand Jn.; USL – Uslapur Jn.; BSP – Bilaspur Jn.; CHP – Champa Jn.

It is evident from above details that none of the plant comes under Indian Railway network directly. Distance of nearest railway sidings from these plants varies from 20 to 65 km, which is to be covered by public road/highways. Therefore, transportation of rejects to these plants exclusively through rail is not feasible.

(iv) Besides significantly longer distances of plants by railway, transportation through Railways will require bridging the gap between respective railways sidings and the plants by road transportation. It will eventually enhance the cost of handling of cargo at both ends and thereby make the entire process complex and economically unviable for the customers of rejects.

(v) Further, it may kindly be noted that by railway route, total distances of some of plants enlisted in above table exceeds the maximum allowable limit of 500 km, stipulated in the Gazette Notification of MoEF. Therefore, major consumers including Jindal Power Ltd (single largest buyer) will not be able to take off rejects from PEKB Mine by railway.

(vi) Transportation of rejects by road are being carried out by covered trucks with effective dust control measures e.g. regular water spraying on roads and any other conditions imposed by State Pollution Control Board.

(vii) Road transportation of rejects is unavoidable for evacuation of coal from PEKB washery. However, efforts shall be made to minimize the road transportation of rejects by constructing a wharf wall rail loading system to extent possible.



**44.22.4** The EAC, in the first instance, expressed concerns over long distances involved (131-280 km) for transportation of washery rejects by road from the PEKB mine to various power plants and other potential users/customers in nearby areas, and desired to know about the habitation along the proposed road route, its condition and likely impact on air quality/safety due to the said transportation.

The Committee, after deliberations, desired for formulation of comprehensive guidelines on disposal of washery rejects at the earliest (within six months, finalised and duly approved by the Ministry of Coal, which would take care of all environmental concerns to ensure uniformity in all such cases.

Pending formulation and approval of the comprehensive guidelines, as stated above, the committee resolved that as an interim measure the concerned State Pollution Control Board may stipulate additional terms and conditions in the CTOs depending upon the coal transportation network, air quality and other environmental parameters, but at the same time complying with the National Ambient Air Quality Standards.

### **Agenda No.44.23**

**Coal Washery of 2.5 MTPA in an area of 9.93 ha of M/s Phil Coal Beneficiation Pvt Ltd at Village Ghutku Tehsil Takhatpur, District Bilaspur (Chhattisgarh) - Amendment in Environmental Clearance**

**[IA/CG/CMIN/34509/2015, J-11015/418/2015-IA-II(M)]**

**44.23.1** The proposal is for amendment in environmental clearance dated 31<sup>st</sup> July, 2017 granted by the Ministry in favour of M/s M/s Phil Coal Beneficiation Pvt Limited to their project of Coal Washery of 2.5 MTPA in an area of 9.93 ha of at Village Ghutku Tehsil Takhatpur, District Bilaspur (Chhattisgarh).

**44.23.2** The said EC stipulates one of the specific conditions regarding coal transportation, as '*Transportation of raw coal, clean coal, middlings and rejects shall be by rail with wagon loading through silo.*'

Based on recommendations of the EAC, the EC was amended vide letter dated 16<sup>th</sup> April, 2018 to revise the above condition as '*Transport of raw coal, washed coal and the rejects shall be through road/rail (60% by rail and 40% by road) with the exemption from wagon loading through silo, for a period of two years i.e. up to 31<sup>st</sup> March, 2020 only.*'

**44.23.3** The project proponent has now requested for waiver off the condition in view of coal transportation not possible by rail due to non availability of sufficient number of rakes, and also wagon loading through silos not economically viable and feasible for smaller washeries. Accordingly, amendment has been sought to permit coal transportation by road only till the rakes are made available by the railway authorities.

**44.23.4** The EAC, while considering the proposal in its earlier meeting held on 24<sup>th</sup> January, 2019, insisted for a detailed study to be undertaken for assessment of carrying capacity of the proposed route by road, impact of increased traffic on air quality and the local habitation.

The Committee was also of the opinion that the washery may continue to operate in the mean time irrespective of the above condition, but with adequate pollution control measures and strictly complying with the provisions of the Ministry's Notification dated 2<sup>nd</sup> January, 2014 limiting coal transportation with ash content not exceeding 34%.

In response to the observations of the EAC, the desired report on assessment of carrying capacity of the proposed route by road, impact of increased traffic on air quality and the local habitation has been submitted by the project proponent. On examination, it was decided to take it to the EAC for consideration.

**42.23.5** *The EAC, in the first instance, was not comfortable with the said report submitted by the project proponent. Due to absence of any expert/EIA consultant, no explanation was made available to any of the queries/concerns of the Committee, including source of the study/report.*

*The EAC, however, after deliberations, reiterated its earlier recommendation for the washery to operate (as mentioned in para 44.23.4), subject to the following:-*

- (i) The desired dispensation for coal transportation by road in place of 60:40 approved earlier, may be allowed for a period of one year. Based on findings of the study and compliance status of the EC conditions, the project would be considered by the EAC for its continuation thereafter.*
- (ii) The State Pollution Control Board, while considering consent to operate for the project, shall ensure that with the proposed coal transportation by road, air quality would remain within the national ambient air quality standards*
- (iii) The project proponent shall ensure compliance of this Ministry's notification dated 2<sup>nd</sup> January, 2014 for supply of washed coal to thermal power plants.*

**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 Report should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
- vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. 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 conform to the effluent standards as prescribed under Environment (Protection) Act, 1986
- xxiii. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

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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.
- (xiii) 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.
- (xiv) 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.
- (xv) 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.
- (xvi) 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.
- (xvii) 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.
- (xviii) 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.

- (xix) Detailed water balance should be provided. The break-up of water requirement for the various mine operations should be given separately.
- (xx) 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.
- (xxi) 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.
- (xxii) Impact of blasting, noise and vibrations should be given.
- (xxiii) Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.
- (xxiv) 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.
- (xxiv) 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.
- (xxv) 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.
- (xxvi) 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.
- (xxvii) 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.
- (xxviii) 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.N.	YEAR*	Green Belt	External Dump	Backfilled Area	Others(Undisturbed Area/etc)	TOTAL
1.	1 <sup>st</sup> year					
2.	3 <sup>rd</sup> year					
3.	5 <sup>th</sup> year					
4.	10 <sup>th</sup> year					
5.	15 <sup>th</sup> year					
6.	20 <sup>th</sup> year					
7.	25 <sup>th</sup> year					
8.	30 <sup>th</sup> year					
9.	34 <sup>th</sup> year(end of mine life)					
10.	34- 37 <sup>th</sup> Year (Post-mining)					

\* As a representative example

(xxix) 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					

- (xxx) 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.
- (xxxii) 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.
- (xxxiii) Risk Assessment and Disaster Preparedness and Management Plan should be provided.
- (xxxiv) Integration of the Env. Management Plan with measures for minimizing use of natural resources - water, land, energy, etc. should be carried out.
- (xxxv) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxxvi) 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.
- (xxxvii) 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.
- (xxxviii) Corporate Environment Responsibility:
- The Company must have a well laid down Environment Policy approved by the Board of Directors.
  - 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.
  - 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.
  - 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.
- (xxxix) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.
- (xl) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xli) Status of any litigations/ court cases filed/pending on the project should be provided.
- (xlii) 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.

- (xlii) 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			

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

## Area under Surface Rights

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

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

trend of groundwater availability and/or if the area falls within dark/grey zone.

- (xv) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.
- (xvi) Detailed water balance should be provided. The 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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08/05/2019

[https://mail.gov.in/eweb/etaboflayout/label.html?lang=en&3.0.1.2.0\\_15121507](https://mail.gov.in/eweb/etaboflayout/label.html?lang=en&3.0.1.2.0_15121507)

Subject: Re: Final Minutes of Meeting of EAC held on 24-25th April, 2019      Date: 05/05/19 12:42 PM  
To: Munna Kumar Shah <munna.shah@gov.in>      From: navin chandra <navinchandra1@yahoo.com>  
Reply-To: navin chandra <navinchandra1@yahoo.com>

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08/05/2019,

Dear Dr. Srivastava Ji,

I have gone through the Minutes of the Meeting after addressing concerns of Dr. Pandey. The Minutes are in order and can be now up-loaded on the Web-site of MoEFCC.

Regards,

(NAVIN CHANDRA)

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Dr. Navin Chandra,  
Chairman, Coal Mining & Thermal Power,  
MoEF&CC, GOI, New Delhi.  
Ex-Director General MPCST, Bhopal,  
Ex-Vice Chancellor, SSSUTM, Sehore (MP)  
(Retd.) Director (Actg.), CSIR-AMPRI, Bhopal  
Member, RC, CSIR-AMPRI, Bhopal.  
Phone (Res.) 91-755-2454800  
navinchandra1@yahoo.com, navinchandraampri@gmail.com

On Wednesday, 8 May, 2019, 10:30:04 am IST, Munna Kumar Shah <munna.shah@gov.in> wrote:

Dear sir

The undersigned is directed to send Final Minutes of Meeting of EAC held on 24-25 April, 2019. So far we have only received comments from Shri Dr J K Pandey, and has confirmed that Draft MoM are in order.

Request you kind approval for uploading/release of the Final Minutes.

Final Minutes are enclosed for approval please.



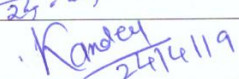
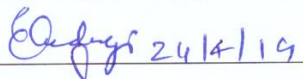
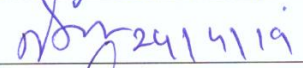

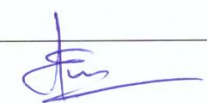


Thank you

Regards

Munna Kumar Shah  
Scientist D  
MoEFCC (IA Division - Coal Mining)


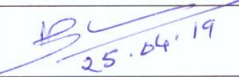
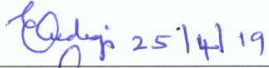
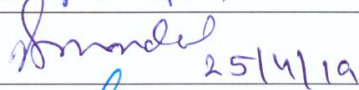
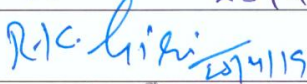
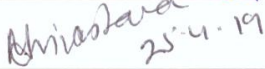
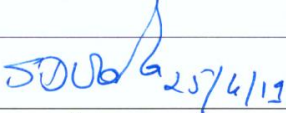
ANNEXURE-6

PARTICIPANTS IN 44<sup>th</sup> EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 24<sup>th</sup> and 25<sup>th</sup> April, 2019 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.	Shri S. K. Shrivastva Member Secretary	

## List of Expert Appraisal Committee(EAC) Members

PARTICIPANTS IN 44<sup>th</sup> EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 24<sup>th</sup> and 25<sup>th</sup> April, 2019 ON COAL SECTOR PROJECTS.

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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.	Shri S. K. Shrivastva Member Secretary	