Minutes of the 13th meeting of the EAC held on 29th June, 2017 for appraisal of Coal Mining projects

A. The 11th meeting of the Expert Appraisal Committee (EAC) for Thermal & Coal mining projects was held on 30-31 May, 2017in 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 9th meeting of the EAC held on 27-28 April, 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 13.1

Chhal OC expansion project from 3.50 MTPA to 7.50 MTPA (Peak) in an area of 1342.86 ha by M/s South Eastern Coalfields Limited located in District Raigarh (Chhattisgarh) - For TOR

13.1.1 The proposal is for grant of TOR to the expansion of Chhal Opencast Coal Mine from 3.50 MTPA to 7.50 MTPA (Peak) in an area of 1342.86 ha by M/s South Eastern Coalfields Limited located in District Raigarh (Chhattisgarh).

13.1.2 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 last EC vide letter No.J-11015/1000/2007-IA.II (M) dated 27th April, 2010 for 3.5 MTPA capacity with mining lease area of 641.013 ha.
(ii) The latitude and longitude of the project site are 22^0 4' 40'' and 22^0 6' 27'' and 83^0 6' 10'' and 83^0 9' 10'' respectively.
(iii) Joint Venture: No Joint Venture
(iv) Coal Linkage : Thermal Power Stations
(v) Employment generated / to be generated: 296 No.
(vi) Benefits of the project: This coal Mine will go a long way in fulfilling the demand nation's electricity and other coal based industries, apart from earning revenue for the government. Opportunity of employment for the project affected villagers and allied industries.
(vii) The land usage of the project will be as follows:

S.No.	LAND USE	Within ML Area(ha)	Outside ML Area(ha)	Total area (ha)
1	Agricultural Land	825.827		825.827
2	Forest Land	185.017		185.017
3	Waste Land	228.649		228.649
4	Grazing Land	31.632		31.632
5	Surface Water	23.426		23.426

	Bodies			
6	Settlements	-----		-----
7	Others(specify)	48.309		48.309
Total		1342.86		1342.86

Pre-Mining:

S.No.	Land use	Area (in ha)
1.	Tenancy/agricultural land	825.827
2.	Forest land	185.017
3.	Government land • Grazing Land: 31.632 Ha. • Water body: 23.426 Ha. • Waste land: 228.649 Ha. • Others: 48.309 Ha.	332.016
	Total	1342.86

Post- Mining:

S.No.	Land use	Area (in ha)
1.	Quarry Area • Reclaimed Area: 794.01 ha • Final Void/Water body: 81.00 ha	875.01
2.	External dump • Reclaimed Area: 130.73 ha	130.73
3.	Safety zone as green belt • Afforested Area: 144.47 ha	144.47
4.	Infrastructure, Explosive Magazine etc. • Afforested Area: 5.00 ha • Built-up Area: 45.00 ha	50.00
5.	R & R Site • Built-up Area: 50.00 ha	50.00
6.	Others • Cultivable Land: 92.65 ha	92.65
	Total	1342.86

Core area :

S.No.	Land use	Area (ha)
1.	Quarry Area	875.01
2.	External dump	130.73
3.	Safety zone as green belt	144.47
4.	Infrastructure, Explosive Magazine etc	50.00
5.	R & R Site	50.00
6.	Others	92.65

	Total	1342.86

(viii) Total geological reserve is 197.257 MT. The mineable reserve 151.36 MT, extractable reserve is 151.36 MT. The per cent of extraction would be 100 %.
(ix) The coal grade is G-11. The stripping ratio is 5.63 Cum/tonne. The average Gradient is 4^0 - 11^0. There will be 13 seams with thickness ranging upto 12.40 m.
(x) Total estimated water requirement is 0.917 cum/day. The level of ground water ranges from 2.52 m to 14.27 m
(xi) The method of mining would be Opencast. (Coal- surface miner with front end loader and dumper; OB- Showel and dumper combination.)
(xii) There are 13 No of seams.
(xiii) There will be one External OB dump shall be created during the initial years of mining with Quantity of 71.52 Mbcm in an area of 130.73 ha with height of 90 m above the surface level and two internal dump with Quantity of 780.55 Mbcm in an area of 677.82 ha.
(xiv) The final mine void would be in 81 ha with depth varying upto 300 m and the Total quarry area is 875.01 ha. Backfilled quarry area of 794.01 ha shall be reclaimed with plantation. A void of 81ha with depth varying upto 300 m which is proposed to be converted into a water body
(xv) The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.
(xvi) The life of mine is 30 Years.
(xvii) Transportation: Coal transportation in pit by Trucks and In-pit Belt Conveyors both (Installation of belt conveyor will start from third year onward.), Surface to Siding by trucks and loading at siding by railway and to local consumers by Trucks.
(xviii) There is R & R involved. There are 450 PAFs.
(xix) Cost: Total capital cost of the project is Rs. 610.63 Crores. CSR Cost: 2% of the average net profit of the Company for the three immediate preceding financial years or Rs.2.00 per tonne of coal production of previous year whichever is higher. R&R Cost 12.50 Crore. Environmental Management Cost Rs. 6090.77 Lakhs).
(xx) Water body: Mand River is flowing southerly by the side of the quarry.
(xxi) Approvals: Ground water clearance obtained on 13.01.2006. Project Report of Chhal OC (Seam-III)Project(6 MTY) was approved by CIL Board in its 302nd meeting held on 16/12/2013. Mine closure plan is an integral part of mining plan.
(xxii) Wildlife issues: Wildlife issues shall be dealt after Registration, TOR and other formalities.
(xxiii) Forestry issues: Total forest area involved 185.017 ha, for which application has been made on 10th May, 2016. Forest clearance is awaited.
(xxiv) Total afforestation plan shall be implemented covering an area of 929.74 ha at the end of mining. Green Belt over an area of 144.47 ha. Density of tree plantation -----.trees/ ha of plants.
(xxv) There are no court cases/violation pending with the project proponent.
Pending legal litigations against Chhal OC 3.5MTY –
1. Case No. 218/2014 = Pending at Distt. Court RGH (Prodn. More than EC).
2. Case No. Cr.MP 408-413/2007 = Both the cases 408 & 413 have been disposed of.
(xxvi) Public Hearing for the last EC was held on 4th August, 2008.
(xxvii) The Ministry's Regional Office at Nagpur carried out the site visit on 23rd December, 2016 for compliance status of the EC conditions. In response to the observations, the present status and the action plan for compliance has been submitted.

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

(i) The Chhal opencast coal mine project of 3 MTPA (Normative)/3.5 MTPA (Peak) in a total area of 641.013 ha (includes 176.71 ha of forest land) was earlier granted EC on 27th April, 2010 based on the public hearing conducted on 4th August, 2008. Ground water clearance was obtained from CGWA on 13th January, 2006.

(ii) The present proposal is for grant of ToR to the expansion project of Chhal opencast coal mine from 3.5 MTPA (Peak) to 6 MTPA (Normative)/7.5 MTPA (Peak) in a total area of 1342.86 ha in District Raigarh (Chhattisgarh). Total area includes forest land of 185.017 ha, for which application has been made on 20th April, 2016 to obtain stage-I FC.

(iii) Mine Plan including the Mine Closure Plan for the project was approved on 16th December, 2013 by the CIL Board.

(iv) The unit is operating after obtaining the EC dated 27th April, 2010 and subsequently Consent to Operate, which was last issued/renewed on 11th January, 2016 and valid up to 25th September, 2018.

(v) To monitor compliance of the EC conditions, inspection was carried out by the RO, Nagpur on 23rd December, 2016 and the report was forwarded vide their letter dated 11th April, 2017. In respect of one of the conditions regarding conservation of wildlife, it was informed that preparation of wildlife conservation plan was under process.

13.1.4 *The EAC, after detailed deliberations, recommended the proposal for grant of ToR to the expansion project of ChhalOpencast Coal Mine from 3.5 MTPA (Peak) to 7.5 MTPA (Peak) in a total area of 1342.86 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 opencast coal mines, along with the additional conditions as under:-*

- *Cumulative impact of all the existing industrial activities in the study area and also those in the pipeline/proposed, shall be studied to arrive at a comprehensive picture and planning of adequate environmental safeguards.*
- *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 to be done 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 13.2

Gandhigram UG coal mine project of1.60 MTPA in an area of 735.073 ha by M/s Western Coalfields Limited located in Tehsil Ghoradongri District Betul (Madhya Pradesh)- TOR

13.2.1 The proposal is for grant of TOR to Gandhigram UG coal mine project of 1.60 MTPA in an area of 735.073 ha by M/s Western Coalfields Limited located in Tehsil GhoradongriDistrict Betul (Madhya Pradesh).

13.2.2 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) It is green field project located in Pathakhera Coalfield of District Betul, adjacent to the District Chhindwarain MP, where twelve coal blocks of the Pench-Kanhan Coalfield were earlier identified to be located within the migratory corridor having minimum width of 3 km.
(ii) The project was considered in the EAC meeting held on 21-22 February, 2012 and the terms of reference (ToR) for the project was issued by the Ministry vide letter No.J-11015/19/2012-1A.II(M) dated 23rd March, 2012. However, due to presence of tiger corridor in the proposed project area, the project was not taken up and the ToR lapsed. Subsequently,the incline & surface infrastructure positions were re-located and a Recast project report was prepared in September, 2016 for peak production capacity of 1.60 MTPA in mine lease area of 735.073 ha. As per the recent information available with the M/s WCL, the Gandhigram Geological Block is now out of the boundary area of Tiger Corridor.
(iii) The latitude and longitude of the project site are $22^0$10'06" to $22^0$12'13" Nand 78^0 10'07" to $78^0$13'00" E respectively.
(iv) Joint Venture: No Joint venture
(v) Coal Linkage: Linked to Thermal Power Plant of Satpura TPS at Sarni& Miscellaneous consumers.
(vi) Employment generated/to be generated: Required manpower for the project is 603 Nos. (From internal & /land oust sees).
(vii) Benefits of the project: This project will bridge the gap (to the extent of the peak production capacity of the project) between demand & supply of non-coking coal for the power houses and other bulk consumers of western as well as southern part of the country.
(viii) The total land requirement for this project is 735.073 ha, out of this 634.207 ha is forest land, 27.51 ha is government land and balance land 73.496 ha is tenancy/agriculture land.
(ix) Land use details are as follows:

S. N.	LAND USE	Within ML Area (ha)	Outside ML Area (ha)	Total
1	Agricultural land	62.496	10.86	73.356
2	Forest land	628.067	6.14	634.207
3	Waste land/Govt. land	27.51	--	27.51
4	Grazing land	--	--	--
5	Surface water bodies	--	--	--
6	Settlements	--	--	--
7	Others (specify)	--	--	--
	Total	718.073	17.00	735.073

Pre-Mining: The entire area of the block is mostly covered by forest land. Gandhigram village is proposed to be re-located at a new site (under mutual agreement and consent and as per Land Acquisition and Rehabilitation & Resettlement Act (LARR) – 2013 Policy). 17.00 ha of land (6.14 ha forest land and 10.86 ha non-forest land) beyond the mining lease area has been proposed for acquisition under this project for integrated power/ transport route for the upcoming projects of Pathakhera area (including this project).

Thus total land involved in the project comes to 735.073 ha with forest land of 634.207 ha for which

application has been uploaded on line vide no. FP/MP/MIN/26330/2017 Dated 22.05.2017.

Post- Mining: With respect to the area for underground mining. Land under mining activities (Caving)- 705.433 ha. Land under infrastructure- 29.64 ha. Total Land- 735.073 ha

(x) Total geological reserve is 60.967 MT. The mineable reserve 57.389 MT and the extractable reserve is 30.67 MT. The per cent of extraction would be 53.44 %.
(xi) The coal grade is G8-G4; G10-G3; G11-G5. The stripping ratio is not applicable.
(xii) The average Gradient is 1 in 7 to 1 in 10. There will be four seams with thickness ranging between 0.05 - 3.64 m.
(xiii) Total estimated water requirement is (Domestic – 32 m3/d; Industrial – 2110 m3/d which will be sourced from the mine water/dam/river/bore well.
(xiv) The level of ground water :

	Core Zone (in m)		Buffer Zone (in m)	
	Min	Max	Min	Max
Pre	5.55	6.75	3.65	15.25
Post	2.35	2.9	2.3	13.2

(xv) The method of mining would be underground.
(xvi) Ambient air quality baseline data has been generated and documented. The baseline data has been generated from October, 2016 to December, 2016 (Post Monsoon Season). The results of ambient air quality baseline were found within the prescribed limits.
(xvii) The life of mine is 31 years (includes 3 years of pre-developmental & developmental activities).
(xviii) Transportation:Coal will be transported from underground to surface by belt conveyors. From surface to Satpura TPS at Sarni or miscellaneous customers by dumpers.
(xix) There is R & R involved. There are 92 PAFs.
(xx) Cost: Total capital cost of the project is Rs. 671.8309 Crores. CSR Cost 2% of the average net profit per Tonne of coal production. R&R Cost: Rs. 30.63 Crores. Environmental Management Cost (capital cost Rs58.00 Lakhs andRevenue cost@ Rs 6/tonne).
(xxi) Water body: The DagdagaNalla, which forms the western boundary of the block, controls the drainage system of the block. Several seasonal nallas originating from BagdevPahad – Shri Pahad and other elevated regions in the east, discharge into DagdagaNalla which flows in SW direction and drains into Tawa River.
(xxii) Approvals: Application for Groundwater Clearance under preparation. Board of WCL accorded approval for Project Report of Gandhigram UG Mine for normative capacity of 1.26 Mtyand peak production capacity of 1.60 Mtyin its 284th Meeting of Board of Directors of WCL held on 21/12/2016. Mine Closure Plan was approved as an integral part of Project Report by WCL Board on 21/12/2016.
(xxiii) Wildlife issues: Pachimadibioreserve is approximately 3.5 km from the north side of the Gandhigram Project block boundary. Also, Tiger Corridor is approximately 4.5 km on the north-east side and approximately 8.5 km on the south-east side of the project boundary. Wild Life Management Plan will be prepared.
(xxiv) Forestry issues: Total land involved in the project comes to 735.073 ha with forest land of 634.207 ha for which application has been uploaded on line vide no. FP/MP/MIN/26330/2017 Dated 22.05.2017.
(xxv) The plantation is likely to be carried out along the coal transportation route and no much change is anticipated in the post mining land use pattern.

(xxvi) There are no court cases/violation pending with the project proponent.
(xxvii) Public Hearingwill be conducted after preparation of Draft EIA & EMP of the project.

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

(i) The proposal is for grant of ToR to the green field project of Gandhigram UG coal mine of 1.26 (Normative)/1.6 MTPA (Peak) in a total area of 718.073 ha in Tehsil Ghoradongri, District Betul (Madhya Pradesh).

(ii) The project was earlier accorded ToR by this Ministry on 23rd March, 2012. However, due to presence of tiger corridor in the proposed project area, the project was not taken up and the ToR lapsed. Now it has been informed that the Gandhigram Geological Block is out of the boundary area of Tiger Corridor.

(iii) The issue of Tiger Corridor for the project first came up during examination of a proposal involving diversion of forest land for a coal mining project in Pench-Kanhan coalfield. The same was further cropped up during submission of the proposal for FC in case of Gandhigram UG.

(iv) While considering the proposal for EC to Tawa-III UG by the EAC in December, 2013,the Deputy Director, Satpura Tiger Reserve, Hoshangabad (MP) was requested for a certificate from the State Chief Wildlife Warden regarding distance of mine from the buffer zone of Pench-Satpura Tiger Corridor. In response, details were informed along with the authenticated map. Subsequently, based on the details of compartments falling in the Satpura-Melghat Tiger Reserve Corridor as provided by the PCCF(Wild Life), the proposal for Ghandigram UG Mine was revisited and found to be out of the Tiger Corridor.

(v) The total area includes 628.067 ha of forest land, 62.496 ha of agricultural land and 27.51 ha of Government land. For diversion of the said forest land, application has been submitted on 22nd May, 2017 for obtaining stage-I FC.

(vi) Mine Plan for the project was approved by WCL board on 21st December, 2016. Mine Closure Plan is an integral part of the Mine Plan.

13.2.4 *The EAC, after detailed deliberations, recommended the proposal for grant of ToR to the green field project of Gandhigram UG coal mine of 1.26 (Normative)/1.6 MTPA (Peak) in a total area of 718.073 ha in Tehsil Ghoradongri, District Betul (Madhya Pradesh), 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 Underground Coal Mines, along with the additional conditions as under:-*

- *Cumulative impact of all the existing industrial activities in the study area and also those in the pipeline/proposed, shall be studied to arrive at a comprehensive picture and planning of adequate environmental safeguards.*
- *Detailed subsidence prediction study to be carried out and incorporated in the reports.*
- *Wildlife Conservation Plan shall be prepared, and Wildlife Clearance, if applicable under the Wildlife (Protection) Act, 1972, shall be obtained from the Standing Committee of National Board for Wild Life.*
- *Wildlife Management Plan is to ensure safeguards/protectionfor the wildlife in the nearby*

Tiger Reserves/Corridor/sanctuary/Tiger corridor in terms of the provisions of Wildlife (Protection) Act, 1972.

- *Compensatory afforestation to be done and native trees to be planted/transplanted preferably subject to permission granted by the State Government.*
- *Impact of the pollution load due to increased traffic on the nearby road network shall be studied.*

Agenda 13.3

Kedla Colliery (consisting of Kedla OCP and Kedla UGP) of capacity 1.18 MTPA (Normative)/1.57 MTPA (Peak) of M/s Central Coalfields Ltdin an area of 1417.99 ha in District Ramgarh (Jharkhand)- TOR

13.3.1 The proposal is for grant of TOR to Kedla Collieryof capacity 1.18 MTPA (Normative)/1.57 MTPA (Peak) of M/s Central Coalfields Ltd in an area of 1417.99 ha located in village, Block Mandu, District Ramgarh (Jharkhand). TheKedla Colliery shall consist of Kedla OCP of 1 MTPA (Normative)/1.35 MTPA (Peak) and Kendla UGP of 0.18 MTPA (Normative)/0.22 MTPA (Peak).

13.3.2 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) The application is for fresh TOR.

(ii) ToR was issued for Kedla Colliery vide number J-11015/154/2013-IA.II(M) dated 25th February, 2014. TOR validity got expired.

(iii) It is a mixed mine. Kedla Colliery consisting of Kedla OCP and Kedla UGP is in operation since pre-nationalization period. Present proposal is for expansion in coal production from the present level. Mine running on the basis of consent to operate.

(iv) The latitude and longitude of the project are $23^0$45'25" to $23^0$50'35 N and $85^0$34'20" to $85^0$37'50" E respectively.

(v) Joint Venture: There is no Joint venture

(vi) Coal Linkage: Kedla Washery and other miscellaneous consumers.

(vii) Employment generated / to be generated: 180 already given in Kedla OCP & 4 under process. 83 already given in Kedla UG & 1 under process.

(viii) Benefits of the project: Improvements in Physical Infrastructure, Social Infrastructure, Increase in Employment Potential, Contribution to the Exchequer, Meet energy and steel sector requirement, Productive utilization of existing manpower of project

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

Type of land	Area of land (Ha)		
	Kedla OCP	Kedla UGP	Total
Forest land	512.45	118.84	631.29
Government land	370.46	146.64	517.10
Tenancy land	201.58	68.02	269.60
Total	1084.49	333.50	1417.99

Pre-Mining: Will be prepared in draft EMP report as per ToR

Post- Mining: Will be prepared in draft EMP report as per ToR

Core area: Will be prepared in draft EMP report as per ToR

(x) The total geological reserve is 25.11 MT. The mineable reserve 22.51 Mt in Kedla OCP and 2.60 Mt in Kedla UGP as on 31.03.2017., extractable reserve 22.51 Mt in Kedla OCP and 2.60 Mt in Kedla UGP. The per cent of extraction would be 100 %.

(xi) The coal grade is W-II /W-III/W-IV

(xii) The stripping ratio is 3.74 Cum/tonne.

(xiii) Average Gradient:

Average gradient in Kedla OCP

Average Gradient	Sector-D	Sector-C	Sector-B
• Seam-I	1 in 10	1 in 11	1 in 8
• Seam-V	1 in 10	1 in 9	1 in 7
• Seam-VI/VII	1 in 14	1 in 11	1 in 8

Average gradient in Kedla UGP

VIII	1 in 7.3
VA	1 in 8.4 - 9.7
V	-
IV	-

(xiv) There will be three seams in OCP with thickness ranging from 3 m to 14 m. and four seams in UGP with thickness ranging from 1.97 m to 9.50 m

(xv) The total estimated water requirement is 1872 m3/day (Potable :770 m3/day & Industrial :1102 m3/day). The level of ground water ranges from 3.1m to 10 m.

(xvi) The Method of mining: Opencast method of mining with shovel-dumper combination and Under Ground Mining by Bord & Pillar with SDL

(xvii) Details of the OB dumps, mine void, quarry area shall be finalized after getting ToR

(xviii) The seasonal data for ambient air quality has been documented in post monsoon season of 2015 and all results are within prescribed limit.

(xix) The life of mine is 27 years for OCP as on April 2017 & 15 years for UGP.

(xx) Transportation: Coal transportation in pit by Rear dumpers. Surface to Siding by Tipping Trucks and loading at siding by pay loader.

(xxi) There is R & R involved. There are PAFs 271+23 already shifted + 327 to be shifted.

(xxii) Cost: Total capital cost of the project is Rs. 76.24 Crore (Rs. 59**.**04 Crore for Kedla UGP and 17.20 crore for Kedla OCP). CSR Cost as per CSR policy & Companies Act,2013. R&R Cost

18.63 Crores. Environmental Management Cost (Rs 6 per tonne in Kedla UGP & Rs 15 per tonne of coal production in Kedla OCP)

(xxiii) Water body: The drainage of the block is controlled by the Easterly flowing Chutua Nala in the North along the Northern boundary, the Easterly flowing seasonal Kedla Nala in the central part and the Easterly flowing Bokaro River in the South, beyond the quarry edge boundary. The easterly flowing Bokaro River is the major drainage and perennial source of water for the area.

(xxiv) Approvals: Application for Ground water clearance is under preparation. Feasibility Report for Kedla Opencast (Reorganisation) Project (1.00 MTPA) dated July 1978. Mine closure plan is an integral part of mining plan.

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

(xxvi) Forestry issues: Total forest land involved 631.29 ha for mining. Total forest land for which stage –I FC is available is as under:

Type of forest land & status of diversion	Area of land (Ha)		
	Kedla OCP	Kedla UGP	Total
Notified Forest land Stage-I diverted	168.50 Ha OCP vide letter no F NO 8-55/2003-FC on 23.08.04	29.19 Ha vide letter no 12(21)15-2003 FCE on 23.09.04.	197.69
Forest land released before 1980	69.57	0.00	69.57
NPV paid for notified forest land in project area not to be disturbed	139.00	29.82	168.82
NPV paid for JJ in project area not to be disturbed	135.38	59.83	195.21
Total	512.45	118.84	631.29

(xxvii) Afforestation plan shall be finalized after getting ToR

(xxviii) There are no court cases/violation pending with the project proponent.

(xxix) Public Hearing will be held after ToR.

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

(i) The proposal is for grant of TOR to the expansion of Kedla Colliery from the present capacity to 1.18 MTPA (Normative)/1.57 MTPA (Peak) of M/s Central Coalfields Ltd in an area of 1417.99 ha located in village, Block Mandu, District Ramgarh (Jharkhand). The Kedla Colliery shall consist of Kedla OCP of 1 MTPA (Normative)/1.35 MTPA (Peak) and Kendla UGP of 0.18 MTPA (Normative)/0.22 MTPA (Peak).

(ii) Kedla Colliery has been in operation since pre-nationalization period based on Consent to Operate from the SPCB. There being no applicability of the EIA Notification, 1994/2006 during that period, no prior EC was obtained to establish/operate the mine.

(iii) The peak production of Kedla OCP was 0.80 MTPA in the year 1989-90 and that of Kedla UGP was 0.20 MTPA in the year 2004-05.

(iv) The present proposal is based on the feasibility report approved long back in July, 1978 for Kedla Opencast (Re-organization) Project of 1 MTPA capacity. There is no approval of the feasibility report for the proposed expansion i.e. 1.18 MTPA (Normative)/1.57 MTPA (Peak), either by the CCL Board or by the Ministry of Coal.

(v) The ToR for the project was earlier issued on 25th February, 2014 and the baseline data was generated in post-monsoon period of 2015. Meanwhile, land use details were substantially revised due to changes in forest land component of the individual mines, and thus necessitating the requirement of fresh ToR.

(vi) The details in Form-I were not found to be consistent with those being presented during the meeting.

13.3.4 *The EAC, after detailed deliberations, asked to project proponent to sort out the discrepancies, revise the Form-I accordingly and obtain necessary approval of the competent authority. The proposal was, therefore, deferred.*

Agenda 13.4

Expansion of coal washery at Talcher from 9.52 MTPA to 11.0 MTPA in an area of 36.95ha by M/s Spectrum Coal & Power Limited located in village Danara, District Angul (Odisha) - TOR

13.4.1 The proposal is for grant of TOR to Expansion of coal washery at Talcher from 9.52 MTPA to 11.0 MTPA in an area of 36.95 ha by M/s Spectrum Coal & Power Limited located in village Danara, District Angul (Odisha).

13.4.2 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 proposal is for fresh TOR.
(ii) Plant area 36.95 ha leased to APGENCO by MCL
(iii) Source of raw coal will be from MCL mines.
(iv) EC was not applicable to the existing coal washery as it is a pre EIA Notification, 2006 project wherein coal washeries were not under the ambit of Environment Clearance.
(v) The sanctioned capacity of the coal washery from the Odisha State Pollution Control Board is 7.0 MTPA washed coal. As per the agreement with the APGENCO a yield of 73.5% is to be delivered. The throughput capacity in terms of raw coal articulates to 9.52 MTPA
(vi) State Pollution Control Board, Odisha vide Consent order no 393 and letter no 1850 dated 08-06-2015 has communicated their approval for transporting, storage, loading and unloading of coal in railway siding to the tune of 11.0 MTPA (including rejects) and the same was renewed vide their letter 901 dated 23rd March, 2017 and is valid up to 31st March, 2020.

(vii) Andhra Pradesh Power Generation Corporation (APGENCO) has already fixed 6 MTPA for washing of their linkage coal for its DrNarla Tata Rao thermal power plant or Vijayawada TPP at Vijayawada in Andhra Pradesh &Rayalaseema TPP at Kadapa in Andhra Pradesh.
(viii) APGENCO has now decided to wash additional 5 MTPA linked to their subsidiary Andhra Pradesh Power Development Company (APPDCL) through SCPL coal washery plant operating at Talcher, AngulDist, Odisha
(ix) In order to comply the requirement of APGENCO and APPDCL, the capacity of the coal washing plant has to be enhanced to 11.0 MTPA.
(x) The source of raw coal will be from basket of mines of MCL.
(xi) The entire washed coal will be used by APGENCO and APPDCL.
(xii) The washery will operate 357 days in a year.
(xiii) The latitude and longitude of the project site are 20°56'20.4"-20°57'04.1"N and85°04'22.4"-85°05'43.7"Erespectively.
(xiv) Joint Venture: There is no joint venture.
(xv) Coal Linkage :

- Spectrum Coal and Power Limited (SCPL) was selected as BOO operator by APGENCO and an agreement dated 19.05.2004 was entered into by and between APGENCO and SCPL to build and operate the washery for initial term of 20 Years.
- The tenure of the agreement will be automatically renewed for 10 years by way of extension and coal linkage being less than 11.00 MTPA to APGENCO, State Pollution Control Board, Odisha had given consent to establish the washery with a capacity of 7.00 MTPA of washed coal in 2005 vide letter no. 4488/Ind-II-NOC-3273 dated 09 -02-2005.
- The latest consent order was renewed by State Pollution Control Board, Odisha vide their letter 5050/IND-I-CON-5862 Dated 22-03-2016 and is valid up to 31-03-2021.

(xvi) Employment generated / to be generated: 40 persons during construction and24 during operation period.
(xvii) Benefits of the project: Generation of direct and indirect employment, improving the socio-economic status, Contribution of additional revenue to the State & Central exchequers, Improvement/up-gradation of civil amenities.

(xviii) The Land use breakup of existing 91.306 acres of project land is as given below:

S. No.	Description	Area in acres
1	Plant area	22.181
2	Roads	5.807
3	Service buildings	1.602
4	Rain water harvesting reservoir	7.117
5	Raw coal, crushed coal, washed coal and rejects stacking area	15.018
6	Plantation area	27.018
7	Conveying system from washery to siding	3.563

8	Wharf wall siding	9.000
	Total	91.306

Note: No additional land required for the proposed expansion project

(xix) Total estimated water requirement is 131.67 m^3/hr which will be source from *rain water harvesting reservoir of 5,18,400 cum capacity in the existing washery premises*. Potable water requirement is also being met from the existing rain water harvesting pond after treatment.
(xx) Process technology adopted is Heavy Media Cyclone and Spirals technology
(xxi) Baseline environmental monitoring will be conducted in during post-monsoon season 2017.
(xxii) Transportation: Coal transportation in pit by road transport through MCL, surface to siding by road transport through APGENCO and loading at siding by Rail transport to APGENCO power plants through SCPL.
(xxiii) There is no R & R involved. There are No PAFs.
(xxiv) Cost: Total capital cost of the project is Rs. 6.79 Crores. CSR Cost Rs. 2.45 Crore. R&R Cost Nil. Environmental Management Cost Rs. 175.22 lakhs.
(xxv) Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
(xxvi) Forestry issues: There are no forest land involved in the washery.
(xxvii) There are no court cases/violation pending with the project proponent.

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

(i) The proposal is for grant of ToR to the expansion of coal washery from 9.52 MTPA to 11 MTPA in a total area of 91.306 acres in village Danara, DistrictAngul (Odisha).

(ii) The project was reported to be established in the year 2005 after obtaining Consent to Establish from SPCB on 9th February, 2005 with the washed coal capacity of 7 MTPA (raw coal consumption of 9.52 MTPA with a yield of 73.5%).

(iii) There being no requirement of EC prior to the EIA Notification, 2006, the washery continued to operate with the consent obtained from the SPCB at regular intervals and not the EC. Presently, Consent to Operate for the coal washery of washed coal capacity of 7 MTPA issued on 22nd March, 2016 is valid up to 31st March, 2021.

(iv) The proposed washery would be wet type based on heavy media cyclone technology.

(v) Total projected water requirement of 3160.08 cum per day (less than 1 cum/tonne of washed/raw coal) proposed to be sourced through a reservoir reported to be a part of the Kalinga opencast mine of M/s Mahanadi Coalfield Ltd.

(vi) It was informed that the proposed arrangement to meet the water requirement from the erstwhile Kalinga opencast coal mine, is based on an agreement between the project proponent and M/s Mahanadi Coalfields Ltd. The said coal mine was declared closed/abandoned prior to August, 2009 and reportedly not having the Mine Closure Plan. In such cases, Mine Closure status report is to be prepared and approved by the Ministry of Coal for utilizing the post closure facilities of the closed mines.

13.4.4 *The EAC, after detailed deliberations, noted that the similar proposal for grant of EC to Basundhra Coal Washery of 15 MTPA was earlier considered by the EAC in its meeting held in January/February, 2017. In that case the committee had deferred the proposal till the submission and approval of the Mine Closure status report by the Ministry of Coal. The Committee desired for the same stand in the instant case also. The proposal was, therefore deferred.*

Agenda 13.5

Expansion of Konar OCP from 4.10 MTPA (Normative)/5 MTPA (Peak) to 8MTPA (Normative)/11MTPA (Peak), Integrated Konar Non-coking Coal Washery of 7 MTPA capacity of M/s Central Coalfields limited, in a total area of 471.40 ha located in Bokaro and Kargali Area, District Bokaro (Jharkhand) - For further consideration for EC

13.5.1 The proposal is for grant of EC to the expansion of Konar OCP from 4.10 MTPA (Normative)/5 MTPA (Peak) to 8MTPA (Normative)/11MTPA (Peak)and the Non-coking Coal Washery of 7 MTPA capacity of M/s Central Coalfields limited, in an area of 471.40 ha located in Bokaro and Kargali Area, District Bokaro (Jharkhand).

13.5.2 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 TOR for the proposal was granted vide letter No.J-11015/337/2005 -IA-II (M) dated 3rdNovember, 2015.
(ii) The Konar OCP was granted EC vide letter No.J-11015/337/2005 -IA-II (M) dated 2nd February, 2006 for 3.5 MTPA in an area of 301.37 ha.
(iii) The EC was granted to Khasmahal OCP vide letter No. J-11015/217/2007 -IA-II (M) dated 2nd August, 2010 for 0.6/1.5 MTPA in an area of 318.71 ha.
(iv) Total project area would be increased from the present 520.93 ha to 547.38 ha.
(v) The latitude and longitude of the project site are 23° 46' 0'' to 23° 48' 38''N and 85° 44' 0'' to 85° 56' 0''E respectively.
(vi) Joint Venture: Not Applicable
(vii) Coal Linkage: Steel, power and other miscellaneous consumers. KonarWashery (7 MTPA) linked to Konar Expansion OCP (8/11 MTPA).
(viii) Employment generated / to be generated: 110 approx
(ix) Benefits of the project: Improvements in Physical Infrastructure; Improvements in Social Infrastructure; Increase in Employment Potential; Contribution to the Exchequer; Meet energy and steel sector requirement; The beneficiation/washing of coal will lead to improvement in performance of power plant; Reduction in particulate emission; Reduction in load on Railway Network; Reduction in handling and transportation cost of coal and solid waste etc.
(x) The land usage for the project will be as follows:

Pre-Mining:

SN	Item	Land requirement (ha)		
		Forest	Non-forest	Total
1	Quarry	309.76	22.20	331.96
2	External OB dump	61.44	0.00	61.44

3	FBC Plant	30.00	0.00	30.00
4	Site for rejects	20.71	0.00	20.71
5	Infrastructures including washery	41.90	0.00	41.90
6	Rly siding	1.86	3.89	5.75
7	Approach /Coal transport Road	0.00	3.95	3.95
8	Safety Zone & Green Zone	41.60	10.07	51.67
Total		**507.27**	**40.11**	**547.38**

Post- Mining:

S No.	Description	Land-use (Ha)				
		Plantation	Water Body (Lagoon)	Public/ CCL use	Landscaped Quarry Batter	Total
1	External OB Dump	61.44	0.00	0.00	0.00	61.44
2	Top soil dump	0.00	0.00	0.00	0.00	0.00
3	Excavation/ Backfilled	253.15	41.75	0.00	37.06	331.96
4	Roads	0.00	0.00	3.95	0.00	3.95
5	Builtup area	0.00	0.00	98.36	0.00	98.36
6	Green belt	51.67	0.00	0.00	0.00	51.67
7	Undisturbed area	0.00	0.00	0.00	0.00	0.00
Total		366.26	41.75	102.31	37.06	547.38

(xi) Total geological reserve is 146.74 MT. The mineable reserve is 115.65 MT and extractable reserve is 115.65 MT with the % per cent extraction as 100%.

(xii) The coal grade is W-IV grade in seam X and E-F grade in seam VI/VII & seam VIII The stripping ratio is 0.95 (Cum/Tonne). The average Gradient is 6- 10 deg. There will 4 seams (Seam X, Seam IX, Seam VIII and Seam VI/VII combined). Seam IX is thin so it is not considered with thickness ranging 8.65 m to 34.71m.

(xiii) Total estimated water requirement is 1207 m3/day potable water demand &industrial water demand of mine and washery is 1500 m3/day and 1600 m3/day respectively. The level of ground water ranges from 1.00 m to 8.07 m.

(xiv) The method of mining would be Opencast. Seam X by shovel dumper and Surface Miner in Seam VI/VII & seam VIII.

(xv) There is one external OB dump with Quantity of 23.21 Mbcm in an area of 61.44 ha with height of 30-90 m above GL and one internal dump with Quantity of 86.51 Mbcm in an area of 226.96 ha.

(xvi) The final mine void would be in 78.81 ha with depth 180 m (after final mine closure) and the total quarry area is 331.96 ha. Backfilled quarry area of 253.15 Ha shall be reclaimed with plantation. A void of 78.81 ha with depth 180 m which is proposed to be converted into a water body (after final mine closure).

(xvii) The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.
(xviii) The total project life (mine 14 years + Washery 3 years) including 3 years washery development period.
(xix) Transportation: In pit by rear dumper, surface to siding by belt converyor, siding at loading by rail. Washed coal & Reject transportation by covered belt Conveyor to railway siding.
(xx) There is R & R involved. There are 685 PAFs.
(xxi) Cost: Total capital cost of the project is Rs. 1286.54 Crore for OCP and Rs 251.48 Crores for washery. CSR Cost asper CSR policy & Companies Act, 2013. R&R Cost Rs.63.18 Crores. Environmental Management Cost Rs. 59.58 Crores.
(xxii) Water body: Goddonallah flows along eastern periphery ofproject anddiversionof 800 m length of this nallah is proposed. Konarriver is in South West of the project.
(xxiii) Mine Plan and Mine Closure Plan has been approved by CCL board in 425th Board meeting held on 10thJune, 2016 forKonar Expansion OCP (8/11 MTPA) and Integrated KonarWasheryof 7 MTPA in 547.38 ha.
(xxiv) There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
(xxv) The project involves 507.27 ha of forest land. Out of which 309.76 is for quarry. FC granted for 177.48 ha forest land for Khasmahal OCP vide letter number: F.No.8-37/2003-FC Dated 31st July 2006. FC granted for 26.94 Ha forest land for Khasmahal phase II vide letter number: F.No.8-37/2003-FC dated 6thJune 2013. FC granted for 288.26 ha forest land for Konar OCP vide letter number: F.No.8-55/2009-FC Dated 23 Oct 2012.
(xxvi) Density of tree plantation 2500 trees/ ha of plants.
(xxvii) Public hearing was held on 5th January, 2016 in District Bokaro. The issues raised in the PH includes Pollution Control Measures, washery construction should be in the form of model washery, Job and compensation, separate road for coal transportation, etc.
(xxviii) There are no court cases/violation pending with the project proponent.

13.5.3 The proposal was first considered in the 58th EAC meeting held on 23-24 June, 2016, wherein the Committee was informed that the proposal envisages amalgamation of Konar OCP and the Khasmahal OCP (sanctioned /granted individually earlier) followed by integration with the proposed washery of 7 MTPA.That would involve correction in area from the present of 620.08 ha to 547.38 ha.

The proposal was further considered by the EAC in its meeting held in April, 2017. The observations of the Committee were as under:-

(i) Committee Due to the washery technology not yet decided, it would not be possible to firm up the water requirement, its source and the waste disposal, and thus leaving the impact on water environment unaccounted.

(ii) The action taken report on the compliance status of EC conditions for both the OCPs (visit conducted on 17th June, 2016) was not observed to be sufficiently satisfactory, especially in respect of construction of retaining wall around the OB dump, plantation, installation of piezometers, ETP, water sprinkler system at CHP and railway siding, Conservation Plan for flora and fauna to be prepared through ISM Dhanbad, etc.

(iii) For Khasmahal OCP, Consent to Operate was obtained in the year 2008 with its validity of one year. Whereasfor Konar OCP (mining operations started in year 2014), Consent to Operate is yet to be obtained.

13.5.4 In response to the observations of the last meeting of the EAC, project proponent has submitted the following:-

(i) Retaining wall/guard wall (size 200m*1m*0.5m) has been completed in March, 2017 at a cost of Rs.3.56 Lakhs in Konar Project.

(ii) Plantation over 30.94 ha over reclaimed land in Khasmahal has been done. Plantation along 1 km road has been done in Khasmahal& additional plantation will be done along another 1 km during FY 2017-18. As Konar mine has just started, plantation will be undertaken after sufficient area is available. Further, 3.25 ha plantation will be done in 2017-18 for which work has been awarded at Rs 24.79 Lakhs including 3 years maintenance.

(iii) Piezometer installation has been approved with an estimated amount of about Rs.15 lakhs, for which e-tendering is under process and to be opened on 1st July, 2017. The work is likely to be awarded in July, 2017 and scheduled for completion before 30th October, 2017.

(iv) For Khasmahal OCP, ETP has been constructed in workshop at a cost of Rs.3.07 lakhs. Whereas for Konar OCP, the treatment plant has been constructed at a cost of Rs.2.93 lakhs.

(v) Dust suppression system including the feeder breaker and mobile crusher, has been installed at a total cost of Rs.3.50 crore. Water sprinkling points installed all along Jarandih Railway siding at a total cost of Rs.3.58 lakhs, whereas, stands for fixed type sprinklers are to be installed by October, 2017.

(vi) CCL Board of Directors in its 437th meeting held on 21st February, 2017 has approved the proposal for setting up of KonarWashery of 7 MTPA on BOO (Build-Own-Operate) concept with freedom of beneficiation technology (dry/wet/combination of dry and wet), as per the decision of Ministry of Coal on 24th January, 2017.

(vii) The Environment Management Plan was prepared on the basis of wet process for coal washery. The details of source of water, demand/requirement and waste disposal are included in the EMP.

(viii) Total 1590 cum/day requirement of water for washery is proposed from the different sources, namely, mine discharge of 2700 cum/day, stored mine water of nearby coal mines and overflow of ash pond of BTPS. Further the coal washery shall operate on the 'Zero Liquid Discharge'.

(ix) For Khasmahal OCP, Consent to Operate was granted on 14th June, 2017 with its validity up to 31st December, 2017. Whereasfor Konar OCP (mining operations started in year 2014), Consent to Operate is valid up to 31st December, 2017.

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

(a) The proposal is for grant of EC to the expansion of KonarOpencast coal mine project from 4.1 MTPA (Normative)/5 MTPA (Peak) to 8 MTPA (Normative)/11 MTPA (Peak), along with the non-coking coal washery of 7 MTPAin a total area of471.40 ha in Bokaro and Kargali Area, District Bokaro (Jharkhand).

(b) The Konar Opencast coal mine project is an amalgamation of two opencast mines namely, Konar OCP and the Khasmahal OCP. The separate ECs to these coal mines with the individual production capacity of 3.5 MTPA in an area of 301.37 ha and 1.5 MTPA (peak) in an area of 318.71 ha were granted on 2nd February, 2006 and 2nd August, 2010 respectively. The forest areas involved were 288.26 ha and 201.42 ha respectively.

Year	Expenditure (in Rs. Lakhs)	Thrust Areas

(c) The ToR for the expansion project with washery in a total area of 729.40 ha was granted on 3rd November, 2015, which involved forest land of 489.42 ha.

(d) In view of the observations of the EAC in its earlier meetings to explore for reducing the total/forest land, the proposed project area was reduced from 729.40 ha to 547.38 ha (forest area 428.89 ha), which includes the common barrier between the respective quarries, FBC and allied infrastructure. With the total project area so firmed up, public hearing was conducted and the EIA/EMP reports were prepared accordingly.

(e) The proposal for grant of EC was earlier considered by the EAC in its meetings held in June, 2016 and April, 2017. Meanwhile, the proposal was further revised and the total area was reduced to 471.40 ha involving forest land of 360.49 ha, for which stage-II FC is already available.

(f) The Board of M/s Central Coalfields Ltd has approved the proposal for expansion of the amalgamated Konar OCP and the washery of 7 MTPA in its meeting held on 27th April, 2017. However, the technology for washery (dry/wet/combination of dry and wet) was left to the outcome of the bidding.

(g) The Ministry's Regional Office at Ranchi has carried out the site inspection on 17th June, 2016. The action taken report on the compliance status of EC conditions for both the OCPs was deliberated during the meeting held in April, 2017, and the project proponent was asked for the firm action plan for needful. Also, in case of washery technology not decided, the Committee had opined that it would not be possible to firm up the water requirement, its source and the waste disposal, and thus leaving the impact on water environment unaccounted.

(h) For Khasmahal OCP, Consent to Operate was granted on 14th June, 2017 with its validity up to 31st December, 2017. Whereas, for Konar OCP (mining operations started in year 2014), Consent to Operate is valid up to 31st December, 2017.

(i) Details of annual expenditure on CSR activities are as under:-

2013-14	171.58	• Providing and promoting Healthcare services, • Making available safe drinking water, • Sanitation • Promotion of Education • Skill development training to increase employability to project affected persons, • Environment conservation works. • Encouragement for sports.
2014-15	224.30	
2015-16	157.03	
2016-17	105.54	

(i) Public hearing was conducted on 7th January, 2016, which was presided over by Shri JugnuMinj, Additional District Collector, Bokaro (Jharkhand) and was attended by about 100 persons. Main issues raised during the PH included environment pollution due to the operations of coal mine and washery, increase in dust pollution, discharge of effluents from washery, provision of basic amenities like drinking water, street light, road, educational and medical facilities, construction of separate road for coal transportation, employment avenues etc. The para wise response of the project proponent were as under:-

- Employment to 93 land losers given. Another 17 in process as per CIL R&R Policy. Facilities for water supply, street light, road, educational & medical facilities will be provided under CSR.
- For dust suppression, four 28 KL mobile mist type sprinklers will be procured in the project.
- Regular monitoring of environment quality is being done in the project and monitoring of PM 2.5 on fortnightly basis has also started.
- The washery will be based on principle of zero discharge and will comply with air and water emission norms. Green belt will be developed along washery premises. Raw coal will be fed by belt to washery washed coal will be despatched by rail.
- Direct and indirect employment through contractual jobs is proposed. Skill development programs have been started for project affected persons.
- The quantum of road transport of coal is expected to be reduced to about 1 MTPA from the present of 2.7 MTPA. Separate road bypassing residential area has been identified for coal transport as a shortterm measure. Railway siding will come up within 3 years.
- Coal transport @ 7 MTPA for washery is proposed by belt conveyor and product dispatch by rail.

13.5.5 *The EAC, after having taken note of its earlier deliberations and the firm action plan for corrective actions against each of the observations, recommended the proposal for grant of Environmental clearance to the expansion of KonarOpencast coal mine project from 4.1 MTPA (Normative)/5 MTPA (Peak) to 8 MTPA (Normative)/11 MTPA (Peak), along with the non-coking coal washery of 7 MTPAin a total area of471.40 ha in Bokaro and Kargali Area, District Bokaro*

(Jharkhand), subject to specific and general conditions as applicable, and additional conditions as under;

- *The proposed time bound action plan shall be implemented in letter and spirit and reported to the Regional Office at Ranchi by **December,2017**. The same shall be subsequently reviewed by the EAC.*
- *Consent to Establish under the Water Act, 1974 and the Air Act, 1981 shall be obtained from the State Pollution Control Board prior to setting up the required infrastructure for the proposed capacity expansion.*
- *Transportation of coal from mine to the washeryshall be carried out through conveyor belts, and then to the prospective consumers/TPP by rail.*
- *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.*
- *More locations (4-5 nos) to be identified in downwind areas in the buffer zone for ambient air quality monitoring in consultation with the State Pollution Control Board.*
- *Interlocking water spraying arrangement with surface miner cutting picks may be explored for introduction to help prevent generation of dust at source itself.*
- *Contribution of Project through its CSR initiatives may be quantified in parameters pertaining to Human Development Indices (HDI).*
- *The technology so chosen for the washery should conform to 'Zero Liquid Discharge'.*
- *Transport of washed coal and rejects shall be by rail with wagon loading.*
- *Disposal of washery rejects shall be in accordance with the extant policy and guidelines, and environment friendly.*
- *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*

Agenda 13.6

Visapur OC Mine (1.0 MTPA Normative 1.25 Peak) in an area of 1057.97 ha by M/s Western coalfields Limited located in District Chandrapur (Maharashtra)- Extension of TOR validity

13.6.1 The proposal is for extension of TOR validityto Visapur Opencast coal mine' of 1.0 MTPA (Normative)/1.25 (Peak) in an area of 1057.97 ha by M/s Western coalfields Limited located in District Chandrapur (Maharashtra)

13.6.2 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) TOR for Visapur OC was granted vide letter No. J-11015/398/2012.IA-II(M) on 25thFebruary, 2014.
(ii) Due to the re-scheduling of the implementation of the project, extension of the validity of ToR is solicited.
(iii) There is no change in project parameters vis-à-vis the ToR granted.

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

(i) The proposal is for extension of validity of ToR dated 25th February, 2014 for the project 'Visapur Opencast coal mine' of 1.0 MTPA (Normative)/1.25 (Peak)in an area of 1057.97 hain District Chandrapur (Maharashtra).

(ii) In terms of the subsequent OM dated 8th October, 2014 of MoEF&CC, the validity of the said ToR gets extended for a year of three years i.e. up to 24th February, 2017. The proposal for extension has been made prior to the expiry of the said validity period.

(iii) It was informed that the project was presently unviable on notified price and as such placed under future project category. Due to the rescheduling of implementation of the project, extension of validity of the ToR has been sought.

(iv) There is no change in project details/parameters from that approved earlier.

13.6.4 *The EAC, after detailed deliberations, recommended for extending validity of the ToR dated 25th February, 2014 for a further period of one year i.e. up to 24th February, 2018 with all the terms and conditions stipulated in the said ToR remain unchanged.*

Agenda 13.7

Expansion of Bermo coal mine Project from 0.4 MTPA to 2.62 MTPA of M/s DamodarValley Corporation (DVC) in a total area of 169.094 ha located in District Bokaro (Jharkhand)- Amendment in ToR

13.7.1 The proposal is for amendment in ToRgranted to the Bermo coal mine expansion project from 0.4 MTPA to 2.62 MTPA of M/s Damodar valley Corporation (DVC) in a total area of 269.094 ha located in District Bokaro (Jharkhand).

13.7.2 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) TOR for expansion of Bermo coal mine project was granted vide letter No. J-11015/73/2016.IA-II(M) on 28th February, 2017.
(ii) The requested changes along with the justification is as under:-

TOR letter point no.	As mentioned in TOR	Changes required	Justification
Subject	Expansion of Bermo coal mine Project from 0.4 MTPA to 2.62 MTPA of M/s Damodar valley Corporation (DVC) in a total area of 169.094 ha located in District Bokaro (Jharkhand) - ToR- reg	Expansion of Bermo coal mine Project from 0.4 MTPA to 2.62 MTPA of M/s Damodar valley Corporation (DVC) in a total area of 169.344 ha located in District Bokaro (Jharkhand) - ToR- reg	0.25 ha area of existing magazine lying outside the ML area has also been included in the project area now.
2.	…….. in a total area of 169.094 ha located in District Bokaro (Jharkhand)	…….. in a total area of 169.344 ha located in District Bokaro (Jharkhand)	Same as above
ii.	Latitude and Longitude of the Project are	23°46'47.55" to 23°47'15.955" N	The earlier coordinates were

<table>
<tr><td></td><td>23°46’ 42.6288” to 23°47’ 24.0324” N and 85°57’ 28.008" to 85°59’ 9.5784” E respectively</td><td>and 85°57’29.477” to 85°59’10.673” E</td><td>based on the “Interim Geological Note on DVC Bermo Mines” given by CMPDI in February 2016 while vide their letter dated 25.04.2017, CMPDI have issued revised coordinates after getting a DGPS survey conducted</td></tr>
<tr><td>v.</td><td>Employment generated/ to be generated : Present 115, proposed after expansion 510</td><td>Present 128, proposed after expansion 569</td><td>The current manpower has marginally increased the projected manpower has been revised and included in the mining plan and submitted to the Ministry of Coal</td></tr>
<tr><td>vii.</td><td>The land usage of the project will be as follows:</td><td></td><td></td></tr>
<tr><td></td><td>Pre Mining :
<table>
<tr><th>Sl. No.</th><th>Landuse</th><th>Within MLArea (ha)</th><th>Outside MLArea (ha)</th><th>T (</th></tr>
<tr><td>1</td><td>Agricultural land</td><td>27.166</td><td></td><td>2
6</td></tr>
<tr><td>2</td><td>Forest land</td><td>120.313</td><td></td><td></td></tr>
<tr><td>3</td><td>Wasteland</td><td>18.292</td><td></td><td></td></tr>
<tr><td>4</td><td>Grazing land</td><td></td><td></td><td></td></tr>
<tr><td>5</td><td>Surface water bodies</td><td>0.935</td><td></td><td></td></tr>
<tr><td>6</td><td>Settlements</td><td></td><td></td><td></td></tr>
<tr><td>7</td><td>Others (specify)</td><td>0.728</td><td></td><td></td></tr>
<tr><td></td><td>Total</td><td>167.434</td><td></td><td></td></tr>
</table>
Post Mining
<table>
<tr><th>Sl</th><th>Land use</th><th>Plantation</th><th>Water Body</th><th>Public Use</th><th>Undstured</th></tr>
<tr><td></td><td>Within ML area</td><td></td><td></td><td></td><td></td></tr>
<tr><td>1</td><td>External OB Dump</td><td>0</td><td></td><td></td><td></td></tr>
<tr><td>2</td><td>Top soil Dump</td><td>-</td><td></td><td></td><td></td></tr>
<tr><td>3</td><td>Excavation</td><td>49.5</td><td>102.94</td><td></td><td></td></tr>
<tr><td>4</td><td>Road</td><td></td><td></td><td></td><td></td></tr>
<tr><td>5</td><td>Built up area</td><td>6.884</td><td></td><td>2.00</td><td></td></tr>
<tr><td>6</td><td>Green Belt</td><td>6.11</td><td></td><td></td><td></td></tr>
<tr><td>7</td><td>Undisturbed area</td><td></td><td></td><td></td><td></td></tr>
</table></td><td><table>
<tr><th>Sl. No.</th><th>Landuse</th><th>Within MLArea (ha)</th><th>Outse MLA a (ha</th></tr>
<tr><td>1</td><td>Agricultural land</td><td>27.166</td><td>0</td></tr>
<tr><td>2</td><td>Forest land</td><td>120.313</td><td></td></tr>
<tr><td>3</td><td>Wasteland</td><td>18.292</td><td>1.91</td></tr>
<tr><td>4</td><td>Grazing land</td><td></td><td></td></tr>
<tr><td>5</td><td>Surface water bodies</td><td>0.935</td><td></td></tr>
<tr><td>6</td><td>Settlements</td><td></td><td></td></tr>
<tr><td>7</td><td>Others (specify)</td><td>0.728</td><td></td></tr>
<tr><td></td><td>Total</td><td>167.434</td><td>1.91</td></tr>
</table>
Post Mining :
<table>
<tr><th>Sl</th><th>Land Use</th><th>Forest Land (Returned)</th><th>Water Body</th><th>Public Use</th><th>Ust b</th></tr>
<tr><td></td><td>Within ML area</td><td></td><td></td><td></td><td></td></tr>
<tr><td>1</td><td>External OB Dump</td><td></td><td></td><td></td><td></td></tr>
<tr><td>2</td><td>Top soil Dump</td><td></td><td></td><td></td><td></td></tr>
<tr><td>3</td><td>Excavation</td><td>100.35</td><td>56.11</td><td></td><td></td></tr>
</table></td><td>The earlier figures were based on the “Interim Geological Note on DVC Bermo Mines” given by CMPDI in February 2016 while the revised figures are based on “Geological Report on DVC Bermo Mine” given by CMDI in October 2016 & its subsequent corrections till March 2017 and the Mining Plan prepared on the basis of same has been submitted to Ministry of Coal on 8th May 2017.</td></tr>
</table>

	Sub Total	**62.494**	**102.94**	**2.00**			**167.434**						**=156.46**
	Outside ML Area						4	Road					**0**
	External OB Dump						5	Built up area	**2.40**		**0.82**		**3.22**
	Approach Road						6	Green Belt	**5.54**				**5.54**
	Facility Area						7	Un-disturbed area	**2.214**				**2.214**
	Sub Total							Sub Total					**167.434**
	Grand Total							**Outside ML Area**					
								External OB Dump					**0**
								Approach Road					**0.25**
								Facility Area					**1.66**
								Sub Total					**1.91**
								Grand Total					**169.344**
viii.	The total geological reserve is 148.548 MT. The mineable reserve 81.38 MT, extractable reserve is 81.38 MT at inception stage-11.22 MT as on 01.04.2015 = 70.16 MT as on 01.04.2015. The percent extraction would be 54.8%.						The total geological reserve is 130.754 MT. The mineable reserve 71.88 MT, extractable reserve is 71.88 MT at inception stage-11.22 MT as on 01.04.2015 = 66.66 MT as on 01.04.2015. The percent extraction would be 48.4%						Same as point vii. CMPDI had earlier given single figure for thickness of each seam and later gave range of seam thickness (in form of isochore plans), which led to revision of the mineable & extractable reserves. The thickness of the seams under excavated area was less than the thickness of those seams blocked in batter area which led to reduction in mineable & extractable reserves.
ix.	The coal grade is IV. The stripping ratio is 1.45 Cum/tonne. The average Gradient is 1 in 7. There will be 8 seams with thickness 1 metre and above.						The coal grade is average G-9. The stripping ratio is 1.83 Cum/tonne. The average Gradient is 7 to 14 degrees. There will be 12 Seams- 8 workable & 4 non workable with thickness 1 to 27.9 metres.						Same as point vii. Earlier grade was based on the actual grade of the topmost Bermo seam which is being worked and also reported in PFR, Jan 2003 by CMPDI. While later CMPDI gave coal quality and grade as per new grading system in geological report in Oct 2016.
x.	The total estimated water requirement is 709 m^3/day.						The total estimated water requirement is 581 m^3/day.						Same as point vii
xii.	There will be no external OB dump. 1 internal dump with Quantity of 56.75 Mbcm in an area of 52.609 ha.						There will be 2 Temporary external dumps within ML which will be rehandled from 8th year till 20th year, after which there will be no external OB dump. Quantity of external dump will be 35.82 Mcum in an area of 72.57 ha with height						Same as point vii

		of 90 meter above the surface level and 1 internal dump with Quantity of 110.79Mcum in an area of 101.35 ha.	
xiii.	The final mine void would be in 102.94 Ha with depth 150m. And the Total quarry area is 167.434 Ha. Backfilled quarry area of 49.5 Ha shall be reclaimed with plantation. A void of 102.94 ha with depth 150 m which is proposed to be converted into a water body.	The final mine void would be in 55.11 Ha with depth 150m. And the Total quarry area is 156.46 Ha. Backfilled quarry area of 101.35 Ha shall be reclaimed with plantation. A void of 55.11 ha with depth 150 m which is proposed to be converted into a water body.	Same as point vii
xiv.	The life of mine is 28 Years.	The life of mine is 27 Years.	Same as point vii
xv.	Transportation: Coal transportation in pit by through Dumper from in pit to pit head coal handling plant, Surface to Siding by tipping trucks at present and proposed by aerial ropeway or cross country conveyor to Pre-weigh Bin.	Transportation: Coal transportation in pit by through Dumper from in pit to pit head coal handling plant, from where by tipping trucks to EUP at present and proposed by cross country conveyor	There is no railway siding at mine nor is present or proposed transportation going to be through railways. It has been established after studying aerial ropeways that aerial ropeway will not be feasible for the proposed capacity.
xvi.	There is R & R involved. There no PAFs.	To add "2409 quarters of DVC and CCL will be removed, the residents are employees who live in these quarters and will be provided alternate accommodation"	Added further clarity to the statement, which would otherwise appear contrary that how R&R is there but no PAF is there.
xvii.	Cost: Total capital cost of the project is Rs. 50 Crores. CSR Cost Rs. 2.5 Crores. R&R Cost Rs. 63.57 Crores for shifting of Central Coalfields Ltd quarters built in our lease hold area. Environmental Management Cost Rs 15.97 Crore as per EIA study by CIMFR dt 2007.	Cost: Total capital cost of the project is Rs. 150 Crores…**.. <rest is same>**……	Typographical error
xix.	Approvals: Ground water clearance not required, Board's approval yet to be approved. Mining plan for expansion is under process. Mine closure plan is an integral part of mining plan.	Approvals: Ground water clearance not required, Board's approval obtained on 16.09.2016. Mining plan for expansion is has been submitted to Ministry of Coal for approval on 08.05.2017. Mine closure plan is an integral part of mining plan.	Status has been updated as per the current scenario as Board approval has been obtained and submission of Mining Plan has been made to Ministry of Coal
xxi.	There is no forest land in our mining lease area	There is 120.313 ha forestland in the mining lease area	120.313 ha has been identified as "GM Jungal" and will be requiring Forest Clearance based on correspondence & interaction with Forest Department.
xxii.	Total afforestation plan shall be implemented covering an area of 162.494 ha at the end of mining. Green Belt over an area of 6.11 ha. Density of tree plantation 2500 trees/ ha of plants.	Total afforestation plan shall be implemented covering an area of 110.504 ha at the end of mining. Green Belt over an area of 5.54 ha. Density of tree plantation 2500 trees/ ha of plants.	Same as point vii
xxvi.	The permutations and combinations of	The permutations and	Same as point vii

	excavation and dumping were carried out for accommodating the OB within the existing ML area, but not found feasible to accommodate the OB within the ML area by multiple re-handling of the OB. A total of 101.75 Mcum (B) of overburden is estimated to be generated during life of mine. Out of this, 15.53 Mcum (equivalent to about initial 3 and half years) OB generated from the NE corner of area will be accommodated (temporary dump) over the SW corner of the X-X area within the ML. The OB from 2nd half of 4th year onwards will be disposed off (in temporary dump) over Y-Y area within the ML. It has been estimated that Y-Y area will be adequate to accommodate the temporary dump, till the backfilling in X-X void can be done concurrent with mining without requiring any additional area outside the ML area for external surface dump. It is important to note that the 0B dumped over the coal bearing area on SW corner of X-X area and over the whole Y-Y area will be later backfilled into the void of X-X area by re-handling.	combinations of excavation and dumping were carried out for accommodating the OB within the existing ML area, but ~~not~~ is found feasible to accommodate the OB within the ML area by multiple re-handling of the OB. A total of 110.79 Mcum (B) of overburden is estimated to be generated during life of mine. Out of this, 19.41 Mcum ……**<rest is same> …**….	

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

(i) The proposal for grant of ToR to the expansion of Bermo coal mine projectfrom 0.4 MTPA to 2.62 MTPA in a total area of 169.094 ha located in District Bokaro (Jharkhand) was earlier submitted to this Ministry in June, 2016 by M/s Damodar Valley Corporation. The same was based on the 'Interim Geological Note on DVC Bermo Mines' released by CMPDIL in February, 2016.

(ii) The proposal was considered by the EAC in its meetings held on 24th June, 2016 & 30th January, 2017. The ToR for the project was issued on 28th February, 2017. Based on the ToR so issued, base line data collection for preparation of EIA report was carried out during March-May, 2017.

(iii) Meanwhile, 'Geological Note on DVC Bermo Mine' was given by CMPDIL in October, 2016, and subsequently corrections were carried out till March, 2017. In the process, Geological Coordinates Certificate was issued by CMPDIL on 24th April, 2017 after DGPS survey. The mining plan was prepared accordingly and submitted to Ministry of Coal on 8th May, 2017.

(iv) The series of events as above, has triggered minor changes in respect of geological coordinates, total area involved, land use, reserves, overburden, etc, as explained in para 13.7.2 above.Accordingly, the total area now stands revised to 169.344 ha in place of 169.094 ha proposed earlier.

13.7.4 *The EAC, after detailed deliberations, recommended for issuing the fresh ToR instead of amending the earlier ToR, incorporating the proposed changes on the above lines and as per the mining plan submitted to the Ministry of Coal.*

Agenda 13.8

OA No.111/2015 before Hon'ble National Green Tribunal, Central Zone Bench-Illegal mining and sinking of the area in and around Umaria (Madhya Pradesh)

13.8.1 The National Green Tribunal (CZ) at Bhopal has passed orders from time to time in OA No.111/2015 in the matter of 'Rakesh Chaturvedi &Ors Vs State of MP & Ors' regarding illegal mining and sinking of the area in and around Umaria (MP).

13.8.2 As per the earlier orders of the NGT, a committee was constituted by the Ministry vide office order dated 8th February, 2017, specifying the ToR vis-à-vis the directions contained therein. The committee visited the site during 27-28 March, 2017 and the site visit report was forwarded to the Ministry. As further directed by the NGT, the site visit report containing observations and recommendations was submitted to the Hon'ble Tribunal.

13.8.3 The NGT, vide order dated 1st May, 2017, has directed to refer the matter to the bodies such as those recommended namely CSIR-CIMFR, CSIR-NGRI and ISM, Dhanbad, along with one or two representative/member who violated the site. In compliance of the order, the said organizations have been requested for the needful vis-à-vis the observations and recommendations of the committee.

The NGT in its order dated 24th May, 2017, has directed the EAC coal to consider the issue with regard to Ground Penetration Radar Mapping as a suitable technique for identifying old tunnels through which the underground coal mining had been carried out pre-independence and post operations by SECL. The same has been desired to deal with the issue of caving in of the ground at various points in Umaria and thus to plan further development of the area.

As directed by the Hon'ble Tribunal, the proposal was placed before the EAC in its meeting held on 29th June, 2017. The Committee noted the observations and directions of the Hon'ble Tribunal in their different orders stated above.

13.8.4 *The EAC, in the first instance, acknowledged the expertise of Ground Penetration Radar Mapping available with the institutions namely, CSIR-CIMFR, CSIR-NGRI and ISM, Dhanbad, but preferred to designate Central Institute of Mining and Fuel Research (CIMFR) as the nodal agency for further/follow up actions. The Committee, after deliberations, decided to request the CIMFR to convene a meeting for comprehensive discussions on the subject matter with NGRI, ISM and other stakeholders (including the EAC members and this Ministry's representatives) to arrive at the concrete line of action as per the directions of the NGT.*

Discussion on any other item

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Annexure 1

PARTICIPANTS IN 13th EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 29th June, 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.	Shri N Mohan Karnat	Member
4.	Dr. Jai.Krishna Pandey	Member
5.	Dr. Manjari Srivastava	Member
6.	Dr. Gururaj P. Kundargi	Member
7.	Shri R K Giri	Representative (Indian Meteorological Department)
8.	Prof. Om Prakash	Representative (ISM, Dhanbad)
9.	Shri S. K. Srivastava	Member Secretary

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PARTICIPANTS IN 13th EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 29th JUNE 2017 ON COAL SECTOR PROJECTS.

13.1 Chhal OC OCP of **M/s South Eastern Coalfields Limited**

1. Shri S. Shrivastava
2. Shri Sandeep
3. Shri A S Bapat
4. Shri Amit Saxena
5. Shri Tripathi

13.2 Gandhigram UG of **M/s Western Coalfields Limited**

1. Shri. T.N.Jha
2. Shri. Kaushik Chakravarti
3. Shri. U.S.Shah
4. Shri. K.Chakraborty
5. Shri V K Nagda
6. Shri R M Wanare

13.3 Kedla Colliery OCP,UGP of **M/s Central Coalfield Limited**

1. Shri Jayanta Chakravarty
2. Shri Pushkar
3. Shri A K Das
4. Moh. Aftab Alam
5. Shri Danish Meena
6. Smt. Somita SIngh

13.4 Expansion of **M/s Spectrum Coal &Power Limited**

1. Shri M.Janardhan
2. Shri I.N.Bagth
3. Shri Tshiwargu Bhragav
4. Shri Radhy
5. Shri N.P.Bhati

13.5 Konar OCP of **M/s Central Coalfield Limited**

1. Shri Jayanta Chakravarty
2. Shri Pushkar
3. Shri A K Das
4. Moh. Aftab Alam
5. Shri Danish Meena
6. Smt. Somita Singh

13.6 Visapur OC of **M/s Western Coalfield Limited**

1. Shri. T.N.Jha
2. Shri. Kaushik Chakravarti
3. Shri. U.S.Shah
4. Shri. K.Chakraborty
5. Shri V K Nagda
6. Shri R M Wanare

13.7 Bermo Coal of **M/s Damodar valley Corporation (DVC)**

1. Shri Mohan Jha
2. Shri Arvind Kumar Thakur
3. Shri Jagesh kr mandiye
4. Shri Marisha Sharma
5. Shri B.D.Sharma

13.8 OA no 111/2015 before Hon'ble NGT CZ (MP)

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Generic ToR for coal washery

i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washery preferably through closed conveyer belt to avoid air pollution.
ii. The washery shall not be located in eco-sensitive zones areas.
iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
v. A brief description of the plant alongwith a layout, the specific technology used and the source of coal should be provided.
vi. The EIA-EMP Repot should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Govt.
viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM_{10}, $PM_{2.5}$, SOx and NOx, noise, water (surface and groundwater), soil be submitted.
ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in EIA/EMP report.
xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.
xiii. Impacts of CHP, if any, on air and water quality should also be spelt out alongwith Action Plan.
xiv. O.M. no. J-ll0I3/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.
xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status

of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.

xvi. Analysis of samples indicating the following be submitted:

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

Characteristics and quantum of coal after washing.

Characteristics and quantum of coal rejects.

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

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

xix. Corporate Environment Responsibility:

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

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

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

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

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

***

GENERIC TOR FOR AN OPENCAST COALMINE PROJECT for EC

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

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

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

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

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

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

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

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

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

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

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

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

Sl. No.	Landuse	Within ML area (ha)	Outside ML area (ha)	Total
1.	Agricultural land			
2.	Forest land			
3.	Wasteland			

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

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

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

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

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

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

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

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

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

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

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

(xxi) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater

should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.

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

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

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

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

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

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

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

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

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

S.N.	Land use Category	Present (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.	1st year										
2.	3rd year										
3.	5th year										
4.	10th year										
5.	15th year										
6.	20th year										
7.	25th year										
8.	30th year										
9.	34th year(end of mine life)										
10.	34- 37th Year (Post-mining)										

* As a representative example

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

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

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

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

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

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

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

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

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

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

(xxxvii) Corporate Environment Responsibility:

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

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

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

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

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

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

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

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

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

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

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

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GENERIC TORs FOR AN UNDERGROUND COALMINE PROJECT

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

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

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

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

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

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

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

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

Area under Surface Rights

S.N.	Details	Area (ha)
1.	Buildings	
2.	Infrastructure	

3.	Roads	
4.	Others (specify)	
	TOTAL	

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(xxviii) Corporate Environment Responsibility:

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

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

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

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

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

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

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

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

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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 of .....MTPA for OC-cum-UG project which consists of .... MTPA in an ML/project area of ..... ha for OC and .... MTPA for UG in an ML/project area of ..... ha based on the generic structure specified in Appendix III of the EIA Notification 2006.

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

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

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Subject: **Re: Draft Minutes of the 13th meeting of the EAC held on 29th June, 2017 for Coal Mining**

Date: 07/06/17 01:04 PM

From: navin chandra <navinchandrarrl@yahoo.com>

To: Purushottam ramdas Sakhare <sakhare.pr@nic.in>, Srivastava Additional Director <sk.smree66@nic.in>, "S.K Srivastava" <sk.smree66@gov.in>

06/07/2017

Dear Dr. Srivastava Ji,

I have gone through the Draft Minutes of the EAC meeting held on 29th June 2017. The Minutes are in-order. You may up-load the same after approval from competent authority.
Thanking You,
yours sincerely,

(NAVIN CHANDRA)

Dr. Navin Chandra,
Director General
M P Council of Science and Technology (MPCST),
Vigyan Bhawan, Nehru Nagar, Bhopal - 462003 (M.P.) India
Phone : 91-755- 2671800 (Office)
e-mail : dg@mpcost.nic.in
navinchandrarrl@yahoo.com, navinchandraampri@gmail.com

13th EAC (THERMAL & COAL MINING PROJECTS) MEETING SCHEDULED FOR 29th June, 2017.

AGENDA

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

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

Important Note:

i. Please send the information as per Annexure 1 by E-mail in word format and also a signed & scanned copy, to the Member-Secretary at sk.smree66@nic.in at least one week prior to the EAC meeting.
ii. Please 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: 29th June, 2017

13.1 Chhal OC expansion project from 3.50 MTPA to 7.50 MTPA (Peak) in an area of 1342.86 ha by M/s South Eastern Coalfields Limited located in District Raigarh (Chhattisgarh) - For TOR

13.2 Gandhigram UG coal mine project of1.60 MTPA in an area of 735.073 ha by M/s Western Coalfields Limited located in Tehsil Ghoradongri District Betul (Madhya Pradesh)- TOR

13.3 Kedla Colliery (consisting of Kedla OCP and Kedla UGP) of capacity 1.18 MTPA (Normative)/1.57 MTPA (Peak) of M/s Central Coalfields Ltdin an area of 1417.99 ha in District Ramgarh (Jharkhand)- TOR

13.4 Expansion of coal washery at Talcher from 9.52 MTPA to 11.0 MTPA in an area of

36.95ha by M/s Spectrum Coal & Power Limited located in village Danara, District Angul (Odisha) - TOR

13.5 Expansion of Konar OCP from 4.10 MTPA (Normative)/5 MTPA (Peak) to 8MTPA (Normative)/11MTPA (Peak), Integrated Konar Non-coking Coal Washery of 7 MTPA capacity of M/s Central Coalfields limited, in a total area of 471.40 ha located in Bokaro and Kargali Area, District Bokaro (Jharkhand) - For further consideration for EC

13.6 Visapur OC Mine (1.0 MTPA Normative 1.25 Peak) in an area of 1057.97 ha by M/s Western coalfields Limited located in District Chandrapur (Maharashtra)- Extension of TOR validity

13.7 Expansion of Bermo coal mine Project from 0.4 MTPA to 2.62 MTPA of M/s DamodarValley Corporation (DVC) in a total area of 169.094 ha located in District Bokaro (Jharkhand)- Amendment in ToR

13.8 OA No.111/2015 before Hon'ble National Green Tribunal, Central Zone Bench-Illegal mining and sinking of the area in and around Umaria (Madhya Pradesh)

13.9 Discussion on any other item.

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