

Minutes of the 17th meeting of the EAC held on 31st August, 2017 for appraisal of Coal mining projects

A. The 17th meeting of the Expert Appraisal Committee (EAC) for Thermal & Coal mining projects was held on 31st August, 2017 in the Ministry to consider the proposals relating to coal mining sector. The lists of participants and the project proponents are at Annexure-I & II respectively.

B. Confirmation of minutes

There being no comments from any of the members of the Committee, minutes of the 15th meeting of the EAC held on 25th July, 2017 were confirmed.

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

Agenda 17.1

Manikpur Opencast expansion project from 3.50 MTPA to 5.25 MTPA in an area of 1018.925 ha of M/s South Eastern Coalfields Limited located at Tehsil & District Korba (Chhattisgarh) - For EC

17.1.1 The proposal is for environmental clearance of the EIA Notification, 2006 for expansion project of Manikpur Opencast Coal mine from 3.50 MTPA to 5.25 MTPA in an area of 1018.925 ha of M/s South Eastern Coalfields Limited located at Tehsil & District Korba (Chhattisgarh).

17.1.2 The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under:-

- (i) The project was accorded EC vide letter no.J-11015/1129/2007-IA.II (M) dated 22nd August, 2014 for 3.25 MTPA capacity.
- (ii) The latitude and longitude of the project are 22° 19' 00" to 22° 19' 30" North and 82° 42' 30" to 82° 44' 30" East respectively.
- (iii) Joint Venture: No joint venture.
- (iv) Coal Linkage: At present the mine is catering to CSPGCL through own wagon system. Some coal is auctioned to BALCO, DB POWER, LANCO and dispatched through road/rail. Also supplied to MPPGCL through rail mode.
- (v) Employment generated / to be generated: Total manpower of the mine is 999 as on 01.08.2017
- (vi) Benefits of the project: Improvement in physical infrastructure, Improvements in social infrastructure, Increase in employment potential, Contribution to the exchequer, Meet energy requirement.
- (vii) The land usage of the project will be as follows:

Pre-Mining:

SN.	Land use	Within ML area (ha.)	Total (ha.)
		Already acquired	
1	Agricultural land	531.856	531.856

2	Forest land	371.619	371.619
3	Waste Land	111.170	111.170
4	Grazing Land	-	-
5	Surface Water Bodies	4.280	4.280
6	Settlements	-	-
7	Others (Specify): Infrastructure & colony	-	-
	TOTAL	1018.925	1018.925

Post- Mining:

S. No.	LAND USE	Land Use (ha)				TOTAL
		Plantation	Water body	Public use	Undisturbed	
1.	External OB Dump	187.700	-	-	-	187.700
2.	Internal Dump/ Backfilled Area	189.585	-	-	-	189.585
3.	Excavation	-	321.350	-	-	321.350
4.	Roads	-	-	1.090	-	1.090
5.	Built up area	-	-	88.510	-	88.510
6.	Green Belt	5.0	-	-	-	5.0
7.	Undisturbed Area including Safety Zone	-	-	-	225.690	225.690
	TOTAL	382.285	321.350	89.600	225.690	1018.925

Core area

S No.	Particulars	Tenancy land (ha)	Forest land (ha)	Government Land (ha)					Grand Total (ha)
				Grazing land	Waste land	Water body	Others	Total	
1	Quarry Area	56.96	256.53	-	7.86	-	-	7.86	321.35
2	Backfilled Area	75.949	105.752	-	7.884	-	-	7.884	189.585
2	Area for Top Soil	10.0	-	-	-	-	-	-	10.0
3	External dump	94.97	3.74	-	88.99	-	-	88.99	187.70
4	Infrastructure	4.66	2.35	-	2.13	-	-	2.13	9.14
5	Roads	5.99	2.02	-	-	-	-	-	8.01
6	Residential Colony	18.04	-	-	-	-	-	-	18.04
7	R & R site	-	-	-	-	-	-	-	-
8	Nala Diversion, if any	-	-	-	-	12.45	-	12.45	12.45
9	Safety Zone	12.75	-	-	-	-	-	-	12.75
10	Others	210.257	5.507	-	34.136	-	-	34.136	249.90

Total Land (in Ha)	489.576	375.89 9	-	141.00	12.45	-	153.4 5	1018.92 5
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- (viii) Total geological reserve is 117.23 MT. The mineable reserve 79.69 MT, extractable reserve is 101.50 MT. The per cent of extraction would be 86-87%.
- (ix) The coal grade is G-14. The stripping ratio is 2.68 cum/tonne. The average Gradient is 9 to 27. There will be three seams with thickness ranging up to 32.70 m.
- (x) Total estimated water requirement is 510 m³/day. The level of ground water ranges from 0.72 m to 11.58 m.
- (xi) The mining would be opencast with shovel dumper combination.
- (xii) There are two external OB dumps with quantity of 103.20 Mbcm in an area of 187.70 ha with height of 60 m and 90 m meter above the surface level and three internal dump with Quantity of 169.10 Mbcm in an area of 189.585 ha.
- (xiii) The final mine void would be in 321.35 ha with depth varying upto 40 m. and the total quarry area is 321.35 ha. There will be no backfilled quarry area. A void of 321.35 ha with depth varying upto 40 m which is proposed to be converted into a water body.
- (xiv) The life of mine is 16 years as on 01.04.2017 @ 5.25 MTPA production.
- (xv) Transportation: Coal transportation in pit by conveyor system, Surface to Siding by tippers and siding to customer by railway and to local consumers by tippers.
- (xvi) There is R & R involved. There are 100 PAFs.
- (xvii) Cost: Total capital cost of the project is Rs. 376.28 Crores. CSR Cost Rs. 2 per Tonne of coal production. R&R Cost Rs.132 Lakhs. Environmental Management Cost Rs. 557.17 Lakhs).
- (xviii) Water body: The westerly flowing KachandiNalla drains the waters of Manikpur coal bearing area into the Hasdeoriver, which is the main drainage for Korba Coalfields.
- (xix) Approvals: Approval from CGWB was not obtained previously as the area was declared white area. Approval shall be obtained for which documentation is under process Board's approval obtained on 15.09.2015 for expansion to 5.25 MTPA. Mine closure plan is an integral part of mining plan is under process.
- (xx) Wildlife issues: Wild Life Management Plan has been prepared by Mr. K.N.S. Chauhan (Rtd. CF, Chhattisgarh) and Mr. C.M. Shakeel (Rtd. Addtl. DFO Raipur, C.G.) and approved by PCCF(Wildlife), Raipur on 24.11.2010. Budgetary provision: 5.0 Crores.
- (xxi) Forestry issues: Total forest area involved 375.899 ha (Stage-II FC issued vide F. No. 8-9/20006-FC (Vol-I) on 19.08.2011 for 194.728 Ha; Stage-I FC issued vide F. No. 8-9/2006-FC on 14.06.2006 for 181.177 Ha – (* This is a regularization case)
- (xxii) Total afforestation plan shall be implemented covering an area of 390.035 ha at the end of mining. Green Belt over an area of 5 ha. Density of tree plantation 2500 trees/ ha of plants.
- (xxiii) There are no court cases/violation pending with the project proponent.
- (xxiv) Last last public hearing for approval of the 3.50 MTPA project was held on 27th August, 2009. The issues raised in the PH include plantation, employments, drinking water facility, electricity, blasting etc.

17.1.3 The certified report on compliance status of EC conditions based on monitoring conducted on 20th May, 2017 by this Ministry's Regional Office at Nagpur (Maharashtra), has been forwarded vide letter no.3-32/2014(ENV)/1914 dated 12th June, 2017. The same was deliberated during the meeting.

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

The proposal is for EC to the expansion project of Manikpur Opencast Coal mine from 3.50 MTPA to 5.25 MTPA of M/s South Eastern Coalfields Limited in an area of 1018.925 ha

located in Tehsil and District Korba (Chhattisgarh) for consideration under para 7 (ii) of the EIA Notification, 2006.

Total project area includes 375.905 ha of forest land. For diversion of this forest land, the project proponent has already obtained forest clearances in two phases (stage-II FC on 19th August, 2011 for 194.728 ha and stage-I FC on 14th June, 2006 for 181.177 ha).

Mining Plan for the project was approved by the SECL Board on 15th September, 2015. The Mine closure Plan is an integral part of the Mining Plan.

The earlier EC for 3.50 MTPA was granted by this Ministry on 22nd August, 2014 in favour of M/s South Eastern Coalfields Ltd, based on the ToR issued on 16.06.2008 and public hearing conducted on 27th August, 2009.

The proposal for EC to the proposed expansion has been submitted without grant of ToR and the public hearing, seeking exemption as per the provisions under para 7(ii) of the EIA Notification, 2006.

17.1.5 The Committee observed that in view of the quantum expansion of the coal mine by 50%, the requirement of ToR seems to be absolutely essential and should have been taken up for submission of the proposal for EC accordingly. The Committee also opined that the Form-1 required for grant of TOR was already submitted along with the proposal for grant of EC.

The EAC, after deliberations, recommended the project for grant of terms of reference to the Manikpur Opencast expansion project from 3.50 MTPA to 5.25 MTPA of M/s South Eastern Coalfields Limited located in an area of 1018.925 ha at Tehsil & District Korba (Chhattisgarh) for preparation of EIA/EMP reports along with public consultation, subject to compliance of all the terms and conditions stipulated in the standard ToR applicable for such projects and the additional conditions as under:-

- For proper baseline air quality assessment, adequate monitoring stations (4-5 nos) in the downwind areas need to be set up and included in the air quality modelling.*
- Ecological restoration and mine reclamation plan to be prepared with local/native species found in the area.*
- Wildlife Conservation Plan to be prepared and submitted to the concerned authority for obtaining the necessary approval, if any.*

Agenda 17.2

Expansion of Karo Opencast Coal Mine from 1.5 MTPA to 15 MTPA and Integrated Karo Washery of 7 MTPA in ML area of 575.36 ha of M/s Central Coalfields limited located in village, Karo, Amlo, Kargali & BaidKaro, District Bokaro (Jharkhand) - For EC

17.2.1 The proposal is for EC to the expansion of Karo OCP from 1.5 MTPA to 15 MTPA, and Integrated Karo Washery of 7.0 MTPA of M/s Central Coalfields limited in an area of 552.84 ha located in villages Karo, Amlo, Kargali & Baid Karo, District Bokaro (Jharkhand)

17.2.2 The proposal was last considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Projects in its 58th meeting held on 23-24 June, 2016.

During the meeting, the observations of the Committee were as under:-

- (i) The RO, MoEFCC Ranchi has inspected Karo Expansion OCP on 22.01.2016, and the compliance report has been submitted.
- (ii) No road transport is involved in movement of coal from mine to washery and washery to consumer.
- (iii) The air quality data given in the EIA/EMP report indicate PM10 values exceeding the air quality standards of 100 ug/m³ at monitoring station A2 which is 1.5 km away in Baidya Karo basti. On enquiry about mitigating measures, it was mentioned that the monitoring station falls under their working area and the basti will be evicted.
- (iv) The project proponent shall submit a revised proposal for re-location plan of the basti in a realistic manner.
- (v) The project proponent have to do social audit from some reputed institute.
- (vi) The project proponent has agreed to spend 4crore towards CSR this year for both Karo and Konar. They will also submit an action plan in respect of public hearing issues depicting budgetary allocation also.
- (vii) The technology for the washery would be finalised as per the tenders received. The committee desired that after approval of the tender, the technology is to be submitted to the EAC for final EC.
- (viii) For meeting the water requirement for the washery, the project proponent is required to conduct study both for use of underground mine water as well as from reservoir created through check dams to be constructed on Gati Nallah.
- (ix) Re-examine the management of OBDs and final voids and also for sequential mining to reduce the external OB dump area.
- (x) Action plan in compliance report need to submitted by project proponent on the points raised in the monitoring report of RO of MoEF&CC particularly Part II of the report on the points requiring special attention.

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

- (i) The following measures are proposed for maintenance of ambient air quality in and around project area.
 - 2 nos. of 28KL and 2 nos. of 8KL of Water sprinklers are existing and 4nos. of 28KL of mist water Sprinklers are proposed.
 - 8 MTY of coal (about 72%) will be produced by surface miners which will eliminate emission from drilling, blasting and crushing activities.
 - Raw Coal transportation from pit to Coal Washery and from washery to Kargali railway siding will be done in covered conveyor belts (Total length of conveyor belt = Quarry1 - 1.7 Km + Quarry2 - 1.8 Km + 6.5 Km= 10 Kms).
 - Avenue plantation along roads will be raised.
 - External overburden dumps (95.24Ha) will be rehandled and OB filled in mine void in post mining period. The vacated external dump area will be brought to productive use like afforestation / plantation, pasture /grassland, agriculture / horticulture activities, etc.
 - Post mining plantation will be done on 374.93 Ha of land.
 - Regular monitoring of ambient air quality of project area will be done.
- (ii) The revised action plan for rehabilitation of the basti is as under:-

Name of the Village	No. of families	Proposed year wise plan of shifting of families				
		2016-17	2017-18	2018-19	2019-20	2020-21
Karo village	360	15	40	85	95	125

Proposed rehabilitation site is situated near Hindustan Bridge at a distance of about 8-9 km from project. The area of site is approx 51.53 Acre. Employment to 133 land losers is estimated in project. Till date, 114 land losers have already been provided employment.

(iii) The work of social audit is being done by Department of Mining Engineering, IIT Kharagpur and is likely to be completed within a month.

(iv) The status of public hearing issues for its compliance is as under:

- Land verification / authentication is being done by State Govt on basis of which employment and compensation will be provided to the tenants as per the R & R policy of CIL. As on date about 134 Ha land authenticated by State Govt against which 114 employment already provided. Authentication of additional about 106 Ha land being done by State Govt.
- Drinking water/Street light, education, medical facilities will be provided under CSR to Palmu Panchayat. During 2016-17 about 36.00 lakh for drinking water, sanitation, and social infrastructure has already been sanctioned. Proposal for additional works related to CSR for about 100 lakh is under preparation.
- Repair of coal transportation road has started. Work order issued for repair and maintenance of coal transportation road from BRO more to old substation building and 4 nos. hume pipe culverts at Karo I OCP vide letter no SO©/B&K/KG/AWARD/15-16/343 dated 18.12.15 for a value of Rs 56.71 lakh. The work is in progress and will be completed by December 2016. Local persons are regularly employed by outsourcing companies based upon requirement and qualification of the youth.
- During 2016-17 about 36.00 lakh for drinking water, sanitation, social infrastructure has already been sanctioned. Proposal for additional works related to CSR for about 100 lakh is under preparation. The details of completed activities under CSR already done in surrounding villages.
- The public representatives regularly participate in Area level CSR meetings. Top soil is removed and stored separately at identified location and is being used before plantation. Land of project has been acquired under CBA and there is no provision in the act at present to return land to villagers.
- Skill development programmes like computer training, are given to the PAF. Under CSR computer training provided to PAPs during 2014-15 & 2015-16 at an expenditure of Rs 2.00 lakh. Further 10 number of PAPs were trained at Central Excavation Training Institute, Barkakana.
- As on date about 134 Ha land authenticated by State Govt against which 114 employment already provided. Another about 80 nos. of employments will be provided to the land losers besides indirect employment through contractors.
- As on date about 134 Ha land authenticated by State Govt against which 114 employment already provided. Authentication of about 106 Ha land is in being done by State Govt.

- In the proposed expansion of project coal transportation will be done by conveyor belt only.
- The land owner whose land is verified, are provided with employment as per norms. Developmental activities under CSR are regularly done in B & K Area. During 2016-17 about 36.00 lakh for drinking water, sanitation, social infrastructure has already been sanctioned. Proposal for additional works related to CSR for about 100 lakh is under preparation.
- Commitment made during public hearing will be sincerely implemented. The public representatives regularly participate in Area level CSR meetings.
- During 2016-17 about Rs 36.00 lakh for drinking water, sanitation, social infrastructure has already been sanctioned. Proposal for additional works related to CSR for about 100 lakh is under preparation. The activities under CSR already done in surrounding villages. Ponds have already been constructed at Baidkaro and Charkpania villages at a total cost of 6.5 lakh under CSR in past. Such works will be taken up under CSR in future also.

(v) M/s Aryan Coal Beneficiation Ltd has been identified as successful bidder. The proposed technology is based on wet beneficiation process comprising of jig & belt filter press. The details of equipment & technology will be submitted immediately after award of work.

(vi) The water requirement for proposed Karo coal washery was studied & detail submitted in the PFR & EIA & EMP. The salient points are again given below.

- Availability of UG mine water: 61 million gallon
- Availability of surface water from proposed check dam : 40 million gallon.
- Predicted surplus mine water available for washery: 1830 m³/day.

Estimated water demand for the washery; 1590 m³/day.

As such, the water demand for washery during its construction & operation phase can be met from mine water and also available stored UG water & surface water from check dam.

(vii) The exercise has been done and the detail are as under:-

It is proposed to re-handle 10.68 and 23.45 million m³ OB from external dumps 1 & 2 respectively, the total being 34.13 million m³. Considering 15% swelling factor, the OB proposed to be re-handled is 39.25 million m³ @ Rs 30 per m³ of OB as per prevailing practice in CCL. At this rate the present value of rehandling is as given below.

Year	1	2	3	4	5	Total
Yearly expenditure (Rs Lakh) after end of mining operation	2355	2355	2355	2355	2355	11775

Dump Type	Volume (MCum)	Top RL (m)	Average height (m)	Area (Ha)	
As per proposal already submitted in EIA & EMP					
Quarry -I	External	10.68	+340	60	38.00
	Internal	19.38	+280	25	72.28
Quarry-II	External	23.45	+395	60	57.24

	Internal	36.88	+310	60	88.26
	Total	90.39	-	-	-
As per reworked proposal as desired by EAC (T&C), MoEF&CC					
Quarry -I	External	0.00	+280	0.00	38.00 (land vacated after OB dump removal)
	Internal	30.06	+330	70.00	120.99
Quarry-II	External	0.00	+335	0.00	57.24 (land vacated after OB dump removal)
	Internal	60.33	+330	80.00	174.76
	Total	90.39	-	-	-

17.2.4 During deliberations, the EAC noted the following:-

The proposal is for EC to the expansion of Karo OCP from 1.5 MTPA to 15 MTPA, and Integrated Karo Washery of 7.0 MTPA of M/s Central Coalfields Ltd in an area of 552.84 ha located in villages Karo, Amlo, Kargali & Baid Karo, District Bokaro (Jharkhand)

The earlier EC for 1 MTPA was granted by the Ministry vide letter No.J-11015/544/2009-IA-II(M) on 24th December, 2014 in favour of M/s Central Coalfields Ltd, based on the ToR issued vide letter No. J-11015/319/2009-IA-II(M) on 10th December, 2009.

The proposal was earlier considered by the EAC in its meeting held on 14th August, 2014. The observations of the Committee are reflected in the preceding para. During the meeting, the Committee also noted excess coal production during the years 2014-2015 beyond the sanctioned capacity for which the EC was granted. Considering the same as non-compliance of the EC conditions, the project proponent was asked to comply with the extant OMs/guidelines dealing with such violation cases. However, due to subsequent development and legal interventions, the proposal was not taken forward, and kept pending till policy decision in this regard.

To deal with the matters involving violation of the EIA Notification, 2006, the Ministry issued a Notification on 14th March, 2017 under the Environment (Protection) Act, 1986. The Notification provides for appraisal/approval of proposals for grant of EC, where projects were implemented and/or the expansion carried out without obtaining prior EC as mandated in the EIA Notification, 2006.

The above proposal was proposed to be considered by the EAC constituted in pursuance of the Notification dated 14th March, 2017. Meanwhile, Hon'ble Madras High Court vide their order dated 4th May, 2017 in WP No.11189 of 2017 in the matter of 'Puducherry Environment Protection Association Vs Union of India' prohibited the Ministry from taking any further action pursuant to the Notification dated 14th March, 2017. The matter was last heard on 23rd August, 2017. The order has since been reserved.

In the meantime, Hon'ble Supreme Court in its order dated 2nd August, 2017 in Civil Appeal No.114/2014 in the matter of 'Common Cause Vs Union of India & Ors. has issued many directions on illegal mining of major minerals in the State of Odisha, which would be

applicable to the present proposal also. However, the same is yet to be examined for its legal implications and requires comprehensive deliberations.

The proposal was placed before the Committee to take stock of the alternatives available in consultation with the inputs/feedback from the project proponent for further consideration of the proposal for EC. The EAC, after deliberations and in view of the legal interventions as above, preferred that the Ministry may first examine the matter in complete perspective to arrive at the applicability of the orders of Hon'ble Supreme Court and Hon'ble Madras High Court, including the action contemplated under the Environment (Protection) Act, for the reported non-compliance of opinion the EC condition. The Committee sought directions of the Ministry for further consideration of the proposal vis-à-vis the provisions of the EIA Notification, 2006.

17.2.5 *The EAC, after detailed deliberations, deferred the proposal for the present and sought opinion of the Ministry for further consideration of the proposal vis-à-vis the provisions of the EIA Notification, 2006.*

Agenda 17.3

Kakatiya Khani Opencast-III Phase-I (KTK OC-III Phase-I) coal mining project for production capacity of 2.50 MTPA (Normative)/3.00 MTPA (Peak) in an area of 1555.31 ha of M/s Singareni Collieries Company Limited (SCCL) located in village Baswarajupalli, Mandal Ghanpur, Districts Jayashankar & Bhoopalpalli (Telangana) - For TOR

17.3.1 The proposal is for terms of reference to the Kakatiya Khani Opencast –III Phase –I (KTK OC-III Phase –I) coal mining project for production capacity of 2.50 MTPA (Normative) /3.00 MTPA (Peak) in the project area of 1555.31 ha of M/s Singareni Collieries Company Limited (SCCL) located in villages Baswarajupalli, Mandal Ghanpur, Districts Jayashankar & Bhoopalpalli (Telangana) by converting Underground mine to Opencast mine.

17.3.2 The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under:-

- (i) This is the new proposal for TOR for the conversion of Kakatiya Longwall UG Project to Opencast with its capacity as 2.5 MTPA (normative) /3 MTPA (Peak) in the same area of 1555.31 ha.
- (ii) The project was accorded EC vide letter no. J-11015/464/2012 IA.II (M) dated 11th May, 2015 for a capacity of 2.747 MTPA (normative)/3.13 MTPA (peak) in an ML area of 601.20 ha for underground mining excepting public hearing.
- (iii) The latitude and longitude of the project are 18^o 19' 40" to 18^o 23' 32" North and 79^o 52' 09" to 79^o 55' 32" East respectively.
- (iv) Coal Linkage : Basket Linkage
- (v) Employment generated / to be generated: Direct-252; Contractual-960
- (vi) Benefits of the project: Generation of direct and indirect employment, Meeting the demand of coal in the region, Improvement in social infrastructure, Conservation of non-renewable fossil fuel by excavating remnant coal locked in underground mine.
- (vii) The land usage of the project will be as follows:

Pre-Mining:

S.No.	Description	Land	
		Area (Ha)	% of area

1	Agricultural land	1402.37	92.77
2	Built up area	89.92	5.95
3	Water bodies	19.33	1.28
4	Grazing land	Nil	Nil
5	Barren land	Nil	Nil
	Total	1511.62	100

Post- Mining:

S.No	Particulars	Plantation	Water body	Other use	Total
1	Quarry Area	651.67	231.35	17.85	900.87
2	Safe barrier around quarry	89.73	--	54.84	144.57
3	External dump yards	356.12	--	--	356.12
4	Safe barrier around external dump yard	18.46	--	18.19	36.65
5	Service facilities & CHP	25.71	--	14.00	39.71
6	Diversion of nallah & protection bund against nallah	22.44	--	11.26	33.70
	Total	1164.13	231.35	116.14	1511.62
7	Residential area acquired within 500m boundary	29.69	--	--	29.69
8	Roads	--	--	14.00	14.00
	Grand Total	1193.82	231.35	130.14	1555.31

Plantation Area at the end of mining : 1193.82 Ha

Core area:

SI.No	Particulars	Acquired Land (in ha)	land to be acquired (in ha)	Total Land (in ha)
1	Quarry area	124.54	776.33	900.87
2	Safe barrier around quarry	13.78	130.79	144.57
3	External dump yard	--	356.12	356.12
4	Safe barrier around external dump yard	--	36.65	36.65
5	Service Buildings and CHP	--	39.71	39.71
6	Diversion of nallah and protection bund	1.47	32.23	33.70
	Total	139.79	1371.83	1511.62

(viii) Total geological reserve is 131.96 MT. The mineable reserve 91.06 MT, extractable reserve is 90 MT. The per cent of extraction would be 98.8%.

- (ix) The coal grade is G-8. The stripping ratio is 1:14.02Cum/tonne. The average Gradient is 1 in 3. There will be 16 seams.
- (x) Thickness of the seams:

Seam	Thickness(m)	Seam	Thickness(m)
1B	2.00	3A	2.72
1A	2.86	3	4.00
1	3.65	4A	2.43
1A2	1.88	4	2.15
2	3.85	IB4	1.37
3C	1.93	5	2.40
3B	1.55		

- (xi) Total estimated water requirement is 2801 m³/day. The level of ground water ranges from 0.30 m to 14.00 m
- (xii) The Method of mining would be Opencast.
- (xiii) There is one external OB dump with Quantity of 248.70 Mbcm in an area of 356.12 ha with height of + 120 m above the surface level and one internal dump with Quantity of 1008.14 Mbcm in an area of 711.55 ha.
- (xiv) The final mine void would be in 231.35 ha with depth upto 300 m. and the total quarry area is 900.87 ha. Backfilled quarry area of 651.67 ha shall be reclaimed with plantation. A void of 231.35 ha with depth upto 300 m which is proposed to be converted into a water body
- (xv) The life of mine is 38 Years.
- (xvi) Transportation: Coal transportation in pit by dumper, Surface to Siding by trucks and loading at siding by trucks.
- (xvii) There is R & R involved. There are 327 PAFs.
- (xviii) Cost: Total capital cost of the project is Rs. 413.84 Crores. CSR Cost Rs. 5 per Tonne of coal production. R&R Cost Rs. 347.76 crore. Environmental Management Cost (Rs1054 Lakhs (Direct) and 776.30 Lakhs (Indirect), annual recurring cost Rs. 18.99 per tonne).
- (xix) Water body: One seasonal nallah viz. GundlaVagu passes over the proposed quarry area. Hence, diversion of GundlaVagu is planned in Northwest and Southwest directions over Northwest property of the proposed quarry. Proposed diversion length is 7.50km. Diversion of this nallah is proposed beyond 5th year as per the progress of the quarry operations. The diverted nallah will be re-diverted during 20th year along its original course over the internal dump area to be filled up to ground level to facilitate mining operations after 20th year of the project. The re-diversion length is about 1.50 km.
- (xx) Approvals: Ground water clearance was issued vide No: 1862/T/2003-04/755 on 5th November, 2005 from state ground water department. Board's approval obtained on 4th March, 2017. Mining plan is yet to approved by MOC. Mine closure plan is an integral part of mining plan.
- (xxi) Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- (xxii) Forestry issues: No forest area involved for mining.
- (xxiii) Total afforestation plan shall be implemented at the end of mining. Green Belt over an area of 1164.13 ha. Density of tree plantation 2500 trees/ha of plants.
- (xxiv) There are no court cases/violation pending with the project proponent.

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

The proposal is for ToR to facilitate conversion of Kakatiya Khani Opencast-III Phase-I (KTK OC-III Phase-I) coal mining project from Underground to Opencast, of capacity 2.50 MTPA (Normative)/3.00 MTPA (Peak) of M/s Singareni Collieries Company Limited (SCCL) in an area of 1555.31 ha located in village Baswarajupalli, Mandal Ghanpur, Districts Jayashankar & Bhoopalpalli (Telangana).

The earlier EC for 2.747 MTPA (Normative)/3.13 MTPA (Peak) in an area of 601.20 ha was granted by the Ministry on 11th May, 2015 in favour of M/s Singareni Collieries Company Ltd with the exemption from public hearing.

Mining Plan for the project has been approved by the SCCL Board on 4th March 2017, but yet to be approved by Ministry of Coal.

As per the procedure available, M/s SCCL may not be allowed to work as consultant for projects of their own company.

17.3.4 The EAC, after detailed deliberations and given the proposed conversion of coal mine from UG to Opencast, preferred for the prior Mining Plan duly approved by the competent authority namely, Ministry of Coal, which was reported to be under process. The Committee further opined that the Ministry may also indicate its stand on preparation of EIA/EMP Reports by the project proponent.

The proposal was, therefore, deferred for want of the desired inputs/clarifications. .

Agenda 17.4

Expansion of Kakatiya Khani-5 (KTK-5) Incline UG Coal Mine project from 0.6 MTPA to 1.44 MTPA along with increase in project area from 316.65 ha to 516.39 ha of M/s Singareni Collieries Company Limited (SCCL) located in village Bhoopalpalli, Mandal Bhoopalpalli, District Jayashankar Bhoopalpalli (Telangana) - For TOR

17.4.1 The proposal is for granting TOR to expansion project of Kakatiya Khani -5 (KTK-5) Incline UG Coal Mine from 0.6 MTPA to 1.44 MTPA along with increase in project area from 316.65 ha to 516.39 ha of **M/s Singareni Collieries Company Limited (SCCL)** located in village Bhoopalpalli, Mandal Bhoopalpalli, District Jayashankar Bhoopalpalli (Telangana).

17.4.2 The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under:-

- (i) The project was accorded EC vide letter no. J-11015/312/2007-IA.II (M) dated 31st October, 2008.
- (ii) The latitude and longitude of the project are 18° 24' 17" to 18° 26' 30" (North) and 79° 51' 03" to 79° 53' 41" (East) respectively.
- (iii) Joint Venture: No JV
- (iv) Coal Linkage :Basket linkage.
- (v) Employment generated / to be generated: Existing 1520, Required for expansion 268.
- (vi) Benefits of the project: The proposal is for extracting coal from underground through inclined tunnels by adopting mechanized method of Longwall technology and semi-mechanized technology of SDLs to minimize the gap between coal demand and supply and also to meet the coal demand in the region.

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

Pre-Mining:

S. No.	Land description	Area (Ha)
1	Forest Land	342.78
2	SCCL acquired land	130.10
3	Agriculture land (single crop)	11.80
4	Water bodies	1.50
5	Roads & Built-up area	19.21
6	Waste land	11.00
	Total	516.39

Post- Mining:

Sl. No.	Description	Post Mining Land Use Status(Ha)		
		Reclaimed Area	Public/ other use	Total
Acquired/diverted land				
1	Nallahs etc.	-	6.15	6.15
2	Roads & Transmission lines	-	7.00	7.00
3	Colony area	-	19.50	19.50
4	Plantation/ Agriculture	125.4	-	125.40
Sub Total A		125.4	32.65	158.05
Non-Acquired land				
1	Forest Land	-	339.13	339.13
2	Undisturbed Govt./ Private Land	-	19.21	19.21
Sub Total B		0	358.34	358.34
Grand Total (A+B)		125.4	390.99	516.39

Core area :

Sl. No.	Description	Area in Ha
1	Pit head infrastructure	17.70
2	Sand Stock Yard and stowing bunker	15.00
3	Coal dump area	2.04
4	Township/colony and Infrastructure for area administration (Workshop, Stores etc.)	19.50
5	Nallahs & Water bodies etc	2.50
6	Roads & Transmission lines	7.00
7	Area of Plantation/Area Proposed for plantation	66.36
	Total acquired land	130.10

(viii) Total geological reserve is 97 MT. The mineable reserve 48.3 MT, extractable reserve is 23.8 MT. The per cent of extraction would be 49.27 %.

(ix) The coal grade is G-6, G-10, G-11. The stripping ratio is not applicable as it is underground mine. The average Gradient is 1 in 2.8 to 1 in 3.6. There will be 3 working seams with thickness ranging upto 4.23 m.

(x) The total estimated water requirement is 3000 m³/day. The level of ground water ranges from 0.30 m to 14 m.

(xi) The Method of mining would be underground.

- (xii) Since, this is the underground mine therefore no external/internal OB dumps
- (xiii) No mine void/quarry area.
- (xiv) Ambient air quality data of summer (March 2016 - May 2016) has been documented and the results are within the prescribed limits.
- (xv) The life of mine is 21 Years.
- (xvi) Transportation: Coal brought to the surface in tubs/conveyors is being tipped into the bunkers and subsequently transported through belt conveyors into lorry loading bunkers.
- (xvii) There is no R & R involved.
- (xviii) Cost: Total capital cost of the project is Rs. 491.22 Crores. CSR Cost Rs. 5 per Tonne of coal production. R&R Cost Nil. Environmental Management Cost Rs. 2.34 crore.
- (xix) Water body: Course of one stream is proposed for diversion for a length of about 1 Km.
- (xx) Approvals: Application will be made for ground water clearance. Board's approval obtained on 20.05.2016. The mining plan and mine closure plan of the existing project was approved by MoC, GoI Vide Lr. No. 13016/9/2007-CA-II, dated 08.01.2008. Mining plan for intended capacity is yet to be approved.
- (xxi) Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- (xxii) Forestry issues: Total forest area involved in the project site is 342.78 Ha. Out of 342.78 Ha FL involved, Approval was already granted for 144 Ha. Application was submitted to the Prl. Chief conservator of forest, Govt. Of Telangana for stage-I FC vide Proposal No.FP/TG/MIN/26767/2017 dt. 15.04.2017 for the balance 198.78 Ha.
- (xxiii) Total afforestation plan shall be implemented covering an area of 125.4 ha at the end of mining.
- (xxiv) There are no court cases/violation pending with the project proponent.

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

The proposal is for ToR to the expansion project of Kakatiya Khani-5 (KTK-5) Incline UG Coal Mine from 0.6 MTPA to 1.44 MTPA of M/s Singareni Collieries Company Limited (SCCL) involving increase in project area from 316.65 ha to 516.39 ha located in village Bhoopalpalli, MandalBhoopalpalli, District JayashankarBhoopalpalli (Telangana).

The earlier EC for 0.6 MTPA in an area of 316.65 ha was granted by the Ministry on 31stOctober, 208 in favour of M/s Singareni Collieries Company Ltd.

Total project area includes 342.78 ha of forest land. For diversion of this forest land, the project proponent has already obtained forest clearance for 144 ha. For the remaining forest land of 198.78 ha, the proposal has already been submitted to the State Government.

Mining Plan for the project has been approved by the SCCL Board on 20th May, 2016, but yet to be approved by Ministry of Coal.

As per the procedure available, M/s SCCL may not be allowed to work as consultant for projects of their own company.

17.4.4 *The EAC, after detailed deliberations and given the proposed conversion of coal mine from UG to Opencast, preferred for the prior Mining Plan duly approved by the competent authority namely, Ministry of Coal, which was reported to be under process. The Committee further opined that the Ministry may also indicate its stand on preparation of EIA/EMP Reports by the project proponent.*

The proposal was, therefore, deferred for want of the desired inputs/clarifications. .

Agenda 17.5

Expansion of Mohanpur OCP from 1 MTPA to 2 MTPA in ML area of 164.91 ha M/s Eastern Coalfields Limited located in village Lalganj, District Burdwan (West Bengal) - For further consideration of EC

17.5.1 The proposal is for expansion of Mohanpur OCP from 1 MTPA to 2 MTPA in ML area of 164.91 ha M/s Eastern Coalfields Limited located in village Lalganj, District Burdwan (West Bengal).

17.5.2 The proposal was last considered in 19th EAC meeting held on 14th August, 2014 EAC, where in the Committee, after detailed deliberations noted the following:

- i. Action Plan duly concurred by RO, MoEF with regard to Compliance report to the earlier EC conditions.
- ii. The project proponent should respond to non-compliance of EC conditions mentioned by the Regional Officer of MoEF including show-cause notice issued by the RO, MoEF.
- iii. The project proponent should take the consent to operate from the State Pollution Control Board and the same be submitted to MoEF.
- iv. The proponent should comply to the OMs issued by the MoEF with regard to the violation of EC conditions.

17.5.3 In response to the observations of EAC in its last meeting held on 14th August, 2014, the details submitted by the project proponent and/or as informed during the meeting, are as under:-

- (i) All the related information sought by MoEF has already been submitted.
- (ii) As per the Office memorandum dated 12th December, 2012, credible action by State Government is required for consideration of EC. the necessary information has been submitted to the State Government.
- (iii) The production beyond EC capacity was made during the FY 2011-12 and 2012-13 in the larger interest of the nation considering the demand of coal keeping all the environmental norms within permissible limits.
- (iv) This proposal is still under consideration at MoEF&CC for want of credible action by Govt. of West Bengal.
- (v) Now MOEF&CC has published a new notification to deal with violation cases for grant of EC dated 14th March, 2017.
- (vi) It is therefore requested that this proposal may kindly be reviewed in line with recent notification vide F. No. 22-116/2015-IA-III dated 14th March, 2017 and may kindly be considered in the next EAC meeting.

17.5.4 During deliberations, the EAC noted the following:-

The proposal is for expansion of Mohanpur Opencast Coal Mine from 1 MTPA to 2 MTPA of M/s Eastern Coalfields Ltd in mine lease area of 164.91 ha located in village Lalganj, District Burdwan (West Bengal).

The earlier EC for 1 MTPA was granted by the Ministry on 10.12.2009 in favour of M/s Eastern Coalfields Ltd, based on the ToR issued on 13th January, 2008 and the public hearing conducted on 18th November, 2008.

The proposal was earlier considered by the EAC in its meeting held on 14th August, 2014. The observations of the Committee are reflected in the preceding para. During the meeting, the Committee also noted excess coal production during the years 2011-12, 2012-13 beyond the sanctioned capacity for which the EC was granted. Considering the same as non-compliance of the EC conditions, the project proponent was asked to comply with the extant OMs/guidelines dealing with such violation cases. However, due to subsequent development and legal interventions, the proposal was not taken forward, and kept pending till policy decision and clarification in this regard.

To deal with the matters involving violation of the EIA Notification, 2006, the Ministry issued a Notification on 14th March, 2017 under the Environment (Protection) Act, 1986. The Notification provides for appraisal/approval of proposals for grant of EC, where projects were implemented and/or the expansion carried out without obtaining prior EC as mandated in the EIA Notification, 2006.

The above proposal was proposed to be considered by the EAC constituted in pursuance of the Notification dated 14th March, 2017. Meanwhile, Hon'ble Madras High Court vide their order dated 4th May, 2017 in WP No.11189 of 2017 in the matter of 'Puducherry Environment Protection Association Vs Union of India' prohibited the Ministry from taking any further action pursuant to the Notification dated 14th March, 2017. The matter was last heard on 23rd August, 2017. The order has since been reserved.

In the meantime, Hon'ble Supreme Court in its order dated 2nd August, 2017 in Civil Appeal No.114/2014 in the matter of 'Common Cause Vs Union of India &Ors. has issued many directions on illegal mining of major minerals in the State of Odisha, which would be applicable to the present proposal also. However, the same is yet to be examined for its legal implications and requires comprehensive deliberations.

The proposal was placed before the Committee to take stock of the alternatives available in consultation with the inputs/feedback from the project proponent for further consideration of the proposal for EC. The EAC, after deliberations and in view of the legal interventions as above, preferred that the Ministry may first examine the matter in complete perspective to arrive at the applicability of the orders of Hon'ble Supreme Court and Hon'ble Madras High Court, including the action contemplated under the Environment (Protection) Act, for the reported non-compliance of opinion the EC condition. The Committee sought directions of the Ministry for further consideration of the proposal vis-à-vis the provisions of the EIA Notification, 2006.

17.5.6 The EAC, after detailed deliberations, deferred the proposal for the present and sought opinion of the Ministry for further consideration of the proposal vis-à-vis the provisions of the EIA Notification, 2006.

Agenda 17.6

Expansion of Cluster-IV (5 mixed mines) Coal Mining Project from 3.706 MTPA (Peak) to 7.34 MTPA (Normative)/9.55 MTPA (Peak) in ML area of 1123.79 ha of M/s Bharat Coking Coal Ltd, District Dhanbad (Jharkhand) - For further consideration of EC

17.6.1 The proposal is for environmental clearance to expansion proposal of Cluster-IV (5 mixed mines) Coal Mining Project from 3.706 MTPA (Peak) to 7.34 MTPA (Normative)/9.55 MTPA (Peak) in ML area of 1123.79 ha of M/s Bharat Coking Coal Ltd, District Dhanbad (Jharkhand).

17.6.2 The proposal was earlier considered in the 29th EAC meeting held on 15 -16 January, 2015 and 49th meeting held on 7-8 January, 2016. During the last EAC meeting the committee made the following observations:

(i) With respect to the first requirement mentioned above i.e. compliance report from the RO, it was noted from the PP's presentation, as well as from the RO's report, that many of the EC conditions given for the existing level of production had not been fully complied with as yet. Since compliance of EC conditions is required, the case was deferred. The PP was asked to approach the EAC, after a revised certified report from the Regional Office clearly stating the status of compliance of the conditions and proposed action plan, if any, in respect of the conditions not yet complied with.

(ii) The PP was also advised that all documents submitted should be legible since it was noticed that (i) the approved mine plan was not legible and (ii) whatever document was produced before the EAC, did not appear to be a valid approval for the Mine Plan.

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

(i) Inspection of Cluster-IV was made on 22.08.2016. Revised report of R.O. along with compliance is submitted and action taken report vis-à-vis RO compliance is as under:

- a. Regarding 1,2 & 3, it is submitted that Capacity Enhancement proposal of cluster-IV (for implementation of Master plan for dealing with fire and subsidence and rehabilitation within lease hold of BCCL which has also been directed by MoEFCC for dovetailing of the Jharia Master Plan with the EMPs of BCCL's Cluster concept), submitted on 16th September 2013 is for the purpose as mentioned by R.O. at point 1 and TOR was granted on 10th Feb. 2014 with exemption of baseline data generation and public hearing for expediting the process of fire dealing . Since fire dealing has to continue to control spread of fire to new areas, the recovery of fiery coal is possible. BCCL on the direction of MoEFCC ,instituted a TIR survey for monitoring of fire areas through NRSC/ISRO Hyderabad. NRSA in report submitted in 2014, reported fire area as 2.18 sq km. This has reduced the fire area which was 9.8 sq km in 1996. Further study is being conducted by NRSA for 2018.The fire dealing through excavation method at Gaslitand is yielding fiery/burnt coal and so in this proposal, it is included as OC Mine. The fire dealing action plan is shown in proposal and fire in Gaslitand will be excavated out in 3 years. It is also accepted in compliance of Specific condition (ii) that the recovery of coal in line with dovetailing of the EC with implementation of the Jharia Master Plan.(Which is approved by the Government of India and is being monitored by Hon'ble Supreme Court of India).
- b. Regarding 4&5 above, it is submitted that BCCL is carrying out ecological restoration over mined out areas as per roadmap prepared through Forest Research Institute, Dehradun. 51.42 ha has already reclaimed biologically and further ecological restoration is being carried out to complete the work within life of 30 years. As accepted by R.O. in compliance of specific condition (xii), Gabion plantations/avenue plantation work through DFO, Dhanbad has been completed.
- c. Source Apportionment study is being taken up through NEERI. The work will be completed within committed time.

- d. Regarding Mechanically covered trucks use in phase-I ,as accepted by R.O., Action for development of suitable trucks is taken by Coal India in association with manufacturers. Meanwhile, the transporting is being done by tarpaulin covered trucks.
- e. The report on the study on reduction in pollution load is submitted to R.O., MoEFCC, Ranchi with compliance dated 09.06.2017.
- f. Monitoring of ground water level and quality is being done through CMPDI, tender for piezo metric well establishment under evaluation and will be implemented within committed time. The ETP installation will also be completed within committed time.
- g. Rehabilitation of BCCL and non BCCL families is being done by BCCL and JRDA (Jharkhand rehabilitation development authority), Govt. of Jharkhand respectively. Till date, 1456 families have been shifted. Action is being taken by JRDA for shifting of encroachers and private people following Master Plan approved by Government of India. JRDA has prepared 3360 nos of quarters till date for shifting of encroachers and private people residing in all clusters of BCCL.
- h. CSR is done on actual production basis with TISS Mumbai acting as third party monitoring agency.
- i. The final Mine closures plan will be submitted 05 years before final closure.
- j. Monitoring of Rudhibasti is not being done due to lack of security. The alternative station at Katraschoitudihis established and Monitoring of Ambient air quality has already been done by ISM Dhanbad as per NAAQS, 2009. The report is submitted with compliance dated 09.06.2017.
- k. Gaslitand is operative for fire dealing under deemed consent since renewal is applied with submission of fee upto 2020. The application is under process at JSPCB,Ranchi.

(ii) Approval of Mining Plan of cluster-IV by BCCL Board of Directors, for a peak capacity of 9.55 MTPA has been obtained.

17.6.4 During deliberations on the proposal, the Committee observed inconsistencies in respect of the coverage of actual mining operations presently being carried out vis-a-vis the coordinates of project boundary as reflected in the KML file presented during the meeting.

17.6.5 *The EAC, after detailed deliberations and in view of the persistent/chronic fire conditions in the Jharia Coalfields, it is proposed that a sub-committee of EAC members shall visit the site of actual mining operations in cluster IV for on the spot assessment and the mine coordinates as reflected in KML file.*

Agenda 17.7

Expansion of washery from 1.25 MTPA to 2.0 MTPA in an area of 4.49 ha of M/s Chhattisgarh Power and Coal Beneficiation Limited located in Sirgitti Industrial Growth Centre, Tehsil and District Bilaspur (Chhattisgarh) - For ToR

17.7.1 The proposal is for grant of TOR to the expansion of washery from 1.25 MTPA to 2.0 MTPA in an area of 4.49 ha of M/s Chhattisgarh Power and Coal Beneficiation Limited located in Sirgitti Industrial Growth Centre, Tehsil and District Bilaspur (Chhattisgarh).

17.7.2 The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under:-

(i) The project was not accorded EC for 1.25 MTPA capacity, as existing plant has obtained Consent to Establishment from Chhattisgarh Environment Conservation Board (CECB) vide letter No.1775/TS/CECB/2004 Raipur dated 24/05/2004, prior to EIA

notification 2006 and its subsequent amendments

(ii) The proposal is for modernization cum expansion of existing 1.25 MTPA fluidized bed classifier type Coal Washery to 2.0 MTPA Heavy Media Cyclone type Coal Washery. The expansion is 60% within existing premises.

(iii) The latitude and longitude of the project: **Corner coordinates of Plant site**

Point	Coordinates
Point # 1	22° 2'59.14"N 82° 7'54.24"E
Point # 2	22° 2'56.01"N 82° 7'58.88"E
Point # 3	22° 2'48.75"N 82° 7'53.76"E
Point # 4	22° 2'52.14"N 82° 7'49.13"E

(iv) Joint Venture: No JV

(v) Coal Linkage: Coal will be sourced from SECL from Deepka, Gevra, Kusmunda and other mines of South Eastern Coalfield Limited (SECL).

(vi) Employment generated / to be generated: Direct employment - 35 nos. Indirect employment - 100 nos.

(vii) Benefits of the project: The management is committed to uplift the standards of living of the villagers in consultation with local gram panchayat & a need based study will be carried out to assess the needs of locals.

(viii) It is an industrial land.

(ix) The land usage of the project will be as follows:

Land Use	Area (in Acres)
Plant Area	2.00
Raw Coal Storage Yard	1.80
Washed Coal Storage Yard	1.30
Rejects storage	0.45
Green belt area	3.70
Internal Road	0.80
Parking	0.60
Water reservoir & RWH	0.46
TOTAL	11.11

(x) Total estimated water requirement of modernization cum expansion will be 400 m³/day. Water will be sourced from Chhattisgarh State Industrial Development Corporation.

(xi) Transportation:

- Raw Coal will be sourced from SECL from Dipka, Gevra, Kusmunda and other mines of South Eastern Coalfield Limited (SECL), located in Korba/Raigarh area and will be transported through Road by covered trucks up to the proposed site. Railway siding is not available at the site.
- Washed coal from the plant will be transported by road in covered trucks directly to the customer (or) by road up to nearest railway station (Dadhapara RS – 5.0 Kms. – By Road) and from there by rail to the customer.
- The mode of transport of washed coal will depend on the MoU with the customers who may have either road transport or rail transport.
- Washery rejects from the plant will be transported by road in covered trucks directly to the customer (or) by road up to nearest railway station (Dadhapara RS – 5.0 Kms. – By Road) and from there by rail to the customer
- All the trucks used for transportation of raw materials will be covered

- (xii) There is no R & R involved. There are no PAFs.
- (xiii) Cost: Total capital cost of the project is Rs. 18 Crore. CSR Cost (Capital Rs. 30 lakhs and Annual Recurring Rs. 10 lakh). R&R Cost Nil. Environmental Management Cost (capital cost Rs 100 Lakhs, annual recurring cost 12 lakhs).
- (xiv) Water body: Arpa River flows at a distance of 5.0 Kms. & Gokena Nallah flows at a distance of 0.5 Kms of the Project site.
- (xv) Approvals: Water required for the present proposal of modernization cum expansion will be 400 KLD. Water required for the present proposal will be supplied by CSIDC (Chhattisgarh State Industrial Development Corporation).
- (xvi) Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- (xvii) Forestry issues: It is an industrial land. No forest land involved in the washery area.
- (xviii) Total afforestation plan shall be implemented covering an area of 1.5 ha
- (xix) There are no court cases/violation pending with the project proponent.
- (xx) **EC compliance report:** Not applicable, as existing plant has obtained Consent to Establishment from Chhattisgarh Environment Conservation Board (CECB) vide letter no. 1775/TS/CECB/2004 Raipur dated 24/05/2004, prior to EIA notification 2006 & its subsequent amendments and is operating with valid Consents.

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

The proposal is for grant of terms of reference to the expansion proposal of washery from 1.25 MTPA to 2.0 MTPA in an area of 4.49 ha located in Sirgitti Industrial Growth Centre, Tehsil and District Bilaspur Chhattisgarh with no forest land involved.

The project was not accorded EC for 1.25 MTPA capacity, as existing plant has obtained Consent to Establishment from Chhattisgarh Environment Conservation Board (CECB) vide letter no. 1775/TS/CECB/2004 Raipur dated 24/05/2004, prior to EIA notification 2006 & its subsequent amendments.

The proposal is for modernization cum expansion of existing 1.25 MTPA Fluidise Bed Classifier type Coal Washery to 2.0 MTPA Heavy Media Cyclone type Coal Washery. The expansion is 60% within existing premises.

Raw coal is to be sourced through mines of M/s SECL namely, Dipka, GevraKusmunda and other mines and the washed coal is to be supplied to the customers by road with covered trucks up to the proposed site. Railway siding is not available at the site

The estimated water requirement of modernization cum expansion will be 400 m³/day. Water will be sourced from Chhattisgarh State Industrial Development Corporation.

17.7.4 *The EAC, after detailed deliberations, recommended the proposal for grant of ToR to the expansion project of washery from 1.25 MTPA to 2.0 MTPA in an area of 4.49 ha, and for preparation of EIA/EMP reports with public consultation subject to compliance of all conditions as specified and notified in the standard ToR applicable for coal washeries, along with the additional conditions as under:-*

- *All the potential consumers of the washed coal to be explored/identified, especially the thermal power plant, along with the firm justification in this regard,*
- *Sustainable ground water availability and the water balance to be prepared for the*

- project,
- Impact of the pollution load due to heavy traffic on road to be studied.

Agenda 17.8

Proposed 2.5 MTPA coal washery by M/s Bhatia Energy and Coal Beneficiation Private Limited at village Lokhandi and Jonki, Tehsil Takhatpur, District Bilaspur (Chhattisgarh) - For amendment in ToR

17.8.1 The proposal is for amendment in TOR to the Proposed 2.5 MTPA coal washery by M/s Bhatia Energy and Coal Beneficiation Private Limited at village Lokhandi and Jonki, Tehsil Takhatpur, District Bilaspur (Chhattisgarh).

17.8.2 Ministry vide J-11015/79/2016-IA-II(M) on 14th February, 2017 granted TOR to the above project. PP has requested for amendment in ToR due to change in Land area (size) of the Project giving following reasons:-

Land Area with Khasra no. submitted in already approved ToR dtd. 14 Feb. 2017	Land area with Khasra no. now applied for Amendment in ToR	Reasons for changes
<ul style="list-style-type: none"> Land Area - 38.01 Acres (Pls. refer Pre-feasibility Report online submitted on 22 Oct. 2016 prior issue of ToR) References: Summary on Pg. no. 1 & 2 Section 1.2 on Pg. no. 3 Section 2.1 on Pg. no. 8 Section 2.5 on Pg. no. 12 Section 8.4 on Pg. no. 23	Land Area -39.71 Acres	<ul style="list-style-type: none"> Request for an amendment in ToR as there is problem in acquisition of land proposed due to a road passing through the project and hence the management re-designed the project in accordance with actual land available for project.
<ul style="list-style-type: none"> Khasra No. 7/2, 7/3, 7/4, 7/5, 8/1, 8/2, 9, 4/1, 4/2, 4/3, 4/4, 5, 6, 7/1, 10, 12/2, 12/3, 13/2, 14, 15/2, 3, 1/1, 1/2, 1/3, 1/4, 5, 3/1, 3/4A, 20/1, 20/2, 20/3, 9/1, 9/2, 10/1, 10/2, 11/1, 11/2, 12, 13, 14/1, 14/2, 14/3, 14/3 & 15. (Pls. refer Pre-feasibility Report online submitted on 22 Oct. 2016 prior issue of ToR) Summary on Pg. no. 2 Khasra Map – Annexure I on Pg. no. 25	<ul style="list-style-type: none"> Khasra No. 7/2, 7/3, 7/4, 7/5, 8/1 & 8/2, 9, 4/1, 14, 4/2, 4/3, 4/4, 6, 10, 12/2, 12/3, 13/2, 287/1, 287/2, 287/3/287/4, 287/16 and 303. 	<ul style="list-style-type: none"> Total land envisaged for the proposed project is 39.71 Acres (out of which 15.47 Acres is under possession of Management and remaining 24.24 Acre is lease hold area from Govt. of Chhattisgarh which is in advanced stage of acquisition). As the total land proposed is single piece, there will be convenience for ease of operation of washery.

Change in project planning i.e. 2 stage implementation scheduled as follows:

- ToR already approved for 2.5 MTPA proposed Coal Washery
- Now, request for ToR amendment as per following commissioning schedule in two stages ;

Particulars	Implementation Period (In Months)
Start of Construction	After Receipt of Environmental Clearance and NOC
Construction Period	
Phase I: (1.25 MTPA)	12 Months
Phase II: (1.25 MTPA)	24 Months
Commercial Production Period	
Phase I (1.25 MTPA)	On 14 Months
Phase II: (1.25 MTPA)	On 26 Months

Note – ToR capacity after amendment remains unchanged i.e 2.5 MTPA

17.8.3 The EAC, after deliberations, recommended for amendment in ToRas mentioned in the para 17.8.2 above, with all other terms and conditions stipulated in the ToR dated 14th February, 2017 remaining unchanged.

Agenda 17.9

Jagannathpur Opencast Coal Mine Project of 3.0 MTPA(Normative)/3.50 MTPA (Peak) in an area of 686.151 ha of M/s South Eastern Coalfields Limited located in Districts Surajpur & Balrampur (Chhattisgarh)-For EC

17.9.1 The proposal is EC to Jagannathpur Opencast Coal Mine Project of 3.0 MTPA(Normative)/3.50 MTPA (Peak) in an area of 686.151 ha of M/s South Eastern Coalfields Limited located in Districts Surajpur and Balrampur (Chhattisgarh).

17.9.2 The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under:-

- The project was accorded ToR vide letter no.J-11015/60/2016 -IA.II (M) dated 29th April, 2016.
- The latitude and longitude of the project are 23⁰21'22" to 23⁰23'05" N and 83⁰11'44" to 83⁰14'04" E respectively.
- Joint Venture: No Joint Venture
- Coal Linkage :Various thermal power plants.
- Employment generated / to be generated: 232 Nos
- Benefits of the project: Improvement in physical infrastructure, Improvements in social infrastructure, Increase in employment potential, Contribution to the exchequer, Meet energy requirement, Post-mining Enhancement of Green Cover.
- The land usage of the project will be as follows:

Pre-Mining:

Sr. No	Land use	Within ML Area(ha)	Outside ML Area(ha)	Total (Ha)
1	Agriculture land	497.659	24.00	521.659
2	Forest land	126.431	0	126.431
3	Waste land	0	0	0
4	Grazing land	0	0	0
5	Surface water	29.760	0	29.760

	bodies			
6	Settlements	8.301	0	8.301
7	Others(specify)	0	0	0
	Total	662.151	24.00	686.151

Post- Mining:

S No	Pattern of utilization	Area (ha)
1.	Reclaimed External and Internal dumps	431.37
2.	Final void /Water body	129.66
3.	Built up area (Infrastructure, colony, roads, R & R site)	32.200
4.	Safety zone: Green belt area	92.921
	Total	686.151

Core area:

S N	Particulars	Forest Land	Tenancy Land	Government Land					Grand Total
				Grazing land	Waste land	Water body	others	Total	
Inside Mine Lease Area									
1	*Quarry Area	96.512	400.782	-	-	15.435	8.301	23.736	521.030
2	External OB Dump	5.479	34.521						40.00
3	Infrastructure, roads	-	8.200						8.200
4	Safety Zone	24.44	54.156			14.325		14.325	92.921
Outside Mine Lease Area									
5	Colony and R & R site	-	24.00	-	-	-	-	-	24.00
Total land to be Acquired		126.431	521.659	-	-	29.760	8.301	38.061	686.151

*including 2.00 Ha for Top soil storage.

(viii) The total geological reserve is 73.18 MT. The mineable reserve 55.89 MT, extractable reserve is 55.89 MT. The per cent of extraction would be 100 %.

(ix) The coal grade is G-10. The stripping ratio is 6.31 Cum/tonne. The average Gradient is 2 degree. There will be nine seams with thickness ranging from 0.32 to 5 m.

(x) Total estimated water requirement is 420 m³/day. The level of ground water ranges from 1.90 m to 10.25 m.

(xi) Method of mining would be Opencast.

(xii) There is one external OB dump with Quantity of 21 Mbcm in an area of 40 ha with height of 60 m (02tire dumping with 30m each) above the surface level and 2 internal dump with Quantity of 331.58 Mbcm in an area of 521.03 ha.

(xiii) The final mine void would be in 129.66ha with depth upto 110 m and the total quarry area is 521.03ha. A void of 129.66ha with depth of 110 m, which is proposed to be converted into a water body.

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

- (xv) The life of mine is 22 Years.
- (xvi) Transportation: From face to In pit crusher by Trucks, Surface to siding by Trucks Siding to Consumer by Rail.
- (xvii) There is R & R involved. There are 1500 land oustees& 390 PAFs.
- (xviii) Cost: Total capital cost of the project is Rs. 459.49 CroresCrores. CSR Cost Rs. 2 /- per Tonne of coal production. R&R Cost Rs 9270.36 Lakhs. Environmental Management Cost is Rs. 1938.36 lakhs.
- (xix) Water body: Gohangarnallah flows in the Southern part of the leasehold area.
- (xx) Mining Plan for the project was approved by the SECL Board on 9th September, 2008. The Mine Closure Plan was approved on 28th November, 2013.
- (xxi) Wildlife issues: Yes, Wild life Conservation Plan has been prepared by State Forest Research Institute (SFRI) Jabalpur & submitted to FAC along with Forestry clearance proposal.
- (xxii) Forestry issues: Total forest land involved is 126.431 ha. FC Application registration no. 2014/036. For stage-1 Forestry Clearance, the proposal was considered by the FAC in its meeting held on 20th July, 2017.
- (xxiii) Total afforestation plan shall be implemented at the end of mining. Green Belt over an area of 92.921ha. Density of tree plantation 2500 trees/ ha of plants.
- (xxiv) There are no court cases/violation pending with the project proponent.
- (xxv) Public Consultation: Project falls in two district. Public consultation successfully completed on 10.02.2017 for Balrampur district & for Surajpur district on 17.03.2017. The major issues raised in the PH includes employment and compensation of Mahan II OCM; basic amenities like road, electricity, drinking water; receding of water table in mining area; acquiring land in Scheduled-V area under PESA Act; dust suppression and coal transportation by road; blasting in mine etc .

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

The proposal is for EC to Greenfield project of Jagannathpur Opencast Cal Mine of 3 MTPA(Normative)/3.50 MTPA (Peak) of M/s South Eastern Coalfields Ltd in an area of 686.15 ha in Districts Surajpur and Balrampur (Chhattisgarh).

Total project area includes 126.431 ha of forest land. For diversion of this forest land, the project proponent has already applied for obtaining stage-I forest clearance and same is reportedly in progress.

Mining Plan for the project was approved by the SECL Board on 9th September, 2008. The Mine closure Plan was approved on 28th November, 2013.

The ToR for the project was granted on 29th April, 2016 and the public hearing was conducted by the State Pollution Control Board on 10th February, 2017& 17th March, 2017 in the Districts of Balrampur and Surajpur (Chhattisgarh). Main issues raised during the public hearing include, employment, compensation in respect of Mahan II Opencast Mine, basic amenities like road, electricity, drinking water, ground water depletion, land acquisition, dust suppression, blasting etc.

The EIA/EMP report was found to be in compliance of the ToR issued for the project reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

17.9.4 The EAC, after detailed deliberations, recommended the proposal for grant of EC to Jagannathpur OCP of 3 MTPA (Normative)/3.50 MTPA (Peak) of M/s South Eastern Coalfields Limited in an area of 686.151 ha located in Districts Surajpur & Balrampur Chhattisgarh, subject to stage-I FC for diversion of 126.431 ha, and the specific and general conditions as applicable, and the additional conditions as under:-

- Assessment of the pollution load bearing capacity of the area as it is a Greenfield project of 3.5 MTPA with high stripping ratio adjoining with other opencast mines and sugar factory in operation.
- Standard Operating Procedures are required to be prepared and vetted by the company headquarters for adoption of environmental measures in course of various mining activities right from drilling, blasting to coal dispatch be submitted to EAC for monitoring.
- Transportation of coal should be carried out by covered trucks. Mitigative measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.
- Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- Controlled blasting techniques should be adopted to control ground vibration and fly rocks.
- Mitigative measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.
- Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- Interlocking water spraying arrangement with surface miner cutting picks may be explored for introduction to help prevent generation of dust at source itself.
- Thick green belt of 30-45 m width to be provided to mitigate/check the dust pollution. A 3-tier avenue plantation should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads
- Stage-I FC shall be obtained for diversion of 126.431 ha of forest land for non-forestry purposes, and submit to the Ministry.

Agenda 17.10

Barjora (North) Block Coal Mining Project (3 MTPA) in a total area of 927.513 Ha located in village and Tehsil Barjora, District Bankura, West Bengal from M/s DVC Emta Coal Mines Ltd to M/s The West Bengal Power Development Corporation Limited - For EC

17.10.1 The proposal is for transfer of EC of Barjora (North) Block Coal Mining (3 MTPA) in a total area of 927.513 ha located in village and Tehsil Barjora, District Bankura, West Bengal from M/s DVC Emta Coal Mines Ltd to M/s The West Bengal Power Development Corporation Limited.

A. Brief Background:

- i. M/s West Bengal Power Development Corporation Limited (WBPDCCL) has been allotted the Barjora (North) Coal Block by Ministry of Coal, Government of India vide allotment order No 103/7/2015/NA dated 31.03.2015.
- ii. Before de-allocation, mining operation was going on in the non-forest area till 31.03.15 by the prior allottee M/s DVC EMTA, who possessed the mining lease for the

- non forest area of the said block along with Environmental clearance (EC) No J-11015/312/2007-IA.II (M) dated 13.03.2008.
- iii. WBPDCCL has already obtained the mining lease for the non forest area from Govt. of West Bengal as directed in the allotment order.
 - iv. As per Circular No 11-584/2014-FC (pt) dated 09.6.2015 of MoEF&CC and letter No. J11015/312/2007-IA- II (M) dated 12/08/2015, WBPDCCL has already initiated the process of DGPS survey of Forest Land and CA (Compensatory afforestation) land for online uploading in the website of MoEF&CC for getting the Stage- I Forest Clearance. The procedure of DGPS survey is time consuming, therefore, obtaining of Stage –I FC is likely to be delayed.
 - v. WBPDCCL has already obtained the Mining Lease for the non forest area from Dept of Commerce & Industries, Govt of West Bengal along with Consent to Establish (NOC) and Consent to Operate with validity up to 30.11.2016 for the said coal mine from West Bengal State Pollution Control Board by making application as directed in the allotment order.
 - vi. Principal Secretary of Forest, Govt of West Bengal has also recommended our case for necessary action towards transfer of Environmental clearance (EC) for the non forest area of the mine vide letter no 662/EN/T-II-I/017/2016 dated 17.03.2016
 - vii. Copy of Mining Lease ,Consent to Establish (NOC) and Consent to Operate has been submitted.

B. The EC was granted to the project where total area was 927.513 ha. However, the present scenario is a under:

The total Project Area	927.5 ha
Project Proponent applied for total ML area	663.0 ha
Approval obtained for of ML area of	260.14 ha
Project proponent has mining right for	260.14 ha
There is no forest land involved in the Approved ML area.	

- C.** M/s WBPDCCL would like to commence mining operation in the non forest area of the said coal mine, as was being done by the prior allottee, since mining lease has been granted for the non forest area of the mine only. .
- D.** The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Projects in 62nd EAC meeting held on 23-24 August, 2016. The EAC pointed out that in the light of the Notification dated 23rd March, 2015, it was not empowered to take up consideration of the proposal, and referred the matter back to the MoEFCC for appropriate action.
- E.** Meanwhile, a meeting was held in the Ministry of Coal under the Chairmanship of the Secretary, MOC, in his Chamber on 26th October, 2016.
- F.** Based on the discussion, a communication vide DO No.104/19/2015/NA(part) dated 28th October, 2016 received from the Shri. VivekBhardwaj, Joint Secretary, Ministry of Coal for another proposal has been received wherein, it was requested that “to grant

EC for forest land for which FC Stage-I is available and the non forest area for which mining lease has been obtained. *Moreover, the Successful bidder shall be advised to execute a separate mining lease for approved mine lease area. The Company may execute a separate mining lease for the rest of the block area at a subsequent date.*

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

The original proposal was for transfer of EC of Barjora (North) Block Coal Mining project of 3 MTPA in a total area of 927.513 Ha located in village and Tehsil Barjora, District Bankura, West Bengal from M/s DVC Emta Coal Mines Ltd. to M/s The West Bengal Power Development Corporation Ltd.

Total project area included 357.16 ha of forest land, for which no forest clearance was available. In view of the judgement of Hon'ble Supreme Court in Lafarge matter, the transfer of EC was not possible due to the said forest land of 357.16 ha being a part of the total Mine Lease Area. As per the advice of the Ministry of Coal, the Mining Plan was revised with the total mine lease area now reduced to 260.14 ha. The revised Mining Plan was subsequently approved by the Standing Committee in the Ministry of Coal in its meeting held on 10th July, 2017. However, there has been no formal communication in this regard from the Ministry of Coal.

The present proposal for grant of EC with the Mining Plan so revised was not uploaded on the Ministry's portal. Also, the EIA/EMP reports were neither circulated to the Committee members nor made available during the meeting.

17.10.3*The EAC, after deliberations, opined that the proposal for transfer of EC is not within their jurisdiction in view of this Ministry's Notification dated 23rd March, 2015. The Committee further observed that the proposal with the revised Mining Plan covering an area of 260.14 ha has to be considered afresh, as per the provisions of the EIA Notification, 2006. Accordingly, the project proponent was asked to first submit the proposal for grant of ToR.*

PARTICIPANTS IN 17th EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 31st AUGUST, 2017 ON COAL SECTOR PROJECTS.

Sl. No.	List Of Participants Expert Appraisal Committee (Coal Mining)	
1.	Dr. Navin Chandra	Chairman
2.	Dr. Narmada Prasad Shukla	Member
3.	Dr. Sharachchandra Lele	Member
4.	Prof. Satish K.Sinha	Member
5.	Dr. Jai.Krishna Pandey	Member
6.	Dr. Gururaj P. Kundargi	Member
7.	Dr. R K Giri	Representative (Indian Meteorological Department)
8.	Dr. S K Paliwal	Representative of CPCB
9.	Prof. S D Vora	Member
10.	Shri S. K. Srivastava	Member Secretary

PARTICIPANTS IN 17th EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 31st AUGUST, 2017 ON COAL SECTOR PROJECTS.

17.1 Manikpur of M/s South Eastern Coalfields Limited.

1. Shri S.Mahapatra
2. Shri T.Doley
3. Shri A.K.Gupta
4. Shri A K Tiwary
5. Shri. A.S.Bapat
6. Miss. Yamini Singh
7. Shri K.Murngan

17.2 Expansion of Karo OCP of M/S Central Coalfields Limited

1. Shri A.K.Mishra
2. Shri Soumitra Singh
3. Shri Pushkar
4. Shri J.Chakravarty
- 5 Shri Danish Meena

17.3 Kakatiya Khani OCP-III of M/s Singareni Colliries Company Limited.

1. Shri M.Vasantha Kumar
2. Shri K.Sai Babu
3. Shri P.Ravi Kiran
4. Shri D.Ravi Prasad
5. Shri B.Bhaskar Rao
6. Shri N.Bhaskar
7. Shri V.Srinivasa Rao

17.4 Kakatiya Khani -5 (KTK-5) of M/s Singareni Colliries Company Limited.

1. Shri M.Vasantha Kumar
2. Shri K.Sai Babu
3. Shri P.Ravi Kiran
4. Shri D.Ravi Prasad
5. Shri B.Bhaskar Rao
6. Shri N.Bhaskar
7. Shri V.Srinivasa Rao

17.5 Expansion Mohanpur OCP M/S Eastern Coalfields Limited

1. Shri A.K.Singh
2. Shri B.N.Prasad
3. Shri J.N.Biswel
4. Shri S.K.Sinha
5. Shri A.Shekhar
6. Shri Soumash

7. Shri Mukhesh Kumar
8. Shri Abhishek Kr Singh

17.6 Expansion of Cluster –IV (5 mixed mines) M/S Bharat Coking Coal Ltd

1. Shri S.D.Gangopadhyay
2. Shri M.Kumar
3. Shri J.Malik
4. Shri Dr.Evr.Raju
5. Shri Ritesh Rajan
6. Shri Kumar Ranjeev

17.7 Expansion of Washery M/S Chhattisgarh Power and Coal Beneficiation Limited

1. Shri B.M Gupta
2. Shri Shikhal Agrawal
3. Shri D.Singh
4. Shri S.Pawar

17.8 Expansion of Washery M/S Bhatiya Energy and Coal Beneficiation Pvt. Ltd

1. Shri Tejinder Prbatia
2. Shri Rajendra W Korde
3. Shri D.G.Garway
4. Shri Shrikant Vajhare

17.9 Jagannathpur OCP M/S South Eastern Coalfield Limited

1. Shri P.K.Sinha
2. Shri T.Doley
3. Shri R.K.Mahapatra
4. Shri Ankuar Kumar
5. Shri R.K Nagar
6. Shri S.K.Ball
7. Shri A.Rey
8. Shri A.K.Gupta
9. Shri Inderjeet Singh
10. Shri A.K. Tiwary
11. Shri S.Mahapatra
12. Shri Ashutosh Kumar

17.10 Discussion on any other item.

Generic ToR for coal washery

- i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washery preferably through closed conveyer belt to avoid air pollution.
- ii. The washery shall not be located in eco-sensitive zones areas.
- iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
- iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
- v. A brief description of the plant alongwith a layout, the specific technology used and the source of coal should be provided.
- vi. The EIA-EMP Repot should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
- vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Govt.
- viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM₁₀, PM_{2.5}, SO_x and NO_x, noise, water (surface and groundwater), soil be submitted.
- ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
- x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
- xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be

- clearly brought out in EIA/EMP report.
- xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.
 - xiii. Impacts of CHP, if any, on air and water quality should also be spelt out along with Action Plan.
 - xiv. O.M.no.J-II013/25/2014-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 conform to the effluent standards as prescribed under Environment (Protection) Act, 1986
 - xxiii. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

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 (PM₁₀, 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 through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xix) Detailed water balance should be provided. The break-up of water requirement for the various mine operations should be given separately.
- (xx) Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users in the upstream and downstream of the project site. should be given.
- (xxi) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xxii) Impact of blasting, noise and vibrations should be given.
- (xxiii) Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.
- (xxiv) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xxiv) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xxv) Details of waste OB and topsoil generated as per the approved calendar programme, and their management shown in figures as well explanatory notes tables giving progressive development and mine closure plan, green belt development, backfilling programme and conceptual post mining land use should be given. OB dump heights and terracing based on slope stability studies with a max of 28° angle as the ultimate slope should be given. Sections of final dumps (both longitudinal and cross section) with relation to the adjacent area should be shown.
- (xxvi) Efforts be made for maximising progressive internal dumping of O.B., sequential mining , external dump on coal bearing area and later rehandling into the mine void.--to reduce land degradation.
- (xxvii) Impact of change in land use due to mining operations and plan for restoration of the mined area to its original land use should be provided.
- (xxviii) Progressive Green belt and ecological restoration /afforestation plan (both in text, figures and in the tabular form as per the format of MOEFCC given below) and selection of species (native) based on original survey/land-use should be given.

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

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

* As a representative example

Table 2 : Stage Wise Cumulative Plantation

S.N.	YEAR*	Green Belt		External Dump		Backfilled Area		Others(Undisturbed Area/etc)		TOTAL	
1.	1 st year										
2.	3 rd year										
3.	5 th year										
4.	10 th year										
5.	15 th year										
6.	20 th year										
7.	25 th year										
8.	30 th year										
9.	34 th year(end of mine life)										
10.	34- 37 th 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			

GENERIC TORs FOR AN UNDERGROUND COALMINE PROJECT

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

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

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

Area under Surface Rights

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

- (viii) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.
- (ix) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.
- (x) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xi) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM₁₀, 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			
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GENERIC TORs FOR AN OPENCAST-CUM-UNDERGROUND COALMINE PROJECT

- (i) An EIA-EMP Report would be prepared for a combined peak capacity ofMTPA 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.

05/09/2017

https://mail.gov.in/iwc_static/layout/shell.html?lang=en&3.0.1.2.0_15121607

Subject: **Finalised MoM of 17th meeting of the EAC held on 31st August, 2017** Date: 09/04/17 08:12 PM
To: Srivastava Additional Director <sk.smree66@nic.in>, From: navin chandra <navinchandrarrl@yahoo.com>
"S.K Srivastava" <sk.smree66@gov.in>
"sksmree@yahoo.co.in" <sksmree@yahoo.co.in>
Purushottam Ramdas Sakhare <sakhare.pr@nic.in>

Finalised MOM of 17th EAC held on 31.08.2017.docx (131kB)

04/09/2017

Dear Dr. Shrivastava Ji,

Attached please find the finalised MoM of the 17th meeting of EAC held on 31/08/2017. Editorial instructions in the MoM are marked in different colour and may be incorporated accordingly and the resultant document be uploaded.

Regards,
yours sincerely,

(NAVIN CHANDRA)

**17th EAC (THERMAL & COAL MINING PROJECTS) MEETING
SCHEDULED FOR 31st August, 2017.**

AGENDA

**Venue: Teesta 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](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 send hard copies of the documents indicating agenda items to all the EAC members, at least one week prior to the meeting and ensure the receipt of same.**
 - iii. Non receipt of the project will lead to deferment of the project.**
 - iv. Please also provide a hard copy of presentation to the EAC Members during the meeting.**
 - v. The Project Proponent should carry the KML/Shape Files of the mine lease area at the time of presentation before EAC and to present on the details of mine lease online to show the present status of mine lease**
 - vi. The KML/Shape files should be emailed on the below mentioned email addresses at least 10 days prior to the meeting**
 - vii. The Project Proponent to show the transportation route of minerals on maps during presentation.**
 - viii. Without this information, EAC has discretion to invite the proponent for the meeting.**
 - ix. No consultant is permitted into the meeting who has no accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) as per the MoEF OM dated 2nd December, 2009**
-

COAL MINING PROJECTS

Time: 10.00 AM: Thursday: 31st August, 2017

- 17.1 Manikpur Opencast expansion project from 3.25 MTPA to 5.25 MTPA in an area of 1018.925 ha of **M/s South Eastern Coalfield Limited located** at village – district Korba (**Chhattisgarh**) – (EC under 7(ii) of EIA Notification, 2006)**
- 17.2 Expansion of Karo OCP for increase in production capacity from 1.5 MTPA to 15 MTPA and integrated Karo Washery (7.0 MTPA) in an ML area of 575.36 ha of **M/s Central Coalfields limited** located in village, Karo, Amlo, Kargali & Baid Karo, District Bokaro (**Jharkhand**) – (Further Consideration of EC)**

- 17.3 Kakatiya Khani Opencast –III Phase –I (KTK OC-III Phase –I) coal mining project for production capacity of 2.50 MTPA(Normative) / 3.00 MTPA (Peak) in the project area of 1555.31 ha of **M/s Singareni Collieries Company Limited (SCCL)** located in village Baswarajupalli, Mandal Ghanpur, Districts Jayashankar & Bhoopalpalli (Telangana) - TOR
- 17.4 Kakatiya Khani -5 (KTK-5) Incline UG Coal Mine project expansion project from 0.6 MTPA to 1.44 MTPA along with expansion in project area from 316.65 ha to 516.39 ha of **M/s Singareni Collieries Company Limited (SCCL)** located in village Bhoopalpalli, Mandal Bhoopalpalli, District Jayashankar Bhoopalpalli (Telangana)–TOR
- 17.5 Expansion of Mohanpur OCP from 1 MTPA to 2 MTPA in ML area of 164.91 ha **M/s Eastern Coalfields Limited** located in village Lalganj, District Burdwan (**West Bengal**) - (Further consideration of EC)
- 17.6 Expansion of Cluster-IV (5 mixed mines) Coal Mining Project from 3.706 MTPA (Peak) to 7.34 MTPA (Normative)/9.55 MTPA (Peak) in ML area of 1123.79 ha of **M/s Bharat Coking Coal Ltd**, District Dhanbad (**Jharkhand**) - (**Further Consideration of EC**)
- 17.7 Expansion of washery from 1.25 MTPA to 2.0 MTPA in an area of 4.49 ha of **M/s Chhattisgarh Power and Coal Beneficiation Limited** located in Sirgitti Industrial Growth Centre, Tehsil and District Bilaspur (**Chhattisgarh**) - TOR
- 17.8 Proposed 2.5 MTPA coal washery by **M/s Bhatia Energy and Coal Beneficiation Private Limited** at village Lokhandi and Jonki, Tehsil Takhatpur, District Bilaspur (**Chhattisgarh**) – (Amendment in TOR)
- 17.9 Jagannathpur Opencast Coal Mine Project of 3.0 MTPA(Normative)/3.50 MTPA (Peak) in an area of 686.151 ha of **M/s South Eastern Coalfield Limited** located in Districts Surajpur & Balrampur (Chhattisgarh)-EC
- 17.10 Discussion on any other item.
