Minutes of the 23rd EAC (THERMAL & COAL MINING PROJECTS) MEETING Held on 16th -17th October, 2014 in New Delhi

The 23rd EAC (Thermal & Coal mining projects) Meeting was held on 16th -17th October, 2014 in New Delhi to consider the proposals in coal mining sector. The list of participants of EAC and the proponents are given at Annexure-1 and 2 respectively.

B. Confirmation of Minutes: The Committee confirmed the minutes of the 21st EAC meeting held on 18th -19th September, 2014.

C. The following proposals were considered:

23.1 Pauni opencast expansion (from 0.72 MTPA to 0.90 MTPA in an ML area of 255 ha) of M/s Western coalfield Limited, located at dist. Chandrapur, Maharashtra- EC under 7(ii) of EIA Notification 2006. - Further Consideration

23.1.1 The proposal is for Environment Clearance for expansion of Pauni OCP (under 7(ii) of EIA Notification 2006) from 0.72 MTPA to 0.90 MTPA in an ML area of 255 ha of M/s Western coalfield Limited, located at dist. Chandrapur, Maharashtra. The proposal was last considered in 17th EAC meeting held on 23-25th July, 2014. The Committee sought following information for further consideration of the project:

i. There are several non-compliances of the EC conditions as submitted by the RO, MoEF.
ii. The proponent has submitted that even if information was submitted to the RO, MoEF this has not been reflected in the compliance report. The proponent was advised to clarify to the RO, MoEF and submit revised comprehensive report.
iii. Construction of Check Dam/water conservation was one of the conditions in the EC. No action in this regard has been initiated by the proponent. This may be clarified and action plan alongwith time frame & budget be submitted.
iv. Settling tanks may be provided.

23.1.2 The proponent made the presentation and informed that:

i. It has submitted the compliance report certified by the RO, MoEFCC and the Action Plan.
ii. The artificial ground water recharge measures have already been taken with due consultation with the concerned village Panchayat through de-silting/ deepening of existing pond in Chunala, Pauni & Panchgaon Village at a total cost of Rs. 8.42 lakhs. The water requirement of nearby village is met during water scarcity months. However, from the ground water level monitoring being carried out continuously every quarter as per EC condition does not reveal any adverse impact on ground water level till date.
iii. For treatment of mine discharge, a sedimentation pond/settling tank has already been provided.
iv. The plantation in the Mine area has been carried out through the State Forest Agency and with 3 years/ 5 years maintenance contract. Adequate fund provision is made every year under revenue head for plantation.
v. The artificial ground water recharge measures have already been taken with due consultation with the concerned village Panchayat through de-silting/ deepening of existing pond in the Chunala, Pauni & Panchgaon villages at a total cost of Rs. 8.42 lakhs. In addition to the above, check

dams shall also be constructed through boulders of 1 m height in the natural water course flowing in the vicinity at 3-4 points along its course.

vi. The existing 3 nos. bores are taken as peizometers and the same are being monitored. These bores are in continuous use and the ground water level monitoring results will clearly indicate the rise /fall of water level. Till date no such adverse impacts have been noticed.

vii. The Sustainability Report 2012-13 covering Land degradation and impact on biodiversity; Mine Water Utilization; Energy Consumption in mining operations; Expenditure for environmental protection etc has been prepared for further follow up.

23.1.4 The Committee, after detailed deliberations, recommended for granting EC with the following specific conditions:

i. Plantation of Prosperis species should be avoided and only native plant species be planted.
ii. Rain water harvesting and other facilities should be created for ground water recharge.
iii. Surface run off to the garland canal must pass through the settling tank.
iv. As far as possible, no bore well should be made close to the mine.
v. Trained manpower and environmental laboratory be provided at site for analysing basic parameters and for advanced analysis, a regional environmental laboratory be established so as to cater to a group of mines in the vicinity. Action Taken Report for the implementation of submitted action plan be submitted to the concerned SPCB to the RO, MoEFCC.
vi. The PP informed that they are carrying out a Sustainable Report of the Project and details thereof be submitted to the Ministry.

23.2 Ghonsa Expn. OCP Coal Mine Project (from 0.45 MTPA to 0.60MTPA within the existing land of 128.79 ha) M/s Western Coalfield Limited located in Yavatmal. Maharashtra – Expansion (under 7(ii) of EIA Notification 2006) – Further Consideration

23.2.1 The proposal is for Environment Clearance for expansion of Ghonsa Expn. OCP (under 7(ii) of EIA Notification 2006) from 0.45 MTPA to 0.60 MTPA within the existing land of 128.79 ha M/s Western Coalfield Limited located in district Yavatmal, Maharashtra. The proposal was last considered in 17th EAC meeting held on 23rd -25th July, 2014. The Committee sought following information for further consideration of the project:

i. The garland drain and toe wall may be provided. The comments of DGMS may be obtained on adequacy of garland drain vis-à-vis toe wall.
ii. Check dam/secondary/tertiary channels may be provided for storing g water/rain water harvesting for ground water recharge. Continuous pH meter be provided for monitoring the discharge of acid mine water.
iii. The proponent may consult their counterpart subsidiary in Assam Coalfields for treatment and monitoring of acid mine water discharge.
iv. A Sub-Committee of EAC may visit to inspect the Assam Coalfield as well as M/s Ghonsa OCP expansion with regard to treatment and monitoring of acid mine water discharge.
v. The approved mine plan along with comprehensive information with regard to installation of piezometer, CHP and mechanically covered trucks be submitted for further consideration.
vi. An Environmental Management Cell with an Ecologist and social scientists be established for environmental monitoring in the area.
vii. The submission of action plan by the Proponent with regard to non-compliance of several EC condition vis-à-vis the compliance report from Regional Office, MoEF may be further clarified to

the RO, MoEF and a revised compliance report be submitted for further consideration.

23.2.2 The proponent made the presentation and informed that:

i. It has requested the MoEFCC that Garland drain and toe wall may not be insisted and this may be waived off.
ii. Check dam on secondary/tertiary channels for artificial ground water recharge measures have already been taken with due consultation with the concerned village Panchayat and de-silting/ deepening of existing ponds in the villages at a total cost of Rs. 12.48 lakh was done. The acidic pH of mine discharge was observed in one sample collected on one day only. The samples analysed during the last three quarters i.e. December, 2013, March 2014 & June 2014 did not show any acidic pH suggesting an error in the observations. An Environmental Management Cell is existing at the HQ which analyses the samples. Environmental personnel are being recruited.
iii. The revised Compliance report has been submitted with the Action Plans..
iv. Plantation in the Mine area has been carried out through the State Forest Agency and with 3 years/ 5 years maintenance contract. Adequate fund provision is made every year under revenue head for plantation. The species to be planted shall be native of the area.
v. The artificial ground water recharge measures have already been taken with due consultation with the concerned village Panchayat through de-silting/ deepening of existing pond in the Sakhara, Rasa &Sukanegaon villages at a total cost of Rs. 12.48 lakhs. In addition to the above, check dams shall also be constructed through boulders of 1 m height in the natural water course flowing in the vicinity at 3-4 points along its course.
vi. The existing 2 nos. bores are taken as peizometers and the same are being monitored. The depth of these bores are 65 m in Sakhra & 60 m in Kumbarkahani Village. The Existing mine depth is about 50 m, hence the existing monitoring is well below the depth of working. These bores are in continuous use and the ground water level monitoring results are clearly indicating the rise /fall of water level with specific reference to mine working. Till date no such adverse impacts have been noticed.
vii. The Sustainability Report 2012-13 covering Land degradation and impact on biodiversity; Mine Water Utilization; Energy Consumption in mining operations; Expenditure for environmental protection etc has been prepared for further follow up. One portable digital testing Kit for onsite monitoring of pH, Conductivity, Total Dissolved Solids (TDS), Salt & Temperature (One Digital Meter) on regular basis at project level is programmed to be provided by 31.03.2015.
viii. The reason for acid mine water is because of presence of pyrite band in one of the benches only. Therefore, it is proposed to carry out day to day monitoring of pH levels in the mine sump itself (i.e. source). In case, acidity is recorded immediate action for neutralizing it through "lime – dozing" will be taken. Further after supernatant water is pumped out on surface, the monitoring of acidity level in discharge water will also be done and if required further lime – dozing in surface sedimentation pond will be done.
ix. Construction of retaining wall at the toe of the OB dump though Stone wall/Boulders/gabion wall (filled with stone) to be taken up facing any natural water courses to prevent any flow of silt & sediments.

23.2.4The Committee, after detailed deliberations, recommended for granting EC with the following specific conditions:

i. Plantation of Prosperis species should be avoided and only native plant species be planted.

ii. Rain water harvesting and other facilities should be created for ground water recharge..
iii. Run off from the garland canal must pass through the settling tank.
iv. As far as possible No bore well should be made close to the mine.
v. Trained manpower and environmental laboratory at site be provided for analysing basic parameters and for advanced analysis, a regional environmental laboratory be established so as to cater to a group of mines in the vicinity. Action Taken report to the implementation of submitted action plan be submitted to the concerned SPCB and the RO, MoEFCC.
vi. The PP informed that they are carrying out a Sustainable Report of the Project and details thereof be submitted to the Ministry.
vii. The garland drain and toe wall be provided after necessary consultation with the DGMS for its adequacy.
viii. Check dams/secondary/tertiary channels be provided for storing of water/rain water harvesting for ground water recharge.
ix. An Environmental Management Cell with an Ecologist and a social scientist be established for environmental monitoring in the area.
x. Restoration of OB Dumps should be done and monitored with respect of the approved plan.
xi. It was informed by the Project Proponent that in one of the source of acid mine water was observed. The source of acid mine water be identified and action plan required to be prepared for treatment.
xii. Mine sump water be periodically monitored for pH with regard to acid mine water discharge as precautionary measure.
xiii. Gabion i.e. stone in wire mesh be provided to prevent any land slide.

23.3 Kamptee Deep OC coal mine project of (Normative 1.5 MTPA to Peak 2.0MTPA in an ML area of 667.65 Ha) M/s Western Coalfields Limited, located at distt. Nagpur, Maharashtra - EC based on TOR granted dated 03.12.2010.

23.3.1 The proposal is for Environment Clearance of Kamptee Deep OC coal mine project (Normative 1.5 MTPA to Peak 2.0MTPA in an ML area of 667.65 Ha) M/s Western Coalfields Limited, located at distt. Nagpur, Maharashtra.

23.3.2 The proponent made the presentation and informed that:
i. TOR was granted to the project for Environmental Clearance vide letter no J-11015/287/2010-IA.II(M) dated 03.12.2010. The project proponent submitted EIA/EMP report vide letter no. WCL/HQ/ENV/6-1/638 dated 30.10.2013. In pursuance to the circular No. J-11013/41/2006-IA-II(I) dated 22nd March, 2010, the proposal was delisted on 19.05.2014. The request for consideration has been made in accordance to the Para 2 (iii) of OM J-11013/41/2006-IA-II(I)(part) circular No. J-11013/41/2006-IA-II(I) dated 22nd August, 2014..
ii. The latitude and longitude of the project are -21°02' to 21°15' N and 79°13' to 79°14' E respectively.
iii. Joint Venture: There is no Joint Venture
iv. Coal Linkage: Linked to Thermal Power Plants of MAHAGENCO.
v. The land usage of the project will be as follows:

Pre-Mining:

S.N.	LAND USE	Within ML Area (ha)	Outside MLArea (Ha)	Total
1	Agricultural land	640.765	11.185	651.95

2	Forest land	--	--	--
3	Waste land/Govt. land	9.70	--	9.70
	Total	650.465	11.185	661.650

Post- Mining:

S.N.	category	Land Use(ha)					
		Plantation	Water body	Public use	Technically Reclaimed Area	Undisturbed	Total
1.	External Waste Dump	200.00			54.859	--	254.859
2.	Excavation	--	178.05	--		--	178.05
3.	Infrastructure	10.00		41.907		--	51.907
4.	Area for future Extension of Quarry	--				11.185	11.185
5.	Danger Zone & Rationalisation Area	105.00				60.649	165.649
	Total	315.00	178.05	41.907	54.859	71.834	255.00

Core area :

Sl.No.	Particulars	Total Area (ha)
1.	Entire Quarry Area	178.050
2.	External OB dump	254.859
3.	Existing WCL colony, J.N. Hospital and other existing Infrastructure in rise side and in south west side near Kanhan river	51.907
4.	Land in rise side near WCL colony for shifting of residential and service buildings and other infrastructure proposed to be dismantled due to extension of quarry in western side.	11.185
5.	Area needed for rationalization and blasting zone	165.649
	Total Land	**661.650**

vi. The total requirement of the land for Kamptee Deep OC Project would be 661.65 ha. Out of this land, 476.12 ha of land has been acquired / under process of acquisition by WCL.

vii. The total geological reserve is 26.763 MT. The mineable reserve 24.086 MT, extractable reserve is 24.086 MT. The per cent of extraction would be 89.99%.

viii. The coal grade is G - 9. The stripping ratio is 5.833 (With Rehandling of OB) m3/t. The average Gradient is 1 in 3.5 to 1 in 4.5. There will be 5 seams with thickness ranging From 2.00 m (Seam I) to 13.00m (Seam V).

ix. The total estimated water requirement is 480 KL/day. The level of ground water ranges Pre monsoon Buffer zone 5 m to 17.8 m bgl and Post monsoon Buffer zone 1.70 m to 14.5 m bgl.

x. The Method of mining would be Semi Mechanized opencast with shovel-dumper combination.

xi. There will be one external OB dump with Quantity of 131.389 Mm^3 in an area of 254.86 ha with

height of 90 meter above the surface level and one internal dump with Quantity of 9.10 MCM.

xii. The final mine void would be in 178.050 Ha with depth of 200.00 m. and the Total quarry area is 178.05 Ha. A void of 178.05 ha with depth of 200 m which is proposed to be converted into a water body.

xiii. The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.

xiv. The **life of mine** is 17 Years.

xv. **Transportation**: Coal transportation in pit by Dumpers, Surface to Siding by Dumpers and loading at siding by Pay loaders.

xvi. There is **R & R** involved. There are PAFs.

xvii. **Cost**: Total capital cost of the project is Rs. 270.19 Crores. CSR Cost Rs. 5 per tonne. R&R Cost Rs. 21.72 Crore. Environmental Management Cost (capital cost Rs. 90 Lakhs, annual recurring cost Rs. 6 /tonne).

xviii. **Water body**: Kanhan river is flowing near the mine lease boundary of the project.

xix. **Approvals**: Ground water clearance applied on not applicable as it is not falling in critical area as per CGWA. Board's approval obtained on 18.07.2010. Mining plan has been approved on 02.08.2010. Mine Closure Plan approval on 25.08.2012.

xx. **Wildlife issues**: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.

xxi. **Forestry issues**: There is no forest area involve.

xxii. Total **afforestation** plan shall be implemented covering an area of 150.00 ha at the end of mining. Green Belt over an area of 315 ha. Density of tree plantation 2500 trees/ ha of plants.

xxiii. There are no **court cases/violation** pending with the project proponent.

xxiv. **Public Hearing** was held on 12.09.2012. The issues raised in the PH includes land use pattern; detail of land use pattern for the 185 hectare; Method of acquisition of Agriculture Land; cost of land details; village wise survey nos. etc.

xxv. Certificate of earlier EC obtained from Regional Office, MOEF&CC vide its letter no. 3-43/2008(ENV)/2014 dated 20.12.2013, from Director(S),MOEF, Regional Office, Bhopal .

23.3.3. The Committee, after detailed deliberations, sought following additional information for further consideration:

i. Equivalent amount of land must be provided/developed as grazing land.

ii. There shall be no OB dumps at the end of mining.

iii. Detailed status of backfilling of all the three mines namely Gondegaon; Kamptee & Inder be provided.

iv. Source apportionment of air pollution in the mine and its cumulative impact be submitted.

v. Detailed report on traffic density for coal transportation from coal mine be submitted.

xiv. Details of rain water harvesting and other facilities should be created for ground water recharge.

vi. Surface run off must pass through the settling tank.

vii. Detailed Action Plan on the commitment made during Public Hearing alongwith budgetary provision made be submitted in a tabular form.

23.4 Shivani OCP Coal Mine project (Normative 1.25 MTPA to Peak 1.4375MTPA in an ML area of 780 ha) M/s Western Coalfields Limited, located at distt. Yavatmal, Maharashtra - EC based on TOR granted dated 23.03.2012.

23.4.1 The proposal is for Environment Clearance of Shivani OCP Coal Mine project (Normative 1.25

MTPA to Peak 1.4375MTPA in an ML area of 780 ha) M/s Western Coalfields Limited, located at distt. Yavatmal, Maharashtra.

23.4.2 The proponent made the presentation and informed that:

i. The project was accorded TOR vide letter no. J-11015/21/2012-IA.II (M) dated 23.03.2012.
ii. The latitude and longitude of the project are N $20^0$14'05" to N $20^0$15'1" and E 78°54'23" to E 78°55'25" respectively.
iii. Joint Venture: there is no joint venture.
iv. Coal Linkage : Linked to Thermal Power Plants of MAHAGENCO
v. The land usage of the project will be as follows:

Pre-Mining:

S.N.	**LAND USE**	**Within ML Area (ha)**	**Outside ML Area (Ha)**	**Total**
1	Agricultural land	708.60	30.00	738.60
2	Forest land	--	--	
3	Waste land/Govt. land	39.08	--	39.08
4	Grazing land	--	--	
5	Surface water bodies	--	--	
6	Settlements	2.32	--	2.32
7	Others (specify)	--	--	
	Total	750.00	30.00	780.00

Post- Mining:

S.N.	Land use during mining	Land use (ha)				
		Plantation	Water Body	Public use	Undisturbed	Total
1	External OB Dump	201.00	-	-	-	201.00
2	Top soil dump	49.85	-	-	-	49.85
3	Excavation	24.00	106.00	-	84.00	214.00
4	Roads	1.43	-	2.25	-	3.68
5	Built up area	-	-	56,32	-	56.32
6	Undisturbed Area	98.57	-	-	114.58	213.15
7	Embankment area				42.00	42.00
	Total	374.85	106.00	58.37	240.58	780.00

Core area:

Sl.No.	Particulars	Total Area (ha)
1.	Quarry Area	214
2.	Embankment	42
3.	External OB dump	250.85
4.	Road/Infrastructure	30
5.	Area needed for rationalization and blasting zone	213.15

6.	Colony	15
7.	Land for Shivani village Rehablitation	15
	Total Land	**780**

iv. The total geological reserve is 23.33 MT. The mineable reserve 18.90 MT, extractable reserve is 18.90 MT. The per cent of extraction would be 81.01 %.

v. The coal grade is GCV 3649 kCal/kg (Grade-E) The stripping ratio is 1: 9.07. The average Gradient is 1 in 10 to 1 in 13. There will be one seam with thickness ranging 11.36 m.

vi. The total estimated water requirement is 610 KL/day. The level of ground water ranges Pre monsoon Core zone 5.98 to11.60 m. bgl& Buffer zone 5.20 m to 11.26 m bgl and Post monsoon Core zone 5.80 m to 7.25 m bgl& Buffer zone 1.35 m to 7.25 m bgl.

vii. The Method of mining would be by opencast with shovel-dumper combination.

viii. There is two external OB dump with Quantity of 119.11 Mm3 in an area of 201.00 ha with height of 30 m top soil dump & 90 m OB dump meter above the surface level and one internal dump with Quantity of 52.21 Mm3 in an area of 108.00 ha.

ix. The final mine void would be in 106.00 Ha with depth of 175.00 m. and the Total quarry area is 214.00 Ha. Backfilled quarry area of 24.00 Ha shall be reclaimed with plantation. A void of 106.00 ha with depth of 175 m which is proposed to be converted into a water body.

x. The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.

xi. The **life of mine** is 20 Years.

xii. **Transportation**: Coal transportation in pit by Dumpers, Surface to Siding by Dumpers and loading at siding by pay loaders.

xiii. There is **R & R** involved. There are 269 homestead PAFs.

xiv. **Cost**: Total capital cost of the project is Rs. 348.8985 Crores. CSR Cost Rs. 5 per tone crores/year. R&R Cost Rs. 21.2369. Environmental Management Cost Rs 3.00/t

xv. **Water body**: Wardha river is flowing near the mine lease boundary of the project.

xvi. **Approvals**: Ground water clearance not applicable. Board's approval obtained on 29.10.2011. Mining plan has been approved on 29.10.2011. Mine Closure Plan approval on 29.10.2011.

xvii. **Wildlife issues**: There are no national Parks, wildlife sanctuary, biosphere reserves found in the10 km buffer zone.

xviii. **Forestry issues**: There is no forest land involved.

xix. Total **afforestation** plan shall be implemented covering an area of 374.85 ha at the end of mining. Green Belt over an area of 374.85 ha. Density of tree plantation 2500 trees/ ha of plants.

xx. There are no **court cases/violation** pending with the project proponent.

xxi. **Public Hearing** was held on 23.10.2013. The issues raised in the PH includes Rehabilitation of Shivani Village; Returning land to farmers after end of mining; decision regarding "Bembla Project"; Employment to land less villagers and farm workers. details of Mining Method and land acquisition details; Land rates; Construction road and basic civic facilities in villages; Pollution control measures.

xxii. This is a Greenfield Project. The plantation proposed in the mine area will be taken up as per practice in WCL through State Forest Expert Agencies. The species to be planted will be native of the area. Green belt cover all along the corridor between Quarry Surface and the mine lease area(bank of river) following the alignment of embankment will be developed.

xxiii. Actions will be taken during mine operation for artificial recharge of ground water through construction of check dams along the nearby natural water courses.

xxiv. The ground water levels of aquifers at or near the mining working depth will be regularly monitored.

xxv. One portable digital testing Kit for onsite monitoring of pH, Conductivity, Total Dissolved Solids (TDS), Salt & Temperature (One Digital Meter) on regular basis at project level will be provided.

xxvi. Regarding surface transportation of coal, the R.O.M. coal from the CHP will finally be dispatched by road to Rajur siding. All preventive measures viz. covering of trucks by tarpaulin and avoiding over loading will be followed.

xxvii. Once the Proposed Chinchala-Chikalgaon siding comes up, the subject mine of 1.4375 MTPA capacity & Chinchala-Chikalgaonoc of 3.90 MTPA capacity will be added to handle the entire coal production of about 5-5.50 MTPA through silo loading system onto rail wagons.

xxviii. There is no endangered and endemic species found in the area as per Red Book of Botanical Survey and Zoological survey of India as per Wild Life (Protection) Act 1972 and its subsequent amendments.

xxix. The external Black cotton soil dump will be re-handled into the final void of quarry. This will result in release of 49.85 ha of land for productive land use and simultaneous reduction in overall void depth from 175 m to 110m (i.e. reduction of final depth by 65 m).The Re- worked land use plan at the end of mining:-

S.N.	Land use Pattern	Area in ha
1	External OB Dump	201.00
2	External Black Cotton soil dump	0.00
3	Excavation	214.00
4	Roads	3.68
5	Built up area	56.32
6	Undisturbed Area	213.15
7	Embankment area	42.00
8.	**Recovered area after re- handling of black cotton soil dump**	**49.85**
	Total	780.00

i. All the commitments made during the Public Hearing shall be implemented during the course of mining.

23.4.3. The Committee, after detailed deliberations, recommended for granting EC with the following specific conditions:

i. The entire strip of 150 m between mine lease and river bank should be planted with the dense plantation.

ii. Native plant species be planted.

iii. There shall not be any void left after the end of mining.

iv. The land shall be brought back for agriculture purpose at the end of mining.

v. Till the OBD is rehandled, it should be covered with grasses.

vi. Till the Railway siding comes up for silo loading as proposed, the loading of coal shall be by Pay Loaders.

xv. Rain water harvesting and other facilities should be created for ground water recharge.

vii. Surface run off must pass through the settling tank before releasing into water body.

23.5 KDH Extension OCP Project of (Normative 4.5 MTPA to Peak 5 MTPA in an ML area of 675.91 ha) M/s Central Coalfields Limited, located at Village-Bisrampur, District-Ranchi, Jharkhand - EC based on TOR granted dated 23.12.2010.

23.5.1 The proposal is for environment clearance of K. D. Hesalong Extn. OCP (4.5 MTPA normative & 5 MTPA Peak) and expansion of ML area from 470.76 Ha to 675.91 ha) of M/s Central Coalfields Limited**,** dist. Ranchi, Jharkhand.

23.5.2 The TOR was granted to the project, vide letter no. J-11015/311/2010-IA II (M) dated 23.12.2010. The TOR was valid upto 22.10.2013. The Proponent submitted the EIA/EMP report on 08.03.2013. The TOR expired as per the earlier OM dated 22.03.2010 and accordingly letter was issued on 19.05.2014 delisting the project from pending list. However, in accordance to the OM no. J-11013/41/2006-IA-II(I) (Part) dated 22.08.2014, the proposal was considered for EC.

23.5.3 The proponent made the presentation and informed that:

i. The TOR was granted to the project, vide letter no. J-11015/311/2010-IA II (M) dated 23.12.2010. The TOR was valid upto 22.10.2013. The Proponent submitted the EIA/EMP report on 08.03.2013. The TOR was expired as per the OM dated 22.03.2010 and accordingly the project was delisted from pending list. However, in accordance to the OM no. J-11013/41/2006-IA-II(I) (Part) dated 22.08.2014, the proponent has submitted the proposal for consideration of EC.
ii. The latitude and longitude of the project are 23° 39' 21'' to 23° 42' 0''N and 84° 59' 15'' to 85° 0' 24''E respectively.
iii. It is an expansion proposal. Details of capacity and land area is as follow:

Particulars	Existing	Proposed Extension		Proposed Total	
		Phase-I	Phase-II	Phase-I	Phase-II
Area (Ha)	470.76	18.54	186.61	489.30	675.91
Normative Capacity (MTPA)	4.50	4.50	4.50	4.50	4.50
Peak Capacity (MTPA)	4.50	5.00	5.00	5.00	5.00

iv. The land usage of the project will be as follows:

S.No.	LANDUSE	Within ML Area (ha)	Outside ML Area (ha)	TOTAL
1.	Agricultural land	0.0		0.0
2.	Forest land	70.78		70.78
3.	Wasteland	47.02		47.02
4.	Grazing land	124.12		124.12
5.	Surface water bodies	26.88		26.88
6.	Settlements	0.0		0.0
7.	Others (specify)	407.11		407.1
	TOTAL	675.91		675.9

Pre-Mining: Land Use (ha)	
Agriculture	0.0
Forest	70.78
Waste land	47.02
Grazing	124.12
Surface Water Bodies	26.88
Others(Mining Area & Settlement)	407.11
Total	675.91

Post- Mining:

S.No	Land use during Mining	Land Use (ha)				
		Plantation	Water Body	Public use	Undisturbed	Total
1	Internal OB Dump	213.13	0.00	0.00	0.00	213.13
2	Excavation	0.00	191.45	0.00	91.88	283.33
3	Roads					
4	Built up Area	39.35	0.00	0.00	0.00	39.35
5	Green Belt					
6	Undisturbed Area	126.10	14.00	0.00	0.00	140.10
	Total	378.58	205.45	0.00	91.88	675.91

Core area :

Land Use Category	Present	30th Year
Quarry/Quarry Batter(30th year)	53.17	91.88
Mine Sump/Lagoon	10.00	191.45
Backfilled Area	183.98	0.00
Plantation On Backfilled Area	122.26	213.13
Infrastructure(WS,Store,Office)	31.35	0.00
Railway Siding	8.00	0.00
Waste Land	39.02	0.00
Water Body	16.88	14.00
Built up Area	9.38	0.00
Forest, Plantation& Safety Zone	201.87	165.45
Total	675.91	675.91

v. The total geological reserve is 162.11 MT. The mineable reserve 6.08 MT for phase-I and 107.15 MT Total MT, extractable reserve is 6.08 MT for phase-I and 107.15 MT Total. The per cent of extraction would be 66.09 %.

vi. The coal grade is E grade coal. The stripping ratio is 1.55 for phase 1 and 1.54 total (Cum/Tonne). The average Gradient is 6-8 deg. There will be 9 seams with thickness ranging from 0.35 m to 21.37 m.

vii. The total estimated water requirement is 2905 m3/day. The level of ground water ranges Pre Monsoon- 8.93 M and Post monsoon -7.92 M.

viii. The Method of mining would be Open cast method of mining with shovel-dumper combination.

ix. There is no external OB dump. There is one internal dump with Quantity of 164.99 Mbcm in an area of 213.13 Ha.

x. The final mine void would be in 283.33 Ha with depth of +146 m and the Total quarry area is 496.46 Ha. Backfilled quarry area of 213.13 Ha shall be reclaimed with plantation. A void of 283.33 ha with depth of 146 m which is proposed to be converted into a water body of 191.45 Ha & Quarry batter of 91.88 Ha .

xi. The **life of mine** is 29 Years.

xii. **Transportation**: Coal transportation in pit By Dumpers Surface to Siding By trucks and loading at siding INTO Rail WAGONS which is at a distance of 1.5 KM from project.

xiii. There is **R & R** involved. There are 800 PAFs.

xiv. **Cost**: Total capital cost of the project is Rs. 475.30 Crores. CSR Cost Rs 5 per tonne of coal produced. R&R Cost 16.05 crore. Environmental Management Cost Rs. 29.9058 lakhs.

xv. **Water body**: River: Damodar River is flowing in the north of the project. It lies 100m away from the mine edge. Nallha: The area is drained mainly by seasonal Kendua Nallha in the west of the block and Sonadobajore in the east. It is 60-70 m away from the edge.

xvi. **Approvals**: Applied for ground water clearance. Board's approval obtained on 19.08.2010. Mine plan has been approved on 19.08.2010. Mine Closure Plan approval on 24.02.2012.

xvii. **Wildlife issues**: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.

xviii. **Forestry issues**: Total forest area involved (in ha) for mining in existing KDH OCP is 130.36 Ha. In KDH Extension OCP, forest land over 126.72 Ha (including GMK jungal jhari) is to be acquired. Forest land in safety zone of KDH Extension OCP is about 9.19 Ha, which is in addition to applications already made for diversion of forest land of 126.72 Ha.

xix. Total **afforestation** plan shall be implemented covering an area of 378.58 ha at the end of mining. Green Belt over an area of 165.45 ha. Density of tree plantation 2500 trees/ ha of plants.

xx. There are no **court cases/violation** pending with the project proponent.

xxi. **Public Hearing** was held on 20.01.2012. The issues raised in the PH includes compensation; Employment; power supply; school facility; Pollution control etc. The proponent has committed to implement all the commitments made during Public Hearing.

23.5.2 The proponent further informed that:

i. KDH OCP (4.50 MTPA) has prior environmental clearance (EC) since 27th Oct. 1993. The sanctioned project area will exhaust in 4 years. Therefore, the extension of quarry is planned in dip side. Extension Project Report for KDH OCP (capacity 4.50/5.00 MTPA Normative/Peak capacity) was approved by CCL Board on 19th Aug. 2010. Due to increase in lease area, fresh EIA & EMP was prepared as per TOR issued on 23th Dec. 2010. EIA & EMP was submitted to MOEF on 8th March 2013, after public hearing (PH). MoEF vide letter J-11015/311/2010-IA.II(M) dated 19th May 2014 intimated the expiry of TOR.

ii. Accordingly, a new Form-I application was submitted to MoEF on 28th July 2014 for issuance of TOR. In view of forest land in extension part yet to be diverted, area of KDH Extension OCP has been divided in two parts, namely phase-I & phase-II. Phase-I is spread over non-forest land in extension part and will run for five years whereas phase-II is spread over forest land as well as balance non-forest land. Presentation of Form-I (Phase-I) of KDH Extension OCP was made in EAC on 19.09.2014.

iii. In view of yet-to-be-diverted forest land, the present proposal is therefore for the non-forest area.

LAND DETAIL

SN	Particulars	Overall Area (Ha)				
		Existing	Extension	Phase-I	Phase-II	Total
1	Quarry	300.50	195.96	18.54	177.42	496.46
2	Workshop	14.00	-	-	-	14.00
3	Infrastructure	29.32	-	-	-	29.32
4	Roads	6.00	-	-	-	6.00
5	Colony	0.00	-	-	-	0.00
6	Safety zone	120.94	9.19	-	9.19	130.13
	Total	470.76	205.15	18.54	186.61	675.91

SN	Land Type	Land Requirement (Ha)		
		Phase-I	Phase-II	Total
1	Tenancy land	18.54	50.70	69.24
2	GMK (JJ)	0.00	25.66	25.66
3	Forest Land	0.00	101.06	101.06
4	Forest land in safety zone	0.00	9.19	9.19
	Total	18.54	186.61	205.15

iv. Observation of RO, MOEF: Monitoring of PM2.5 started in the quarter ending September 2014.Values are ranging between 26-34 $\mu g/m^3$. The premises are clean & water is recycled for industrial use. 23 Ha of backfilled area undertaken for plantation in 2014.

23.5.3 The Committee, after detailed deliberations, recommended for granting EC with the following specific conditions:

i. Keeping in view the recent Judgment of the Supreme Court of India dated 27.01.2014, the Committee agreed for expansion only in an area where the Forests clearance is available. Therefore, the proponent has to submit a separate mine plan for the non-forest area under consideration for EC.
ii. There will no external OB dumps at the end of mining.
iii. Rs. 225 Lakhs/ annum as committed towards CSR activities be provided.
iv. Mine void at the end of mining will be of minimum depth.
xvi. Rain water harvesting and other facilities should be created for ground water recharge.
v. Surface run off must pass through the settling tank before discharged into the water body.

23.6 Cluster No. 10 of 24 mines (expn. from 2 MTPA to 7.2 MTPA (peak) in a combined ML area of 6349 ha of M/s Eastern Coalfields Limited, located in Raniganj Coalfields, Dist. Burdwan, West Bengal - EC based on TOR granted dated 30.09.2011.

23.6.1 The proposal is for environment clearance of Cluster No. 10 of 24 mines (expn. from 2 MTPA to 7.2 MTPA (peak) in a a combined ML area of 6349 Ha of M/s Eastern Coalfields Limited, located in Raniganj Coalfields, Dist. Burdwan, West Bengal.

23.6.2 The proponent made the presentation and informed that:

i. Title correction may be made as Cluster 10 (19 nos of Mines in place of 24 mines having 14 nos. of underground mines and 5 nos. Mixed Mines)
ii. The mining covers 17 Geological Blocks of Jemehari, North Searsole, Kunustoria, Belbaid, Bansra, Bansra - Searsole, Jambad, Parasea, Nabakajora-Madhabpur, Andal - Babuisole, Andal Central, Andal East, Lachipur, KhasKajora South, KhasKajora - Mukundarpur, Moira - Madhujore North & Moira - Madhujore South.
iii. There are 17 existing underground mines, 1 OC Mine and 1 mixed mine. 5 opencast mines / patches proposed.
iv. The objectives to operate the OC patches/ mines are that the presence of old and water-logged workings above the present UG workings throughout the Raniganj Coalfield. Vulnerable to illegal mining Proposal to undertake extraction of the upper seams by opencast method, wherever possible. Reduce possibilities of fire and inundation and ensuring safety of underground workings. Reduce future problems of unstable locations getting created due to population growth. Patches planned mainly in small, uninhabited areas, free from surface features and do not involve shifting of any village.
v. The project was accorded TOR vide letter no. J-11015/180/2011-IA.II(M) dated 30/09/2011. Extension of TOR for one year vide letter no J-11015/180/2011-IA.II(M) dated 11-03-2014.
vi. It is an expansion proposal. Present production from the cluster is 1.87 MTPA in 2012-13. It is proposed to achieve a peak capacity of 7.70 MTPA.
vii. Cluster Mine Details: 17 Underground mines + 1 opencast mine + 1 mixed mine

Sl. No.	Name of Mine	Lease hold Area (Ha)	Peak Capacity (MTPA)		Life (Years)
1	North Searsole UG	360	0.20	2.0	> 25
	North Searsole (East) OC Patch		0.90		6
	North Searsole (West) OC Patch		0.90		7
2	Kunustoria UG	383	0.24		> 25
3	Amrasota UG		0.15		> 25
4	Belbaid UG	384	0.48	0.48	> 25
	Belbaid OC Patch		0.20		5
5	Bansra UG	611	0.735	0.735	> 25
	Bansra OC Patch		0.15		1
6	Parasea UG	481	0.36	0.61	> 25
	Parasea OC Patch		0.25		3
7	Parasea 6 & 7 UG		0.06		> 25
8	Jambad OC	323	0.80		> 25
9	Jambad UG		0.24		> 25
10	Nabakajora UG	703	0.30	0.80	> 25

Sl. No.	Name of Mine	Lease hold Area (Ha)	Peak Capacity (MTPA)	Life (Years)
11	Madhabpur UG			
	Madhabpur OC Patch		0.50	15
12	Lachipur UG	570	0.06	> 25
13	Central Kajora UG	291	0.15	> 25
14	KhasKajora UG	188	0.35	> 25
15	Moira UG	455	0.12	> 25
16	Madhusudanpur UG	338	0.24	> 25
17	Madhujore UG	463	0.12	> 25
18	Ghanshyam UG	451	0.12	> 25
19	Parascole East & West	348	0.39	> 25
		6349.00	7.70	

viii. The latitude and longitude of the project are 230, 19', 55" N & 230, 25', 10" N and 870, 5', 32" E & 870, 14', 28" E respectively.

ix. Joint Venture: No Joint Venture

x. Coal Linkage :

- Kahalgaon Super Thermal Power Station (KhSTPP), Kahalgaon ,Bhagalpur ,Bihar.
- National Capital Power Station (NCPS) Or NTPC Dadri, GautamBudh Nagar, Uttar Pradesh.
- Vindhyachal Thermal Power Station, Singrauli, Madhya Pradesh.
- The West Bengal Power Development Corporation Limited(WBPCDCL).
- Sipat Super Thermal Power Station or Rajiv Gandhi Super Thermal Power Station at SipatBilaspurdistrict Chhattisgarh.
- Farakka Super Thermal Power Plant Nabarun Murshidabad West Bengal.
- Simhadri Super Thermal Power Plant,Visakhapatnam ,Andhra Pradesh.
- Mauda Super Thermal Power Station or NTPC Mauda ,Nagpur,Maharashtra.

xi. The land usage of the project will be as follows:

Pre-Mining& Post- Mining:

S.No	Type Land Use	Present Mining Land Use (ha)	Post- mining Land Use (ha)
1.	Running quarry	256.0	
	Backfilled		805.0 & brought under Plantation
	Not Backfilled		
2.	External OB dump	81.0	200.0 To be brought under Plantation
3.	Service building/ mine infrastructure	461.0	436.2 (undisturbed) + 21.0 ha under plantation
	Unstable habitations	3.8	3.8 Ha under Plantation
5.	Rail & Road	150.0	130.0 (20 Ha under plantation)
6.	Habitation (total)	608.0	564.8
	Unstable habitations	43.2	43.2 Ha under Plantation
7.	Other built-up areas	257.0	257.0

S.No	Type Land Use	Present Mining Land Use (ha)	Post- mining Land Use (ha)
9.	Agriculture land	1778.0	1778.0
10.	Forest land	-	-
11.	Plantation / Natural Vegetation	185.25	2030
		555.75	
12.	River/nallah/pond	423.0	423.0
13.	Barren land	1018.0	350.0
14.	Vacant land for public purposes	380.0	380.0
15.	Others	196.0	196.0 Ha To be brought under Plantation
Total	6349.0	6349.0	

Core zone:

S No.						
		Plantation	Water Body	Public use	Undisturbed	
1	Excavation	713.2	-	-	-	
2	External Waste Dump	81.0	-	-	-	
3	Old quarry voids	172.0				
4	Rail /Road	20.0		130.0	-	
5	Built-up	-			257.0	
6	Mine Infrastructure	24.8 (3.8 Ha of unstable locations)		436.2		
7	Forest Land	-			-	
8	Plantation / Natural vegetation				741.0	
9	Unstable Habitation	43.2				
10	Water bodies				423.0	
11	Cultivable	-			1778.0	
12	Vacant Land for public purposes	-		380.0		
13	Subsided	234.8				
14	Habitation	-			564.8	
15	Barren Land			350.0		
	Total	1289		1296.2	3763.8	6349.0

xii. The total estimated water requirement is 10,940 m^3/day. The level of ground water ranges in Pre-Monsoon 17m to 2.5 m (avg. 7.93m) & Post-Monsoon 5.25m to 1.45m (avg. 2.91m)..

xiii. The Method of mining would be Bord& Pillar method for UG mines and Shovel-Dumper combination for OC mines.

xiv. There is one external OB dump with Quantity of 1.92 Mbcm in an area of 7.60 ha with height of 60 meter above the surface level and internal dump with Quantity of 17.82 Mbcm in an area of 557 ha.

xv. There will be no mine void. Total quarry area at present is 256 Ha. At the end of mining total quarry area will be 805 ha which will be reclaimed.

xvi. The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.

xvii. **Transportation**: For Underground mine coal tubs at the faces are being hauled by Tugger Haulage. & Opencast mine coal at surface is transported to the nearby coal depot by colliery dumpers through tippler, Surface to Siding by Road transportation by 15 Tonne dumpers and loading at siding by Payloaders onto wagons.

xviii. There is **R& R** involved.

xix. **Cost**: CSR Cost will be as per CIL policy. R&R Cost and Environmental Management Cost (capital cost Rs 5437.00 Lakhs, annual The recurring cost shall be Rs 3804.00 Lakhs.

xx. **Water body**: The cluster falls within the drainage basin of Damodar River, which flow 2 km south of the cluster. There is a seasonal Sangara nallah with its tributaries and controls a significant portion of the drainage of the cluster. The nallah flows from north-west to south-east inside the cluster and finally drained into Damodar River.

xxi. Subsidence Management: No underground mining will be carried out below within 45 m of the Major Roads, Railway line and nallah flowing through the cluster. Coal pillars will be left intact vertically below and within the angle of draw of villages and other surface features. Depillaring done with sand stowing in all mines except Madhusudanpur& Moira UG mines. The mining method is adopted in consultation with DGMS and their approval. Surface vigil to be maintained to notice any ground movement. The subsided land will be levelled and any surface crack dozed and filled with appropriate soil material. The subsided areas will be reclaimed by planting deep rooted trees

xxii. **Approvals**: Applied for Ground water clearance to CGWA Mine Closure Plan approval on December, 2013.

xxiii. **Wildlife issues**: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.

xxiv. **Forestry issues**: There is no forests area involved in project area.

xxv. Total **afforestation** plan shall be implemented covering an area of 1289 ha at the end of mining. Top-soil Dump (30 Ha); External Waste Dump (170 Ha); Excavation (805.Ha); Rail /Road (20 Ha); Mine Infrastructure (24.8 Ha); Subsided (43.2 Ha); Others (196 Ha).

xxvi. There are no **court cases/violation** pending with the project proponent.

xxvii. **Public Hearing** was held on 18.07.2014 at Tagore Memorial Hall beside Kunosthoria area office of ECL, Dist- Burdwan. The issues raised in the PH includes basic infrastructure facilities; transportation of coal; long time demand of the local people; extensive plantation; environmental management plan and corporate social responsibility etc. All the commitments made during Public Hearing shall be implemented.

23.6.3 The proponent has responded to the issues raised by one of the NGOs which are as follows:

i. **Water Pollution:** The mine discharges are collected and passed through sedimentation tank/pond to arrest the silt. This treated water is then utilized for mine site requirement and the surplus to supplement the water demand for domestic and agriculture use of villages if required or

discharged into local nallah. Further, the analysis results of mine discharges from the mines within the cluster indicate that it's fit for outside discharge after settling and no further treatment is required.

ii. It has also been proposed to install O & G traps for water discharged from workshops. There has been no ground water contamination due to coal mining. The area falls in the safe category as per CGWA norms.

iii. **Air Pollution:** The Cluster 10 is located about 20 km from the Asansol – Burnpur industrial area which was considered critically polluted. However, Asansol is now out of the list of critically polluted areas. Concentration levels of PM_{10} and $PM_{2.5}$ are well within the limits prescribed for Specifically for Raniganj Coalfields.

iv. **Project affected people:** Although no shifting of population is required for mining purpose, there are a number of unstable locations falling within the cluster boundary over which habitation has grown and these habitations are to be shifted to safer place as envisaged in the **Master Plan for Raniganj Coalfields** which has been approved by GoI and being implemented by ADDA (Asansol Durgapur Development Authority). An amount of Rs. 137.43 Cr has been earmarked for the rehabilitation of the estimated no. of about 2034 households falling within this cluster to be carried out in two phases within 10 years.

23.6.5 The Committee, after detailed deliberations, recommended for granting EC with the following specific conditions:

i. There shall be no mine void and no external dumps at the end of mining.
ii. Adequate measures shall be taken to mitigate subsidence as per DGMS stipulations.
iii. The flyash that has been dumped during past operations shall be covered with one meter top soil. No further flyash dumping shall be done in mines in the cluster.
iv. Adequate rain water harvesting and other facilities should be created for ground water recharge..
v. Surface run off must pass through the settling tank before discharging into the water body..

23.7 Coal Washery (5 MTPA) of M/s Hind Multi Services Pvt. Limited, located at Village Gatora, District, Bilaspur, Chhattisgarh –TOR–Further Consideration.

23.7.1 The proposal is for seeking TOR for Coal Washery (2.5 MTPA) of M/s Hind Multi Services Pvt. Limited, located at Village Gatora, District, Bilaspur, Chhattisgarh. The proposal was last considered in 17th EAC meeting held on 23-25th July, 2014. The Committee sought following information for further consideration of the project:

i. The proponent may consider for reducing washing capacity 2.5 MTPA. If agreed to, the proponent has to submit a letter to this effect to the MoEF for further consideration of the EAC.
ii. Detailed action plan with approval for water abstraction be submitted;
iii. Detailed MoUs of linkages of washed coal and rejects to be sent to clients be submitted.
iv. Keeping in view that the washery is on the side of a micro-irrigation canal, proponent may consider site-1 as proposed in their report. If agreed to, a confirmation to this be submitted to the MoEF for consideration of the EAC.
v. The washery operation shall be a closed system with wagon loading arrangement.

23.7.2 The proponent made the presentation and informed that:

i. The Company is agreed upon to reduce the coal washery capacity from 5.0 MTPA to 2.5 MTPA.
ii. Daily water requirement for the proposed plant is 1000 m^3/day. Proposed to obtain the requisite water from Kharangriver (2.1 KM W) or Arpa River anicut (2.5 KM SW). Water will be brought to the project site by pipeline laid from the anicut to the washery site. A detailed plan will be prepared after receipt of the approval from Jal Sansadhan Vibhag, Chhattisgarh. Application for drawal of water from Kharang/Arpa river has been submitted to Jal Sansadhan Vibhag, Chhattisgarh.
iii. Submitted MOUs with which, M/s HMSPL has signed MoUs for supplying coal for washing or use of washed coal as well as rejects.
iv. Site 1 i.e. Gatora village, has been selected for the installation of proposed coal washery. Proposed washery site is about 350 m away from the minor branch canal. The canal is non-functional and remains dried during non-monsoon period and there is no chance for flooding, even during monsoon season. It is not being used for irrigation purpose since it is idle at this stage. The site was selected because of availability of uncultivated land; adjacent railway siding; no road transport; remoteness from the habitation and Water Body (Kharang River 2.1 Km and Arpa River 2.5 km).

23.7.3 The Committee, after detailed deliberations, recommended for granting TOR with the following specific TORs:

i. EIA EMP shall be carried out for washing capacity 2.5 MTPA.
ii. The washery operation shall be a closed system with wagon loading arrangement.

23.8 Amlohri Opencast Expansion Project of (Normative 10 MTPA to Peak 14 MTPA in an ML area 2175 Ha) M/s Northern Coalfields Limited, located at dist. Sidhi, Madhya Pradesh – TOR

23.8.1 The proposal is for environment clearance of Amlohri Opencast Expansion Project (under 7(ii) of EIA Notification 2006) (from 10 MTPA to 14MTPA in an ML area 2175 Ha) M/s Northern Coalfields Limited, located at dist. Sidhi, Madhya Pradesh.

23.8.2 The proponent made the presentation and informed that:

i. PP requested for the title correction. The application was made online on to the website of the ministry. Since they come across the uploading therefore uploaded in TOR category. However, the application is for EC under 7 (ii) of EIA Notification, 2006.
ii. The proponent has obtained prior EC for 10.00 MTY of coal production vide letter no. J-11015/364/2005.IA.II(M) dated 16.02.2006 and has undergone public hearing during the process of obtaining EC. Now project proponent have applied for expansion under 7(ii) of EIA Notification 2006 in line with the MOEF O.M. dated 30.05.2014.
iii. The increase of capacity of 4 MTPA does not involve any increase of manpower, leasehold area, change in technology, change in product mix. It is not a case of lease renewal. The transport of additional 4 MTPA of coal is proposed to be through CHP & rail.
iv. Amlohri Opencast Project is located in Moher Sub-basin of Singrauli Coalfield in Singrauli District of M.P.
v. The existing Amlohri mine (10 MTY) is supplying coal to Rihand Thermal Power Station of 3000 MW capacity. The proposed expansion from 10 MTY to 14 MTY is to meet the demand of Rihand Thermal Power Station having generation capacity up to 3000 MW. The average daily

demand is 45,000 tonnes/day& peak demand is 60,000 tonnes/day. Presently, the supply from Amlohri OCP is about 30,000 tonnes/day. It is linked to this project by a Merry-Go-Round rail system and there is no road transport of coal.

vi. Coal stock is nil at present.

vii. All the required resettlement have been completed

viii. The latitude and longitude of the project are $24^0$07'30" N - $24^0$09'30" N and $82^0$34'30" E - $82^0$36'30" E respectively.

ix. Joint Venture: Not Applicable

x. Coal Linkage: Rihand Super Thermal Power Plant of NTPC.

xi. The land usage of the project will be as follows:

Pre-Mining:

S. No.	LAND USE	Within ML Area (Ha)	Outside ML area (Ha)	Total
1.	Agricultural land	898	NIL	898
2.	Forest Land	1195	NIL	1195
3.	Wasteland	-	NIL	-
4.	Grazing land	-	NIL	-
5.	Surface water bodies	-	NIL	-
6.	Settlements	-	NIL	-
7.	Others (Government land)	82	NIL	82
Total		2175	NIL	2175

Post- Mining:

S.No.	Land use during Mining	Land Use (ha)				
		Plantation	Water Body	Public Use	Others	TOTAL
1.	External OB dump	402.00				402.00
2.	Top soil dump	Top soil will be completely used in reclamation of dumps.				
3.	Excavation	728.00	52.00			780.00
4.	Roads			14.00		14.00
5.	Built up area	51.4		153.00		204.40
6.	Undisturbed Area				290.60	290.60
7.	Green Belt	484.00				484.00
Total		1665.40	52.00	167.00	290.60	2175.00

Core area: 2175 Ha.

xii. The total geological reserve is 328.55 MT. The mineable reserve 314.46 MT, extractable reserve is 314.46 MT. The per cent of extraction would be 95.7 %.

xiii. The coal grade is G-7 & G-10. The stripping ratio is 4.18 M3/t. The average Gradient is 2 to 5 degrees. There will be 4 seams with thickness ranging upto24 m.

xiv. The is no change in water requirement for 10 MTPA stage. Arrangement for reuse/recirculation of water shall also be made.

xv. The Method of mining would be by Shovel-dumper combination with dragline.

xvi. There are two external OB dump with Quantity of 185 Mbcm in an area of 402 ha with height of 150 meter above the surface level and two internal dump with Quantity of 29.87 Mbcm in an area of 728 ha.

xvii. The final mine void would be in 52 Ha with depth of 30-40 m. and the Total quarry area is 780 Ha. Backfilled quarry area of 728 Ha shall be reclaimed with plantation. A void would be in 52 Ha with depth of 30-40 m which is proposed to be converted into a water body.

xviii. The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.

xix. The **life of mine** is 22/16 years (At 10.0 MTY/ At 14.0 MTY Balance life as on 1.04.2014)

xx. The certificate of compliance to earlier EC conditions are yet to be obtained from RO, MoEF.

xxi. **Transportation**: Coal transportation from mine pit to crusher by rear dumpers, loading at siding by rapid loading system (RLS) to rail wagons transported to Rihand Super Thermal Power Plant of NTPC by MGR.

xxii. There is no **R & R** and no PAFs for this expansion.

xxiii. **Cost**: Total capital cost of the project is Rs. 1905.27 Crores. CSR Cost will be as per CIL CSR policy of June-2014. No Additional land required for expansion of project therefore any R & R cost involved. Environmental Management Cost Rs 2714.71 Lakhs.

xxiv. **Water body**: No water body in an around the project site.

xxv. **Approvals**: Ground water clearance is not applicable as the project is located in Project in safe Zone. Board's approval obtained on 30.12.2003. Mining plan has been approved by vide letter no.43011-34-2003.CPAM dated 10th May 2006 for 10 MTPA Board approval for 14 MTPA is yet to be obtained. Mine Closure Plan approval obtained on 30.03.2012.

xxvi. **Wildlife issues**: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.

xxvii. **Forestry issues**: Total forest area involved 1195 ha for mining. Stage –I forest clearance has been obtained and details under below:

Area (Ha)	Stage-1 FC issued vide letter no. & date	Validity period of FC
300	Letter No. 8-194/84-FC dated: 8.10.1985	To be revalidated in 2019
895	Letter No. 8-194/84-FC dated: 30.12.1987	Up to Mine Life

xxviii. Total **afforestation** plan shall be implemented covering an area of 1665.40 ha at the end of mining. Reclaimed external OB dump (402 Ha); Internal dump (728 Ha); Green Belt (484 Ha); Built up area (51.4 Ha). Density of tree plantation 2500 trees/ ha of plants.

xxix. There are court cases pending with the project proponent.

xxx. **Public Hearing** was held on 10.06.2005 at Townhall, Waidhan for 10 MTPA.

23.8.3 The Committee sought the compliance report of the RO, MoEFCC for further consideration.

23.9 Cluster no. 1 group of 11 mines project of expansion (from 2.70 MTPA Normative to 3.30 MTPA Peak in an ML area of 3692 ha) M/s Eastern Coalfields Limited, located at dist. Dhanbad, Jharkhand - EC based on TOR granted dated 15.06.2011, amendment 02.12.2011.

23.9.1 The proposal is for Environment Clearance of Cluster no. 1 group of 11 mines project of expansion (from 2.70 MTPA Normative to 3.30 MTPA Peak in an ML area of 3692 ha) M/s Eastern Coalfields Limited, located at dist. Dhanbad, Jharkhand.

23.9.2 The TOR was granted to the project, vide letter no. J-11015/287/2010-IA.II(M) dated 15.06.2011. TOR modification was issued on 02.12.2011. Additional TOR issued on 10.02.2012. . The Proponent submitted the EIA/EMP report on 12.02.2014. The TOR expired as per the earlier OM dated 22.03.2010 and accordingly letter was issued on 19.05.2014 delisting the project from pending list. The proposal has been considered for EC in accordance to the OM no. J-11013/41/2006-IA-II(I) (Part) dated 22.08.2014.

23.9.3 The proponent made the presentation and informed that:

i. The TOR was granted to the project, vide letter no. J-11015/287/2010-IA.II(M) dated 15.06.2011. TOR modification was issued on 02.12.2011. Additional TOR issued on 10.02.2012. . The Proponent submitted the EIA/EMP report on 12.02.2014. The TOR expired as per the earlier OM dated 22.03.2010 and accordingly the project was delisted from the pending list. However, in accordance to the OM no. J-11013/41/2006-IA-II(I) (Part) dated 22.08.2014, the proposal has been submitted for considered of EC.
ii. Objectives behind operating the OC patches / mines: The mines are Vulnerable to illegal mining. proposed to undertake extraction of the upper seams by opencast method, wherever possible. Reduce possibilities of fire and inundation and ensuring safety of underground workings. Reduce future problems of unstable locations getting created due to population growth. Patches planned mainly in small, uninhabited areas, free from surface features and do not involve shifting of any village. Only, land has to be acquired, compensation will be made as per the CIL's R & R Policy or that of the state, whichever is acceptable. Environmental impact for a short period. Quarries will be completely backfilled and biologically reclaimed with the help of experts and there will be no residual external OB dump. Beneficial from the financial viewpoint as this coal is available at shallow depth and the operation of the OC patches will enhance production and help in the turn-around of the company.
iii. There are wt Total 11 mines (All existing mines): 8 Underground, 1 Opencast & 2 Mixed mines Beside this, 5 new opencast patches have been proposed over existing underground workings within mine leaseholds.
iv. Present production from the cluster is 0.65 MTY. It is planned to achieve a peak capacity of 3.3 MTY from the existing as well as proposed mines in the cluster

Sl No.	Name of the Mine	Lease Area (Ha)	Normative Production Capacity (MTY)	Peak Production Capacity (MTY)	Life (Years)
1	Hariajam UG	316	0.11	0.14	> 25
2	Badjna UG	676	0.05	0.10	> 25
3	Chapapur-II UG	480	0.15	0.20	> 25
	Chapapur OC Patch (14 Ha)*		0.86	0.86	1
4	Khoodia UG	186	0.05	0.10	> 25
	Khoodia OC Patch (18 Ha)*		0.10	0.10	1
5	Lakhimata UG	217	0.08	0.10	> 25
	Lakhimata OC Patch (19 Ha)*		0.30	0.40	8
6	Shampur-B UG	368	0.09	0.10	> 25
	Shampur-B (Sangamahal)		0.15	0.20	3

	OC Patch (33 Ha)*				
7	Mandman UG	345	0.07	0.10	> 25
8	Nirsha OC Patch	147	0.09	0.10	11
9	Shampur-A UG	491	0.05	0.10	> 25
	Shampur-A OC Patch		0.12	0.12	2
10	Gopinathpur UG	157	0.05	0.07	> 25
	Gopinathpur OC Patch		0.10	0.13	5
11	Kapasara UG	309	0.10	0.15	> 25
	Kapasara OC Patch (24 Ha)*		0.16	0.23	5
	Total	**3692**	**2.70**	**3.30**	

* New proposed OC patches (Area of the patch given in brackets)

v. The latitude and longitude of the project are 230, 44' N& 230, 49' N and 860, 39' E & 860, 46', 30" E respectively.

vi. Joint Venture: No Joint Venture

vii. Coal Linkage : The coal linkages are with The West Bengal Power Development Corporation Limited (WBPCDCL),

- Mejia Thermal Power Station-Bankura,West Bengal.
  Sipat Super Thermal Power Station or Rajiv Gandhi Super Thermal Power Station at SipatBilaspurdistrict Chhattisgarh.
  GMR Energy Limited Kamalanga thermal power plant ,Odisha.
  Aravali Power Company Private Limited,Haryana.
  Kahalgaon Super Thermal Power Station (KhSTPP), Kahalgaon, Bhagalpur , Bihar.

viii. The land usage of the project will be as follows:

Pre-Mining& Post- Mining:

S.No	**Type Land Use**	**Present Mining Land Use (ha)**	**Land Use during Mining (ha)**	**Post- mining Land Use (ha)**
1.	Running quarry	92.00	200.00	
	Backfilled	-		200.00 & brought under Plantation
	Not Backfilled	-		
2.	Abandoned / exhausted quarry	171.00		
	Backfilled	121.00	121.00	121.00&brought under Plantation
	Not Backfilled	50.00	50.00	50.00 (water body)
3.	External OB dump	48.00	48.00	48.00 To be brought under Plantation
4.	Service building/ mine infrastructure	382.00	382.00	300.00 (undisturbed) + 82.00 ha under plantation
5.	Rail & Road	108.00	108.00 (20 Ha for green belt)	108.00 (20 Ha under plantation)
6.	Habitation (total)	592.00	592.00	592.00
7.	Other built-up areas	654.00	654.00	654.00
8	Agriculture land	860.00	860.00	860.00

9.	Forest land	-	-	-
10	Plantation / Natural Vegetation	60.00	60.00	593.00
		62.00	62.00	
11.	River/nallah/pond	204.00	204.00	204.00
12.	Barren land	459.00	351.00	351.00
	Total	3692.00	3692.00	3692.00

ix. The total estimated water requirement is 4667 m3/day. The level of ground water ranges in Pre – monsoon: 0.6 to 14.7 m BGL & Post – monsoon: 0.4 to 7.47 m BGL

x. The Method of mining would be by Bord & Pillar for UG and Shovel – Dumper Combination for OC.

xi. There are 8 external OB dumps with Quantity of 200 Mbcm with height of 60 m from ground level and 8 internal dump with Quantity of 35.7 Mbcm.

xii. No final mine voids. Patches will be completely backfilled. and the Total quarry area is 200 Ha. Backfilled quarry area of 200 Ha shall be reclaimed with plantation.

xiii. The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.

xiv. **Transportation**: Coal transportation in pit by Underground mine coal tubs at the faces are being hauled by series of rope haulages to surface. Opencast mine-coal is loaded by shovels at face and transported to the surface coal depot by colliery dumpers, Surface to Siding by Road transportation by 15 te dumpers and loading at siding by Pay loaders are used for loading of coal onto wagons.

xv. There is no **R & R** involved. There are no PAFs.

xvi. **Cost**: Total capital cost of the project is Rs 12310.22 Lakh (till 2011–12). CSR Cost @ Rs. 5.00 per tonne of coal produced. Environmental Management Cost (capital cost Rs 2713.00 crores, annual recurring cost Rs1886.95 crores).

xvii. **Water body**: The cluster is drained by a seasonal river Khoodia, a tributary of the Barakarriver, flowing about 4 kms from the cluster boundary on the east. Another seasonal river, Pusai, which is a tributary of Khoodia also drains the northern portion of the cluster.

xviii. **Approvals**: Application has been made for ground water clearance. All mines are dated back to pre-nationalisation. Mine closure plans are approved in Dec, 2013.

xix. **Wildlife issues**: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.

xx. **Forestry issues**: No forest area involved in the cluster.

xxi. Total **afforestation** plan shall be implemented covering an area of 471 ha at the end of mining. Reclaimed external OB dump (48 ha); internal dump (121 ha); Green Belt over an area (20 ha). Density of tree plantation 2500 trees/ ha of plants.

xxii. There are no **court cases/violation** pending with the project proponent.

xxiii. **Public Hearing** was held on 12.06.2013. The issues raised in the PH includes information regarding closed mines ; water scarcity ; dust pollution due to road traffic; CSR works; Demand for employment; transportation etc. All the commitments made during the Public Hearing shall be implemented.

23.9.2 The Committee, after detailed deliberations, recommended for granting EC with the following specific conditions:

i. No underground mining shall be carried out below and within 45 m of the NH-2 and rivers flowing through the cluster.
ii. The EC be only for peak value only. PP should ensure the mine water discharge shall comply to the prescribed standards.
iii. All commitments made in the Public Hearing shall be fully implemented.
iv. Adequate measures shall be taken for subsidence and as per the DGMS stipulations.
v. There shall be no voids and OB dumps after the end of mining.
vi. The lands shall be brought back for agriculture use after the end of mining.
vii. Existing voids shall be brought back to atleast to a level adequate for pisciculture.
viii. New voids shall be completely filled up to near ground position.
ix. 50% of old voids shall be filled up and other 50% of old voids shall be filled upto 15 meter for the purpose of pisciculture.
x. There shall be no fly ash utilization in the mine voids. Fire in the OBDs shall be quenched by blanketing and should be re-vegetated.
xi. The surface drainages shall be preserved.
xii. The quality of water should be conformed to the prescribed standards before discharged into nallahs.

23.10 Simlong Expan. OCP of expansion (from 2 MTPA Normative to 2.30MTPA Peak in an ML area of 327.74 ha) M/s Eastern Coalfields Limited, located at distt. Pakur, Jharkhand. –EC based on TOR granted dated 15.07.2011.

23.10.1 The proposal is for Environment Clearance of Simlong Expan. OCP of expansion (from 2 MTPA Normative to 2.30MTPA Peak in an ML area of 327.74 Ha) M/s Eastern Coalfields Limited, located at Distt. Pakur, Jharkhand.

23.10.2 The TOR was granted to the project, vide letter no. J-11015/128/2011-IA.II(M) dated 15.07.2011. The Proponent submitted the EIA/EMP report on 18.02.2014. The TOR expired as per the earlier OM dated 22.03.2010 and accordingly letter was issued on 19.05.2014 delisting the project from pending list. However, in accordance to the OM no. J-11013/41/2006-IA-II(I) (Part) dated 22.08.2014, the proposal submitted for considered of EC.

23.10.3 The proponent made the presentation and informed that:

i. The TOR was granted to the project, vide letter no. J-11015/128/2011-IA.II(M) dated 15.07.2011. The Proponent submitted the EIA/EMP report on 18.02.2014. The TOR expired as per the earlier OM dated 22.03.2010 and accordingly letter was issued on 19.05.2014 delisting the project from pending list. However, in accordance to the OM no. J-11013/41/2006-IA-II(I) (Part) dated 22.08.2014, the proposal submitted for consideration of EC.
ii. The latitude and longitude of the project are $24^0$44'33" N to $24^0$45'55" N and $87^0$26'30" to $87^0$28'38" E respectively.
iii. Joint Venture: No Joint Venture
iv. Coal Linkage : NTPC Kahalgoan, Bihar.
v. Proposal :

	Existing	**Incremental**	**Total**
Leasehold Area	28.0 Ha	309.74 Ha	337.74 Ha

Capacity	0.26 MTY (highest pre – 1994 production achieved in 1981 – 82)	1.74 MTY (2.04 MTY – Peak)	2.00 MTY (2.30 MTY – Peak)

EIA carried out for peak increment of 2.04 MTY.

vi. The land usage of the project will be as follows:

Pre-Mining& Post- Mining:

Sl No	Landuse Type	Present Land use	Post- Land use
1	Excavated area including haul-road	11.00	
2	Quarry Safety Zone	-	
3	Agricultural/Fallow/Tenancy	168.0	
4	Govt./Danga/Wasteland	49.48	
5	Forest Land	81.09	
	Undisturbed		
6	Colliery Infrastructure	4.12	6.87
7	Villages	16.05	
8	External OB Dump (Active)	2.00	
9	Plantation on External OB Dumps	-	20.00
10	CHP/Coal depot	1.00	
11	Road	3.00	3.00
12	Garland Drain	-	2.00
13	Tank	2.00	
14	Greenbelt/Plantation	-	77.37
15	Backfilled area (Active)	-	
16	Plantation on backfilled area	-	210
	Rehabilitation Site	-	18.50
Total		**337.74**	**337.74**

vii. The total geological reserve is 90.19 MT. The mineable reserve 38.80 MT, extractable reserve is 38.80 MT. The per cent of extraction would be 100 %.

viii. The coal grade is D to G. The stripping ratio is 3.55 m3/te. The average Gradient is 80 -100. There will be 16 seams with thickness ranging upto 22.37 m.

ix. The total estimated water requirement is 1018 m3/day out of which the peak industrial water demand for the mine has been projected as 583 m3/day and the total domestic water demand of the proposed OCP is projected as 435 m3/day. The level of ground water ranges in Pre – monsoon: 2.23 to 10.55 m BGL & Post – monsoon : 0.35 to 7.45 m BGL.

x. The Method of mining would be by Shovel – Dumper Combination.

xi. There is three external OB dump (one permanent OB dump; two temporary OB dump) with Quantity of 24 Mbcm in an area of 20 ha with height of 60 meter above the surface level and two internal dump with Quantity of 131.80 Mbcm in an area of 210 ha.

xii. No final mine voids in the cluster. The Total quarry area is 210 Ha. Backfilled quarry area of 210 Ha shall be reclaimed with plantation.

xiii. EIA carried out for peak increment of 2.04 MTPA . The seasonal data for ambient air quality has

been documented and all results at all stations are within prescribed limits.

xiv. The **life of mine** will be 26 years (including 2 years for construction).

xv. **Transportation**: Coal transportation in pit by shovels at face and transported to the CHP located at the pit mouth by colliery dumpers, Surface to Siding by Road transportation by 15 te dumpers and loading at siding by Payloaders onto wagons.

xvi. There is **R & R** involved. There are 165 PAFs.

xvii. **Cost**: Total capital cost of the project is Rs. 119.12 Crores. CSR will be allocated on the basis of 2% of the average net profit of the Company for the three immediate preceding financial years or Rs. 2.00 per tonne of coal production of previous year whichever is higher. R&R Cost 2437.21 Lakh. Environmental Management Cost (capital cost Rs. 1686.65 Lakh, annual recurring cost Rs. 152.40 Lakh).

xviii. **Water body**: The Gumaniriver runs along the west & north west portion of the Simlong block from West to East. The ground level of the block also slopes gently from West to East. There are numerous seasonal nallas flowing from West to North and feed the river Gumani.

xix. **Approvals**: Application made to CGWA, Ranchi, Jharkhand for ground water clearance. The mine dates back to pre-nationalization. Mine closure plan has been approved in Dec, 2013.

xx. **Wildlife issues**: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.

xxi. **Forestry issues**: Total forest area involved 84.57 Ha for mining. Application has been submitted to State Government for Forest Clearance of 81.09 Ha of forest land. Forest Clearance obtained for 3.48 Ha vide letter no. 324 on 23.02.2008.

xxii. Total **afforestation** plan shall be implemented covering an area of 306.37 ha at the end of mining. Reclaimed external OB dump (20 ha); internal dump (210 ha); Green Belt over an area (76.37 ha). Density of tree plantation 1600 trees/ ha of plants.

xxiii. **There is one court case/violation pending.** The mine running on the basis of consents from Jharkhand State Pollution Control Board since inception in the year 1980 – 1981. In absence of prior – EC, the highest pre – 94 production was taken as the mine capacity. Thus, mine capacity was fixed at 0.265 MTY which was the highest achieved pre – 94 productions in the year 1981 – 82. However, the mine violated the provision once in 2009 – 10 by producing 0.44 MTY. Jharkhand State Pollution Control Board has filed a case in the court of CJEM, Pakur for contraventions of the Sec(15) of the EPA act 1986 vide Complaint case no. 135/2013 on 19.03.2013. A Board resolution was submitted for not be repeating in future.

xxiv. **Public Hearing** was held on 24.09.13 at Dak Bungalow Campus, Block Headquarters, Littipara Block, Dist :Pakur, Jharkhand. The issues raised in the PH includes land compensation and employment; Rehabilitation work; provision for graveyard near the rehabilitation site; Medical facilities etc. All the commitments made during the Public Hearing shall be implemented.

23.10.4 The Committee, after detailed deliberations, recommended for granting EC with the following specific conditions:

i. MoEFCC shall take appropriate action on the issue of violation.

ii. Proponent shall abide by all the conditions stipulated in the Consent to Establish/ Consent to Operate as issued by JSPCB.

iii. The land area between mine pit and bank of the river including embankment should be covered with the plantation of native species.

iv. EC will be granted after the FC is received as FC for 81.09 ha of forest land is awaited as on date.

23.11 Cluster no. 9 group of 15 mines project of (from 6.25 MTPA Normative to8 MTPA Peak in an ML area of 7145.4 ha) M/s Eastern Coalfield Limited, located at distt. Burdwan, West Bengal. - EC based on TOR granted dated 09.05.2011, amendment02.12.2011.

23.11.1 The proposal is for environment clearance of Cluster no. 9 group of 15 mines project of (from 6.25 MTPA Normative to8 MTPA Peak in an ML area of 7145.4 ha) M/s Eastern Coalfield Limited, located at distt. Burdwan, West Bengal.

23.11.2 The TOR was granted to the project, vide letter no. J-11015/38/2011-IA.II(M) dated 19.05.2011. The Proponent submitted the EIA/EMP report on 12.02.2014. The TOR expired as per the earlier OM dated 22.03.2010 and project was delisted from pending list. However, in accordance to the OM no. J-11013/41/2006-IA-II(I) (Part) dated 22.08.2014, the proponent requested for consideration of proposal for EC.

23.11.3 The proponent made the presentation and informed that:

i. The TOR was granted to the project, vide letter no. J-11015/38/2011-IA.II(M) dated 19.05.2011. The Proponent submitted the EIA/EMP report on 12.02.2014. The TOR expired as per the earlier OM dated 22.03.2010 and accordingly letter was issued on 19.05.2014 delisting the project from pending list. However, in accordance to the OM no. J-11013/41/2006-IA-II(I) (Part) dated 22.08.2014, the proposal submitted for considered of EC.
ii. The latitude and longitude of the project are 230, 34', 55" N & 230, 34', 55" N and 860, 59', 05" E & 870, 07', 50" E respectively.
iii. Joint Venture: No Joint Venture
iv. Coal Linkage :
    - Kahalgaon Super Thermal Power Station (KhSTPP) ,Kahalgaon ,Bhagalpur ,Bihar.
    - National Capital Power Station (NCPS) Or NTPC Dadri ,GautamBudh Nagar, Uttar Pradesh .
    - Vindhyachal Thermal Power Station, Singrauli ,Madhya Pradesh.
    - The West Bengal Power Development Corporation Limited(WBPCDCL).
    - Sipat Super Thermal Power Station or Rajiv Gandhi Super Thermal Power Station at SipatBilaspurdistrict Chhattisgarh.
    - Farakka Super Thermal Power Plant NabarunMurshidabad West Bengal.
    - Simhadri Super Thermal Power Plant,Visakhapatnam ,Andhra Pradesh.
    - Mauda Super Thermal Power Station or NTPC Mauda ,Nagpur,Maharashtra.

v. Total 15 mines (All existing mines): Existing 7 UG, 1 UG Proposed and 7 Mixed (UG & OC) mines.
vi. Present production from the cluster is 0.56 MTY. It is planned to achieve a peak capacity of 8 MTY from the existing as well as proposed mines in the cluster.

Sl No.	Name of the Mine	Lease Area (Ha)	Normative Production Capacity (MTY)	Peak Production Capacity (MTY)	Mine Life (Years)
1	Ratibati UG	249	0.09	0.12	> 40
2	Chapuikhas UG	412	0.05	0.06	> 50
	Chapuikhas OC Patch (7 Ha)*		0.15	0.15	1

Sl No.	Name of the Mine	Lease Area (Ha)	Normative Production Capacity (MTY)	Peak Production Capacity (MTY)	Mine Life (Years)
3	Amritnagar UG[1]	279	1.14	1.14	> 30
4	Tirat UG	214.5	0.06	0.08	> 10
5	Kuardih UG	615	0.05	0.07	> 10
	Kuardih OC Patch (20 Ha)*		0.30	0.40	2
6	Nimcha UG	890.2	0.31	0.40	> 50
	Damalia OC Patch (5 Ha)*		0.40	0.40	1
7	Ghusick UG	376	0.05	0.10	> 50
8	Kalipahari UG	299.5	0.05	0.10	> 50
	Kalipahari OC Patch A (24 Ha)*		0.16	0.22	2
	Kalipahari OC Patch B (20 Ha)*		0.15	0.20	2
	Kalipahari OC Patch C (10 Ha)*		0.15	0.15	1
	Kalipahari OC Patch D (10 Ha)*		0.15	0.15	1
9	Muslia UG	948	0.04	0.05	> 50
	Muslia OC Patch (140 Ha)*		0.40	0.55	5
10	New Ghusick UG	224	0.04	0.05	> 40
11	Jemehari UG	118	0.03	0.04	> 10
12	J K Nagar UG[2]	1237	0.35	0.87	> 30
	J K Nagar OC Patch (21 Ha)*		0.30	0.40	3
	Pure Searsole OC Patch (8 Ha)*		0.12	0.12	1
	MallickBasti OC Patch (8 Ha)*		0.26	0.26	1
13	Damra UG	249	0.04	0.06	> 10
14	Mahabir UG	241.2	0.02	0.03	> 25
	Mahabir OC (26 Ha)*		0.20	0.40	4
	Narainkuri OC Patch (60 Ha)*		0.40	0.55	4
	Egara OC Patch (19 Ha)*		0.25	0.35	5
15	Narainkuri UGP [3]	793	0.54	0.54	> 25
Total		**7145.40**	**6.25**	**8.00**	

vii. The land usage of the project will be as follows:

Pre-Mining& Post- Mining:

S.No	Type Land Use	Present Mining Land Use (ha)	Land Use during Mining (ha)	Post- mining Land Use (ha)
1.	Running quarry		378.00	
	Backfilled			378.00 & brought under Plantation
	Not Backfilled			
2.	Abandoned / exhausted quarry	113.25	113.25	
	Backfilled	-	63.25	63.25 & brought under Plantation
	Not Backfilled	113.25*	50.00	50.00*
3.	External OB dump	53.11	53.11	53.11 To be brought under

				Plantation
4.	Service building/ mine infrastructure	352.14	360.00	300.00 (undisturbed) + 60 ha under plantation
5.	Coal dump	30.0	40.0	40.0 To be brought under Plantation
6.	Rail & Road	148.62	148.62 (20 Ha for green belt)	128.62 (20 Ha under plantation)
7.	Habitation (total)	733.20	614.83	614.83
	Unstable habitations	118.37	118.37 Rehabilitated outside cluster & area to be brought under Plantation	118.37 Ha under Plantation
8.	Other built-up areas	300.23	300.23	300.23
9.	Subsided land	240.11	240.11	240.11 To be brought under Plantation
10	Agriculture land	3254.76	3246.9	3246.9
11.	Forest land	-	-	-
12	Plantation / Natural Vegetation	200.00	200.00	1594.34
		421.50	421.50	
13	River/nallah/pond	246.47	246.47	246.47
14	Barren land	966.00	578.00	578.00
15	Vacant land for public purposes	86.00	86.00	86.00
	Total	7145.40	7145.40	7145.40

viii. The total estimated water requirement is 4896 m3/day. The level of ground water ranges ion Pre – monsoon: 3.70 to 16.05 m BGL & Post – monsoon : 2.70 to 7.05 m BGL.

ix. The Method of mining would be by Bord& Pillar for UG and Shovel – Dumper Combination for OC.

x. 14 (fourteen) nos of temporary external dumps will be created which will be later re-handled and backfilled into the quarry leaving no residual external dump. OB will be dumped within land earmarked for quarrying during initial mine development phase and later concurrently backfilled leaving no residual external dump.

xi. No final mine voids. Patches will be completely backfilled. The Total quarry area is 378 Ha. Backfilled quarry area of 378 Ha shall be reclaimed with plantation.

xii. The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.

xiii. **Transportation**: Coal transportation in pit by Underground mine coal tubs at the faces are being hauled by series of rope haulages to surface. Opencast mine coal is loaded by shovels at face and transported to the surface coal depot by colliery dumpers, Surface to Siding by Road transportation by 15 te dumpers and loading at siding by Payloaders are used for loading of coal onto wagons.

xiv. There is no **R & R** involved. There are no PAFs.

xv. **Cost**: CSR Cost: CSR will be allocated on the basis of 2% of the average net profit of the Company for the three immediate preceding financial years or Rs. 2.00 per tonne of coal production of previous year whichever is higher. R&R Cost Nil. Environmental Management Cost (capital cost Rs 2004.00 Lakhs, annual recurring cost Rs 3092.75 Lakh / year including contribution to mine closure fund and CSR.

xvi. **Water body**: The topography of the area is undulating and gently sloping towards Damodar

River, which forms the southern boundary and controls the drainage of the area. The cluster is drained by a seasonal river Nunia.

xvii. **Approvals**: Application made to CGWA for ground water clearance. Most of the existing mines are taken over mines after nationalization. Mine Closure Plan approval obtained in December, 2013.

xviii. **Wildlife issues**: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.

xix. **Forestry issues**: There is no forest area involved in mining.

xx. Total **Afforestation** plan covers total 972.84 ha area. Beside this 621.50 ha area is already under plantation. At the end of mining total 1594.34 ha area of the cluster will be under plantation.

xxi. There are no **court cases/violation** pending with the project proponent.

xxii. **Public Hearing** was held on 24.05.2013 at Raniganj Panchayat Samitee Meeting Hall, Raniganj, Burdwan, West Bengal. The issues raised in the PH includes Provision of Water Supply to local Villages ; Dust suppression & Improvement of Environment; Transport of coal by covered trucks ; Improper Stowing arrangement ; Resumption of coal production from suspended mines; Class rooms at Harabhanga Village etc. All the commitments made during the Public Hearing shall be implemented.Purpose of operating OC Patches : In order to maintain the safety of the UG mines and prevent any disaster, it has been decided by ECL to undertake extraction of the upper seams by opencast method, wherever possible, thereby reducing the possibilities of fire and inundation and ensuring increased safety of these underground workings. The environmental impact will be for a short period only as most of these patches/mines are very small and will be exhausted, generally, within 2 – 3 years after which the quarries will be completely backfilled and biologically reclaimed with the help of experts and there will be no external OB dump and no surface voids.

23.11.4 The Committee, after detailed deliberations, recommended for granting EC with the following specific conditions:

i. The quality of water should conform to the prescribed standards before discharged into nallahs.
ii. The EC be only for peak value only. PP should ensure the mine water discharge shall comply to the prescribed standards.
iii. All commitments made in the Public Hearing shall be fully implemented.
iv. Adequate measures shall be taken for subsidence and as per the DGMS stipulations.
v. There shall be no voids and OB dumps after the end of mining.
vi. The lands shall be brought back for agriculture use at the end of mining.
vii. Existing voids shall be brought back to atleast to a level adequate for pisciculture.
viii. New voids shall be completely filled up to near ground position.
ix. 50% of old voids shall be filled up and other 50% of old voids shall be filled upto 15 meter for the purpose of pisciculture.
x. There shall be no fly ash utilization in the mine voids. Fire in the OBDs shall be quenched by blanketing and shall be re-vegetated.
xi. The surface drainages shall be preserved.

23.12 Kusmunda Opencast Expansion Project (Normative 15 MTPA to 50 MTPA& Peak 18.75 MTPA to 62.50 MTPA in an ML area 3510.348 Ha) of M/s South Eastern Coalfields Ltd., located at dist. Korba, Chhattisgarh – TOR - Further Consideration.

23.12.1 The proposal is for seeking TOR for Kusmunda Opencast Expansion Project (Normative 15 MTPA to 50 MTPA& Peak 18.75 MTPA to 62.50 MTPA in an ML area 3510.348 Ha) of M/s South

Eastern Coalfields Ltd., located at dist. Korba, Chhattisgarh. The proposal was last considered in 19th EAC meeting held on 13th -14th August, 2014. The Committee sought reply/ comments to the issues raised by the NGO and also recommended that a sub-group of the Committee shall make a site visit before further considerations as it involves large area and bigger capacity.

23.12.2 The sub-Committee of the EAC visited the site during 9th -10th October, 2014. The report of the visit is at annexure 3 to these Minutes.

23.12.3 The proponent submitted to the issues raised by one of the NGOs which are as follows:

i. Kusmunda OC mine is not the polluter of Korba: As per OM no. J-11013/52010-(IA-II(I) dated 15th March 2010 issued by MOEF, moratorium imposed for environmental clearance was demarcated. Chhattisgarh Environment Conservation Board prepared Korba Action Plan in 2011. All the Action points of Korba Action Plan for Kusmunda OC, have been complied. (Kusmunda opencast mine was not considered as a contributing industry in the air pollution load of critically polluted Korba area. As the apportionment has been made in the Korba action plan report para 3.5, the Kusmunda OC was not enlisted as a contributor)
ii. Existing production of Kusmunda OCP is 18.75 MTPA and to achieve 50 MTPA normative and 62.50 MTPA peak production capacity, several provisions which leads to excellent environmental protection such as use of surface miners, Provision for in pit belt, Modern silos have also been proposed for coal loading to minimize fugitive emission in the process, Coal evacuation will be done mostly through rail and partly through belt conveyor etc..
iii. Proper rehabilitation of villages will ensure environment management in the core and buffer zone area, Schools and hospitals located mostly in the buffer zone area will not be impacted, Among 90 hospitals, 17 are in bed hospitals and remaining are mini PHC hospitals and majority of them situated in buffer zone whereas, only two hospitals are in core zone (i.e.Sonpuri & Gevra) which are to be rehabilitated as per R & R provision.
iv. There would be no impact on remaining 88 hospitals as they are farther to the mine premises. Moreover, the project authority itself having own medical facility for employees of SECL as well as of the public as part of CSR provision.
v. Out of 17 villages, 11 villages are yet to be relocated after expansion of mine, would be properly rehabilitated as per R&R provision and in current instance 6 villages have already been rehabilitated.
vi. The air quality modelling ascribes that, the Korba will not be again critically polluted as because of Kusmunda OC expansion.
vii. A case in the court of Judicial Magistrate, Katghora under the Water Act 1974 and Air Act 1981 regarding exceeding coal production from consented capacity. The case has been filed by regional officer, CECB on 7-5-2012 as credible action initiated due to violation of EC capacity.

23.12.4 The Committee, after detailed deliberations, recommended for granting TOR with the following specific TORs:

i. The entire road of 42 KM shall be black topped.
ii. There shall be dedicated environmental laboratory for Kusmunda and Gevra.
iii. There shall be no external OB dumps ate the end of mining.
iv. The planation in the mine area shall be of native species.
v. There shall be systematic restoration of mining by native vegetation.
vi. To explore the possibility to reduce the timeline for completion of Kusumund a conveyer belt.

vii. There should be mechanized evacuation of coal from mine pit to Thermal Power Plant.

viii. All the old external inactive OBDs should be re-vegetated with native species such as sal, mahua, tendu and *Terminalia;* the invasive alien species such as *Prosopisjuli flora* and *Lantana* from these OBDs should be removed after the native vegetation is developed. The barren inactive external OBDs should be re-vegetated immediately with native species.

ix. Many temporary OBDs, which have to be rehandled for backfilling should be grassed to prevent erosion. Garland drain around these dumps should be made and the drainage should be discharged into tailing ponds before discharging into nullahs/rivulets.

x. The mine benches should have gentle slopes and the external OBDs should be located away from the pit limits as per MMDR Act. Any deviation from the rules of MMDR may result in collapse of benches and OBDs during rainy season and slide on to the working coal seam.

xi. The external OBDs should be rehandled in a way that the backfilled void should have the pre-mining contour so that the land can be used for agriculture.

xii. The backfilled areas should be as far as possible, brought to the ground level.

xiii. During expansion of the mine both dip and strike wise for 62.50 MTY, there shall be no external dump and the entire OBD should be backfilled to the ground level as has been agreed by the project proponents. Temporary external dumps, if any should be grassed and have garland drain that can be discharged into natural drainage system only after passing through tailing ponds.

xiv. Any void that will be left out after mining should have depth of 30 to 40 m only so that it becomes biologically productive.

xv. All the three mega mines are currently producing 90 MTY and planned for 150 MTY expansion in coming years. There is no integrated plan for void and OBD management and coal evacuation. An integrated void and OBD management, and evacuation system should be developed in such a way that sequential backfilling of voids and common evacuation system make adverse mining impacts on environment and ecology of the area is minimized. Further, such integrated management of voids, OB and evacuation system may also reduce the costs of coal production and transport.

xvi. The backfilled areas should be put to pre-mining land use so that it provides livelihood to the local communities.

xvii. The huge quantity of mine water from all the three mines should be used to recharge the ground water by creating perennial reservoirs on the nullahs and rivulets by run off the impact of such large scale dewatering on the surrounding ground water availability and subsidence of land affecting the stability of buildings and other infrastructure in the surrounding areas need to be investigated and monitored. The drainage pattern on the backfilled areas should be created in such a way that the nullahs/rivulets from backfilled areas are connected to the tributaries of Hasdeoriver so that the water flow in the river is not affected as the mining area falls under its catchment area. Surface ponds should be created on backfilled to recharge subsoil aquifers so as to enhance green water for vegetation.

xviii. The sloping of mining benches and location of OBDs with respect to mine pit limit should be as per MMDR Act.

xix. The exposure of coal seams for longer period is highly vulnerable to mine fires and to prevent such fires, the coal from seams exposed should be evacuated at faster rate and the extent of working coal seam is also such that the evacuation of coal is completed within reasonable time period.

xx. The drivers of pay loaders and dumpers are not using any safety measures to protect them from inhaling of coal dust. The mechanization of coal production and evacuation also enhances the vulnerability or risk to the workers leading to higher incidence of occupational hazards. The drivers and other workers involved in coal production and evacuation should be screened regularly every 3 months for respiratory disorders.

xxi. Until the mechanized evacuation system – surface miners, in pit closed belt conveyer and Silo loading and transport by train or belt conveyor is in place, the present level of production should only be allowed for expediting in-pit conveyor system reorienting entry to the siding was suggested for studywhich is now proposed through large vegetated O.B. heap near siding..

xxii. A thick green belt should be developed at coal loading points and railway sidings to trap fugitive coal dust emissions.

xxiii. The SECL should submit revised proposal for 62.50 MTY production in non-forest area (including the forest area in old mining for which EC clearance was applied for regularization).

23.13 Presentation by CMPDI on various issues of coal mining.

23.13.1 The EAC has desired to invite CMPDI to give a presentation to the EAC on various issues of coal mining such as detailed plan to re-handling of OBD and backfilling of mines; Desired depth of deep void; Sequential mining and any other maters CMPDI may like to suggest.

23.13.5 CMPDI made the presentation.

23.14 Any other matters with the permission of the Chair:

23.14.1 The matter of **Nimbri-Chandwatan** Lignite Mining Project (0.5 MTPA in an ML area of 350 ha) of M/s Binani Cements Ltd. located in village Nimbri, Tehsil Jayal-Degana, District Nagaur, Rajasthan - EC based on TOR granted on 22.08.2007 was taken up as per the decision taken by the EAC in its Meeting in the September, 2014. As desired by the EAC, the Member Secretary circulated a detailed Note on the issue. The Committee deliberated on the Notes vis-à-vis the submissions made by the Proponent in the Meeting of September, 2014.

23.14.2 The Committee deliberated the project in detail and also took note of the responses given by the project proponents to the issues raised in the Report submitted by the subgroup:

23.14.3 Keeping in view that: (a) the land is a double crop area, (b) the ecological function of Nadis i.e. to store rain water and recharge ground water, and (c) there are 100's of *Prosopis cineraria* plants, **the Committee recommended for Environmental Clearance** with following additional conditions besides the conditions already laid down in earlier recommendations of the EAC meetings:

i. The land shall be brought back to the ground level for agriculture purpose at the end of the mining.
ii. The land acquisition for mining shall be as per the existing Rules.
iii. The back filled voids should have contours that simulate Nadis that will hold water for storage and recharging ground water and should have adequate surface drainage channels from the catchment areas.
iv. The proponent shall ensure the water requirement of villagers.
v. The lignite shall be transported by road using mechanically covered trucks till the possibility of transportation by rail is examined and implemented by the proponent.
vi. The project will provide direct and indirect employment opportunities for their livelihood and further improvement in their lives, health care, education, potable water, infrastructure &sanitation.etc. under CSR.
vii. The alternative for grazing land has already to be provided.
viii. The quality of water will be maintained as per IS norms.
ix. Water harvesting structures shall be constructed in conjunction with local communities. This shall help in raising the water level over a period of time.
x. *Prosopis cineraria* should be planted in large numbers on OBDs and backfilled areas as it is the most abundant and highly economically important species of the area.

After The meeting ended with a vote of thanks to the Chair.

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Annexure -1

LIST OF PARTICIPANTS IN 23rd EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 16th -17th OCTOBER, 2014 IN NEW DELHI.

Sl. No.	List of Members	
1.	Prof. C.R. Babu	Member
2.	Shri JawaharLal Mehta	Member
3.	Shri T K Dhar	Member
4.	Shri N. K. Verma	Member
5.	Shri G. S. Dang	Member
6.	Shri A. K. Bansal	Member
7.	Dr. Shankar Bala	Member
8.	Dr. Ms. Asha Rajvanshi	Member
9.	Dr. S.D. Attri	Member
10.	Dr.Manoranjan Hota	Director & Member Secretary
11.	Shri. P. R. Sakhare	Scientist –'C'

Annexure -2

LIST OF PROPONENTS PARTICIPATED IN THE 23rdth EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 16th -17th OCTOBER, 2014 ON COAL SECTOR PROJECTS.

23.1 Pauni opencast expansion project of **M/s Western coalfield Limited**,

1. Shri S. S. Malhi
2. Shri S. K. Sinha
3. Shri R. M. Wanare
4. Shri Vaibhav
5. Md. Noor Uddin
6. Shri K. Chakraborty

23.2 Ghonsa Expn. OCP Coal Mine Project of **M/s Western Coalfield Limited**

1. Shri S. S. Malhi
2. Shri S. K. Sinha
3. Shri R. M. Wanare
4. Shri Vaibhav
5. Md. Noor Uddin
6. Shri K. Chakraborty

23.3 Kamptee Deep OC coal mine project of **M/s Western Coalfields Limited,**

1. Shri S. S. Malhi
2. Shri S. K. Sinha
3. Shri R. M. Wanare
4. Shri Vaibhav
5. Md. Noor Uddin
6. Shri K. Chakraborty

23.4 Shivani OCP Coal Mine project **M/s Western Coalfields Limited,**

1. Shri S. S. Malhi
2. Shri S. K. Sinha
3. Shri R. M. Wanare
4. Shri Vaibhav
5. Md. Noor Uddin
6. Shri K. Chakraborty

23.5 KDH Extension OCP Project of **M/s Central Coalfields Limited**,

1. Shri P. K. Swin
2. Shri Alok Kumar
3. Shri J. Chakrovarty

4. Dr. Manoj Kumar
5. Md. Noor Uddin
6. Shri Soumitra Singh
7. Shri Pushkar
8. Dr. A Sinha

23.6 Cluster No. 10 of 24 mines of **M/s Eastern Coalfields Limited,**

1. Shri S. Chakravarty
2. Shri G. Prasad
3. Shri J. N. Biswal
4. Shri A. Shekhar
5. Shri B. R. Reddy
6. Shri S. K. Bhawaria
7. Shri S. K. Sinha
8. Shri S. Chakraborty

23.7 Coal Washery of **M/s Hind Multi Services Pvt. Limited,**

1. Shri Pawan Agarwal
2. Shri S. B. Vyauhare
3. Shri D. S Ramteke

23.8 Amlohri Opencast Expansion Project of **M/s Northern Coalfields Limited**,

1. Shri N. Das
2. Shri V. N. Dupattaawale
3. Shri PremPrakasKanwar
4. Shri Atal Bihari
5. Shri B. K. Sharma
6. Shri P. K. Sinha
7. Shri R. B. Sindhur
8. Shri Prabhu Prasad
9. Shri D. Srivastava
10. Shri A. N. Bahadur
11. Shri M. R. Munda

23.9 Cluster no. 1 group of 11 mines project of **M/s Eastern Coalfields Limited**,

1. Shri J. N. Biswal
2. Shri G. Prasad
3. Shri B. R. Reddy
4. Shri S. K. Bhawaria
5. Shri S. K. Sinha
6. Shri S. Chakraborty
7. Shri A. Shekhar

23.10 Simlong Expan. OCP of **M/s Eastern Coalfields Limited**,

1. Shri J. N. Biswal
2. Shri G. Prasad
3. Shri B. R. Reddy
4. Shri S. K. Bhawaria
5. Shri S. K. Sinha
6. Shri S. Chakraborty
7. Shri A. Shekhar

23.11 Cluster no. 9 group of 15 mines project of **M/s Eastern Coalfield Limited,**

1. Shri J. N. Biswal
2. Shri G. Prasad
3. Shri B. R. Reddy
4. Shri S. K. Bhawaria
5. Shri S. K. Sinha
6. Shri S. Chakraborty
7. Shri A. Shekhar

23.12 Kusmunda Opencast Expansion Project of **M/s South Eastern Coalfields Ltd.,**

1. Shri R. P. Thakur
2. Shri Manoj Kumar
3. Shri U. T. Kanzarkar
4. Shri Amit Saxena
5. Shri KushagraVashishth
6. Shri Rambabu Singh
7. Dr. Anurag Tiwari
8. Shri Ranjan P Shah.
9. Shri S. R. Tripathi
10. Shri N. K. Rai
11. Shri A. S. Bapat

23.13 Presentation by CMPDI on various issues of coal mining.

1. Shri J. N. Biswal
2. Shri A. Shekhar
3. Shri G. Prasad
4. Shri Randipsingh
5. Shri V. K. Pandey
6. Shri A.K. Debnath
7. Shri R. P. Thakur
8. Shri Manoj Kumar
9. Shri B. K. Sharma
10. Shri U. T. Kanzarkar
11. Shri Amit Saxena
12. Shri S. R. Tripathi

13. Shri S. Chakraborty
14. Shri S. K. Sinha
15. Shri B. R. Reddy
16. Shri N. Das

23.14 Discussion & any other matters with the permission of the Chair.

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Annexure-3

Report on the Site Visit to Kusmunda OCP and its Adjacent Gevra and Depika OCPs of Korba Coal Field of South Eastern Coal Fields Limited (KatghoraTahsil, Korba District, Chhattisgarh State) by Subgroup of EAC (T&C) of MoEF, Government of India

The South Eastern Coalfields Limited (SECL) had applied for TOR for expansion of Kusmunda OCP from 18.75 MTY to 50 MTY (with a peak of 62.50 MTY), with total mine lease area of 3510.482 ha (22˚15'18" to 22˚21'30" N latitude and 82˚38'39" to 82˚42'08" E longitude as per the details given by SECL). The expansion of 62.50 MTY will be undertaken in two phases – Phase I and Phase II with lease areas of 1655.825 ha and 1854.523 ha, respectively. The members observed that the area adjacent to Kusmunda OCP has already two mega coal mines, Gevra (with a capacity 40 MTY) and Depika (with a capacity of existing 30 MTY), and the quantum jump from 18.75 MTY to 62.50 MTY in production involves a breaking up of large landmass that: (i) affect adversely the hydrological system of the area, (ii) result in the pollution load of Korba town which was once declared as critically polluted area, and (iii) adversely impact on the ecology of the area.

The Committee decided that a subgroup consisting of Professor C.R. Babu, Shri J.L. Mehta, Dr Nawal Kishore Verma and Dr Manoranjan Hota to visit the site and submits its Report.

2. The subgroup accompanied by senior officials (list is annexed) visited all the three mines (Kusmunda, Gevra and Depika), a pithead coal washery of Gevra and the surrounding areas of the three coal mines on 9th October 2014 and 10th October 2014. The significant observations made by the subgroup are given below.

i. The entire 125 sq.km. coal bearing area is a flat terrain and is dotted with villages agricultural fields, and patches of revenue forest devoid of trees but with encroachments, forest patches of sal and mixed deciduous forest, drainage nullahs and rivulets, all of which drain into river Hasdeo which is dammed up in the downstream of mining area. There is also an irrigational canal passing through the area on the lower ground.

ii. The OBDs and mine voids form the conspicuous landscape features of the present mine lease area. The OBDs are situated in proximity of the mining pit limits, some of which in fact, are abutting the boundary of the pit. These OBDs are randomly located and are mostly barren except for patches of naturally colonized grasses (*Saccharum*) and invasive weeds such *Chromaleana, Lantana, Parthenium*and others. The OBDs are highly eroded, and infact, ravines were formed. No garland drain was observed. The areas between the dumps was filled with slided OBD material and are colonized by *Prosopisjuliflora, Leucaenaleucocephala, Lantana, Chromaleana*and other weedy species and exotics like *Acacia auriculiformis*and *Cassia siamea.* The height of OBDs varies from 30 m to 90 m with a slope ranging from 30˚ to 70˚. There was no evidence for benches (terracing) on OBDs. Some of the old OBDs were revegetated with exotics like *Cassia siamea, Acacia auriculiformis,* and *Eucalyptus;* some of these revegetated OBDs are invaded by *Prosopisjuliflora* and *Chromaleana* invasive alien species.

iii. Some of the voids are backfilled upto the ground level and in some cases upto 30 m above the ground level. Some of the backfilled areas are revegetated.

iv. The voids are 100 m to 200 m deep with 50 m to 60 m thick coal seam and width of the working seam is about 50 – 100 m. Some part of the decoaled area was backfilled and backfilling of decoaled area is being continued in some areas. The mining benches nearly vertical and OBDs with steep slopes were observed on the edge of mine pit. The working seam was close to overhead OBD which may collapse along with vertical mine benches.

v. Because of the exposure of seams, about 6 mine fires were observed at Gevra.

vi. In Depika evacuation of coal from pithead to the railway siding by pithead closed conveyer belt to silo loading of Railway rakes. In Gevra transportation of coal from pithead to in-pit conveyor belt and also to railway siding by dumpers which are loaded by pay loaders, and silo into railway rakes. In Kusmunda, due to transport of coal by dumpers and pay loader loading at the railway siding, there is high dust pollution. Because of inpit closed conveyor belt at Depika the dust pollution has decreased and number of dumpers has also been decreased. The silo loading and closed conveyor belt system at Gevra has reduced drastically the dust pollution but the pay loading at pit head and dumpers carrying the coal upto conveyer belt and to railway siding for pay loader loading to rly wagons has been causing dust pollution in Gevra too. In Kusmunda there is no silo loading and the dumpers carry the coal from pits head to railway siding where loading railway rakes is by pay loaders. Coal is also transported to mpeb power plant through closed belt conveyors.

vii. The SECL submitted the following information on 50 MTY Kusmunda OCP to the subgroup during the site visit:

a. The total minable reserves is 1005.40 million tones and total volume of OB is 1342.45 million cubic meter (M cum) and the stripping ratio is 1.34. The mine lease area is 3510.348 ha and the area of geological block with strike length of 4.40 to 6.50 km length and extent along dip is 2.60 – 3.20 km and the borehole density within the block is 15.3 per sq. km.

b. Initially the mining at the expansion of the capacity (62.5 MTPA) was proposed to carry out in two phases, because of the involvement of forest areas. Phase I covering a lease area of 1631.953 ha (which includes 205.961 ha of forest land + 404.267 ha of Government land and 1021.725 ha of agricultural/tenancy land). Presently the mining is being done in the lease area without forest clearance for 205.961 and the SECL had applied for forest clearance for regularization and is awaiting forest clearance. Phase II covers a mine lease area of 1878.395 ha including the lease areas acquired during expansion of the productivity from 10 – 15 MTY (22.026 ha of revenue forest land + 649.378 ha of agricultural/tenancy land = 750.813 ha) and the lease area for 15 – 50 MTY production (148.935 ha of revenue forest land + 117.385 ha Govt. land + 861.262 ha of agricultural/private land = 1127.582 ha). The total mine lease area would be 1631.953 for Phase I + 1878.395 ha for Phase II = 3510.348 ha.

c. In the presentation made by the project proponent, it was decided that the project is a new project with mining restricted only lease of non-forest land only.

d. The number of villages within the core zone is about 17 villages and the number of hospitals in the core area is only two and these will be relocated. There are 88 hospitals in the buffer area and only 17 hospitals have indoor patient care facilities and the rest are primarily health centres. 11 villages are yet to be relocated.

e. To minimize negative impact on air pollution in the area, the project proponent proposed the following facilities for mineral production, and evacuation. As also laid down in earlier EC--
    (i) Use of Surface Miners
    (ii) In pit belt system
    (iii) Evacuation by rail and partly by closed belt conveyor.

viii. It has been observed that the present mode of evacuation of coal by dumpers and use of pay loader for loading railway rakes resulted in a thick layer of coal soot all along the haul roads and

surroundings of coal stockyard area, the entire green cover is covered with soot of coal. The vegetation on the surrounding OBDs has also covered with coal dust.

ix. A wet private coal washery of 10 MTY was set up at Gevra coal mine. It is a two product washery – washed coal and rejects. The washed coal is transported by dumpers to the railway siding. The raw coal is also transported by dumpers. The belt conveyer within the washery is not completely closed. The entire ground is covered with thick coal dust. The buildings and the plants in and around the washery is covered with thick soot. The source of water for the washery is from mine sumps and is recycled, after pelleting the fines of coal. There is no tailing pond for storm water that drains the area covered with coal dust. The tailing ponds are too small for the size of washery, loading of washed coal is through spur siding by pay loaders—this needs to be done through silo system.. The noise level inside the washery is extremely high and it is an occupational hazard. Workers inside the washery as well as outside the washery are not using safety measures. The loaded dumpers are not covered and spilling of coal occurs along the roads. There is no green belt.

x. The dumpers carrying coal at Kusmunda are not covered. The workers at the mine and coal stockyard, and the drivers of dumpers and pay loaders are not using safety measures to prevent inhaling of coal dust.

xi. It was also decided that due to urgency for enhanced coal production, the Committee considered the proposal for TOR before the Report is submitted and decided that some of the recommendations included in the Report should form additional TORs and other recommendations made in the Report should be taken into account by the proponent while preparing EIA.

3. Based on the observations made during site visit, presentations made by SECL and interactions with the officials of SECL, the following recommendations are made:

i. All the old external inactive OBDs should be revegetated with native species such as sal, mahua, tendu and *Terminalia;* the invasive alien species such as *Prosopisjuli flora* and *Lantana* from these OBDs should be removed after the native vegetation is developed. The barren inactive external OBDs should be revegetated immediately with native species.

ii. Many temporary OBDs, which have to be rehandled for backfilling should be grassed to prevent erosion. Garland drain around these dumps should be made and the drainage should be discharged into tailing ponds before discharging into nullahs/rivulets.

iii. The mine benches should have gentle slopes and the external OBDs should be located away from the pit limits as per MMDR Act. Any deviation from the rules of MMDR may result in collapse of benches and OBDs during rainy season and slide on to the working coal seam.

iv. The external OBDs should be rehandled in a way that the backfilled void should have the premining contour so that the land can be used for agriculture.

v. The backfilled areas should be as far as possible, brought to the ground level.

vi. During expansion of the mine both dip and strike wise for 62.50 MTY, there shall be no external dump and the entire OBD should be backfilled to the ground level as has been agreed by the project proponents. Temporary external dumps, if any should be grassed and have garland drain that can be discharged into natural drainage system only after passing through tailing ponds.

vii. Any void that will be left out after mining should have depth of 30 to 40 m only so that it becomes biologically productive.

viii. All the three mega mines are currently producing 90 MTY and planned for 150 MTY expansion in coming years. There is no integrated plan for void and OBD management and coal evacuation. An integrated void and OBD management, and evacuation system should be developed in such a

way that sequential backfilling of voids and common evacuation system make adverse mining impacts on environment and ecology of the area is minimized. Further, such integrated management of voids, OB and evacuation system may also reduce the costs of coal production and transport.

ix. The backfilled areas should be put to pre-mining land use so that it provides livelihood to the local communities.

x. The huge quantity of mine water from all the three mines should be used to recharge the ground water by creating perennial reservoirs on the nullahs and rivulets by run off the impact of such large scale dewatering on the surrounding ground water availability and subsidence of land affecting the stability of buildings and other infrastructure in the surrounding areas need to be investigated and monitored. The drainage pattern on the backfilled areas should be created in such a way that the nullahs/rivulets from backfilled areas are connected to the tributaries of Hasdeoriver so that the water flow in the river is not affected as the mining area falls under its catchment area. Surface ponds should be created on backfilled to recharge subsoil aquifers so as to enhance green water for vegetation.

xi. The sloping of mining benches and location of OBDs with respect to mine pit limit should be as per MMDR Act.

xii. The exposure of coal seams for longer period is highly vulnerable to mine fires and to prevent such fires, the coal from seams exposed should be evacuated at faster rate and the extent of working coal seam is also such that the evacuation of coal is completed within reasonable time period.

xiii. The drivers of pay loaders and dumpers are not using any safety measures to protect them from inhaling of coal dust. The mechanization of coal production and evacuation also enhances the vulnerability or risk to the workers leading to higher incidence of occupational hazards. The drivers and other workers involved in coal production and evacuation should be screened regularly every 3 months for respiratory disorders.

xiv. Until the mechanized evacuation system – surface miners, in pit closed belt conveyer and Silo loading and transport by train or belt conveyor is in place, the present level of production should only be allowed for expediting in-pit conveyor system reorienting entry to the siding was suggested for study which is now proposed through large vegetated O.B. heap near siding..

xv. The State Pollution Control Board of Chhattisgarh should issue a show cause notice to the coal washery located at Gevra for coal dust pollution caused by the washery and transport of coal by uncovered loaded dumpers, high noise levels inside the washery, absence of storm drains leading to tailing ponds and rejects disposal system.

xvi. A thick green belt should be developed at coal loading points and railway sidings to trap fugitive coal dust emissions.

xvii. The SECL should submit revised proposal for 62.50 MTY production in non-forest area (including the forest area in old mining for which EC clearance was applied for regularization).

4. Acknowledgements

The local hospitality extended by the officials of SECL to the members of subgroup of EAC (T&C) during site visit is duly acknowledged. Special thanks to the Director (Technical) for his presence during the site visit.

ANNEXURE-4

GENERIC TOR FOR COAL WASHERY

Based on the presentation made and discussions held, the Committee prescribed the following TOR:

(i) A brief description of the plant, the technology used, the source of coal, the mode of transport of incoming unwashed coal and the outgoing washed coal. Specific pollution control and mitigative measures for the entire process.

(ii) The EIA-EMP report should cover the impacts and management plan for the project of the capacity for EC is sought and the impacts of specific activities on the environment of the region, and the environmental quality ?air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. If the washery is captive to a coal mine/TPP/Plant the cumulative impacts on the environment and usage of water should be brought out along with the EMP.

(iii) A Study area map of the core zone and 10km area of the buffer showing major industries/mines and other polluting sources, which shall also indicate the migratory corridors of fauna, if any and the areas where endangered fauna and plants of medicinal and economic importance are found in the area. If there are any ecologically sensitive areas found within the 15km buffer zone, the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc should be shown and the comments of the Chief Wildlife Warden of the State Government should be furnished.

(iv) Collection of one-season (non-monsoon) primary base-line data on environmental quality ?air (PM_{10}, $PM_{2.5}$, SOx and NOx), noise, water (surface and groundwater), soil.

(v) Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-à-vis washery should be given separately. Source of water for use in mine, sanction of the competent authority in the State Govt..and examine if the unit can be zero discharge including recycling and reuse of the wastewater for other uses such as green belt, etc.

(vi) Impact of choice of the selected use of technology and impact on air quality and waste generation (emissions and effluents).

(vii) Impacts of mineral transportation - 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 the specific points where fugitive emissions can arise and the specific pollution control/mitigative measures proposed to be put in place.

(viii) Details of various facilities to be provided for the personnel involved in mineral transportation in terms of parking, rest areas, canteen, and effluents/pollution load from these activities. Examine whether existing roads are adequate to take care of the additional load of mineral [and rejects] transportation, their impacts. Details of workshop, if any, and treatment of workshop effluents.

(ix) Impacts of CHP, if any on air and water quality. A flow chart of water use and whether the unit can be made a zero-discharge unit.

(x) Details of green belt development.

(xi) Including cost of EMP (capital and recurring) in the project cost.

(xiv) Public Hearing details of the coal washery to include details of notices issued in the newspaper, proceedings/minutes of public hearing, the points raised by the general public and commitments made in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.

(xv) Status of any litigations/ court cases filed/pending on the project.

(xvi) Submission of sample test analysis of:

a. Characteristics of coal to be washed- this includes grade of coal and other characteristics ?ash, S and and heavy metals including levels of Hg, As, Pb, Cr etc.
b. Characteristics and quantum of washed coal.
c. Characteristics and quantum of coal waste rejects.

(xvii) Management/disposal/Use of coal waste rejects

(xviii) Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC has been sought.

(xxxvi) Submission of sample test analysis of:

Characteristics of coal to be washed- this includes grade of coal and other characteristics, ash, S

(xxxviii) 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.

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ANNEXURE -5

GENERIC TOR FOR AN OPENCAST COALMINE PROJECT

(i) An EIA-EMP Report would 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 cover the impacts and management plan for the project specific activities on the environment of the region, and the environmental quality ?air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modelling for **???. MTPA** of coal production based on approval of project/Mining Plan for ???MTPA. Baseline data collection can be for any season except monsoon.

(iii) A map specifying locations of the State, District and Project location.

(iv) A Study area map of the core zone and 10km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage of rivers/streams/nalas/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 area of the buffer zone 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 of the land use. Satellite imagery per se is not required.

(vi) Map showing the core zone delineating the agricultural land (irrigated and unirrigated, 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 2-5 km of the buffer zone (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated as a separate map.

(viii) A detailed Site plan of the mine showing the various 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 and if any, in topography such as existing roads, drains/natural water bodies are to be left undisturbed along with any natural drainage adjoining the lease /project 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.

(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.

(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.

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

LANDUSE DETAILS FOR OPENCAST PROJECT

S.N.	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 operations.

(xiii) Impact of changes in the land use due to the start of the projects if much of the land being acquired is agricultural land/forestland/grazing land.

(xiv) Collection of one-season (non-monsoon) primary baseline data on environmental quality - air (PM_{10}, $PM_{2.5}$, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil along with one-season met data coinciding with the same season for AAQ collection period.

(xv) Map of the study area (1: 50, 000 scale) (core and buffer zone clearly delineating the location of various stations superimposed with location of habitats, other industries/mines, polluting sources. The number and location of the stations in both core zone and buffer zone 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. Values should be provided based on desirable limits.

(xvi) Study on the existing flora and fauna in the study area (10km) carried out by an institution of relevant discipline and the list of flora and fauna duly authenticated separately for the core and buffer zone and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I fauna, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a comprehensive Conservation Plan should be prepared and submitted with EIA-EMP Report and comments from the CWLW of the State Govt. also obtained and furnished.

(xvii) Details of mineral reserves, geological status of the study are and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until end of mine life should be reflected 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.

(xviii) Details of mining methods, technology, equipment to be used, etc., rationale for selection of that technology and equipment proposed to be used vis-à-vis the potential impacts.

(xix) Impact of mining on hydrology, modification of natural drainage, diversion and channelling of the existing rivers/water courses flowing though the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.

(xx) Detailed water balance should be provided. The break up of water requirement for the various mine operations should be given separately.

(xxi) Source of water for use in mine, sanction of the competent authority in the State Govt. and impacts vis-à-vis the competing users.

(xxii) Impact of mining and water abstraction use in mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long?termmodelling studies on. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there us a declining trend of groundwater availability and/or if the area falls within dark/grey zone.

(xxiii) Impact of blasting, noise and vibrations.

(xxiv) Impacts of mining on the AAQ, predictive modelling using the ISCST-3 (Revised) or latest model.

(xxv) Impacts of mineral transportation ?within and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop, management plan for maintenance of HEMM, machinery, equipment. Details of various

facilities to be provided in terms of parking, rest areas, canteen, and effluents/pollution load from these activities.

(xxvi) Details of waste generation ?OB, topsoil ? as per the approved calendar programme, and their management shown in figures as well explanatory chapter with tables giving progressive development and mine closure plan, green belt development, backfilling programme and conceptual post mining land use. OBdump heights and terracing should based on slope stability studies with a max of 28^{o} angle as the ultimate slope. Sections of dumps (ultimate) (both longitudinal and cross section) with relation to the adjacent area should be shown.

(xxvii) Progressive Green belt and afforestation plan (both in text, figures as well as in tables prepared by MOEF) and selection of species (local) for the afforestation/plantation programme based on original survey/landuse.

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

S.N.	Land use Category	Present (1st Year)	5th Year	10th Year	20th year	24th 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	110*	110*	110*	110*	110*

* As a representative example

Table 2: Stage-wise Cumulative Plantation

S.N.	YEAR*	Green Belt		External Dump		Backfilled Area		Others (Undisturbed Area/etc)		TOTAL	
		Area (ha)	No. of trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees
1.	1st year										
2.	3rd year										
3.	5th year										
4.	10th year										
5.	15th year										
6.	20th year										
7.	25th year										
8.	30th year										
9.	34th year (end of mine life)										
10.	34-37th Year (Post-mining)									85	

* As a representative example

(xxviii) Conceptual Final Mine Closure Plan, post mining land use and restoration of land/habitat to pre- mining. A Plan for the ecological restoration of the area post mining and for land use should be prepared with detailed cost provisions. Impact and management of wastes and issues of rehandling (wherever applicable) and backfilling and progressive mine closure and reclamation.

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

S.N.	**Land use during Mining**	**Land Use (ha)**				
1.	External OB Dump	Plantation	Water Body	Public Use	Undisturbed	TOTAL
2.	Top soil Dump					
3.	Excavation					
4.	Roads					
4.	Built up area					
5.	Green Belt					
6.	Undisturbed Area					
	TOTAL	85				**110**

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

(xxx) 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 for the mine.

(xxxi) Risk Assessment and Disaster Preparedness and Management Plan.

(xxxii) Integrating in the Env. Management Plan with measures for minimising use of natural resources - water, land, energy, etc.

(xxxiii) Including cost of EMP (capital and recurring) in the project cost and for progressive and final mine closure plan.

(xxxiv) 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.

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

(xxxvi) Public Hearing should cover the details of notices issued in the newspaper, proceedings/minutes of public hearing, the points raised by the general public and commitments made by the proponent 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.

(xxxvii) In built mechanism of self-monitoring of compliance of environmental regulations.

(xxxx) Status of any litigations/ court cases filed/pending on the project.

(xxxxi) Submission of sample test analysis of:
Characteristics of coal - this includes grade of coal and other characteristics ?ash, S and heavy metals including levels of Hg, As, Pb, Cr etc.

(xxxxii) Copy of clearances/approvals ? such as Forestry clearances, Mining Plan Approval, NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

(A) FORESTRY CLEARANCE

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 one, provide details of each FC			

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ANNEXURE -6

GENERIC TOR FOR AN UNDERGROUND COALMINE PROJECT

(i) An EIA-EMP Report should be prepared for a peak capacity of **????.. MTPA** over an area of ????.. ha addressing the impacts of the underground coalmine project including the aspects of mineral transportation and issues of impacts on hydrogeology, plan for conservation of flora/fauna and afforestation/plantation programme based on the generic structure specified in Appendix III of the EIA Notification 2006.. Baseline data collection can be for any season except monsoon.

(ii) The EIA-EMP report should also cover the impacts and management plan for the project specific activities on the environment of the region, and the environmental quality ?air, water, land, biotic community, etc. through collection of baseline data and information, generation of baseline data on impacts for ??. MTPA of coal production based on approval of project/Mining Plan.

(iii) A Study area map of the core zone and 10km area of the buffer zone (15 km of the buffer zone in case of ecologically sensitive areas) delineating the major topographical features such as the land use, drainage, locations of habitats, major construction including railways, roads, pipelines, major industries/mines and other polluting sources, which shall also indicate the migratory corridors of fauna, if any and the areas where endangered fauna and plants of medicinal and economic importance are found in the area.

(iv) Map showing the core zone along with 3-5 km of the buffer zone) delineating the agricultural land (irrigated and unirrigated, uncultivable land (as defined in the revenue records), forest areas (as per records) and grazing land and wasteland and water bodies.

(v) Contour map at 3m interval along with Site plan of the mine (lease/project area with about 3-5 km of the buffer zone) showing the various surface structures such as buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within/adjacent to the ML), green belt and undisturbed area and if any existing roads, drains/natural water bodies are to be left undisturbed along with details of natural drainage adjoining the lease/project and modification of thereof in terms of construction of embankments/bunds, proposed diversion/rechannelling of the water courses, etc., highways, passing through the lease/project area.

(vi) Original land use (agricultural land/forestland/grazing land/wasteland/water bodies) of the area. Impacts of project, if any on the landuse, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations. Extent of area under surface rights and under mining rights.

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

(vii) Study on the existing flora and fauna in the study area carried out by an institution of relevant discipline and the list of flora and fauna duly authenticated separately for the core and buffer zone and a statement clearly specifying whether the study area forms a part of the migratory

corridor of any endangered fauna. The flora and fauna details should be furnished separately for the core zone and buffer zone. The report and the list should be authenticated by the concerned institution carrying out the study and the names of the species scientific and common names) along with the classification under the Wild Life Protection Act, 1972 should be furnished.

(viii) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working plan/scheme until end of mine life should be reflected on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps should also be included.

(ix) Impact of mining on hydrology, modification of natural drainage, diversion and channelling of the existing rivers/water courses flowing though the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.

(x) Collection of one-season (non-monsoon) primary baseline data on environmental quality ? air (PM_{10}, $PM_{2.5}$, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, AS, etc), noise, water (surface and groundwater), soil along with one-season met data.

(xi) Map of the study area (core and buffer zone) clearly delineating the location of various monitoring stations (air/water/soil and noise ? each shown separately) superimposed with location of habitats, wind roses, other industries/mines, polluting sources. The number and location of the stations should be selected on the basis of the proposed impacts in the downwind/downstream/groundwater regime. One station should be in the upwind/upstream/non-impact non-polluting area as a control station. Wind roses to determine air pollutant dispersion and impacts thereof shall be determined. Monitoring should be as per CPCB guidelines and standards for air, water, noise notified under Environment Protection Rules. Parameters for water testing for both ground and surface water should be as per ISI standards and CPCB classification of surface water wherever applicable.

(xii) Impact of mining and water abstraction and mine water discharge in mine on the hydrogeology and groundwater regime within the core zone and 10km buffer zone including long?termmodelling studies on the impact of mining on the groundwater regime. Details of rainwater harvesting and measures for recharge of groundwater should be reflected wherever the areas are declared dark/grey from groundwater development.

(xiii) Study on subsidence, measures for mitigation/prevention of subsidence, modelling subsidence prediction and its use during mine operation, safety issues.

(xiv) 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.

(xv) 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.

(xvi) Impacts of mineral transportation ?within and outside the lease/project. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, and their impacts on air quality should be shown in a flow chart with the specific points where fugitive emissions can arise and the specific pollution control/mitigative measures proposed to be put in place. Examine the adequacy of roads existing in the area and if new roads are proposed, the impact of their construction and use particularly if forestland is used.

(xvii) Details of various facilities to be provided in terms of parking, rest areas, canteen, and effluents/pollution load from these activities. Examine whether existing roads are adequate to take care of the additional load of mineral and their impacts.

(xviii) Examine the number and efficiency of mobile/static water sprinkling system along the main mineral transportation road within the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality.

(xix) Impacts of CHP, if any on air and water quality. A flow chart of water use and whether the unit can be made a zero-discharge unit.

(xx) Conceptual Final Mine Closure Plan along with the fund requirement for the detailed activities proposed there under. Impacts of change in land use for mining operations and whether the land can be restored for agricultural use post mining. \

Table 1 Stage-wise Cumulative Plantation

S.N.	YEAR*	Green Belt		External Dump		Backfilled Area		Others (Undisturbed Area/etc)		TOTAL	
		Area (ha)	No. of trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees
1.	1st year										
2.	3rd year										
3.	5th year										
4.	10thyesr										
5.	15thyear										
6.	20th year										
7.	25th year										
8.	30th year										
9.	34th year (end of mine life)										
10.	34-37th Year (Post-mining)									85*	2,12,500

*As a representative example

(xxi) 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 for the mine should be furnished.

(xxii) Details of cost of EMP (capital and recurring) in the project cost and for final mine closure plan. The specific costs (capital and recurring) of each pollution control/mitigative measures proposed in the project until end of mine life and a statement that this is included in the project cost.

(xxiii) Integrating in the Env. Management Plan with measures for minimising use of natural resources ?water, land, energy, raw materials/mineral, etc.

(xxiv) R&R: Detailed project specific R&R Plan with data on the existing socio-economic status (including tribals, SC/ST) of the population 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.

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

(xxvi) Public Hearing should cover the details as specified in the EIA Notification 2006, and include notices issued in the newspaper, proceedings/minutes of public hearing, the points raised by the general public and commitments by the proponent made 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.

(xxvii) Status of any litigations/ court cases filed/pending in any Court/Tribunal on the project should be furnished.

(xxxvii)Submission of sample test analysis of:

(xxxvii) Characteristics of coal - this includes grade of coal and other characteristics ? ash, and heavy metals including levels of Hg, As, Pb, Cr etc.

(xxxviii) Copy of clearances/approvals ?such as Forestry clearances, Mining Plan Approval, NOC from Flood and Irrigation Dept. (if req.), etc.

FORESTRY CLEARANCE

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 one, provide details of each FC			

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ANNEXURE-7

GENERIC TOR FOR AN OPENCAST-CUM-UNDERGROUND COALMINE PROJECT

(i) An EIA-EMP Report would be prepared for a combined rated capacity of**??..**MTPA for OC-cum-UG project which consists of ??. MTPA 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 cover the impacts and management plan for the project specific activities on the environment of the region, and the environmental quality ?air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modelling for ???. MTPA of coal production based on approval of project/Mining Plan for ??.. MTPA. Baseline data collection can be for any season except monsoon.

(iii) A map specifying locations of the State, District and Project location.

(iv) A Study area map of the core zone and 10km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage of rivers/streams/nalas/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 area of the buffer zone 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 of the land use. Satellite imagery per se is not required.

(vi) Map showing the core zone delineating the agricultural land (irrigated and unirrigated, 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 2-5 km of the buffer zone (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated as a separate map.

(viii) A detailed Site plan of the mine showing the various 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 and if any, in topography such as existing roads, drains/natural water bodies are to be left undisturbed along with any natural drainage adjoining the lease /project and modification of thereof in terms of construction of embankments/bunds, proposed diversion/rechannelling of the water courses, etc., approach roads, major haul roads, etc.

(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.

(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.

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

LANDUSE DETAILS FOR OPENCAST PROJECT

S.N.	**LANDUSE**	**Within ML Area (ha)**	**Outside ML Area (ha)**	**TOTAL (ha)**
1.	Agricultural land			
2.	Forest land			
3.	Wasteland			
4.	Grazing land			

5.	Surface water bodies			
6.	Settlements			
7.	Others (specify)			
	TOTAL			

LANDUSE DETAILS FOR UNDERGROUND PROJECT

S.N.	ML/Project Land use	Area under Surface Rights (ha)	Area Under Mining Rights (ha)	Area under Both (ha)
1.	Agricultural land			
2.	ForestLand			
3.	Grazing Land			
4.	Wasteland			
5.	Water Bodies			
6.	Settlements			
7.	Others (specify)			
	TOTAL			

Area Under Surface Rights

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

(xii) Break-up of lease/project area as per mining operations.

(xiii) Impact of changes in the land use due to the start of the projects if much of the land being acquired is agricultural land/forestland/grazing land.

(xiv) Collection of one-season (non-monsoon) primary baseline data on environmental quality - air (PM_{10}, $PM_{2.5}$, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil along with one-season met data.

(xv) Map of the study area (1: 50, 000 scale) (core and buffer zone clearly delineating the location of various stations superimposed with location of habitats, other industries/mines, polluting sources. The number and location of the stations in both core zone and buffer zone 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. Values should be presented in comparison to desirable limits.

(xvi) Study on the existing flora and fauna in the study area (10km) carried out by an institution of relevant discipline and the list of flora and fauna duly authenticated separately for the core and buffer zone and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna. If the study area has endangered flora and fauna, or if the project falls within 15 km of an ecologically sensitive area, then a comprehensive Conservation Plan should be prepared and furnished along with comments from the CWLW of the State Govt.

(xvii) Details of mineral reserves, geological status of the study are and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until end of mine life

should be reflected 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 final mine closure plan should also be shown in figures.

(xviii) Details of mining methods, technology, equipment to be used, etc., rationale for selection of that technology and equipment proposed to be used vis-à-vis the potential impacts.

(xix) Study on subsidence, measures for mitigation/prevention of subsidence, modelling subsidence prediction and its use during mine operation, safety issues.

(xx) Impact of mining on hydrology, modification of natural drainage, diversion and channelling of the existing rivers/water courses flowing though the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.

(xxi) Detailed water balance should be provided. The break up of water requirement for the various mine operations should be given separately.

(xxii) Source of water for use in mine, sanction of the competent authority in the State Govt. and impacts vis-à-vis the competing users.

(xxiii) Impact of mining and water abstraction use in mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long?termmodelling studies on. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there us a declining trend of groundwater availability and/or if the area falls within dark/grey zone.

(xxiv) Impact of blasting, noise and vibrations.

(xxv) Impacts of mining on the AAQ, predictive modelling using the ISCST-3 (Revised) or latest model.

(xxvi) Impacts of mineral transportation ?within and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop, management plan for maintenance of HEMM, machinery, equipment. Details of various facilities to be provided in terms of parking, rest areas, canteen, and effluents/pollution load from these activities.

(xxvii) Details of waste generation ?OB, topsoil ? as per the approved calendar programme, and their management shown in figures as well explanatory chapter with tables giving progressive development and mine closure plan, green belt development, backfilling programme and conceptual post mining land use. OBdump heights and terracing should based on slope stability studies with a max of 28^{o} angle as the ultimate slope. Sections of dumps (ultimate) (both longitudinal and cross section) with relation to the adjacent area should be shown.

(xxviii) Impact and management of wastes and issues of rehandling and backfilling and progressive mine closure and reclamation.

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

(xxx) 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 for the mine.

(xxxi) Risk Assessment and Disaster Preparedness and Management Plan.

(xxxii) Integrating in the Env. Management Plan with measures for minimising use of natural resources - water, land, energy, etc.

(xxxiii) Progressive Green belt and afforestation plan (both in text, figures as well as in tables prepared by MOEF given below) and selection of species (local) for the afforestation/plantation programme based on original survey/landuse.

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

S.N.	Land use Category	Present (1^{st} Year)	5^{th} Year	10^{th} Year	20^{th} year	24^{th} Year (end of Mine life)*
1.	Backfilled Area (Reclaimed with plantation)					

2.	Excavated Area (not reclaimed)/void					
3.	External OB dump Reclaimed with plantation)					
4.	Reclaimed Top soil dump					
5.	Green Built Area					
6.	Undisturbed area (brought under plantation)					
7.	Roads (avenue plantation)					
8.	Area around buildings and Infrastructure					
	TOTAL	110	110	110	110	110

* Representative case as an example

Table 2: Stage-wise Cumulative Plantation

S.N.	**YEAR***	**Green Belt**		**External Dump**		**Backfilled Area**		**Others (Undisturbed Area/etc)**		**TOTAL**	
		Area (ha)	No. of trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees	Area (ha)	No. of Trees
1.	1st year										
2.	3rd year										
3.	5th year										
4.	10th year										
5.	15th year										
6.	20th year										
7.	25th year										
8.	30th year										
9.	34th year (end of mine life)										
10.	34-37th Year (Post-mining)									85	

* Representative case as an example

(xxxiv) Conservation Plan for the endangered/endemic flora and fauna found in the study area and for safety of animals visiting/residing in the study area and also those using the study area as a migratory corridor.

(xxxv) Conceptual Final Mine Closure Plan, post mining land use and restoration of land/habitat to pre-mining. A Plan for the ecological restoration of the area post mining and for land use should be prepared with detailed cost provisions.

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

S.N.	**Land use during Mining**	**Land Use (ha)**				
1.	External OB Dump	Plantation	Water Body	Public Use	Undisturbed	TOTAL
2.	Top soil Dump					
3.	Excavation					

4.	Roads					
4.	Built up area					
5.	Green Belt					
6.	Undisturbed Area					
	TOTAL	85				**110**

(xxxvi) Including cost of EMP (capital and recurring) in the project cost and for progressive and final mine closure plan.

(xxxvii) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan.

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

(xxxix) Public Hearing should cover the details of notices issued in the newspaper, proceedings/minutes of public hearing, the points raised by the general public and commitments made by the proponent 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.

(xxxx) In built mechanism of self-monitoring of compliance of environmental regulations.

(xxxxi) Status of any litigations/ court cases filed/pending on the project.

(xxxxii) Submission of sample test analysis of:

Characteristics of coal - this includes grade of coal and other characteristics ?ash, S and heavy metals including levels of Hg, As, Pb, Cr etc.

(xxxxiii) Copy of clearances/approvals ? such as Forestry clearances, Mining Plan Approval, NOC from Flood and Irrigation Dept. (if req.), etc.

(A) FORESTRY CLEARANCE

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

Copies of forestry clearance letters (all, if there are more than one)

(A) MINING PLAN APPROVAL

(B) MINING PLAN/PROJECT APPROVAL

Date of Approval of Mining Plan/Project Approval:

Copy of Letter of Approval of Mining Plan/Project Approval

(xxxxiv) 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.

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ANNEXURE-8

GENERAL CONDITIONS AND ADDITIONAL POINTS OF TOR

The following general points should be noted:

(i) All documents should be properly indexed, page numbered.
(ii) Period/date of data collection should be clearly indicated.
(iii) Authenticated English translation of all material provided in Regional languages.
(iv) After the preparation of the draft EIA-EMP Report as per the aforesaid TOR, the proponent shall get the Public Hearing conducted as prescribed in the EIA Notification 2006 and take necessary action for obtaining environmental clearance under the provisions of the EIA Notification 2006.
(v) The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter prescribing the TOR.
(vi) The copy of the letter received from the Ministry on the TOR prescribed for the project should be attached as an annexure to the final EIA-EMP Report.
(vii) The final EIA-EMP report submitted to the Ministry must incorporate the issues in TOR and that raised in Public Hearing. The index of the final EIA-EMP report, must indicate the specific chapter and page no. of the EIA-EMP Report where the specific TOR prescribed by Ministry and the issue raised in the P.H. have been incorporated. Mining Questionnaire (posted on MOEF website) with all sections duly filled in shall also be submitted at the time of applying for EC.
(viii) General Instructions for the preparation and presentation before the EAC of TOR/EC projects of Coal Sector should be incorporated/followed.
(viii) The aforesaid TOR has a validity of two years only.

The following additional points are also to be noted:

(i) Grant of TOR does not necessarily mean grant of EC.
(ii) Grant of TOR/EC to the present project does not necessarily mean grant of TOR/EC to the captive/linked project.
(iii) Grant of TOR/EC to the present project does not necessarily mean grant of approvals in other regulations such as the Forest (Conservation) Act 1980 or the Wildlife (Protection) Act, 1972.
(iv) Grant of EC is also subject to Circulars issued under the EIA Notification 2006, which are available on the MOEF website: www.envfor.nic.in

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ANNEXURE-9

23rd EAC (THERMAL & COAL MINING PROJECTS) MEETING
SCHEDULED FOR 16th -17th October, 2014

AGENDA

Venue: Narmada Conference Hall, Ground floor, Jal Wing, Indira Paryavaran Bhawan, Jorbagh Road, New Delhi-110003.

Pl. check the MoEF website: http://environmentclearance.nic.in/Report/Default3.aspx

Important Note:

i. **Please send the information as per "check list at Annexure-1" by e-mail, in word format and also a signed & scanned copy, to the Member-Secretary at hota@nic.in at least one week prior to the EAC meeting.**
ii. **Without this information, EAC has discretion to invite the proponent for the meeting.**
iii. **Please also provide a copy to the EAC Members during the meeting.**
iv. **No consultant is permitted into the meeting who has no accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) as per the MoEF OM dated 2nd December, 2009.**

COAL MINING PROJECTS

Thursday, 16th October, 2014

10:00 AM -10:15 AM: Confirmation of Minutes

23.1 **10:15 AM – 11:00 AM:** Pauni opencast expansion (from 0.72 MTPA 0.90 MTPA in an ML area of 255 ha) of **M/s Western coalfield Limited**, located at dist. Chandrapur, Maharashtra- **EC under 7(ii) of EIA Notification 2006. - Further Consideration**

23.2 **11:00 AM – 12:00 PM:** Ghonsa Expn. OCP Coal Mine Project (from 0.45 MTPA to 0.60 MTPA within the existing land of 128.79 ha) **M/s Western Coalfield Limited** located in Yavatmal. Maharashtra – **Expansion (under 7(ii) of EIA Notification 2006) - Further Consideration**

23.3 **12:00 PM – 1:00 PM:** Kamptee Deep OC coal mine project of (Normative 1.5 MTPA to Peak 2 MTPA in an ML area of 667.65 ha) **M/s Western Coalfields Limited,** located at distt. Nagpur, Maharashtra - **EC based on TOR granted dated 03.12.2010.**

LUNCH

23.4 **2:00 PM - 3:00 PM:** Shivani OCP Coal Mine project (Normative 1.25 MTPA to Peak 1.4375 MTPA in an ML area of 780 ha) **M/s Western Coalfields Limited,** located at distt. Yavatmal, Maharashtra - **EC based on TOR granted dated 23.03.2012.**

23.5 **3:00 PM – 4:00 PM:** KDH Extension OCP Project of (Normative 4.5 MTPA to Peak 5 MTPA in an ML area of 675.91 ha) **M/s Central Coalfields Limited**, located at Village-Bisrampur, District-Ranchi, Jharkhand - **EC based on TOR granted dated 23.12.2010.**

23.6 **4:00 PM - 5:00 PM:** Cluster No. 10 of 24 mines (expn. from 2 MTPA to 7.2 MTPA (peak) in a combined ML area of 6349 ha of **M/s Eastern Coalfields Limited,** located in Raniganj Coalfields, Dist. Burdwan, West Bengal - **EC based on TOR granted dated 30.09.2011.**

23.7 **5:00 PM - 5:30 PM:** Coal Washery (5 MTPA) of **M/s Hind Multi Services Pvt. Limited,** located at Village Gatora, District, Bilaspur, Chhattisgarh **– TOR – Further Consideration.**

23.8 **5:30 PM - 6:15 PM:** Amlohri Opencast Expansion Project of (Normative 10 MTPA to Peak 14 MTPA in an ML area 2175 Ha) **M/s Northern Coalfields Limited**, located at dist. Sidhi, Madhya Pradesh **– TOR**

Friday, 17th October, 2014

23.9 **10:00 AM – 11:00 AM:** Cluster no. 1 group of 11 mines project of expansion (from 2.70 MTPA Normative to 3.30 MTPA Peak in an ML area of 3692 ha) **M/s Eastern Coalfields Limited**, located at dist. Dhanbad, Jharkhand - **EC based on TOR granted dated 15.06.2011, amendment 02.12.2011.**

23.10 **11:00 AM – 12:00 PM:** Simlong Expan. OCP of expansion (from 2 MTPA Normative to 2.30 MTPA Peak in an ML area of 327.74 ha) **M/s Eastern Coalfields Limited**, located at distt. Pakur, Jharkhand. – **EC based on TOR granted dated 15.07.2011.**

23.11 **12:00 PM - 1:00 PM:** Cluster no. 9 group of 15 mines project of (from 6.25 MTPA Normative to 8 MTPA Peak in an ML area of 7145.4 ha) **M/s Eastern Coalfield Limited,** located at distt. Burdwan, West Bengal. - **EC based on TOR granted dated 09.05.2011, amendment 02.12.2011.**

LUNCH

23.12 **2:00 PM – 2:45 PM:** Kusmunda Opencast Expansion Project (Normative 15 MTPA to 50 MTPA & Peak 18.75 MTPA to 62.50 MTPA in an ML area 3510.348 Ha) of **M/s South Eastern Coalfields Ltd.,** located at dist. Korba, Chhattisgarh **– TOR – Further Consideration.**

23.13 **2: 45 PM – 4:45 PM:** Presentation by CMPDI on various issues of coal mining.

23.14 **4:45 PM onwards** - Discussion & any other matters with the permission of the Chair.

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