MINUTES OF THE 47th EAC (THERMAL & COAL MINING PROJECTS) MEETING HELD ON 30th November- 1st December, 2015

The 47th EAC (Thermal & Coal mining projects) meeting was held on **30th November- 1st December, 2015** 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 44th EAC meeting held on 8th-9th October, 2015.

C. The following proposals were considered.

Correction in Agenda Sl. No. :

Earlier, the serial no. of agenda was 46th EAC (THERMAL & COAL MINING PROJECTS), however due to the Thermal EAC the serial. no. of agenda has been changed to 47th EAC.

Agenda 47.1

Amalgamation of Yekona - I & II OCP and expansion of Amalgamated Yekona OCP from 1.0 MTPA to 3.44 MTPA capacity in an area of 1701.32 ha of M/s Western Coalfields Limited in Village Yekona, Tehsil Warora, District Chandrapur (Maharashtra).

47.1.1 The proposal is for Amalgamation of Yekona - I & II OCP and expansion of Amalgamated Yekona OCP from 1.0 MTPA to 3.44 MTPA capacity in an area of 1701.32 ha of M/s Western Coalfields Limited in Village Yekona, Tehsil Warora, District Chandrapur (Maharashtra).

47.1.2 The details of the project, as per the documents submitted by the Project Proponent (PP), and also as informed during the above said EAC meeting are reported to be as under:

i. The project Yekona-I OC was accorded EC vide letter no. J-11015/175/2006-IA.II(M) dated 17.10.2006 for 0.40 MTPA in an area of 265.50 ha. Yekona-II OC was accorded EC vide letter no. J-11015/182/2006-IA.II(M) dated 17.10.2006 for 0.60 MTPA in an area of 414.56 ha.
ii. The above two projects could not start because it was not possible to complete the land acquisition of the two projects within sanctioned capital of project report due to increase in land cost by Maharashtra Government & introduction of new R&R policy of the CIL.
iii. The Amalgamation of Yekona - I & II OCP and expansion of Amalgamated Yekona OCP from 1 MTPA to 3.44 MTPA capacity in an area of 1701.32 ha
iv. The latitude and longitude of the project are N 20^0 13' 42'' to N 20^0 16' 10'' and E 78^0 55' 00'' to E 78^0 58' 30'' respectively.
v. Joint Venture: No Joint Venture
vi. Coal Linkage : Linked to Thermal Power Plants of MAHAGENCO & Miscellaneous consumers
vii. Employment generated / to be generated: Required manpower 257 Nos (From internal &/land oustee) ; Indirect employment approx.300 (contractual & misc. works related to mining operations)
viii. Benefits of the project: This project will bridge the gap (to the extent of the peak production capacity of the project) between demand & supply of non-coking coal for the power houses and other bulk consumers of western as well as southern part of the country
ix. The land usage of the project will be as follows:

Pre-Mining:

The total land requirement for this project is 1701.32 ha

S.N.	LAND USE	Within ML Area (ha)	Outside ML Area (ha)	Total
1	Agricultural land	1579.18	38	1617.18
2	Forest land	--	--	--
3	Waste land/Govt. land	84.14	-	84.14
4	Grazing land	--	--	--
5	Surface water bodies	--	--	--
6	Settlements	--	--	--
7	Others (specify)	--	--	--
	Total	1663.32	38	1701.32

Post- Mining:

S.N.	Land use during mining	Land use (ha)				
		Plantation	Water Body	Public use	Undisturbed	Total
1	External OB Dump	320.02	--	--	--	320.02
2	Top soil dump	--	--	--	--	--
3	Excavation	352.00	337.20	--	--	689.20
4	Roads	5.00	--	25.00	--	30.00
5	Built up area	20.00	--	--	90.00	110.00
6	Green Belt	Included in S. No. 4, 5 & 7				
7	Undisturbed Area	150.00	--		402.10	552.10
	Total	847.02	337.20	25.00	492.10	1701.32

i. The total geological reserve is 67.65 MT. The mineable reserve 57.85 MT, extractable reserve is 57.85 MT. The per cent of extraction would be 85.51%.
ii. The coal grade is GCV 4920 k Cal /kg (Grade G-8). The stripping ratio is 1:7.82 m3 /t Cum/tonne. The average Gradient is 1 in 4.8 to 1 in 14. There will be one seam with thickness ranging from 9.24 m to 9.94 m.
iii. The total estimated water requirement is 810 KL/day (Average Demand). The level of ground water ranges from 2.60 m to 10.20 m.
iv. The Method of mining would be opencast with shovel-dumper combination.
v. There will be 3 nos. of external OB dumps with Quantity of 133.50 Mm3 in an area of 330 ha with height of 90 m and 2 internal dump with Quantity of 322.53 Mbcm in an area of 352.20 ha.
vi. The final mine void would be in 337.20 Ha with depth 150 m. and the Total quarry area is 689.20 Ha. Backfilled quarry area of 352.0 Ha shall be reclaimed with plantation. A void of 337.20 ha with depth 150 m which is proposed to be converted into a water body.
vii. The life of mine is 25 Years.
viii. Transportation: Coal transportation in pit by Dumpers, surface to siding by Dumpers and loading at siding by Pay loaders.
ix. There is R & R involved. There are 208 PAFs.
x. Cost: Total capital cost of the project is Rs. 745.83 Crores. CSR Cost Rs. 2/- per Tonne of coal production. R&R Cost Rs 41.19 Crore. Environmental Management Cost Capital is Rs 97.09 Lakhs and Revenue- @ Rs 6/tonne.
xi. Water body: Wardha river flows in south west of the mine lease boundary of the project at distance 125 m. There is a seasonal nallah flowing in the north-eastern part of the mine will be diverted along the mine boundary for a length of 2.9 Km.

xii. Approvals: The PR has been approved by CIL Board in its 319th meeting held on 12.08.2015 with capital of Rs.745.83 Crores (Additional capital- Rs 727.28 crores). Mine closure of the project is approved with project report on 12/08/2015. Mine closure plan is an integral part of mining plan.

xiii. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves located within 10 km buffer zone.

xiv. Forestry issues: No forest land is involved in the project area.

xv. Total afforestation plan shall be implemented covering an area of 847.02 ha at the end of mining. Green Belt over an area of 175.00 ha shall be developed. Density of tree plantation 2500 trees/ ha of plants.

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

47.1.3 The Committee, after detailed deliberations deferred the proposal on following grounds:

i. The project proponent while presenting stated that the mine activities had been started in Yekona-II. It was pointed out to the project proponent that in their application/document submitted to the Ministry and circulated to the EAC members, as well as in the presentation, it was clearly stated that both Yekona- I & II project could not be started yet because of land acquisition problems despite both having valid EC of 2006. In the application, the PP had called this a new project whereas in the presentation, it appears/transpires that it is not a new project but more in the nature of expansion project. PP informed during presentation that work has been started in yekona- II in Oct.2015. The Committee was unhappy with the manner in which WCL had approached Ministry for processing the application as it was clear that the application contained incorrect facts. The Committee, therefore, advised PP to decide on further course of action before approaching the EAC again.

Agenda 47.2

Balaram (formerly known as Kalinga) Open Cast coal mine expansion project (from 8 MTPA to 20 MTPA) and expansion in ML area from 1329.40 ha to 2507.42 ha of M/s Mahanadi Coalfield Limited in Talcher coalfields in Tehsil Talcher, District Angul (Odisha) - Change of name from Kalinga OCP to Balaram OCP and Correction in TOR.

47.2.1 The proposal is for change of name from Kalinga OCP to Balaram OCP and correction in TOR for Balaram Open Cast coal mine expansion project (from 8 MTPA to 20 MTPA) and expansion in ML area from 1329.40 ha to 2507.42 ha of M/s Mahanadi Coalfield Limited in Talcher coalfields in Tehsil Talcher, District Angul (Odisha)

47.2.2 The proposal was last considered in the 42nd EAC meeting held on 31St August - 1St September, 2015 where in Committee deferred the project in view of the discrepancies/anomalies. One of the observations/suggestion of the committee was to apply for change in the name of Kalinga OCP to Balram OCP and correction in TOR w.r.t. expansion capacity i.e. from 8.0 MTPA to 20 MTPA.

47.2.3 The proposal was placed before EAC for change of name and correction in TOR. The details of the project, as per the documents submitted by the Project Proponent (PP), and also as informed during the above said EAC meeting are reported to be as under:

Change of Name:

i. Balram OCP (Earlier name Kalinga OCP) is a running mine in Talcher Coalfield under Hingula Area of MCL.

ii. EC was granted vide Ref. No. J-11015/4/87-IA, Dt.24/10/1990 in the name of Kalinga OCP for Production Capacity 8 MTPA .

iii. Name of Kalinga OCP was changed to Balram OCP by MCL Board in its 81st Meeting held on 26

June 2006, with same owner and with same production capacity and for the same ML area and except change of name all parameters remained same.

Correction in TOR:

i. The TOR for Balaram OC Expn. (8.0 to 20.0 MTPA (Peak) & ML from 1329.40 ha to 2507.42 ha), of Mahanadi Coalfield Limited, located in Talcher Tehsil, Anugul District of Odisha was granted vide letter no. J-11015/09/2013.IA.II(M) dt: 24.05.2013.
ii. The application in Form-I for TOR & the subsequent presentation before the EAC in the 69th EAC meeting held on 25th March 2013 was made for expansion in capacity from 8.0 to 20.0 MTPA (peak).
iii. In the TOR issued vide letter no. J-11015/09/2013.IA.II (M) dt: 24.05.2013, typographical error on page 1 S. No. 2 (i) i.e. "It is an expansion project of opencast mine. The expansion is from 15 MT to 20 MT (peak). The total mine lease area is 2507.42 ha. From 1329.40 ha to 2507.42 ha (1178.02 ha incremental)."
iv. It is to be corrected as 'It is an expansion project of opencast mine'. The expansion is from 8.0 MT to 20 MT (peak). The total mine lease area is 2507.42 ha. From 1329.40 ha to 2507.42 ha (1178.02 ha incremental)."

47.2.4 The EAC, after detailed deliberations, recommended the proposal for change of name from Kalinga OCP to Balaram OCP, and correction in TOR stating that 'it is an expansion project of opencast mine'. The capacity expansion is from 8.0 MTPA to 20 MTPA (peak) with increase in total mine lease area from 1329.40 ha to 2507.42 ha. In addition, the committee desired that the project proponent also comply with the Ministry's Notification dated 29th October, 2014 dealing with impact of mining activities in habited areas.

Agenda 47.3

Jagannath Coal Washery of 10.0 MTPA in an area of 29.94 ha of M/s Mahanadi Coalfields Ltd. located in village Hensmul District Talcher (Orissa) – (Correction in TOR)

47.3.1 The proposal is for correction in TOR for Jagannath Washery (10.0 MTPA in an area of 29.94 Ha) of M/s Mahanadi Coalfields Ltd. Longitudes 85^0 09' 10" E to 85^0 11' 37" E and latitudes 20^0 57' 59" N to 20^0 58' 43"N, located in villages Hensmul District Talcher (Orissa). TOR was granted to the project on 13.08.2015 stipulating one of the specific TOR as "Only back filled area shall be used for washery". PP requested ministry for correction/modification in TOR w.r.t. Green belt area and backfilled area.

47.3.2 The proposal was last considered in the 44th EAC meeting held on 8th-9th October, 2015 wherein, the green belt area was discussed. However, the backfilled area was somehow quoted as to be used for washery. This was brought to the notice of the EAC and to which the committee also agreed for correction as under:-

"Only back filled area shall be used for washery"

may be read as

"Only back filled area shall be used for washery rejects"

Meanwhile, the EAC member from Central Electricity Authority was requested to give views on the soil conditions suitable for location of washery in backfilled areas.

Agenda 47.4

Expansion of Cluster No. 2 group of Mixed Mines project from 0.45 MTPA to 1.10 MTPA in a combined ML area of 1018 ha of M/s Eastern Coalfield Limited, located at District Burdwan (West Bengal) - EC under 7(ii) of Notification, 2006. (Further Consideration).

47.4.1 The proposal is for Expansion under 7(ii) of EIA Notification, 2006 for Cluster No. 2 group of Mixed Mines project from 0.45 MTPA to 1.10 MTPA in a combined ML area of 1018 ha of M/s Eastern Coalfield Limited, located at District Burdwan (West Bengal). The proposal was last considered in 39th EAC meeting held on 16th -17th July, 2015. The Committee deferred the project as there being no approved Mine Plan for the proposed enhanced capacity of 1.1 MTPA and no EC compliance report available from the Ranchi, Regional Office of MOEFCC.

47.4.2 The details of the project, as per the documents submitted by the Project Proponent (PP), and also as informed during the above said EAC meeting are reported to be as under:

i. The project was accorded EC vide letter no. J-1101537/2011-IA.II(M) dated 16.01.2015 for 0.45 MTPA capacity in a lease area of 1018 Ha.
ii. Now the proposal is for one – time capacity expansion from 0.45 MTPA to 1.10 MTPA, i.e., additional capacity of 0.65 MTPA under 7(ii) of EIA Notification, 2006.
iii. 3 existing mines (1 UG mine and 2 OC mines) within the cluster. Total cluster capacity is proposed to be increased from 0.45 MTY to 1.10 MTY, i.e an additional capacity of 0.65 MTY. Nearly 140% increase in cluster capacity. It is for the one time capacity enhancement of less than 1 MTY.
iv. The latitude and longitude of the project are latitude 23^0, 44' N & 23^0, 46' N and longitude 86^0, 46' E & 86^0, 49', E respectively.
v. Joint Venture: No Joint Venture
vi. Coal Linkage :

Sl. No.	Name of the mine	Targeted Consumer
1	Kumardhubi UG	• 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 Sipat Bilaspur district Chhattisgarh. • GMR Energy Limited Kamalanga thermal power plant ,Odisha. • Aravali Power Company Private Limited,Haryana. • Kahalgaon Super Thermal Power Station (KhSTPP) ,Kahalgaon ,Bhagalpur ,Bihar.
2	Barmuri OC	
3	Rajpura OC	

vii. Employment generated / to be generated: The three mines of the cluster together employ a total of about 1000 personnel.
viii. Benefits of the project: The proposed expansion will also bring enhanced socio-economic benefits to the local population of the project area by way of direct and indirect employment, improvement in infrastructure and growth of ancillary facilities.
ix. The land details/usage of the project will be as follows:

Sl.	Land-use	Within ML Area (Ha)	Outside ML Area (Ha)	Total	Anticipated land use after Mine Closure (Ha)
1	Mine Infrastructure	57.00	-	57.00	13.5 Ha (Remaining 43.50 Ha to be covered with plantation)
2	Water Bodies	31.30	-	31.30	31.30 (undisturbed)
3	Quarry& OB Dump	123.00	-	123.00	35.5 (Final void to serve as water body). Rest under plantation
4	Agriculture	40.00	-	40.00	40.00 (Undisturbed)
5	Plantation	11.50	-	11.50	393.50
6	Danga	251.00	-	251.00	----
7	Settlement	282.60	-	282.60	282.60 (undisturbed)
8	Road	35.10	-	35.10	35.10 (undisturbed)
9	Rai l(including Kumardhubi Rly Stn)	186.50	-	186.50	186.50 (undisturbed)
TOTAL		**1018.00**	**-**	**1018.00**	

S No.	Description	Land-use (Ha)				
		Plantation	Water Body	Public use	Undisturbed	Total
1	Top-soil Dump	-				
2	Plantation / Green belt / Afforestation	11.50	-	-	-	11.50
3	OB dump & Excavation	87.50	35.50	-	-	123.0
4	Road	-		35.10	-	35.10
5	Mine Infrastructure / Built-up	43.50			13.50	57.0
6	Rail line with Stn.				186.50	186.50
7	Cultivable				40.0	40.0
8	Water Bodies				31.30	31.30
9	Settlement				282.60	282.60
10	Danga	251.0				251.0
	Total	**393.50**	**35.50**	**35.10**	**553.90**	**1018.0**

x. The details of seam:

- **Barmuri OCP**- There is only one seam named Kalimati seam exists in the area.

  The thickness of the seam is 7 m and the grade of the seam is 'E'. The gradient of the Kalimati seam is 1 in 12. Since the mine is an opencast mine, question of degree of gassiness does not arise.

  Reserves:

#	Since Inception (88 – 89)	Balance	Total
Coal (MT)	4.43	2.70	7.13
OB (M Cum)	7.67	5.00	12.67

- **Kumardhubi UG**-

Seam	Thickness(m)	Par ting (m)	Degree of Gassiness	Grade	Gradient
Gopinathpur	5.0-6.0	4 4.0	II	C	1 in 6.75 to 1
Singpur	4.5-5.8	4 3.0	II	C	1 in 6.75 to 1 in 11.75
Brindabanpur	4.6	4 0.0-	II	C	1 in 6.75 to 1 in 11.75
(Brindabanpur Top)	2.8-4.2	14 2.02.0	II	C	1 in 6.75 to 1 in 11.75
(KalimatiBottom)	4.8-5.0	21 0.04.0	III	C	1 in 6.75 to 1 in 11.75

- **Rajpura OCP**-

Seam	Thickness Range (m)	Parting Range (m) [From top/top seam]	Av. Depth (m)	Grade	Balance Mineable Reserves (MT)	Balance Life as per schedule
BP Seam	3.0-3.5		19	G7	0.81	6 years
Kalimati Seam	16-18	23	45	G7	1.265	

xi. The total mineable reserve 5.465 MT MT,

xii. The total estimated water requirement is 2310 m^3/day. The level of ground water ranges from 5.07 to 3.44 m (average range for well DB-33, Barajore Village near Kumardhubi UG)

xiii. The Method of mining:

- **Barmuri OCP-**

  At present, Kalimati seam is being worked in this mine. Existing method of work is opencast method with shovel-dumper combination and the mine runs departmentally.

- **Kumardhubi UG-**

  i) B.L. Incline : SP Top seam is being developed by Bord and Pillar Method with one SDL and at present the production is 60 tonne per day.

  ii) No. 2 Pit: A small patch at SP Top seam is being developed by Bord and Pillar Method with manual loading and at present the production is 40 tonne per day. In near future, working will be shifted to BP Top seam.

- **Rajpura OCP-**

  At present, Kalimati Seam is being worked in the mine. The present mining system deploys shovel-dumper combination for both coal production and OB removal. The HEMMs deployed for the purpose are Electric Shovels, Hydraulic Shovels, Dumpers, Dozers, Drills, and Graders of varying capacities.

xiv. There will be no external OB dump. Only two internal dump with Quantity of 38.395 M.cum.

xv. The final mine void would be in 35.50 Ha with depth 20.0 m (Max). and the Total quarry area is 123.0 Ha. Backfilled quarry area of 87.50 Ha shall be reclaimed with plantation. A void of 35.50 Ha with depth of 20.0 m (Max) ha which is proposed to be converted into a water body.

xvi. The details of the mine are as follows :

Sl No.	Name of Mine	Lease Area (Ha)	Peak production Capacity (EC Capacity)		Life of mine (years)	
			As per EC	Proposed Revision	As per EC	Balance Life from 2015 – 16
1	Kumardhubi UG	667.0	0.10	0.10	20	18
2	Barmuri OC	59.0	0.23	0.50	10	6
3	Rajpura OC	292.0	0.12	0.50	5	6
	Total	**1018.0**	**0.45**	**1.10**		

xvii. Transportation:

In pit : Underground mine- coal tubs at the faces are being hauled by Tugger Haulage

Surface to siding:

B**armuri OCP**: Coal from face is transported by dumpers to the surface coal depot which is around 0.5 km to 1.0 km. From surface coal depot, coal is being transported by tippers to the Mugma Central Pool Railway Siding which is around 11.0/12.0 km from the coal depot.

Kumardubi UGP: At present, coal at surface is transported to the nearby coal depot by colliery dumpers through tippler and from coal depot coal is disposed off by local despatch. There is a proposal to transport coal from coal depot to the Mugma Central Pool Railway Siding which is around 10-11 km from the coal depot by contractual truck.

Rajpura OCP: Coal from face is transported by dumpers to the surface coal depot which is around 0.4km to 0.8 km. From surface coal depot, coal is being transported by tippers to the Mugma Central Pool Railway Siding which is around 10.0/12.0 km from the coal depot.

Loading at siding: Coal is loaded by pay loaders into railway wagons.

xviii. There is no R & R involved in the cluster.

xix. Cost: Total capital cost of the project is Rs. **87.52** Crores. Environmental Management Cost is as follows :

Sl.	Element	Capital Cost
1	Cost of rehabilitation	0.00
2	Cost of compensatory afforestation	0.00
3	Cost of restoration	85.00
4	Cost of Anti-pollution measures in mine & Industrial area	220.00

5	Cost of Anti-pollution measures in township	200.00
6	Other provisions	90.00
7	Compensation for Non Forest Land	0.00
	Total	595.00

Revenue Expenditure-

Sl. No.	Head	Expenditure (in Lakh) for 0.45 MTY	Expenditure (in Lakh) for 1.10 MTY
1	Pollution Control	20.00	20.00
2	Pollution Monitoring	5.00	10.00
3	Green Belt & Biological Reclamation	10.00	20.00
4	CSR	22.50	55.00
5	Corpus fund for mine closure	552.00	414.94
6	Others (lumpsum)	5.00	10.00
Total		**614.50**	**529.94**

xx. Water body: On the south side of NH2 there is a seasonal stream named Barmuri Jore which flows from north to south and merges into Barakar River. Barakar River and Barmuri Jore along with its tributaries control the main drainage of the mine.

xxi. Approvals: Mining plan has been approved on 27.11.2015 (for expansion to production capacity of 1.10 MTPA). Mine closure plan is an integral part of mining plan. Mine Closure plans of all three mines have been approved in September, 2013.

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

xxiii. Forestry issues: There is no forest land within the cluster boundary.

xxiv. Total afforestation plan shall be implemented covering an area of 401.4 Ha (out of which 189.9 Ha is already reclaimed and planted by ECL) at the end of mining. Green Belt over an area of **393.50** ha. Density of tree plantation 1600 saplings/ha of plants.

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

xxvi. Public Hearing was held on 09.09.2013 in Officers Club, Mugma Area, Dhanbad, Jharkhand. The issues raised in the PH includes water supply; Coal transportation; arrangements for repair and upkeep of this road; development of the local population; poor voltage and overhead lines; dust pollution etc.

47.4.3 EC compliance report: The compliance report of the, Regional Office, MoEFCC at Ranchi monitored on dated 26th June, 2015 was deliberated in the EAC meeting.

47.4.4 The Committee during the presentation noted that many of the specific conditions of the EC granted earlier had not been complied with as per the report of the Regional Office. Since compliance of EC conditions is a pre-requisite for consideration of such cases, the case was deferred till the certified copy is received from the Regional Office. The PP, however, with reference to compliance to EC conditions also mentioned that some of the EC conditions were not feasible for the PP to implement. Accordingly, the PP stated that they would re-consider the matter and first apply for modification of the existing EC conditions. In view of above, the proposal was deferred.

Agenda 47.5

Cluster 12 comprising of 19 mixed mines of combined production capacity of 27.16 MTPA (Normative) and 31.83 MTPA (Peak) in a combined ML area of 13759.55 Ha of M/s Eastern Coalfields Limited, located in Raniganj Coalfields, in Tehsil Haripur Block, District Burdwan (West Bengal) – Amendment in EC.

47.5.1 The proposal is for amendment in EC granted on 09.02.2015 for Cluster 12 comprising of 19 mixed mines of combined production capacity of 27.16 MTPA (Normative) with a (Peak) production of 31.83 MTPA in a combined ML area of 13759.55 Ha (14047 Ha – 287.45 Ha = 13759.55 Ha); of M/s Eastern Coalfields Limited, located in Raniganj Coalfields, in Tehsil Haripur Block, District Burdwan (West Bengal).

47.5.2 The details of the project, as per the documents submitted by the project proponent (PP), and also as informed during the above said EAC meetings, are reported to be as under:-

i. EC was granted to the project vide letter no. J-11015 /76/ 2011-IA.II(M) on 09.02.2015.
ii. Cluster no. 12 consists of 19 mines with a Capacity of 31.83 MTPA.
iii. Two nos. of green field underground projects i.e. Rangamati A and Rangamati B which could not be viable at 12% IRR norm have been deleted from the list of Mines in the Cluster.
iv. Amalgamation of Pandaveswar UG and proposed Pandaveswar OC with Dalurband UG & OC into a single large mixed mine, namely, Pandaveswar – Dalurband UG & OC and introduction of CM Technology in UG within the combined leasehold of Pandaveswar and Dalurband Collieries to achieve a capacity of 2.45 MTY against approved combined capacity of 2.01 MTY.
v. Amalgamation of Nakrakonda OC Patch, Nakrakonda Extension OC Patch, Kumardih B UG & OC Patch and Nakrakonda UG into a single mixed mine, namely, Nakrakonda – Kumardih B UG & OC within the combined leaseholds of Kumardih B UG and Nakrakonda UG along with Introduction of CM Technology in Kumardih B UG mine to achieve a capacity of 4.12 MTY against the approved combined capacity of 5.10 MTY.
vi. Introduction of additional CM in Shyamsundarpur UG for augmentation of production from approved capacity of 0.9 MTY to 1.12 MTY
vii. Reduction in EC capacity for Kottadih UG & OC from 4.0 MTY to 3.10 MTY
viii. Reduction in EC capacity of Bankola UGP from 0.57 MTY to 0.30 MTY
ix. Reduction in EC capacity of Kumardih A UGP from 1.20 MTY to 0.20 MTY
x. Reduction in EC capacity of Madhaipur OC Patch from 0.80 MTY to 0.57 MTY
xi. Removal of new underground projects of Manderboni Ext. / Rangamati A and Madhaipur Ext. / Rangamati B from the cluster due to un-viability
xii. Considering the 1 Billion Tonne program for CIL, all the mines in the cluster were reassessed in terms of the immediate potential to produce optimally.
xiii. In addition to Sonepur Bazari OCP, one mega UGP i.e. Jhanjra UGP was also planned from 3.5 MTY to 5.00 MTY to become the biggest underground Coal mine in the country.
xiv. Subsequent to the amalgamations, the total no. of mines within the cluster would be 15.
xv. The Total Production capacity of the Cluster remains same. Cluster area reduced from 14047 ha to 12736 Ha

A. Comparison with Approved EC :

Sl.	Name of the Mine	Lease Area (Ha)	EC Capacity (MTY)		Sl.	Proposed changes	Lease Area (Ha)	Final Capacity (MTY)	Change in Capacity (MTY)	
1	Pandaveswar UG	483	0.18	2.01	1	Amalgamation into Pandaveswar-Dalurband UG & OC	1385	UG : 1.47	2.45 *	+ 0.44
2	Pandaveswar OC Mine		1.50							
	Dalurband OC & UG	902	0.33					OC : 2.00		
3	Manderboni UG	467	0.17		2	No change	467	0.17	-	
4	Madhaipur UG	622	0.21		3	-do-	622	0.21	-	
	Madhaipur OC Patch		0.80			Capacity reduced due to coal loss in barrier		0.57	- 0.23	
5	Nutandanga UG	543	0.12		4	No change	543	0.12	-	
6	Kendra UG	459	0.10		5	-do-	459	0.10	-	
7	Samla UG	676	0.12		6	-do-	676	0.12	-	
	Samla OC Mine		0.80			Proposal dropped due to land acquisition issues		Nil	- 0.80	
8	Sonepur Bazari OC	2405	8.00		7	Expansion by outsourcing	2405	12.00	+ 4.00	
9	South Samla UG	558	0.11		8	No change	558	0.11	-	
	Purushottampur OC Patch		1.30			Amalgamated with Sl no. 9		-	- 1.30	
10	Kumardihi B UG	355	0.42	3.80	9	Amalgamation into Nakrakonda – Kumardih B UG & OC	642	UG : 1.12	4.12	+ 0.32
	Nakrakonda B OC		1.50							
	Nakrakonda B OC (Extension)		0.54					OC: 3.00		
	Kumardihi B OC Patch		0.14							
11	Nakrakonda UG	287	1.20							
12	Kumardihi A UG	457	1.20	10		Capacity reduced due to non – implementation of PSLW	457	0.20	- 1.00	
	Kumardihi A OC Patch		0.26			Exhausted & being backfilled		Nil	- 0.26	
13	Jhanjra UG	1520	3.50	11		Capacity increased. PR for lower seams being prepared	1520	5.00	+ 1.50	
14	Tilaboni UG	869	2.14	12		No change	869	2.14	-	
15	Shyamsundarpur UG	533	0.90	13		1 additional CM to be introduced. PR under preparation	533	1.12	+ 0.22	
16	Bankola UG	830	0.57	14		Shaft deepening could not be done	830	0.30	-0.27	

	Bankola OC Patch		0.26			Exhausted & being backfilled		Nil	-0.26	
17	Kottadih UG & OC	770	UG : 1.0	4.00	15	Capacity reduced due to reduction in mining area	770	UG : 0.90	3.10	-0.90
			OC : 3.0					OC : 2.20		
18	Manderboni Extension/ Rangamati A UGP	817	0.983			Proposal dropped as the projects are not viable in the present time.	-	-	-0.983	
19	Madhaipur Extension / Rangamati B UGP	494	0.48				-	-	-0.48	
	Total	14047	31.83			Total	12736	31.83	0.0	

*Due to phasing of UG and OC Productions, the maximum output will be 2.45 MTY

B. Change in EC Capacity :

Sl No.	Mines	Lease Area (Ha)	Final Capacity (MTY)			Change in Capacity (MTY)
1	Pandaveswar-Dalurband UG & OC	1385	UG : 1.47	2.45*		+ 0.44
			OC : 2.00			
2	Manderboni UG	467	0.17			No Change
3	Madhaipur UG	622	0.21			No Change
	Madhaipur OC Patch		0.57			- 0.23
4	Nutandanga UG	543	0.12			No Change
5	Kendra UG	459	0.10			No Change
6	Samla UG	676	0.12			No Change
	Samla OC Mine		Nil			- 0.80
7	Sonepur Bazari OC	2405	12.00			+ 4.00
8	South Samla UG	558	0.11			No Change
	Purushhotampur OC		Nil			- 1.30
9	Nakrakonda – Kumardih B UG & OC	642	UG : 1.12	4.12	+ 0.32	
			OC: 3.00			
10	Kumardihi A UG	457	0.20			- 1.00
	Kumardihi A OC Patch		Nil			- 0.26
11	Jhanjra UG	1520	5.00			+ 1.50
12	Tilaboni UG	869	2.14			No Change
13	Shyamsundarpur UG	533	1.12			+ 0.22

14	Bankola UG	830	0.30		- 0.27
	Bankola OC Patch		Nil		- 0.26
15	Kottadih UG & OC	770	UG : 0.90	3.10	- 0.90
			OC : 2.20		
	Total	12736	31.83		No Change

*Due to phasing of UG and OC Productions, the maximum output will be 2.45 MTY

C. Amended Table of Mines for which EC is sought:

Sl No.	Mines	Lease Area (Ha)	Final Capacity (MTY)		Life (Years)	
1	Pandaveswar-Dalurband UG & OC	1385	UG : 1.47 OC : 2.00	2.45*	>25	
2	Manderboni UG	467	0.17		13	
3	Madhaipur UG	622	0.21		>25	
	Madhaipur OC Patch		0.57		3	
4	Nutandanga UG	543	0.12		20	
5	Kendra UG	459	0.10		10	
6	Samla UG	676	0.12		>25	
7	Sonepur Bazari OC	2405	12.00		17	
8	South Samla UG	558	0.11		>25	
9	Nakrakonda – Kumardih B UG & OC	642[#]	UG : 1.12 OC: 3.00	4.12	>25	
10	Kumardihi A UG	457	0.20		>25	
11	Jhanjra UG	1520	5.00		>25	
12	Tilaboni UG	869	2.14		>25	
13	Shyamsundarpur UG	533	1.12		>25	
14	Bankola UG	830	0.30		>25	
15	Kottadih UG & OC	770	UG : 0.90 OC : 2.20	3.10	>25 4	>25
	Total	12736	31.83			

D. Post Mining Land use of Core Zone (Cluster Area):

S.No	Type Land Use	Present Mining Land Use (ha)	Land Use during Mining (ha)	Post- mining Land Use (ha)
1	Mine Infrastructure	2170.0	2170.0	1500.0 (670.0 Ha under plantation)
2	Quarry and O B Dump	674.0	3310.24	2770.74 Ha under plantation (539.50 Ha lagoon)
3	Cultivable	5072.59	1633.45	1633.45
4	Water bodies	423.40	423.40	962.90
5	Forest Land	275.64*	32.0	32.0
6	Social Forestry	23.11	23.11	23.11
7	Plantation	953.0	953.0	6860.54
8	Danga /waste land	875.90	-	-
9	Village / settlement	940.81	980.81	980.81
10	Roads & Railway	85.0	85.0	75.0 (10 Ha under plantation)
11	Built-up Area	772.30	688.19	688.19
12	Others (including subsided area)	470.90	2436.80	Under plantation
	Total	12736.0	12736.0	12736.0

47.5.3 During deliberations on the proposal, the Committee noted the following:-

i. The PP has proposed increase in production from some mines and reduction/closure by some mines within the cluster but maintaining the present EC production limit of coal production 27.16 MTPA (Normative) and 31.83 MTPA (Peak). The increase is mainly taking place from Sonepur Bazari open cast mine from 8.0 MTPA to 12 MTPA and Jhanjra underground mine from 3.5 MTPA to 5.0 MTPA. The dispatch of coal from these mines presently is being done through sidings approximately 5 km away. The PP confirmed that the increased coal production will have no effect on the present transportation system as the additional production will take place only after the railway siding with silo loading becomes operational at Sonepur Bazari open cast mine, and railway siding at Jhanjra underground coalmine.

47.5.4 The proposal was deferred for want of inputs and clarifications in respect of the following:-

i. PP was advised that silo loading be examined in Jhanjra underground coal mine.
ii. The PP was advised to carry-out the Ambient Air Quality Modeling (AAQM) exercise on basis of latest Air Quality Monitoring Data and submit the same to EAC member for further consideration.

Agenda 47.6

Khadia Opencast Coal Mine Expansion Project from 10 MTPA to 14 MTPA in lease area from 1460 ha to 1640 ha of M/s Northern Coalfields Limited, located in District Sonebhadra, Uttar Pradesh in Tehsil Singrauli in District Sidhi (Madhya Pradesh)

47.6.1 The proposal for Khadia Opencast Coal Mine Expansion Project from 10 MTPA to 14 MTPA and lease area from 1460 ha to 1640 ha (Latitude 24° 07' 26" N - 24° 08' 47" N and Longitude 82° 41' 40" E - 82° 44' 47" E) of M/s Northern Coalfields Limited, located in District Sonebhadra (Uttar Pradesh) in Tehsil

Singrauli in District Sidhi (Madhya Pradesh) was earlier considered in the 29th EAC meeting held on 15th - 16th January, 2015, 37th EAC meeting held on 11-12 June, 2015 ; 42nd EAC meeting held on 31st August- 1st September, 2015 and 44th EAC meeting held on 8th -9th October, 2015. During the last meeting, the committee sought following information for further consideration:

i. It was noted that there was no significant development in respect of coal handling plan of 6 MTPA, which was earlier committed to be commissioned by 2017/18 (in line with the conditions of EC issued in the year 2007). The Committee asked for firm action plan for completion of the said coal handling plant.

ii. Mine void filling to be done through internal dump to fill the 39 ha and 200 m deep mine void to ground level and thus to save land degradation. The project proponent proposed for bringing OB from the nearby mine to fill the void. The committee advised for using the internal 90 m height OB of the internal dump for filling the void, which is closer to the mine and thus save cost. The PP agreed to that.

iii. Submission of requirement for (road transport) 10% of production for e-auction, for which no proposal has been put up.

47.6.2 In response to the observations of EAC, the details submitted by the PP and/or as informed during the meeting, are as under:-

i. Action plan for completion of CHP of 6 MTPA: Construction work of CHP (6 MTY) has already been started in OCT 2014 with completion schedule of 24 Months and CHP will be operational in FY 2016-17 by OCT- 2016. Major equipment like apron feeders, plough feeders, rapid loading system etc. have been received at site. At present pace of construction work, CHP will be commissioned by October 2016.

Detailed Action Plan for CHP construction as follows:

Major activities	Civil & Structural Works	Completion of Work (including equipment)	Status as on date (Nov 2015)
Receiving pit & tunnel area	20 JUL 2016	30 SEP 2016	On time
Ground bunker	14 SEP 2016	28 SEP 2016	Ahead of scheduled time
Silo	10 SEP 2016	21 SEP 2016	On time
Conveyor systems & transfer points	APR TO SEP 2016	END OF SEP 2016	On time

ii. **Submission of requirement for (road transport) 10% of production for e-auction :** Already dispatching coal through e–auction to small consumers at present, therefore, provision of dispatch of coal by road up to 10% of the EC capacity may be considered for meeting the demands of the small consumers of varied industries (Bricks, Foundries, Ceramics and other small industries). There is a government guideline for e-auction of 10% of the production vide MOC, GOI, OM No. 23011/4/2007-

CPD Dtd. 18th October 2007 {Clause No. 10(v)}. Presently, part dispatch is also being done by Road to LANCO Power Plant, which may be allowed to be continued until the New CHP is made operational.

47.6.3 The Committee during the presentation noted the following

i. As advised by the EAC in its meeting held on 8th -9th October, 2015, PP have re-examined the Committee's suggestion for using the internal OB for filling the void. However, it was found to be more feasible for them to bring that OB from Dhudhichua mine. At the mine closure 39 ha of void will be filled to ground level.
ii. The PP informed that the CHP as per the EC of 2007 is under construction and will be completed by October, 2016. This will take care of the production of 10 million tonne plus some additional requirements. The Committee opined that the additional production should go after the completion of the CHP. With increase of internal 4 million tonne as per the present proposal the PP informed that 10 million tonne capacity per annum would suffice to meet the additional 4 million tonne dispatch requirement. While agreeing to the EC modification the Committee however advised the PP to examine construction of additional capacity built up as continuous operation of the CHP of this capacity may not be possible.
iii. Presently road transport of coal Anpara TPP is taking place which will be converted into rail dispatch after the completion of the Khadia new CHP and the railway siding at Anpara TPP.
iv. The proposal for road transport of the e-auction coal which is up to 10 per cent of the production is agreed.

47.6.4 The EAC after detailed deliberation recommended the project for granting EC subject to the following specific conditions:

i. PP will use OB from Dhudhichua mine for backfilling of mine void. At the mine closure 39 ha of void will be filled to near ground level.
ii. The CHP will be completed by October, 2016 which will meet the production of 10 MTPA plus some additional requirements.
iii. The additional production should be met after the completion of the CHP.
iv. Presently road transport of coal TO Anpara TPP will be converted into rail dispatch after the completion of the Khadia new CHP and the railway siding at Anpara TPP.
v. The proposal for road transport of the e-auction coal which is up to 10 per cent of the production is agreed.

Agenda 47.7

Coal Washery expansion from 1 MTPA to 5 MTPA in ML area 16.12 ha of M/s Mahavir Beneficiation Private Ltd., District Anuppur (Madhya Pradesh) - (Further Consideration for EC)

47.7.1 The proposal is for seeking environmental clearance for expansion of Coal Washery from 1 MTPA to 5 MTPA in a project area of 16.12 ha) of M/s Mahavir Beneficiation Private Ltd., Village Dhiroul District Anuppur (Madhya Pradesh). The proposal was earlier considered in the 44th EAC meeting held on 8th – 9th October, 2015. During the last meeting, the Committee sought following information for further consideration of the project:-

(i) Green belt as per the Consent to Operate has not been fully implemented.
(ii) The entire Green Belt should be developed within 2 years.
(iii) Increase the budget from Rs. 5 lakhs to 20 lakhs for wild life conservation and details of actual implementation of wild life conservation activities..
(iv) Traffic density study be submitted.

(v) Impact of fugitive emission due to traffic be submitted. Permission from railway to load requested/required quantity.

(vi) For transportation of raw coal, washed coal and middling, procurement of mechanically covered trucks to be made within 2 years. Till this time it is allowed by the tarpaulin trucks for 2 years. The same is also applicable for 1 MTPA capacity.

(vii) The Committee noted that traffic load study for both raw and washed coal has not been carried out. The transport is through National Highway as reported by the PP. The permission from Railway authority for availability of railway siding at Amlai Railway Station has not been obtained. The loading of the 4 MTPA coal i.e. more than 12,000 TPD additionally is proposed be done by pay loaders which will create dust pollution at the station yard. These issues have been raised also in the Public Hearing including road safety issues. These have to be carried out and submitted.

47.7.2 In response to the observations of EAC, the details submitted by the PP and/or as informed during the meeting, are as under:-

i. Consent to Operate (CTO) condition with regard to greenbelt *"The industry shall do extensive tree plantation in and around the factory premises for improvement of the environment in general and good housekeeping practice shall be adopted* "Planted about 3000 saplings out of which 1050 plants are surviving. Plants include Ashok, Gulmohar, Mango, Teak, Babool, Neem and Plass. After the advice of EAC, planted 300 additional plants (Gulmohar & Karanja) in October 2015. As part of expansion, total area earmarked for greenbelt is about 4.83 ha (11.96 acres). Approx. 12,000 saplings will be planted @ 2500 Trees/ha. Minimum width of 5m will be maintained along the boundary . Native plant species will be selected for greenbelt development in consultation with local forest officials. Plantation will be completed within two years as advised by EAC. Capital cost of Rs 15 lakhs and an annual budget of Rs 1.5 lakhs will be earmarked for greenbelt Programme

ii. Entire Green Belt shall be developed within 2 years.

iii. Increased the budget from Rs. 5 Lakhs to Rs. 20 Lakhs for wildlife conservation and details of actual implementation of wildlife conservation activities is as follows:

ACTIVITIES & BUDGETARY PROVISION FOR WILDLIFE CONSERVATION

Sr. No.	Description of the Activities	Amount in Rs. Lakhs
1	Habitat improvement with fodder & fruit bearing species, soil & moisture conservation measures etc.	7.00
2	Creation of water holes in buffer zone	5.00
3	Man-animal conflict - Education & awareness programme	3.00
4	Prevention & control of fire	3.00
5	Corpus fund to meet compassionate ground payment exigencies etc. the unforeseen and miscellaneous expenditure	2.00
	Total	20.00

iv. To assess the prevailing traffic volumes on the roads in the area, a survey was conducted during normal working days of the week from 14th October to 17th October, 2015 by avoiding local holidays or abnormal situations to reflect the true picture of the traffic density. Impact due to transport of raw

coal, clean coal and middling on the air quality has been assessed in Chapter-4 of EIA report. Traffic flow was monitored at the points where raw coal from mines is being transported to the coal washery and on the road connecting the plant to Amlai railway siding. The vehicles plying in both the directions were counted continuously for 24 hours on hourly basis.

v. The sources of fugitive dust generation in a coal washery include Coal stockpile area; Crusher; Screening; Loading and unloading operations; Conveyor belt – transfer points; Vehicles movement. Request/application for outward movement of beneficiated coal has been made to Sr. DOM, SECR Bilaspur, Ministry of Railway on 05.11.2015.

vi. For transportation of raw coal, washed coal and middling, procurement of mechanically covered trucks shall be made within 2 years. Till this time it is allowed by the tarpaulin trucks for 2 years. The same is also applicable for 1 MTPA capacity.

vii. Traffic load study for both raw and washed coal covered under query no. 4

47.7.3 The EAC, after detailed deliberations on the proposal, made the following observations for further consideration for compliance by the project proponent:-

i. Regarding transportation of coal by trucks using State Highway, project proponent was asked to (i) provide report on study to be conducted by Road Research Institute for road capability (ii) permission of the competent authority for use of the proposed road (iii) to indicate who will maintain the road and bear the maintenance cost due to heavy truck movement in large number (iv) effect of noise and dust on road side habitation, due to movement of trucks carrying coal and mitigation measures.

ii. Regarding impact of expansion project on ambient air quality in surrounding area, the PP was asked to monitor air quality in all four directions of the boundary (outside) of washery, as present data is only for one side of the boundary, and also to monitor at nearest village. The monitoring data should be minimum for two weeks, monitored on alternative days with recording of meteorological data. During the monitoring period, plant should run at existing capacity (1.0 MTPA). The predicted value is to be provided considering fugitive emission from the purposed expansion plant (additional capacity of 4.0 MTPA).

iii. Response to the issues raised by the NGO w.r.t. present/existing production capacity; land acquisition; transportation; wild life conservation plan etc

iv. Assurance from Railways for converting their siding beside the Rly. Station as practically - washery captive siding and dust emission issues need to be settled. PP were advised to study for making their own Rly siding in the washery premises as the 5 MT raw coal and washed coal, rejects are to be handled for more than 25 yrs, as life of the washery was reported by the PP.

v. No action on mechanically covered tippers/trucks been taken. PP needs to initiate necessary action.

vi. The PP should submit a statement showing the following:-
- Total area available,
- Present and proposed land use,
- Yearly production of each of the years the washery has already been in operation,

47.7.4 The proposal was deferred for want of inputs/additional information desired by the EAC.

Agenda 47.8

Bhengari Coal washery of 5 MTPA capacity in a project area of 17.48 ha of M/s Mahavir Coal Washeries Private Limited, Tehsil Gharghora, District Raigarh (Chhattisgarh) – TOR (Further Consideration.)

47.8.1 The proposal is for Terms of Reference for Bhengari Coal washery of 5 MTPA capacity in a project area of 17.48 ha; Latitude: 22° 08' 05.7" - 22° 08' 19.4" N and Longitude: 83° 14' 21.2" - 83° 14' 49.4" E of M/s Mahavir Coal Washeries Private Limited at Village Bhengari, Tehsil Gharghora**,** District Raigarh, (Chhattisgarh). The proposal was earlier considered in the 35th EAC meeting held on 14th - 15th May, 2015. During the last meeting, the Committee noted that the plant boundary of the proposed washery is in proximity to the existing railway line (less than 500 m) and advised that the exact distance should be made available in writing. The Committee also requested that the earlier TOR regarding coal transportation also needs to be checked. Accordingly, decision on the above project was deferred until submission of the above information.

47.8.2 In response to the observations of EAC, the details submitted by the PP and/or as informed during the meeting, are as under:-

i. At present, no rail line exists in the vicinity of the project site.
ii. The nearest railway station is Robertson about 17 km, SSW from the proposed washery location. The other two railway stations are at Kharsia and Bhupdeopur.
iii. This area has been revised to 17.48 ha (43.18 acres) as was presented to the last EAC.
iv. The Cabinet Committee on Economic Affairs [CCEA] on 7th February, 2013 approved construction of a new broad gauge line between Raigarh (Mand Colliery) to Bhupdeopur Railway Station to be funded through a Joint Venture (JV) consisting of IRCON International Ltd., SECL and Government of Chhattisgarh. The Chhattisgarh Government through a Special Purpose Vehicle (SPV) is constructing the Eastern corridor proposed from Bhupdevpur via Gharghora to Dharmjaigarh.
v. The State Govt. acquired a portion of the project land in public interest in April, 2015 as the alignment finalized for the proposed rail corridor crosses the project site. The EAC was of the opinion that as per siting of Industries Notification of MoEF, the distance of the project site should not be less than 500 m from a railway line.
vi. The Ministry published "Draft Rules for Siting of Industrial Projects" on 21st June, 1999 prohibited setting up of certain industries, which does not include coal washery, in 0.5 km wide strip on either side of national highways and rail lines. Therefore, the distance criteria of 500 m is not applicable to coal washery projects.
vii. As per the final eastern rail corridor alignment, rail line will pass through the project site. As such a portion of the washery land along the eastern boundary has been acquired by the State Govt. in the public interest. Presently, there is no rail line in proximity to the project site. The nearest existing rail line from the project site is approx. 15 km away.
viii. The CCEA decision to construct eastern rail corridor in Raigarh District came in February 2013, a year after grant of TOR. MCWPL land for the corridor was acquired in April 2015. When TOR was granted to the project, the Chhattisgarh Govt. did not have plan to construct eastern rail corridor in the State with its rail line passing through MCWPL project land.
ix. The industries listed in Annexure – I of the Draft Environmental [Siting of Industrial Projects] Rules of 21st June, 1999 do not include coal washeries. Also coal washery does not fall in the 17

categories of major polluting industries identified by CPCB.

x. The Central Pollution Control Board in its draft "Document on Revised Concept of Categorization of Industrial Sector" has shifted coal washeries from the originally Red category to the Orange category based on pollution potential**.** The categorization has been made on the basis of quality of emissions (air pollutants) generated, quality of effluent (water pollutants) generated, types of hazardous wastes generated and consumption of resources.

xi. The proposed alignment of the eastern rail corridor will not get affected because of the proposed coal washery. Operational and management practices that will be adopted for the plant will include effective and adequate environmental protection measures to ensure compliance with the environmental regulations.

xii. There are no sanctuaries / national park / biosphere reserve / Tiger reserve / elephant reserve within 15 km area around the project site. As such there is no strong likelihood of impact, either direct or indirect, on environmentally sensitive areas.

xiii. In view of the above, the location of washery proposed at village Bhengari may be considered environmentally compatible.

47.8.3 The EAC, after detailed deliberations, recommended the proposal for grant of TOR, including the specific conditions as under:-:

Written commitment from the project proponent stating that they will shift their washery by 500 m if the railway line comes in future.

Agenda 47.9

Kusmunda Coal Washery project for 25 MTPA capacity in an area of 41.23 ha of M/s South Eastern Coalfields Limited located in village Durpa & Jarhajel, Tahsil Katghora, District Korba (Chhatishgarh)- TOR (Further Consideration)

47.9.1 The proposal is for Kusmunda Coal Washery project for 25.00 MTPA capacity in an area of 41.23 Ha (Latitude 22^0 20' 15" to 22^0 20' 42" North and longitude 82^0 40' 06" to 82^0 40' 43" East) of M/s South Eastern Coalfields Limited located in Village Durpa & Jarhajel Tahsil Katghora District Korba (Chhatishgarh). The proposal was last considered in the 42nd EAC meeting held on 31St August - 1St Septmber, 2015. During the last meeting the Committee members informed that they did not receive the documents (hard copies) related to Kusumunda coal Washery project. The project proponent also acknowledged that documents could not be sent to the individual members due to paucity of time. Therefore, Committee deferred the proposal. The proposal was further considered.

47.9.2 The details of the project, as per the documents submitted by the Project Proponent (PP), and also as informed during the above said EAC meeting are reported to be as under:

i. Kusmunda washery is an integral part of Kusmunda OCP. The washery will be constructed on turnkey basis.

ii. Raw coal to the proposed washery will be made available at the rate of 25.00 MTY from Kusmunda OCP.

iii. The latitude and longitude of the project are *22^0 20' 15" to 22^0 20' 42" North* and *82^0 40' 06" to 82^0 40' 43" East* respectively.

iv. Joint Venture: There is no Joint Venture

v. Coal Linkage : Various thermal power plants

vi. Employment generated / to be generated: 332 persons.

vii. Benefits of the project: Increased generation efficiency, mainly due to the less energy loss as inert

material passes through the combustion process. Increased plant availability. Reduced investment cost. Reduced operation & maintenance cost due to less wear and reduced cost for fuel and ash handling. Energy conservation in the transportation sector and lower transportation costs. Less impurities and improved coal quality. Reduced load in the air pollution control system. Reduction in the amount of solid waste that has to be disposed off. Reduction in the generation of fly ash quantity at the user point by using washed coal in place of coal. Revenue contribution to government/local bodies and local area development activities

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

	Activity	Land (in Ha)
1.	For washery construction and associated activities	21.56
2.	Reject storage	9.87
3.	For proposed expansion	9.80
	TOTAL	41.23

Breakup of land:

	Type of land	Area (in Ha)
1	Agriculture land	12.92
2	Govt land	0.00
3	Forest land	28.31
	Total	41.23

i. The total estimated water requirement is 6470 m3/day.
ii. The life of washery is 17 Years.
iii. Transportation: Washed Coal transportation by Rail.
iv. There are no R& R Involved.
v. Cost: Total capital cost of the project is Rs. 941.17 Crores. CSR Cost According to New CSR policy, the fund for the CSR should be allocated based on 2% of the average net profit of the Company for the three immediate preceding financial years or Rs. 2.00 per tonne of coal production of previous year whichever is higher. Environmental Management Cost Rs. 523.32 Lakhs.
vi. Water body: Hasdeo river flows from North to South on the Eastern part of the site.
vii. Approvals: Pre-feasibility report (PFR) of Kusmunda coal Washery approved by competent authority /Board on 05.08.2015.
viii. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
ix. Forestry issues: Total forest area involved 28.31Ha. Kusmunda washery is an integral part of Kusmunda OCP. Application for diversion / regularization of 324.84 ha. of revenue forest land of Kusmunda OCP has been submitted to MoEFCC, New Delhi. 28.31Ha of revenue forest land required for washery is part of 324.84 Ha.
x. Total afforestation plan shall be implemented covering an area of 472.00 ha at the end of mining.
xi. There are no court cases/violation pending with the project proponent.
xii. RAW COAL: It has been envisaged that -100mm size raw coal from Kusmunda OCP will be transported by covered belt conveyors to the Kusmunda Washery.
xiii. Washed Coal: Washed coal produced from the washery shall be conveyed by covered belt conveyor to 2 x 30,000 T covered washed coal bunker from where SECL shall transport the same to the silo for onward dispatch to consumer(s) through Railway.
xiv. Rejects: Based on the technology selected, the likely quantity of rejects to be produced from the

washery has been estimated at about 7.5 Mty. Reject produced from the washery will be conveyed by covered belt conveyor to 20,000 T bunker. The rejects shall be sold through e-auction or MoU route for its use in FBC/CFBC boiler and dispatched by railways.

xv. Water: The quantity of water required during construction as well as operation & maintenance of the proposed washery is about 1.7 MGD. This total water shall be supplied from mine sump water or from natural sources, such as, Right Bank Canal of Hasdeo Barrage about 1 km away from the proposed washery.

xvi. The washing process of the washery involves jigging and gravity separation. It has been envisaged to deshale 50-13mm & 13-3mm coal in improved type jigs & beneficiation of 3-0.1 mm coal in Spiral Concentrator to obtain washed coal of desired quality- 33.5±0.5% ash & rejects Washing circuit has to be necessarily a closed circuit with zero water discharge.

47.9.3 The EAC, after detailed deliberations, recommended the proposal for grant of TOR, including the specific conditions as under:-:

i. For management of storm water in the washery area, a system of proper collection and settling tank to be provided at appropriate location with monitoring arrangement.

ii. For air quality monitoring, additional monitoring stations shall be installed in addition to the proposed ones, i.e. one in core zone and five in buffer zone (increased by one additional in core zone and two in buffer zone) in down wind direction.

iii. Base line data generated during winter season (December, 2013 to March, 2014) shall be considered for prediction of Ambient Air Quality.

iv. Raw coal to be transported by covered belt conveyor and clean coal by covered belt conveyors to Railway siding and wagon loading through silo.

v. Details of reject utilization will be furnished.

vi. Possibility of water storage to eliminate natural water usage in the washery apart from the mine water itself as proposed should be explored.

vii. Details regarding the forest land be mentioned and furnished at the time of EC presentation.

Agenda 47.10

Kusmunda Opencast Expansion Project (Normative 15 MTPA to 50MTPA & Peak 18.75 MTPA to 62.50 MTPA in an ML area 3510.348 Ha) East of M/s South Eastern Coalfields Ltd., located at District Korba (Chhattisgarh) - (EC based on TOR granted on 01.12.2014) (Further Consideration)

47.10.1 The proposal is for Kusmunda Opencast Expansion Project (Normative 15 MTPA to 50MTPA & Peak 18.75 MTPA to 62.50 MTPA in an ML area 3510.348 ha (Latitude 22^0 15' 18" to 22^0 21' 30" North and Longitude 82^0 38' 39" to 82^0 42' 08" East) of M/s South Eastern Coalfields Ltd, located in District Korba (Chhattisgarh). The proposal was earlier considered in the 37th EAC meeting held on 11th -12th June, 2015, 39th EAC meeting held on 16th -17th July, 2015, 42nd EAC meeting held on 31st August- 1st September, 2015 and 44th EAC meeting held on 8th – 9th October, 2015. During the last meeting, the Committee sought following information for further consideration of the project:-

i. Cumulative Impact scenarios at different stages of production level and mitigative measures in different time frames with annual average baseline data showing year long observations.

ii. Para wise response to the apprehensions of the NGO.

47.10.2 In response to the observations of EAC, the details submitted by the PP and/or as informed during the meeting, are as under:-

(i) On the basis of the AQIP study, the followings may be concluded:

a. When the combined coal production from Gevra, Dipka and Kusmunda opencast mines is increased from 86.3 MTY to 122.0 MTY which include enhancement of coal production of Kusmunda mine from 18.4 MTY to 50 MTY, the predicted concentration of PM -10 at various locations is below the National Ambient Air Quality Standards(NAAQS) value of 100 µg/m^3

b. An increase in coal production of Kusmunda Opencast mine from 18.4 MTY to 62.5 MTY (cumulative coal production 134.5 MTY) results in an increase in predicted concentration of PM-10 level beyond the NAAQS value of 100 µg/m^3 at a few receptors around the mine.

c. In this study the impact of various control measures at source level has only been considered. The attenuation of PM -10 concentration due to proposed 90 m thick green belt around the Kusmunda, Gevra and Dipka mines have not been taken into account. The green belt will further reduce the concentration of dust (PM-10 & PM-2.5) in ambient air due to interception and filtration.

d. The point wise reply submitted by the project proponent on the issues raised by one of the NGO are as under :-

1. **Inadequate (unrepresentative) Meteorological Data**:

   (a) The meteorological data generated during 15.12.2013 to 14.3.2014 at the site has been used for AQIP study. <u>December, January and February are the winter months and winter season is the worst season from air pollution point of view.</u>

   (b) One season site specific meteorological data has been generated and used in the AQIP study as per 'Terms of Reference (TOR)' issued by MOEF.

2. **PM -10 level:**

   (a) The total predicted concentration of PM -10 will exceed the NAAQS value of 100 µg/m^3 at a few locations in the down wind direction near the periphery of the mine boundary while going for an increase in coal production from current level of 18.4 MTPA to 62.5 MTPA for Kusmunda OCP. Therefore, the modelling has been carried out for increase in coal production from 18.4 MTPA to 26, 44 and 50 MTPA for Kusmunda OCP and corresponding cumulative increase in coal production from 86.3 MTPA to 98, 116 and 122 MTPA.

   (b) The modelling results shows that the total predicted concentration of PM -10 will be below NAQQS value of 100 µg/m^3 while going for enhancement of coal production from 18.4 MTPA to 26, 44 and 50 MTPA for Kusmunda OCP.

   (c) A 75-100 m thick green belt around the periphery of the mine boundary has also been proposed. The attenuation of PM -10 level due to green belt has not been considered while carrying out AQIP exercise. If the contribution of green belt is also taken into account, the predicted concentration of PM -10 level will be further lower.

3. **Insufficient Data for Baseline Air Quality:** The baseline air quality data was generated during 15th December, 2013 to 14th March, 2014 (as per TOR, item No. XIV). This data covers the most critical

Winter Season (December to February), therefore appropriate to represent the worst scenario, for which air quality modelling is carried out.

4. **No Modelling for PM -2.5**: The particle size distribution (by mass) data for various activities associated with coal mining has been presented in Table 1.0. It reveals that the ratio of PM -2.5 to PM-10 varies from 11 % (top soil removal) to 38 % (Dozing coal and OB). Usually, the bulk of the fugitive dust generation (over 70 %) comes from coal and overburden haulage. The PM -2.5 to PM -10 ratio for this activity is 14.3%. Hence, it may be concluded that the average ratio of PM -2.5 to PM-10 will be around 15 %. The maximum concentration (98th Percentile Value) of PM-2.5, observed at Sarbida(A-2) and Khaibhawna (A-6), is 53 µg/m^3. So, there is a space for accepting additional incremental concentration of 07 µg/m^3 of PM-2.5 at these sites. This value of PM-2.5 will be added to the baseline when there is a corresponding increase of 43 µg/m^3 in PM-10 level. Our modelling results reveal that the maximum increase in incremental concentration of PM -10 is less than 30 µg/m^3 even if there is an increase in total coal production from 86.3 MTPA to 134.5 MTPA (Kusmunda 18.4 to 62.5MTPA). Therefore, it is estimated that the increase in PM -2.5 level due to enhancement of coal production from 86.3 MTPA to 134.5 MTPA will not exceed the 24 hour NAAQS value of 60 µg/m^3 for PM-2.5 at Sarbida and Khairbhawana.

5. **Data on Heavy Metal Monitoring:** The concentration of heavy metals like Lead (Pb), Mercury(Hg), Chromium(Cr) & Arsenic (As) were monitored and their values have already been provided in the EIA & EMP report. The concentration of Hg and As were found Below Detection Limit (BDL) at all locations (6 Nos.)The BDL value for Hg and As are 0.10 µg/m^3 and 0.001 µg/m^3 respectively. The maximum concentration of Pb and Cr was observed at Mine Office. The maximum monitored value at this location was 0.46 µg/m^3 for Pb against the NAAQS value of 1.0 µg/m^3 for Pb (yearly average). NAAQS value for Cr does not exist. The maximum monitored concentration of Cr is 0.16 µg/m^3.

6. **Eco – friendly:** The use of surface miners result in avoidance of drilling and blasting in coal benches. The dust generated during coal cutting gets reduced considerably due to continuous inbuilt water spraying arrangements. In-situ coal sizing also occurs during the extraction of coal from the seam. The conveyor system moves coal from one location to another with minimum generation of fugitive dust. Therefore, this system of mining is relatively eco-friendlier than the shovel – dumper combination. The high concentration of PM -10 at various receptors around Gevra and Dipka mines could be due to non-coal mining sources including domestic coal combustion.

7. **Over-burden water impacts**: The overburden disposal and land reclamation has been dealt in various sections in the EIA/EMP report. The para 4.4.3, sequencing of dumping has been provided along with the mining parameters of overburden dumps. In para 4.4.2.2.2, the inventory of water pollution sources mentions the impact of coal dump and OB dump on water pollution. The action plan to discuss the land reclamation in suitable ways of properly taking care of the water pollution has been provided in para 6.2.8. In this action plan, the phase wise plan for water pollution control measures like toe walling, provision of water coursing channels, provision of sedimentation pond, garland drains and check dams has been provided.

   In case of Kusmunda OC Expansion Project, no additional external dump will be created, all the overburden materials will be accommodated within the mine void only. The location of overburden dumps along with other surface features including the surface water bodies have been provided in plate IV(b).

In case of water pollution and ground water pollution, the results of Mine Effluent Quality, Surface Water Quality and Ground Water Quality have been provided in Annexure IX-1, 2 and 3 m respectively in the EMP of Kusmunda OC. However, CMPDI is regularly monitoring (on monthly basis) the ground water and drinking water quality in the core zone of Kusmunda OC in 3 locations i.e. Chunchuni Village, Gevra Basti Village and Vikas Nagar Colony. Among the locations, Chunchuni Village is located very close to a prevailing overburden dump.

Along with that, to understand the water pollution in the surface water body, CMPDI is monitoring the surface water quality of Hasdeo River and Laxman Nala in upstream and downstream side with respect to mine.

8. **Mining will Impair the availability of ground water for local users:** To understand the impact of mining on local water levels, the water levels monitored during peak dry period (i.e. May 2014), in 39 wells located close to the active opencast mining (Dipka, Gevra, Kusmunda and Manikpur OCPs) area in Korba CF, were compared with the water levels of the corresponding period monitored 14 years earlier i.e. May 2000. Among the 39 wells 15 wells are falling within the up dip area of the mines and remaining 24 wells are falling within the down dip area of the mines. The water levels in 7 villages in the up dip area were lowered further and fluctuation varies from -3.68m (DW-116, Rainpur) to -0.18m (DW-13, Khamariya). Whereas in the balance 8 villages in the up dip area, there is a rise in water levels and was observed to vary from 0.15m (DW-13, Dagnikhar) to 1.94m (DW-57, Korba (Sitamani)). So, the overall water level fluctuation varies in the up dip area is -3.68m to 1.94m. Similarly, in case of villages present in the down dip area of the mine, the water levels in 13 villages were lowered further and fluctuation varies from -1.55m (DW-134, Renki) to -0.07m (DW-83, Amgaon). Whereas in the balance 11 villages, there is a rise in water levels and was observed to vary from 0 m (Nil) (DW-73, Karnala (Barbaspur)) to 2.40m (DW-48, Salora). So, the water level fluctuates between -1.55m to 2.24m in the down dip area.

   Hence, the fluctuation in ground water levels during 14 years period (May 2000 to May 2014) was observed to vary from -3.68m to +2.40m, with an average of -0.14m. (Table: 2). These variations in water levels may be attributed to the local utilisation and recharge conditions only. The fluctuations in water table are far below the acceptable decadal fall i.e. 4m/decade.

   Moreover, from the study of the groundwater level conditions during pre-monsoon season (May 2014) in and around Kusmunda OC and other major opencast mine in the area, it has observed that the water levels are depleting in the updip side of the Kusmunda OC close to Ghatmura and Yamuna Nagar village and downdip side of the mine close to Pali, Nawagaon, Japeli and Rangbel village (*Fig 1*).

   Moreover, to prognosticate the impact of Kusmunda OC on local ground water regime while expansion the ***impact zone*** has been determined. To estimate a probable zone of influence, dewatering of the entire unconfined aquifer was considered. As the permeability varies largely in the mine area, the radius of influence was estimated both with the existing (avg. 0.41 m/day) and the probable increase in permeability (2 m/day) due to the mining activities in the reclaimed area. The maximum radius of influence (R) for the proposed Kusmunda OC Expansion, based on the Sichardt's formula ($R = C*(H-H_w)*\sqrt{K}$), were estimated as below:

In case of opencast mines, with the variation in aquifer/mine geometry, multi-aquifer system, return flow from mine discharge and abundant recharge, the zone of disturbance may be smaller than the predicted. Thus, the propagation of drawdown cone will be limited to *a smaller distance from the mine face.*

However, understanding the depletion of groundwater level in the villages situated within the core zone, *SECL is arranging water supply and constructing bore wells and other water supply arrangement to the effected villages.* Moreover, in a long term basis, to minimize the impact of the mine presently various Groundwater recharge measures has been taken in the core and buffer zone of Kusmunda OC. The details of the groundwater recharge measures has been taken and will be taken are provided below.

Ground water recharge measures in Core Zone: Artificial Rainwater Harvesting Structures has been constructed at 4 locations- Kusmunda House, DAV School, Central School & CAAQMS Building to augment the groundwater recharge in the area. Moreover, for 50 MTY expansion of the Kusmunda OC, it is proposed to construct the artificial rainwater harvesting structures in the buildings like HEMM workshop, Guest House, Hospital, GM office Complex, Project office etc. where will be constructed.

Moreover, a water tank with dimensions of 60 x 40 x 2.8 Meters, having capacity of 6720 cum is already constructed at Gevra Road railway siding point of up dip side of mine which is acting as a groundwater recharge structure and persistently recharging the groundwater regime of nearby vicinity in the area.

Ground water recharge measures in Buffer Zone: Though the impact of the Kusmunda OC on local ground water regime will be limited within the core zone, however, ground water recharge measures also has been taken in buffer zone also. A check dam has already been created in Laxman nala for rejuvenating groundwater system in up dip side of the mine. Moreover, another check dam will be constructed in Gangdel nala near Rangbel village in the down dip side of the mine to revitalize the ground water system in the downdip side of the mine.

47.10.3 The PP made a presentation, especially on baseline air quality and predicted values mentioning control measures. The Committee noted the following:

i. The modeling exercise is not based on one year meteorological data which is a pre-requisite. It was also not specifically mentioned as to which mitigating measures will bring down the contribution to air pollution particularly particulate matter. The Committee had earlier requested the PP to predict the air quality at varying levels of production along with mitigating measures to minimize the emission resulting in reduction in pollution load with time frame for commissioning of these measures which has not (since) been submitted.
ii. During the last meeting of the EAC it was highlighted that with the proposed expansion of Kusmunda OCP, resultant/predicted ambient air quality values would be on the higher side and there is a need to quantify the impact of measures taken to reduce these values within the acceptable limits. The Committee noted that this aspect has not been adequately addressed.

47.10.4 *The EAC, after detailed deliberations, deferred the proposal for want of more clarity/inputs in respect of their observations at (i) & (ii) above.*

Agenda 47.11

Expansion of Amera OC project (from 1.0 MTPA to 2.0 MTPA in an ML area of 664.184 Ha of M/s South Eastern Coalfields Limited located at village Amera, Tahsil Lakhanpur in District Sarguja Chhattisgarh – (Expansion under 7(ii) of EIA Notification, 2006) - Further Consideration

47.11.1 The proposal is for expansion of Amera OC project from 1.0 MTPA to 2.0 MTPA in an ML area of 664.184 Ha of M/s South Eastern Coalfields Limited located at village Amera, Tahsil Lakhanpur in District Sarguja (Chhattisgarh). The proposal was earlier considered in the 37th EAC meeting held on 11th -12th June, 2015, 42nd EAC meeting held on 31st August- 1st September, 2015 and 44th EAC meeting held on 8th – 9th October, 2015. During the last meeting, the Committee sought following information for further consideration of the project:-

i. The mine plan and the mine closure plan for the projected capacity of 2 MTPA for Amera OCP have yet not been approved by the SECL Board.
ii. The project proponent was to submit an action plan on possible flooding of the nearby areas due to the proposed embankments duly authenticated by irrigation/flood control department of the State. The same has not been complied with.

47.11.2 In response to the observations of EAC, the details submitted by the PP and/or as informed during the meeting, are as under:-

(i) The Mine plan and the mine closure plan for the projected capacity of 2 MTPA for Amera OCP has been approved in 238th meeting of the Board of Directors of South Eastern Coalfields Limited held on 28.10.2015.

(ii) In respect of EAC's observations at (ii) above, it has been reported that there is no record of incidence of flooding of any of the villages nearby to the Ghunghuta River due to heavy rain and release of water from Ghunghuta dam. However, As per approved Project Report, the HFL of Ghunghuta River is 535m. The RL of the Eastern bank varies from 542m to 549m and RL of Western bank varies from 541m to 569m. This indicates that, both the banks are present much above the HFL of Ghunghuta River, so, there is no chance of inundation of nearby villages by river water during flooding.

47.11.3 *The EAC, after detailed deliberations, recommended the proposal for grant of EC subject to all generic conditions for such projects.*

Agenda 47.12

Marki Mangli - III Opencast Coal Mining Project of 0.21 MTPA in a project area of 275 ha of M/s B. S. ISPAT LIMITED in village (s) Ardhwan, Bhendala, Ruikot, Mukutban, Tehsil Jhari Jamani, District Yavatmal (Maharashtra) for TOR.

47.12.1 The proposal is for grant of TOR for Marki Mangli - III Opencast Coal Mining Project of 0.21 MTPA in a project area of 275 ha of M/s B. S. ISPAT LIMITED in village (s) Ardhwan, Bhendala, Ruikot, Mukutban, Tehsil Jhari Jamani, District Yavatmal (Maharashtra).

47.12.2 The details of the project, as per the documents submitted by the Project Proponent (PP), and also as informed during the above said EAC meeting are reported to be as under:

i. The Environmental clearance was granted to Marki Mangli II (0.30 MTPA in 273 Ha), III (0.21 MTPA in 256 Ha) and IV (0.2 MTPA in 256 Ha) Opencast Coal Mining Project located in villages Savali, Pardi, Ruikot, Mukutban (Marki Mangli II & III), Hirapur, Bendala (Marki Mangli IV), Tehsil Jhari-Jamani District Yavatmal Maharashtra from M/s Shree Veerangana Steel Private Limited, the earlier

Project Proponent.

ii. The Supreme Court of India vide judgment dated 25th August, 2014 read with its order dated 24th September, 2014 was cancelled the allocation of 204 coal blocks. In pursuance of the judgment and order of the Supreme Court, the nominated authority was, in accordance with provisions of the Coal Mines (Special Provisions) Second Ordinance, 2014 and the Coal Mines (Special Provisions) Rules 2014 conducted the auction of the mines.

iii. Ministry of Coal vide Vesting Order under clause (b) of sub-rule (2) of rule 7 and sub-rule (1) of rule 13 and Order no. 104/6/2015/NA dated 17th April, 2015 allocated the Marki Mangli III (0.21 MTPA in 256 Ha) Opencast Coal Mining Project located in Tehsil Jhari Jamni District Yavatmal Maharashtra to M/s B. S. Ispat Limited as the successful bidder.

iv. MOC approved total 29 coal blocks of the Ordinance through bidding to different successful bidders/ companies this includes 23 coal blocks communicated earlier dated 16th May, 2015. MOC requested this Ministry to facilitate transfer of the Environment Clearance and Forest Clearance of these blocks to the new successful bidders.

v. A requested was made for transfer of the EC of Marki Mangli - III located in villages Savali, Pardi, Ruikot, Mukutban, Tehsil Jhari-Jamani District Yavatmal (Maharashtra) from M/s Shree Veerangana Steel Private Limited to M/s B. S. Ispat Limited.

vi. While considering the request, it was been observed that Ministry granted one EC for Marki Mangli II (0.30 MTPA in 273 ha), III (0.21 MTPA in 256 ha) and IV (0.2 MTPA in 256 ha) vide letter dated 27th January, 2011. So the total capacity of the EC was 0.71 MTPA and mining lease area 785 ha, involving forest land of 100.20 ha in Marki Mangli-II. The earlier project proponent had not obtained the FC Stage-I for the same.

vii. To facilitate transfer of EC, the Ministry had carried out an amendment vide Notification dated 23rd March, 2015 in the Principal EIA Notification, 2006. The instant case could not be covered under the said Notification, as the same would amount to splitting of the above EC. In view of the above, Ministry requested PP to apply fresh for EC.

viii. The latitude and longitude of the project are 20o29'27" to 20o32'30" N and 79o16'00" to 79o10'08" E respectively.

ix. Joint Venture: No

x. Coal Linkage : Captive use for Sponge Iron and Power Plant situated at Warora, District Chandrapur Maharashtra.

xi. Employment generated / to be generated: Direct employment 288 Nos.

xii. Benefits of the project:

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

Pre-Mining:

S. N.	LANDUSE	Within ML Area (Ha)	Outside ML Area (Ha)	Total (Ha)
1.	Agricultural land	236.5	19.0	255.5
2.	Forest land	-	-	-
3.	Wasteland	15.5	-	15.5
4.	Grazing land	-	-	-
5.	Surface water bodies	4.0	-	4.0
6.	Settlements	-	-	-
7.	Others (specify)	--	-	-
8.	TOTAL	256.0	19.0	275.0

Post- Mining:

S.N.	Land use during Mining	Land Use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	TOTAL
1.	External OB Dump	60.0	-	-	-	60.0
2.	Top soil Dump	15.0	-	-	-	15.0
3.	Excavation	-	133.5	-	-	133.5
4.	Roads	-	-	3.0	-	3.0
5.	Built up area	-	-	30.0	-	30.0
6.	Green Belt	-	-	-	-	-
7.	Undisturbed Area	-	-	-	14.5	4.0
8.	TOTAL	75.0	133.5	33.0	14.5	256.0

xiv. The total geological reserve is 6.19 MT. The mineable reserve 6.19 MT, extractable reserve is 4.92 MT. The per cent of extraction would be 79.48%.

xv. The coal grade is Varying from E-F The stripping ratio is 1: 7.81 m3/te. The average Gradient is 1: 7 to 1 : 8 towards south – west. There will be one seam with thickness ranging upto 2.4 m.

xvi. The total estimated water requirement is 78 m3/day. The level of ground water ranges from 1.5 m to 11.0 m.

xvii. The Method of mining would be Opencast.

xviii. There is 1 soil dump and 1 external OB dump with Quantity of 32.86 Mbcm in an area of 15 Ha soil dump and 60 Ha OB dump with height of 10 meter above the surface level and one internal dump with Quantity of 16.5 Mbcm in an area of 118 ha.

xix. The final mine void would be in 16 Ha with depth 60 m. and the total quarry area is 118 Ha. A void of 16 ha with depth 60 m which is proposed to be converted into a water body

xx. The life of mine is 25 Years.

xxi. Transportation: Coal transportation in pit by Dumper and Surface to Siding by Road/ truck.

xxii. There is no R & R involved.

xxiii. Cost: Total capital cost of the project is Rs. 32.00 Crores. R&R Cost Rs. Nil. Environmental Management Cost (capital cost Rs 40 Lakh, annual recurring cost Rs. 21 Lakh/tonne).

xxiv. Water body: Upasha Nallah crossing from NW corner of lease; Other two seasonal Nallahs passing from Central and SE part of the lease respectively.

xxv. Approvals: Mining plan has been approved on 31.01.2008. Application for Mine closure plan submitted to MOC on 07.09.2015.

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

xxvii. Forestry issues: No forest land involved in the project area.

xxviii. Total afforestation plan shall be implemented covering an area of 60 ha at the end of mining. Green Belt over an area of 193 ha. Density of tree plantation 2000 trees /Ha trees/ ha of plants.

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

47.12.3 The EAC, after detailed deliberations noted that existing EC in favour of the earlier allottee were still valid. The Committee was therefore, of the view that further action in such cases can be taken only after the existing EC has been suitably amended or cancelled/withdrawn. Ministry may like to take a view.

Agenda 47.13

Khairagura Opencast Expansion Coal Mining Project from 3.0 MTPA to 3.75 MTPA in ML area of 1217.50 ha of M/s The Singareni Collieries Co. Ltd., District Adilabad (Telangana)– (EC granted on 06.02.2015 - Correction in EC condition).

47.13.1 The proposal is for correction in EC granted vide letter NoJ-11015/28/2013-IA-II(M) dated 06.02.2015 for Khairagura Opencast Expansion Coal Mining Project (from 3.0 MTPA to 3.75 MTPA in an ML area of 1217.50 ha of M/s The Singareni Collieries Co. Ltd., Dist. Adilabad (Telangana).

47.13.2 The details of the project, as per the documents submitted by the Project Proponent (PP), and also as informed during the above said EAC meeting are reported to be as under:

i. Three external dump yards were planned in the project. Maximum height of Dumpyard-1 & 2 will be 90 m and Dumpyard-3 will be 120 m. The same was submitted in our application and mentioned in the EC letter also at 2 (ix) of page-3.

ii. The dumping strategy, solid waste management programme, stage wise plans and land requirement for external OB dump was calculated by planning of external OB dumps with a height of 120 m above ground level. Any change or restriction of height of the dump to 90 m will change the dumping strategy and it requires additional land.

iii. The Specific condition No. xxxiii

"An estimated total 578.49 Mm^3 of OB will be generated during the entire life of the mine. Out of which 184.58 Mm^3 of OB will be dumped in three external OB in an earmarked area covering 331.75 Ha of land.393.91 Mm^3 of OB will be dumped in one internal OB dump in an earmarked area covering 280.98 Ha of land. ***The maximum height of external OB dump will not exceed 90 m.*** The maximum slope of the dump shall not exceed 28°. Monitoring and management of reclaimed dump sites shall continue till the vegetation becomes self-sustaining and compliance status shall be submitted to MoEF & CC and its regional Office on yearly basis".

may be read as

"An estimated total 578.49 Mm^3 of OB will be generated during the entire life of the mine. Out of which 184.58 Mm^3 of OB will be dumped in three external OB in an earmarked area covering 331.75 Ha of land.393.91 Mm^3 of OB will be dumped in one internal OB dump in an earmarked area covering 280.98 Ha of land. ***The maximum height of external OB dump will not exceed 120 m.*** The maximum slope of the dump shall not exceed 28°. Monitoring and management of reclaimed dump sites shall continue till the vegetation becomes self-sustaining and compliance status shall be submitted to MoEF & CC and its regional Office on yearly basis".

47.13.3 The EAC, after verifying the documents, recommended for correction in the EC (Specific Condition no. xxxiii) w.r.t height of external OB dump, as explained in para 47.13.2 (iii).

Agenda 47.14

Lohari Opencast Coal Project of 0.2 MTPA in a total lease area of 450 ha located in villages Lohanra, Kathautia, Gareiadih, Garikhas, Tehsil Patan, District Palamau (Jharkand) of M/s Araanya Mines Private Limited - Request for correction in the EC.

47.14.1 The proposal is for correction with respect to ML area **from 450 to 405 ha** in the EC granted vide letter no. J-11015/756/2007-IA.II (M) dated 13.03.2008 for Lohari Opencast Coal Project of 0.2 MTPA in a total lease area of 450 ha located in villages Lohanra, Kathautia, Gareiadih, Garikhas, Tehsil Patan District Palamau (Jharkand).

47.14.2 The details of the project, as per the documents submitted by the Project Proponent (PP), and also as informed during the above said EAC meeting are reported to be as under:

i. Environmental Clearance (EC) was granted to M/s Usha Martin Ltd for Lohari Opencast Coal Project of 0.2 MTPA in a total lease area of 450 ha located in villages Lohanra, Kathautia, Gareiadih, Garikhas, Tehsil Patan, District Palamau (Jharkand) vide letter No. J-11015/756/2007-IA.II (M) dated 13th March, 2008.

ii. The Supreme Court of India vide judgment dated 25th August, 2014 read with its order dated 24th September, 2014 has cancelled the allocation of 204 coal blocks and issued directions with regard to such coal blocks wherein the Central Government in pursuance of the said directions has to take immediate action to implement the said order.

iii. In pursuance of the Judgment and order of the Supreme Court, the nominated authority in accordance with provisions of the Coal Mines (Special Provisions) Second Ordinance, 2014 and the Coal Mines (Special Provisions) Rules 2014 conducted the auction of the mines.

iv. MOC requested this MOEFCC to facilitate transfer of the Environment Clearance and Forest Clearance of these blocks to the new successful bidders.

v. Ministry of Coal vide Vesting Order under clause (b) of sub-rule (2) of rule 7 and sub-rule (1) of rule 13 and Order no. 104/30/2015/NA dated 22nd April, 2015 allocated the Lohari Opencast Coal Project (0.2 MTPA in a total lease area of 450 Ha) located in villages Lohanra, Kathautia, Gareiadih, Garikhas, Tehsil Patan, District Palamau, Jharkand , to M/s Araanya Mines Private Limited as the successful bidder.

vi. MOEFCC transferred the EC of Lohari Opencast Coal Project of 0.2 MTPA in a total lease area of 450 ha located in villages Lohanra, Kathautia, Gareiadih, Garikhas, Tehsil Patan, District Palamau (Jharkhand) from M/s Usha Martin Ltd to M/s Araanya Mines Private Limited on 10th June, 2015.

vii. There is a need of correction in the EC w.r.t. Mine Lease area i.e. ML area 405 ha instead of 450 ha.

47.14.3 *The EAC after verifying the documents recommended for correction in Mine lease area i.e. the ML area may be read as 405 ha, instead of 450 ha.*

Meeting ended with the vote of thanks to the chair.

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Annexure 1

PARTICIPANTS IN 47th EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 30th November- 1st December, 2015 ON COAL SECTOR PROJECTS.

Sl. No.	**LIST OF PARTICIPANTS Expert Appraisal Committee (Coal Mining)**	
1.	Shri Anil Kumar	Chairman
2.	Prof C. R. Babu	Member
3.	Shri Jawahar Lal Mehta	Member
4.	Shri A. K. Bansal	Member
5.	Shri N. K. Verma	Member
6.	Shri G. S. Dang	Member
7.	Shri S. S. Bala	Member
8.	Dr. S. D. Attri	Member
9.	Shri P. D. Siwal	Member
10.	Shri N. S. Mondal	Member
11.	Shri S. K. Shrivastva	Member Secretary

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Annexure 2

PARTICIPANTS IN 47th EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 30th November- 1st December, 2015 ON COAL SECTOR PROJECTS.

47.1 Amalgamated Yekona - I & II OCP of M/s Western Coalfields Limited.

1. Shri B.K Mishra
2. Shri S. K. Sinha
3. Shri R. M. Wanare
4. Shri V. K. Nagda
5. Shri G. Kumar
6. Shri K. Chakraborty

47.2 Kalinga/Balaram Open Cast coal mine of M/s Mahanadi Coalfield Limited.

1. Shri J. P. Singh
2. Shri R.K. Srivastava
3. Dr. Shambhu Jha
4. Shri Pawan Kumar

47.3 Jagannath Washery of M/s Mahanadi Coalfields Ltd.

1. Shri J. P. Singh
2. Shri R.K. Srivastava
3. Dr. Shambhu Jha
4. Shri Pawan Kumar

47.4 Cluster no. 2 group of Mixed mines of M/s Eastern Coalfield Limited.

1. Shri B. R. Reddy
2. Shri J. N. Biswal
3. Shri G. Prasad
4. Shri S. C. Kundan
5. Shri Amrita Pandit
6. Shri Abhishek Kumar Paul
7. Shri Anand Shekhar
8. Shri Soumabha Chakaraborty
9. Shri Rishabh Raj
10. Shri Pawan Kumar

47.5 Cluster no. 12 of M/s Eastern Coalfield Limited.

1. Shri B. R. Reddy
2. Shri J. N. Biswal
3. Shri G. Prasad
4. Shri S. C. Kundan
5. Shri Amrita Pandit
6. Shri Abhishek Kumar Paul
7. Shri Anand Shekhar
8. Shri Soumabha Chakaraborty
9. Shri Rishabh Raj
10. Shri Pawan Kumar

47.6 Khadia Opencast Coal Mine Expansion Project of M/s Northern Coalfields Limited.

1. Shri J. L. Singh
2. Shri B. K. Sharma
3. Shri Sunil Kumar
4. Shri Uttam Das
5. Shri Naveen Kumar Jha
6. Shri V. N. Dupattawala
7. Shri Pawan Kumar

47.7 Coal Washery of M/s Mahavir Beneficiation Private Ltd.

1. Shri Ankur Jain
2. Shri K. K. Jain
3. Shri B. P Jangid
4. Shri Navin Kumar
5. P. Rama Krishna
6. Shri M. Janardhan

47.8 Bhengari Coal washery of M/s Mahavir Coal Washeries Private Limited.

1. Shri Ankur Jain
2. Shri K. K. Jain
3. Shri B. P Jangid
4. Shri Navin Kumar
5. P. Rama Krishna
6. Shri M. Janardhan

47.9 Kusmunda Washery project of M/s South Eastern Coalfields Ltd.

1. Shri Om Prakash
2. Shri R. P Thakur
3. Shri U. T. Kanzaokar
4. Shri U K Singh
5. Shri A. S. Bapat
6. Shri D. C. Kundu
7. Shri S. Mahapatra
8. Shri R. B. Singh
9. Dr. A. Tiwari
10. Shri Abhijit singh
11. Shri P C Jha
12. Shri Ashutosh Kumar

47.10 Kusmunda OCP of M/s South Eastern Coalfields Ltd.

1. Shri Om Prakash
2. Shri R. P Thakur
3. Shri U. T. Kanzaokar
4. Shri U K Singh
5. Shri A. S. Bapat
6. Shri D. C. Kundu
7. Shri S. Mahapatra

8. Shri R. B. Singh
9. Dr. A. Tiwari
10. Shri Abhijit singh
11. Shri P C Jha
12. Shri Ashutosh Kumar

47.11 Expansion of Amera OC project of M/s South Eastern Coalfields Ltd.

1. Shri Om Prakash
2. Shri R. P Thakur
3. Shri U. T. Kanzaokar
4. Shri U K Singh
5. Shri A. S. Bapat
6. Shri D. C. Kundu
7. Shri S. Mahapatra
8. Shri R. B. Singh
9. Dr. A. Tiwari
10. Shri Abhijit singh
11. Shri P C Jha
12. Shri Ashutosh Kumar

47.12 Marki Mangli - III Opencast Coal Mining Project of M/s B. S. ISPAT LIMITED

1. Shri Devendra
2. Shri Rajesh S Shriwastava
3. Shri I J Talwar
4. Shri A. D Jarfar

47.13 Khairagura Opencast Expansion Coal Mining Project of M/s The Singareni Collieries Co. Ltd

1. Shri M. Vasanth Kumar
2. Shri P. Sharath Kumar

47.14 Lohari Opencast Coal Project of M/s Araanya Mines Private Limited.

1. Shri Amit Bose
2. Dr. Arvind Kumar

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ANNEXURE-3

Updated/ December, 2014

Generic ToR for coal washery

i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washery preferably through closed conveyer belt to avoid air pollution.
ii. The washery shall not be located in eco-sensitive zones areas.
iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
v. A brief description of the plant alongwith a layout, the specific technology used and the source of coal should be provided.
vi. The EIA-EMP Repot should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of ElA in case coal mine, TPP and other washeries are located within 10km radius. The ElA should also include mitigative measures needed to minimize adverse environmental impacts.
vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Government.
viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM_{10}, $PM_{2.5}$, SOx and NOx, noise, water (surface and groundwater), soil be submitted.
ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in ElA/EMP report.
xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc.to

the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.

xiii. Impacts of CHP, if any, on air and water quality should also be spelt out alongwith Action Plan.

xiv. O.M. no. J-llOI3/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.

xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.

xvi. Analysis of samples indicating the following be submitted:

Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc).

Characteristics and quantum of coal after washing.

Characteristics and quantum of coal rejects.

xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.

xviii. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.

xix. Corporate Environment Responsibility:

a) The Company must have a well laid down Environment Policy approved by the Board of Directors.

b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.

c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.

d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

xx. A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.

xxi. Permission of drawl of water shall be pre-requisite for consideration of EC.

xxii. Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986

xxiii. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

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ANNEXURE -4

GENERIC TOR FOR AN OPENCAST COALMINE PROJECT for EC

(i) An EIA-EMP Report shall be prepared for**..... MTPA** rated capacity in an ML/project area of.....ha based on the generic structure specified in **Appendix III of the EIA Notification, 2006.**

(ii) An EIA-EMP Report would be prepared for..... MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for**..... MTPA** of coal production based on approved project/Mining Plan for.....MTPA. Baseline data collection can be for any season (three months) except monsoon.

(iii) A toposheet specifying locations of the State, District and Project site should be provided.

(iv) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of **ecologically sensitive areas** such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.

(v) Land use map (1: 50,000 scale) based on a recent satellite imagery of the study area may also be provided with explanatory note on the land use.

(vi) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.

(vii) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.

(viii) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.

(ix) In case of any proposed diversion of nallah/canal/river, the proposed route of diversion /modification of drainage and their realignment, construction of embankment etc. should also be shown on the map as per the approval of Irrigation and flood control Department of the concerned state.

(x) Similarly if the project involves diversion of any road/railway line passing through the ML/project area, the proposed route of diversion and its realignment should be shown in the map along with the status of the approval of the competent authority.

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

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

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

(xii) Break-up of lease/project area as per mining plan should be provided.

(xiii) Impact of changes in the land use due to the project if the land is predominantly agricultural land/forestland/grazing land, should be provided.

(xiii) **One-season (other than monsoon) primary baseline data** on environmental quality - air (PM_{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 should be provided.

(xiv) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.

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

(xvi) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production

from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.

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

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

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

(xx) Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users in the upstream and downstream of the project site. should be given.

(xxi) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.

(xxii) Impact of blasting, noise and vibrations should be given.

(xxiii) Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.

(xxiv) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.

(xxiv) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.

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

(xxvi) Efforts be made for maximising progressive internal dumping of O.B., sequential mining , external dump on coal bearing area and later rehandling into the mine void.--to reduce land degradation.

(xxvii) Impact of change in land use due to mining operations and plan for restoration of the mined area to its original land use should be provided.

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

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

S.N.	Land use Category	Present (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					

* As a representative example

Table 2 : Stage Wise Cumulative Plantation

S.N.	YEAR*	Green Belt		External Dump		Backfilled Area		Others(Undisturbed Area/etc)		TOTAL	
1.	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)										

* As a representative example

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

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

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

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

(xxxi) Occupational health issues. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower in the mine should be given.

(xxxii) Risk Assessment and Disaster Preparedness and Management Plan should be provided.

(xxxiii) Integration of the Env. Management Plan with measures for minimizing use of natural resources - water, land, energy, etc. should be carried out.

(xxxiv) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.

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

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

(xxxvii) 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.

(xxxviii) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.

(xxxix) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.

(xl) Status of any litigations/ court cases filed/pending on the project should be provided.

(xli) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.

(xlii) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

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

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

ANNEXURE -5

GENERIC TORs FOR AN UNDERGROUND COALMINE PROJECT

(i) An EIA-EMP Report shall be prepared for..... MTPA rated capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.

(ii) An EIA-EMP Report would be prepared for..... MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for..... MTPA of coal production based on approved project/Mining Plan for.....MTPA. Baseline data collection can be for any season (three months) except monsoon.

(iii) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.

(iv) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.

(v) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.

(vi) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.

(vii) Original land use (agricultural land/forestland/grazing land/wasteland/water bodies) of the area should be provided as per the tables given below. Impacts of project, if any on the land use, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations should be analyzed. Extent of area under surface rights and under mining rights should be specified.

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

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

(ix) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.

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

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

(xii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM_{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 should be provided.

(xiii) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.

(xiv) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime

within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.

(xv) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.

(xvi) Detailed water balance should be provided. The break up of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.

(xvii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.

(xviii) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.

(xix) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.

(xx) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.

(xxi) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.

(xxii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.

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

(xxiv) Greenbelt development should be undertaken particularly around the transport route and CHP. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be submitted.

(xxv) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.

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

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

(xxviii) Corporate Environment Responsibility:

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

(xxix) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.

(xxx) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.

(xxxi) Status of any litigations/ court cases filed/pending on the project should be provided.

(xxxii) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.

(xxxiii) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

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

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

ANNEXURE-6

GENERIC TORs FOR AN OPENCAST-CUM-UNDERGROUND COALMINE PROJECT

(i) An EIA-EMP Report would be prepared for a combined peak capacity of **.....**MTPA for OC-cum-UG project which consists of .... MTPA in an ML/project area of ..... ha for OC and .... MTPA for UG in an ML/project area of ..... ha based on the generic structure specified in Appendix III of the EIA Notification 2006.

(ii) An EIA-EMP Report would be prepared for..... MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for**..... MTPA** of coal production based on approved project/Mining Plan for.....MTPA. Baseline data collection can be for any season (three months) except monsoon.

(iii) The ToRs prescribed for both opencast and underground mining are applicable for opencast – cum-underground mining.

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Revised Schedule
For

47th EAC (THERMAL & COAL MINING PROJECTS) MEETING
to be held on 30th November- 1st December, 2015

AGENDA

Venue: Brahmaputra Conference Hall, First floor, Vayu Wing, Indira Paryavaran Bhawan, Jorbagh, New Delhi-110003.

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

Important Note:

i. Please send the information as per Annexure 1 by E-mail in word format and also a signed & scanned copy, to the Member-Secretary at sk.smree66@nic.in at least one week prior to the EAC meeting.
ii. Please indicate the agenda number on the document submitted as well as in the e-mail while forwarding the relevant information.
iii. Without this information, EAC has discretion to invite the proponent for the meeting.
iv. Please also provide a copy to the EAC Members during the meeting.
v. No consultant is permitted into the meeting who has no accreditation with ualityCouncil of India (QCI) /National Accreditation Board of Education and Training (NABET) as per the MoEF OM dated 2nd December, 2009.

COAL MINING PROJECTS

Monday, 30th November, 2015

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

47.1 Amalgamated Yekona - I & II OCP in 2.75 MTPA (Normative) and 3.44 MTPA (Peak) in an area of 1701.32 ha of M/s Western Coalfields Limited in marda Village, Dist Chandrapur, Maharashtra **(TOR)**

47.2 Kalinga/Balaram Open Cast coal mine expansion project (from 8 MTPA to 20 MTPA) and expansion in ML area from 1329.40 ha to 2507.42 ha of M/s Mahanadi Coalfield Limited in Talcher coalfields in Tehsil Talcher, District Angul, Odisha - Change in names from Kalinga OCP to Balaram OCP and modification in TOR.

47.3 Jagannath Washery (10.0 MTPA in an area of 29.94 Ha) of **M/s Mahanadi Coalfields Ltd.** Longitudes 85^0 09' 10" E to 85^0 11' 37" E and latitudes 20^0 57' 59" N to 20^0 58' 43"N, located in villages Hensmul District Talcher, Orissa **– (Correction in TOR)**

47.4 Cluster no. 2 group of Mixed mines project (0.36 MTPA with a peak prod. of 0.45 MTPA in a combined ML area of 1018 ha) of M/s Eastern Coalfield Limited, located at dist. Burdwan, West Bengal. - for Consideration of EC under 7(ii) of Notification, 2006.(**Further Consideration**)

47.5 Cluster 12 comprising of 19 mixed mines of a combined production capacity of 27.16 MTPA (Normative) with a (Peak) production of 31.83 MTPA in a combined ML area of 13759.55 Ha (14047 Ha – 287.45 Ha = 13759.55 Ha); of M/s Eastern Coalfields Limited, located in Raniganj Coalfields, in

Tehsil Haripur Block, dist. Burdwan, West Bengal – Environmental Clearance **(EC granted on 09.02.2015 requested for EC modification).**

LUNCH

47.6 Khadia Opencast Coal Mine Expansion Project (from 10 MTPA to 14 MTPA and lease area from 1460 ha to 1640 ha) of M/s Northern Coalfields Limited, located in District Sonebhadra, Uttar Pradesh and in Tehsil Singrauli in District Sidhi, Madhya Pradesh - EC under 7(ii) of EIA Notification 2006. **(Further Consideration)**

47.7 Coal Washery (expansion from 1 MTPA to 5 MTPA in an ML area 16.12 ha) of M/s Mahavir Beneficiation Private Ltd., District Anuppur, Madhya Pradesh -EC based on TOR granted dated 21.05.2014**. (Further Consideration).**

47.8 Bhengari Coal washery of 5 MTPA capacity in a project area of 17.48 ha of M/s Mahavir Coal Washeries Private Limited Distt. Raigarh, Chhattisgarh – TOR (**Further Consideration**.)

Tuesday 1st December, 2015

47.9 Kusmunda Washery project (Capacity 25.00 MTPA in an area of 41.23 Ha) of M/s South Eastern Coalfields Limited located in Village: Durpa & Jarhajel Tahsil: Katghora Distt: Korba, Chhatishgarh - (TOR) **(Further Consideration)**

47.10 Kusmunda Opencast Expansion Project (Normative 15 MTPA to 50MTPA & Peak 18.75 MTPA to 62.50 MTPA in an ML area 3510.348 Ha) East of M/s South Eastern Coalfields Ltd., located at dist. Korba, Chhattisgarh - (EC based on TOR granted on 01.12.2014) **(Further Consideration)**

47.11 Expansion of Amera OC project (from 1.0 MTPA to 2.0 MTPA in an ML area of 664.184 Ha of M/s South Eastern Coalfields Limited located at village Amera, Tahsil Lakhanpur in District Sarguja Chhattisgarh – (Expansion under 7(ii) of EIA Notification, 2006)**. (Further Consideration)**

LUNCH

47.12 Marki Mangli - III Opencast Coal Mining Project in Production Capacity 0.21 MTPA in an ML area of 275 ha of **M/s B. S. ISPAT LIMITED** in village(s) Ardhwan, Bhendala, Ruikot, Mukutban, District Yavatmal Maharashtra **(TOR)**

47.13 Khairagura Opencast Expansion Coal Mining Project (from 3.0 MTPA to 3.75 MTPA in an ML area of 1217.50 ha of **M/s The Singareni Collieries Co. Ltd**., Dist. Adilabad, Telangana – (**EC granted on 06.02.2015 - Correction in EC condition).**

47.14 Lohari Opencast Coal Project (0.2 MTPA in a total lease area of 450 Ha) located in villages Lohanra, Kathautia, Gareiadih, Garikhas, Tehsil Patan, District Palamau, Jharkand from M/s Usha Martin Ltd., to **M/s Araanya Mines Private Limited -** EC granted on 13.03.2008 ; EC transferred on 10.06.2015 **(Request for correction w.r.t Mine lease area from 450 to 405 ha).**

47.15 Discussion on any other matters with the permission of the Chair.

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