

## Minutes of the 11<sup>th</sup> meeting of the EAC held on 30<sup>th</sup> -31<sup>st</sup> May, 2017 for Thermal & Coal Mining Sector projects

**A.** The 9<sup>th</sup> meeting of the Expert Appraisal Committee (EAC) for Thermal & Coal mining projects was held on 27-28 April, 2017 in the Ministry to consider the proposals relating to coal mining sector. The list of participants and the project proponents are at Annexure-I & II respectively.

### **B. Confirmation of minutes**

The Committee confirmed minutes of the 9<sup>th</sup> meeting held on 27-28 April, 2017.

**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 11.1**

#### **Coal Washery of 2.5 MTPA in an area of 6.50 ha by M/s Hind Energy and Coal Beneficiation (India) Limited at Kirarama village Lakhanpur Tehsil, Jharsuguda District (Odisha) – For consideration for TOR**

**11.1.1** The proposal is for grant of TOR to Coal Washery of 2.5 MTPA in an area of 6.50 ha by M/s Hind Energy and Coal Beneficiation (India) Limited at Kirarama village Lakhanpur Tehsil, Jharsuguda District (Odisha).

**11.1.2** 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) It is a green field project.
- (ii) The latitude and longitude of the project site are :

Point No.	Latitude	Longitude
1.	21°45'55.23"N	83°52'11.39"E
2.	21°45'54.10"N	83°52'21.30"E
3.	21°45'46.55"N	83°52'17.97"E
4.	21°45'46.87"N	83°52'9.88"E

- (iii) Joint Venture: There is no Joint Venture.
- (iv) Coal Linkage: Coal will be sourced from Mahanadi Coalfields Ltd.
- (v) Employment generated / to be generated: Direct employment - 75 nos. Indirect employment - 150 nos.
- (vi) Benefits of the project: The management is committed to uplift the standards of living of the villagers by providing employment to local people & taking up CSR activities in consultation with local gram panchayat based on need based assessment to be carried out with village panchayat.

(vii) Land usage of the project site:

S.No.	Description	Area (in Acres)
1.	Plant Area	4.27
2.	Raw Coal Storage Area (3 days stock)	2.30
3.	Clean Coal Storage Area (3 days stock)	1.30
4.	Rejects Storage Area (10 days stock)	0.80
5.	Green Belt Area	5.30
6.	Road Area	1.30
7.	Parking Area	0.20
8.	Water Reservoir	0.10
9.	Settling Pond	0.30
10.	Admin. Building & Others	0.20
	Total	16.07

(viii) Total estimated water requirement is 612 m<sup>3</sup>/day. Water required will be sourced from the Ground water. Prior permission will be obtained from the CGWA after obtaining the TOR for the project.

(ix) Technology: Wet type

(x) Transportation: Raw Coal will be sourced from Mahanadi Coalfields Limited (MCL) and will be transported through road by covered trucks up to the proposed site. Railway siding is not available at the site. Washed coal from the plant will be transported by road in covered trucks directly to the customer (or) by road upto nearest railway station and from there by rail to the customer. The mode of transport of washed coal will depend on the MoU with the customers who may have either road transport or rail transport. Washery rejects from the plant will be transported by road in covered trucks directly to the customer (or) by road upto nearest railway station and from there by rail to the customer

(xi) There is no R & R involved.

(xii) Cost: Total capital cost of the project is Rs. 41.00 Crores CSR Cost (Capital Cost Rs. 50.0 Lakhs and Annual Recurring: Rs. 20.0 Lakhs. R&R Cost Nil. Environmental Management Cost (capital cost Rs 130 Lakhs and , annual recurring cost 15 lakhs).

(xiii) Water body : No river / nallah flows near or adjacent to the project site. However Ib River (4.6 Kms.), Lilari Nallah (0.7 Kms.), Hirukud Reservoir (6.5 Kms.) are flowing within 10 Km. radius of the Project site.

(xiv) Approvals: Prior permission for ground water will be obtained from the CGWA after obtaining the TOR for the project

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

(xvi) Forestry issues: No forest land involved.

(xvii) Total afforestation plan shall be implemented covering an area of 2.14 ha

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

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

- (i) The proposal is for grant of ToR to the proposed coal washery of 2.5 MTPA in an area of 6.50 ha with no involvement of forest land.
- (ii) The proposed washery would be wet type based on heavy media cyclone technology.
- (iii) Total projected water requirement of 612 cum per day proposed to be sourced through ground water is as per the established norms i.e. less than 1 cum/tonne of washed coal.
- (iv) Three alternate sites namely, Talibhal, Kirarama, and Kandisar were explored for locating the coal washery. Considering different relevant parameters, the site at Kirarama has been finally selected as the project site.
- (v) Raw coal is to be procured from the mines of M/s Mahanadi Coalfields Ltd and the washed coal is to be supplied to the TPP of M/s Talwandi Sabo Power Ltd of 3 X 660 MW in District Mansa (Punjab). Rejects of the order of 0.75 MTPA would be supplied through M/s Vedanta Ltd (Jharsuguda) and M/s Hindalco Industries, Sambalpur.

**11.1.4** *The EAC, after detailed deliberations, was of the opinion that such a quantum of ground water withdrawal needs to be discouraged, and accordingly other alternate sites is to identified for the washery. The Committee further desired that in view of more and more projects coming up in the area and the pollution potential so involved, a study on environmental carrying capacity of the region should be conducted by a research organization of national repute.*

*The proposal was, therefore, deferred.*

## **Agenda 11.2**

**Rajbir E & D Coal Opencast Coal mines of 10 MTPA in an area of 2860 ha by M/s Tenughat Vidyut Nigam Limited located in Auranga Coal Field, District Latehar (Jharkhand) - TOR**

**11.2.1** The proposal is for grant of TOR to Rajbir E & D Coal Opencast Coal mines of 10 MTPA in an area of 2860 ha by M/s Tenughat Vidyut Nigam Limited located in Auranga Coal Field, District Latehar (Jharkhand).

**11.2.2** The Committee was informed that the project proponent has yet not applied for stage-I forest clearance for diversion of the forest land out of the total project area of 1373 ha. In view of this Ministry's OM dated 9<sup>th</sup> September, 2011, the proposal is not to be placed before the EAC for consideration.

## **Agenda 11.3**

**Coal Washery of 2.5 MTPA in an area of 10.02 ha of M/s Phil Coal Beneficiation Pvt Ltd at Village Ghutku Tehsil Takhatpur, District Bilaspur (Chhattisgarh) - For consideration of EC**

**11.3.1** The proposal is for grant of EC to Coal Washery of 2.5 MTPA in an area of 9.93 ha of M/s Phil Coal Beneficiation Pvt. Limited at Village Ghutku Tehsil Takhatpur, District Bilaspur (Chhattisgarh).

**11.3.2** 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 project was accorded TOR vide letter no. J-11015/418/2015-IA-II (M) dated 29<sup>th</sup> February 2016.
- (ii) The latitude and longitude of the project :

Point No.	Latitude	Longitude
1.	22° 9'24.84"N	82° 5'24.52"E
2.	22° 9'26.42"N	82° 5'26.07"E
3.	22° 9'24.71"N	82° 5'30.93"E
4.	22° 9'21.24"N	82° 5'32.85"E
5.	22° 9'24.54"N	82° 5'33.56"E
6.	22° 9'27.38"N	82° 5'35.45"E
7.	22° 9'24.16"N	82° 5'41.15"E
8.	22° 9'16.20"N	82° 5'36.63"E
9.	22° 9'8.07"N	82° 5'34.33"E
10.	22° 9'12.53"N	82° 5'29.66"E
11.	22° 9'20.32"N	82° 5'27.14"E

- (iii) Joint Venture: There is no joint venture
- (iv) Coal Linkage: Coal will be sourced from SECL from Deepka, Gevra, Kusmunda and other mines of South Eastern Coalfield Limited (SECL). MoU has been signed with M/s. KSK Energy Ventures Ltd. & M/s. Jaiprakash Power Venture Ltd.
- (v) Employment generated / to be generated: Direct employment - 75 nos. Indirect employment - 150 nos.
- (vi) Benefits of the project: The management is committed to uplift the standards of living of the villagers by providing employment to local people & taking up CSR activities in consultation with local gram panchayat based on need based assessment to be carried out with village panchayat.
- (vii) The land usage of the project will be as follows: This is a coal washery. The following is the break up of land usage of 24.54 acres (9.93 Ha.) of total land earmarked for the project.

S.No.	Description	Area (in Acres)
1.	Main Plant Area	4.00
2.	Raw Coal Storage Yard	2.00
3.	Washed Coal Storage Yard	1.50
4.	Rejects storage	1.00
5.	Water Storage and Rain Water Harvesting	0.79
6.	Internal Roads	1.00
7.	Green Belt	8.25
8.	Railway siding	6.00
	<b>TOTAL</b>	<b>24.54</b>

- (viii) Total estimated water requirement is 955 m<sup>3</sup>/day. Water required will be sourced from the

Ground water.

(ix) Technology: Wet type coal washery

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

(xi) Transportation: Raw Coal will be sourced from SECL from Deepka, Gevra, Kusmunda and other mines of South Eastern Coalfield Limited (SECL), located in Korba/Raigarh area and will be transported by Rail and by road in covered trucks upto the site.

(xii) Washed coal from the site will be sent to customer by Rail / Road depending on the MoU between customer and SECL.

(xiii) There is no R & R involved.

(xiv) Cost: Total capital cost of the project is Rs. 25 Crores. CSR Cost (Capital Cost Rs. 40.0 Lakhs Annual Recurring:Rs. 15.0 Lakhs ). R&R Cost Nil. Environmental Management Cost (capital cost Rs130 Lakhs (Direct) and recurring cost 15 lakhs).

(xv) Water body : No river / nallah flows near or adjacent to the project site. However Arpa river (2.0 Kms.), Ghongha Nadi (7.5 Kms.) & Kurung Right Bank Canal (6.0 Kms) & Gokena Nallah (2.5 Kms.) are flowing within 10 Km. radius of the Project site.

(xvi) Approvals: Application has been submitted to CGWA for abstraction of Ground water. Permission is in advance stage. Recommendation Letter has been sent by the Collectorate Office, Bilaspur to Regional Director, CGWB, Raipur.

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

(xviii) Forestry issues: there is no forest area involved in the project area.

(xix) Green Belt shall be developed over an area of 3.34 ha.

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

(xxi) Public Hearing was held on 22nd February 2017 near proposed site, Ghutku Village, Takhatpur Tehsil, Bilaspur District.

(xxii) The issues raised in the PH includes Employment to the local villagers, ITI training to the youth, management of the road, control of ground water pollution, ground water recharging etc.

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

(i) The proposal is for grant of environmental clearance to the proposed coal washery of 2.5 MTPA in an area of 9.93 ha with no forest land involved.

(ii) ToR for the project was issued on 29<sup>th</sup> February, 2016 and the public hearing was conducted on 22<sup>nd</sup> February, 2017 under the Additional Collector of District Bilaspur. Main issues raised during the public hearing included employment, health, adoption of villages, adoption of kids and training them for suitable jobs, road network, water and other developmental activities in the area.

(iii) Raw coal is to be sourced through mines of M/s SECL namely, Dipka, Gevra and Kusmunda and the washed coal is to be supplied to the customers by rail/road depending upon the MoU signed in this regard.

(iv) For the huge requirement of water to the tune of 955 cum/day for coal washing and that too the ground water, the Committee desired to explore possibilities of alternative sources of surface water, abandoned mines or else whatsoever, to meet the water requirements.

(v) In response to a query, the project proponent has clarified that no construction works pertaining to the coal washery at the given site in village Ghutku, Tehsil Takhatpur, District Bilaspur (Chhattisgarh) has been undertaken. An undertaking/affidavit has also been submitted in this regard. However, the Committee members desired for a verification in this regard by Chhattisgarh Environment Conservation Board.

11.3.4 *The Committee, after deliberations, recommended the proposal for grant of Environmental clearance to the proposed Coal Washery of 2.5 MTPA in an area of 9.93 ha of M/s Phil Coal Beneficiation Pvt Limited at village Ghutku Tehsil Takhatpur, District Bilaspur (Chhattisgarh), subject to certification by the Chhattisgarh Environment Conservation Board regarding no industrial activity at the project site, submission of firm MoU/linkage for the washed coal to be utilized by the TPPs and also the rejects for use in FBCs and/or by the prospective buyers.*

*The grant of EC shall be further subject to compliance of all generic conditions applicable for washery as well as fulfillment of other conditions as under:*

- *The industrial operations shall be taken up at the project site keeping a certain distance from the nearby railway track as per the regulations of the Ministry of Railway in this regard.*
- *The technology so chosen for the washery should conform to 'Zero Liquid Discharge'.*
- *Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever, and thus minimizing the dependability on ground water. Information in this regard shall be furnished to the Ministry within 6 months i.e. by December, 2017 for review of the EC conditions.*
- *Transport of raw coal, clean coal, middling and rejects shall be by rail with wagon loading through silo.*
- *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 around the washery 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 11.4**

**Expansion of of 'Parsa East and Kanta Basan' Opencast Coal Mine (from 10 MTPA to 15 MTPA) and Expansion of Pit Head Coal Washery (from 10 MTPA to 15 MTPA) in total project area is 2711.034 ha of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd, located in Hasdeo-Arand Coalfields in District Sarguja (Chhattisgarh) – For further consideration of EC**

**11.4.1** The proposal is for grant of environmental clearance to the expansion project of Parsa East and Kanta Basan Opencast Coal Mine from 10 MTPA to 15 MTPA and expansion of Pit Head Coal Washery from 10 MTPA to 15 MTPA, promoted by M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd, in a total area of 2711.034 ha located in Hasdeo-Arand Coalfields in District Sarguja (Chhattisgarh).

**11.4.2** The proposal was last considered by the EAC in its 30-31 January, 2017. During the meeting, the observations of the Committee were as under:-

(i) The proposed expansion of Opencast Coal Mine and the Coal Washery by 5 MTPA each,

although within the same mine lease area, may cause significant impacts on the surrounding environment including socio-economic aspects.

(ii) The Committee was also not convinced with the compliance status of EC conditions, and desired to make a site visit by 2-3 of its members. Meanwhile, and in terms of the EC conditions stipulated therein, the project proponents were asked for the Wild Life Conservation Plan.

(iii) The Committee also took cognizance of the representation received in the Ministry from one of the NGO against the proposed expansion of the OCP and the Coal Washery. The project proponent was asked to submit para wise response to the said representation.

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

(a) The sub-committee comprising EAC members namely, Dr. Narmada Prasad Shukla and Dr. P D Siwal, along with Shri Charanjeet Singh, Scientist C (Representative of RO, MOEFCC at Nagpur) visited the site on 22-23 April, 2017. Their observations vis-à-vis the terms of reference are as below:-

**(i) Meeting of Sub-Committee and presentation by project proponent**

The sub-committee discussed the issues raised in the minutes of the meeting and accordingly a presentation was given by the project proponent. The attendance sheet of the participants is annexed (Annexure I). PP/User Agency made a detailed presentation on status of project operation and compliance of existing environmental clearance before the Committee. Presentation was made on background of the proposal, overall status of EC conditions including explanation on observations made by regional office of MoEF&CC in its EC compliance report issued vide letter F.No. 3-3/2012 (ENV)/1080 dated 21<sup>st</sup> November, 2016 and other points raised in minutes of meeting of EAC. Presentation has also covered the status of ongoing reclamation (biological and physical) with respect to mined out areas along with plantation detail. CSR initiatives and impact of socio-economic aspects were also discussed in great detail. Similarly a representation of NGO was also explained in the presentation. The project proponent has also provided the copy of para wise response submitted to MoEF&CC (Annexure II). The approved copy of wild life conservation plan was also submitted (Annexure III). Status of legal issues were also discussed and presented before the sub-committee.

**ii. Site Visit**

After presentation of the project proponent/user agency, the sub-committee undertook the site visit of project area and observations are made as under:-

**(a) Central pit mining area, siltation ponds garland drain, water treatment facilities etc.** The sub-committee along with the team of PP/User Agency visited the mining area and seen different activities going on in the project area. Site of siltation ponds are visited and seen the arrangements are made for collection of rain water from OB dumps and roads, garland drain to maintain ZLD (Zero Liquid Discharge) condition. Water treatment facility of sump water and its further use in mining operations like washery, plantation and sprinkling were also seen.

**(b) OB dumps locations** - Sub-committee visited dump locations which includes external dumps, restoration areas, green belt, nursery etc. Slope stability, angle of slope, drainage

arrangements around dumps, erosion control measures, including physical and biological reclamation measures undertaken by the project proponent were observed. In some places sub-committee instructed project personnel for further improvement of drainage before onset of monsoon. Overall measures were found to be in place.

**(c) Avenue plantation, safety zone plantation, dust suppression measures on road** - Sub-committee visited locations of avenue plantation, safety zone plantation, locations of mature tree transplantation through mechanical transplanter. Dust suppression measures including sprinkling and working of static sprinklers also examined.

**(d) Ongoing construction of railway siding and road network** - These sites are also visited and work progress has been observed.

It has been found that a lot of open land earmarked for road network and rail track. It is suggested that PP should undertake dense plantation on both side of the road as well as the boundary of the rail track so that gap is filled with vegetation.

**(e) Site visit to assess CSR initiatives and socio-economic aspects** - To ascertain the effectiveness of CSR activities and socio-economic and environmental aspects associated with the project, various sites are visited. It has been found that Skill Development Centre/Vocational Training Centre is under construction and nearing completion. However, activities are started and presently carried out in rented building at Udaipur area. Similarly the progress of construction of Adani Vidya Mandir was also observed. At present school is functional at Governemnt building. To address the healthcare issues of the villager, medical van is operation.

### **(iii) Exit Meeting**

In the exit meeting, sub-committee conveyed and discussed the observations made during the site visit. A few suggestions are also made by the committee to improve the efficiency and effectiveness of various activities undertaken in the project area. The visit of the sub-committee was concluded after exit meeting with project personnel.

Following facts are being brought in the notice of sub-committee.

- Coal extraction through Surface Miner, an appropriate technology used in mining operation to eliminate drilling and blasting in coal.
- Mine is being worked as per approved mine plan. OB dump height and benches are maintained properly. The maximum bench height is 30 m with ultimate slope of bench less than  $28^{\circ}$  and the same has been monitored through drown survey.
- Retention/toe wall are constructed along with Geoblanketing (geo-textile) and check dams to arrest sliding on slope of OB benches.
- Sequential mining/progressive reclamation has been planned in two phases. Reclamation work started in mined out area in 2<sup>nd</sup> year itself and it is evident in project area, where physical and biological reclamation are achieved.
- Crusher/sizer and screening area in CHP is provided with high efficiency bag filers, dry and wet fog dust suppression system has been installed.
- All transfer points have been provided with dust suppression system.
- The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limit.



- Atem River is flowing at a distance of about 2.7 km from northern boundary of the block. A seasonal nala i.e. Parsanala flows on the south eastern part of the bloc and discharge its water into the Atem river. No nala diversion is involved in the project.
- As regard legal issues, sub-committee recorded that the ToR for expansion was given after the Hon'ble Tribunal and Hon'ble Supreme Court's intervention in the project.

Sub-committee has taken appreciative note on innovative horticultural practices and establishment of Sal nursery and successful plantation in mined out area and also transplantation of mature tree by mechanical transplanter. It has significance in the sense that Sarguja is known for Sal forest and such efforts help in afforestation with native species.

Keeping in view the outcome of site visit which includes the compliance status of EC condition and also socio-economic and environmental aspects associated with the project, sub-committee recommends the expansion of coal mine and coal washery and accordingly grant of EC may be considered subject to the condition that final decision of the Hon'ble court in the matter will be binding on the project proponent. Implementation of proposed project will help in improving the power generation situation of Rajasthan by reducing gap in demand and supply of electricity in the state. It will also help in employment generation and development of surrounding villages.

(b) The proposal is for grant of EC to the expansion project of Parsa East and Kanta Basan (PEKB) Opencast Coal Mine from 10 MTPA to 15 MTPA, and expansion of Pit Head Coal Washery from 10 MTPA to 15 MTPA, in a total area of 2711.034 ha located in Hasdeo-Arand Coalfields in District Sarguja (Chhattisgarh). Total forest area involved is 1898.328 ha.

(c) The ToR for the expansion project was granted on 10<sup>th</sup> September, 2014 and the public hearing was conducted on 11<sup>th</sup> September, 2016.

(d) Mine Plan for the proposed expansion was approved by the Ministry of Coal on 19<sup>th</sup> November, 2013. The same was subsequently revised vide their letter dated 12<sup>th</sup> August, 2016 to accommodate FBC power plant within the same mine lease area.

(e) Earlier, the coal mine and the washery of 10 MTPA capacity each, was granted EC on 31<sup>st</sup> December, 2011 in a total area of 2711.034 ha.

(f) Stage-I forest clearance was granted on 6<sup>th</sup> July, 2011, and the consequential order was passed by the State Government of Chhattisgarh on 28<sup>th</sup> March, 2012 after issuance of stage-II forest clearance by this Ministry, to effect diversion of the total forest land involved for non-forestry purposes.

(g) One of the conditions of the stage-I forest clearance states that '*during phase-I covering 15 years, mining shall be restricted to 762 ha of forest land. Whereas during phase-II, mining permission over remaining 1136 ha of forest land will be linked to the reforestation and bio-diversity management in phase-I. Also, the project proponent shall submit the application for permission for mining in phase-II along with compliance report of phase-I.*

(h) Hon'ble NGT, Principal Bench, N Delhi in OA No.73/2012 in the matter of 'Sudiep Shrivastava Vs State of Chhattisgarh & others', vide their order dated 24<sup>th</sup> March, 2014 directed as under:-

1. Order dated 23<sup>rd</sup> June, 2011 passed by the respondent no.2-MoEF Government of India and consequential order dated 28<sup>th</sup> March, 2012 passed by the respondent no.1 State of Chhattisgarh under section 2 of the Forest (Conservation) Act 1980 for diversion of forest land of PEKB Coal Blocks are set aside;

2. The case is remanded to the MoEF with directions to seek fresh advice of the FAC within reasonable time on all aspects of the proposal discussed herein above with emphasis on seeking answers to the following questions: (i) What type of flora and fauna in terms of bio-diversity and forest cover existed as on the date of the proposal in PEKB Coal Blocks in question. (ii) is/was the PEKB Coal Blocks habitat to endemic or endangered species of flora and fauna (iii) Whether the migratory route/corridor of any wild animal particularly, elephant passes through the area in question and, if yes, its need. (iv) Whether the area of PEKB Block has that significant conservation/protection value so much so that the area cannot be compromised for coal mining with appropriate conservation management strategies. (v) What is their opinion about opening the PEKB Coal Blocks for mining as per the sequential mining and reclamation method proposed as well as the efficacy of the translocation of the tree vis-à-vis the gestation period for regeneration of the flora? (vi) What is their opinion about the Wildlife Management plan finally prescribed. (vii) What conditions and restriction do they propose on the mining in question, if they favour such mining? Liberty is granted to the FAC to seek advice/opinion/specialized knowledge from any authoritative source such as Indian Council of Forestry Research and Education Dehradun or Wildlife Institute of India including the sources indicated in the present case by the parties.

3. The MoEF shall pass a reasoned order in light of the advice given by the FAC in accordance with law and pass appropriate order in accordance with law.

4. All work commenced by the respondent no.3 project proponent and respondent no.4 pursuant to the order dated 28<sup>th</sup> March, 2012 passed by the respondent no. 1 State of Chhattisgarh under section 2 of the FC Act, 1980, except the work of conservation of existing flora and fauna, shall stand suspended till such further orders are passed by the MoEF in accordance with law.

(i) A Civil Appeal No.4395/2014 was filed by the project proponent M/s RVUNL in Hon'ble Supreme Court. Hon'ble Court vide their order dated 28<sup>th</sup> April, 2014 has stayed the directions contained in the impugned order dated 24<sup>th</sup> March, 2014 of Hon'ble NGT that all works commenced by the appellant pursuant to the order dated 28<sup>th</sup> March, 2012 passed by the State of Chhattisgarh under section 2 of the Forest Conservation Act, 1980 shall stand suspended till further orders are passed by the MoEF.

(j) In compliance of the order dated 24<sup>th</sup> March, 2014 of Hon'ble NGT, setting aside the forest clearance, the case was remanded to this Ministry with directions to seek fresh advice of the Forest Advisory Committee (FAC). However, due to subsequent filing of Civil Appeal No.4395/2014 in Hon'ble Supreme Court by the project proponent, the FAC in its meeting held on 29/30 April, 2014 deferred the matter due to the matter being sub-judice.

(k) Owing to the delays due to legal interventions and subsequent cancellation of the coal block, the project proponent requested this Ministry to allow for deferring completion of certain activities namely, commissioning of FBC Power Plant by 2019-20 and Railway Siding by March, 2018, and thus sought amendment in specific conditions contained in 2A (iii) & (v) of the EC dated 21<sup>st</sup> December, 2011 accordingly. Based on the recommendations of the EAC, the same was allowed by this Ministry vide letter dated 29<sup>th</sup> December, 2015.

(l) As decided by the EAC in its meeting held in January, 2017, site visit was undertaken by the EAC members on 22-23 April, 2017. Their observations as recorded in the above para 11.4.3, were found in order.

**11.4.5** *The EAC, after detailed deliberations, desired that in view of the legal interventions, no final order of Hon'ble Supreme Court in Civil Appeal No.4395/2014 and the FAC having deferred consideration of the proposal, legal opinion may be sought in complete perspective to ensure that there is no violation of the orders of Hon'ble Court/NGT in letter and spirit and thus to take the proposal forward. The same was assured by the project proponent M/s RVUNL to provide through the State Advocate General.*

*The Committee further opined that for the present and till March, 2017 (phase-I), stage-I forest clearance is available only for 762 ha of forest land, and it is only after compliance report of phase-I, mining permission shall be considered for the remaining 1136 ha of forest land in phase-II. Mining permission/operations in phase-II are thus linked to the reforestation and bio-diversity management in phase-I. In such a case, the Committee desired for a clarification from the project proponent duly endorsed by the Ministry of Coal, whether the approved Mining Plan is in consonance with the phasing of diversion of forest land as stated in para 11.4.4 (f) above.*

*The EAC also desired to seek comments from FC division, and their line of action for compliance of the orders of Hon'ble Supreme Court/NGT.*

## **Agenda 11.5**

**Kalyani Khani -6 incline underground Coal Mine Project of 0.80 MTPA Normative and 1.2303 MTPA Peak in an area of 421.61 ha by M/s SCCL located near villages Sankaraplli and Sandrapalli, Mandamarri Mandal in District Mancherial (Telangana) - TOR**

**11.5.1** The proposal is for grant of TOR to Kalyani Khani -6 incline underground Coal Mine Project of 0.80 MTPA (Normative)/1.2303 MTPA (Peak) in an area of 421.61 ha by M/s SCCL located near villages Sankaraplli and Sandrapalli, Mandamarri Mandal in District Mancherial (Telangana).

**11.5.2** 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) It is a fresh proposal for TOR.
- (ii) The latitude and longitude of the project are 18°57'39" - 18°59'16" (North) and 79°30'23" - 79°31'39" (East) respectively.
- (iii) Joint Venture:
- (iv) Coal Linkage : Basket linkage
- (v) Employment generated / to be generated: Direct: 738, Outsourcing employees: 285, Indirect: 70
- (vi) Benefits of the project: The proposal is to extracting coal from underground through an inclined tunnels by adopting mechanized method of Board and pillar mining with Continuous Miner technology and to minimize the gap between coal demand and supply and also to meet the coal demand in the region.
- (vii) The land usage of the project will be as follows:

Pre-Mining:

Sl. No.	Pre-mining Land use	Area in (Ha)
1.	<b>Forest land</b>	<b>103.96</b>
2.	<b>Non Forest land</b>	
	<b>(a) Private land</b>	
i.	Agricultural land	65.83
ii.	Grazing	3.91
iii.	Barren/waste	2.24
	<b>Sub -total (a)</b>	<b>71.98</b>
	<b>(b) Government land</b>	
i.	Agricultural Land	130.08
ii.	Grazing	20.73
iii.	Barren/Waste	82.33
IV	Water Bodies	11.27
V	Road	1.26
	<b>Sub -total (B)</b>	<b>245.67</b>
	<b>Total Area</b>	<b>421.61</b>

Post- Mining:

S. No.	Description	Reclaimed Area	Public/Other use	Total
1	Pit head	5.55	Nil	5.55
2	Air shafts and connecting roads	2.73	Nil	2.73
3	Progressive plantation	163.59	Nil	163.59
4	Pala Vagu & Tank	1.81	1.85	3.66
5	Pala Vagu Diversion	4.07	1.49	5.56
6	Existing Roads	Nil	1.26	1.26
<b>Sub Total</b>		<b>177.75</b>	<b>4.6</b>	<b>182.35</b>
7	Forest Land	Nil	103.96	103.96
8	Non-acquired Land	Nil	135.3	135.3
<b>Grand Total</b>		<b>177.75</b>	<b>243.86</b>	<b>421.61</b>

Core area :

Sl. No.	Description	Area in Ha
1	Mine pit head structures and establishment area	5.55
2	Air shafts and connecting roads	2.73
3*	Land to be acquired due to impact of subsidence	168.51

4	Pala Vagu Diversion	5.56
5	Total Land to be acquired by SCCL	182.35

- (viii) Total geological reserve is 59.196 MT. The mineable reserve 36.89 MT, extractable reserve is 15.65 MT. The per cent of extraction would be 26.43 %.
- (ix) The coal grade is G9-G14. The average Gradient is 1 in 5.5. There will be seven with thickness ranging upto 4.59 m.
- (x) The total estimated water requirement is 4000 cum/day. The level of ground water ranges from 0.72 m to 11.13 m.
- (xi) The Method of mining would be underground.
- (xii) There is neither external OB dump nor internal dump.
- (xiii) There will be no final mine void as it is underground mine.
- (xiv) The life of mine is 19 Years.
- (xv) Transportation: Coal transportation in pit to siding through trucks from pit head to Area CHP and loading at siding by trucks / rail for dispatch
- (xvi) There is no R & R involved.
- (xvii) Cost: Total capital cost of the project is Rs. 615.75 Crores. CSR Cost Rs. 1.2 crore. R&R Cost Nil. Environmental Management Cost (capital cost Rs 2.05 crore Revenue : Rs 1.06 Crores/year) and recurring cost 13.30 /tonne ).
- (xviii) Water body: No river nullaha flows adjacent the project area.
- (xix) Approvals: Application will be submitted to State Ground Water department for ground water clearance. Feasibility report has been approved in the SCCL Board of Directors meeting held on 29.12.2015 at Hyderabad. The mining plan and mine closure plan of the proposed project was approved by MoC, Gol Vide Lr. No. 13016/7/2016 -CA II dated 2<sup>nd</sup> September 2016.
- (xx) Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- (xxi) Forestry issues: Total forest area involved is 103.96 ha for mining.
- (xxii) Application submitted to Principle Chief conservator of forest, Govt. Of Telangana for stage-I FC vide Proposal No FP/TG/MIN/25869/2017 dtd 15.04.2017
- (xxiii) Total afforestation plan shall be implemented covering an area of 177.75 ha at the end of mining.
- (xxiv) There are no court cases/violation pending with the project proponent.

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

- (i) The proposal is for grant of ToR to the Kalyani Khani-6 incline UG coal mining project of 0.80 MTPA (Normative)/1.2303 MTPA (Peak) in an area of 421.61 ha near villages Sankarapalli and Sandrapalli, Mandamarri Mandal in District Mancherial (Telangana).
- (ii) The project involves 103.96 ha of forest land. For stage-I clearance of the same, the project proponent has applied to the State Forest Department, Government of Telangana.
- (v) The Mining Plan and the Mine Closure Plan for the project were approved by the Ministry of Coal vide their letter dated 2<sup>nd</sup> September, 2016.

**11.5.4** *The EAC, after detailed deliberations, recommended the proposal for grant of ToR to the green field project of Kalyani Khani-6 incline UG coal mining project of 0.80 MTPA*

(Normative)/1.2303 MTPA (Peak) in an area of 421.61 ha near villages Sankarapalli and Sandrapalli, Mandamarri Mandal in District Mancherial (Telangana), 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.
- Compensatory afforestation to be done and native trees to be planted/transplanted preferably subject to permission granted by the State Government.

## **Agenda 11.6**

**Basundhara (West) Extension OCP 8.75 MTPA in an area of 323.92 ha by M/s Mahanadi Coalfields Limited located in Ib valley coal field, District Sundargarh (Odisha)-For consideration of TOR**

**11.6.1** The proposal is for grant of TOR to Basundhara (West) Extension OCP 8.75 MTPA in an area of 323.92 ha by M/s Mahanadi Coalfields Limited located in Ib valley coal field, District Sundargarh (Odisha).

**11.6.2** 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:-

- It is green field project.
- The latitude and longitude of the project are 22°04'40.47" to 22°04'40.61" N and 83°40'20.48" to 83°42'22.58" E respectively.
- Joint Venture: There is no Joint Venture
- Coal Linkage : Thermal Power Plant&Basket Linkage
- Employment generated / to be generated: Approximately 854 nos. of direct employment will be generated.
- Benefits of the project: (i) Improvement in Physical Infrastructure (ii) Improvement in Social Infrastructure (iii) Increase in employment potential (iv) Contribution to the Exchequer (both State and Central Govt.) (v) Post mining enhancement of Green Cover (vi) Improvement of Electrical Power Generation and availability of electricity for 24x7 in rural areas (vii) Overall economic growth of the country.
- The land usage of the project will be as follows:

Sl. No.	Type of Land	Within ML area (Ha)	Outside ML area (Ha)	Total Area (Ha)
1	Agricultural/Tenancy	51.29	--	51.29
2	Waste land / Govt.land	45.01	45.85	90.86
3	Forest Land	227.62	--	227.62
4	Grazing	--	--	--
5	Surface water bodies	--	--	--
<b>Total:</b>		<b>323.92</b>	<b>45.85</b>	<b>369.77</b>

Pre-Mining:

(i) Pre Mining land use :				
Particulars		Forest	Non-Forest	Total
Excavation Area		207.30	92.57	299.87
Safety Zone		2.75	3.73	6.48
Infrastructure		17.57	--	17.57
External OB dumps		--	--	--
<b>Mine Lease Area</b>		<b>227.62</b>	<b>96.30</b>	<b>323.92</b>
Rehabilitation site		--	45.85	45.85
<b>Outside lease area</b>		<b>--</b>	<b>45.85</b>	<b>45.85</b>
<b>Total</b>		<b>227.62</b>	<b>142.15</b>	<b>369.77</b>

  

(ii) Post-closure land use (Core zone)						
Sl. No.	Land Use during Mining	Land Use (Ha)				Total
		Plantation	Water Body	Public Use	Undisturbed/ Dip side slope	
1	External OB Dump	Nil				--
2	Top Soil Dump	Will be spread concurrently in the backfilled area				--
3	Excavation	168.35	130.64	--	0.88	299.87
4	Built up area	17.57		--	--	17.57
5	Green Belt	6.48	--	--	--	6.48
	<b>Mine lease Area</b>	<b>192.40</b>	<b>130.64</b>	<b>--</b>	<b>0.88</b>	<b>323.92</b>

Note: Apart from above 9.17 Ha Plantation will be done at R&R site outside the lease area.

(viii) Total geological reserve is 101.06 MT. The mineable reserve 92.73 MT, extractable reserve is 92.73 MT. The per cent of extraction would be 91.75 %.

(ix) The coal grade is Avg.- G12. The stripping ratio is 1.05 cum/tonne. The average gradient is 30 to 80. There will be six coal seams with thickness ranging upto 15 m.

(x) The total estimated water requirement is 2010 m<sup>3</sup>/day. The level of ground water ranges from 2.56 mbgl to 6.27mbgl.

(xi) The Method of mining would be Opencast by Shovel – Dumper/Ripper-dozer in OB/ parting; Surface miner, pay loader & tipper in coal.

(xii) There is no external OB dump and two internal dumps with Quantity of 97.22 Mbcm in an area of 334.99 ha.

(xiii) The final mine void would be in 130.64 ha with depth varying upto 30m and the total quarry area is 299.87 ha. Backfilled quarry area of 168.35 ha shall be reclaimed with plantation. A void of 130.64 ha with depth 30 m which is proposed to be converted into a water body

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

(xv) The life of mine is 12 Years.

(xvi) Transportation: The entire coal production of 8.75 Mty will be by Surface Miner. The coal will be dispatched from coal face to railway siding at Sardega/Barpalli by coal trucks. The coal will be dispatched through the wharf wall siding at Barpalli to different thermal power stations.

(xvii) There is R & R involved. There are 316 PAFs.

(xviii) Cost: Total capital cost of the project is Rs. 755.13 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 the previous year whichever is higher. R&R Cost Rs 5450.05 lakhs. Environmental Management Cost shall be provided in EIA/EMP.

(xix) Water body : Basundhara Riverflows adjacent in East direction, Telendra Nala flows at a distance of 94 m in south direction, Barhajharia Nala flows at a distance of 230 m in west direction, BhainaJhor flows at a distance of 3.4 km in Northe East, Ichcha Nadi flows at a distance of 8.65 km in North East direction, Albahaljhor flows at a distance of 6.64 km in south West direction.

(xx) Approvals: Mining Plan was approved by MCL Board in its meeting held on 28.02.2017.

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

(xxii) Forestry issues: There is total forest area involved in the project is 227.62 ha. Online application for forest clearance has been submitted on 22<sup>nd</sup> July, 2016 vide ref. no. FP/OR/MIN/20559/2016.

(xxiii) Total afforestation plan shall be implemented covering an area of 201.57 ha at the end of mining. Green Belt over an area of 6.48 ha. Density of tree plantation 2500 trees/ ha of plants.

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

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

(i) The proposal is for grant of ToR to the Basundhara (West) Extension OCP of 8.75 MTPA by M/s Mahanadi Coalfields Limited in a total area of 369.77 ha located in Ib valley coal field, District Sundargarh (Odisha).

(ii) The project involves 227.62 ha of forest land. For stage-I clearance of the same, the project proponent has applied.

(iii) Mining Plan and the Mine Closure Plan for the project were approved by the MCL Board on 28<sup>th</sup> February, 2017 followed by approval by Ministry of Coal on 22<sup>nd</sup> March, 2017.

(iv) During the first three years, overburden dumping is proposed in the mine lease area of nearby Basundhara (West) Expansion OCP, having its life remaining as 2 years. The proposal for dumping has to be consistent with the Mine Closure Plan/Status Report for the said nearby mine, which is yet to be finalized and approved.

(v) Total water requirement of 2010 kld (500 kld potable and 1510 kld industrial) is to be met initially from Basundhara (West) Expansion OCP sump water and after stabilization of the proposed mine, water from its own mine sump shall be utilized.

**11.6.4** *The EAC, after detailed deliberations, was not convinced with the OB dumping proposal and the proposed arrangement to meet the water requirement especially in view of Mine Closure Plan or the Closure Status Report for the Basundhara (West) Expansion OCP not yet in place. The Committee further desired for a site visit by 2-3 of its members for assessment of environmental concerns in and around the Ib Valley Coalfield, and to explore for more mining operations in the area. The proposal was, therefore, deferred.*



## **Agenda 11.7**

### **Kaniha Opencast Coal Mine Expansion Project from 10 MTPA to 14 MTPA in an ML area of 718 ha of M/s Mahanadi Coalfields Limited, located in District Angul (Odisha) - For further consideration of EC**

**11.7.1** The proposal is for grant of environmental clearance to the expansion project of Kaniha Opencast Coal Mine from 10 MTPA to 14 MTPA of M/s Mahanadi Coalfields Limited in ML area of 718 ha located in District Angul (Odisha).

**11.7.2** Earlier, the proposal for expansion of Kaniha Opencast Coal Mine from 10 MTPA to 14MTPA in ML area of 1880 ha (includes 241 ha of forest land) was considered in the 51<sup>st</sup> EAC meeting held on 5<sup>th</sup> February, 2016, wherein the Committee, after detailed deliberations recommended the project for grant of EC subject to Stage-I FC being obtained, along with certain conditions.

**11.7.3** Later, in a meeting in the Ministry and considering the coal linkage of the project to the Kaniha Super TPP of NTPC, it was advised to prepare and submit an approved mining plan for operating the mine within the existing operational area including the diverted forest land only and excluding all the non-diverted forest land. Accordingly, a revised mining plan of Kaniha OCP was prepared and approved by MoC. This mining plan involves the existing operational area including the diverted forest land only i.e. 1034 ha (phase-I) including land for residential colony (40 ha) and Rehabilitation site (276 ha), and excluding all the non-diverted forest land.

**11.7.4** The proposal was last considered in the 9<sup>th</sup> EAC meeting held on 27-28<sup>th</sup> April, 2017, During the meeting, the observations of the Committee were as under:-

(i) The Kaniha Opencast coal mine was earlier granted environmental clearance on 31<sup>st</sup> October, 2007 with its capacity of 10 MTPA in the total mine lease area of 1880 ha (includes 241.6 ha of forest land) based on the public hearing conducted on 16<sup>th</sup> May, 2006.

(ii) The proposal for grant of EC to the expansion project of Kaniha Opencast coal mine from 10 MTPA to 14 MTPA in the same mine lease area was considered by the EAC in its meeting held in April, 2015 and February, 2016.

(iii) The EAC in its meeting held on 5<sup>th</sup> February, 2016 recommended the expansion project for grant of EC subject to obtaining Stage-I FC along with certain conditions, which inter-alia include completion of silo by September, 2017, all the mist blowers to be commissioned by June, 2016, etc.

(iv) Due to delay in obtaining Stage-I FC for diversion of the forest land of 239.293 ha, the project proponent preferred to exclude the said forest land to take up the mining operations for 14 MTPA in phases. In phase-I, the mine lease area proposed to covered in 718 ha, which would go upto 1880 ha after phase-II (includes total 241.6 ha of forest land).

(v) The present proposal is for grant of EC to the expansion project from 10 MTPA to 14 MTPA in mine lease area of 718 ha (includes 2.307 ha of forest land) without any fresh ToR or public hearing. As per the provisions of EIA Notification, 2006 and subsequent OMs, the EAC in its diligence may consider for waving of the requirement of fresh ToR and the public hearing.

(vi) The issues raised during the last public hearing conducted on 16<sup>th</sup> May, 2006 included R&R for the project affected families, employment to the locals, reclamation and plantation, potable water, health, education, road, development of water bodies etc.

(vii) The Mine Plan and the Mine Closure Plan was revised accordingly which was approved by the MCL board on 31<sup>st</sup> January, 2017 and by Ministry of Coal on 8<sup>th</sup> February, 2017.

(viii) The Regional office of this Ministry at Bhubaneswar has inspected the site on 5<sup>th</sup> April, 2017 and the report was forwarded vide their letter dated 25<sup>th</sup> April, 2017. The Committee observed compliance of EC conditions not to their satisfaction especially in respect of storage of top soil, backfilling of de-coaled area, implementation of Disaster Management Plan, no reclamation of OB dump, no survival of leguminous plants, retaining wall at the toe of OB dumps not properly constructed, etc.

(ix) The progress on R&R and the funds allocated for it were meagre and needed significant improvements. A certification from the District Collector that R&R related to the existing mine has been satisfactorily completed is essential.

(x) The baseline ambient air quality values at monitoring locations namely, Old site Office, Patharamunda village, New Time Office and Project Office were in the range of PM<sub>2.5</sub> 37 -144 ug/m<sup>3</sup> during March, 2017 and PM<sub>2.5</sub> 36 – 98 ug/m<sup>3</sup>& PM<sub>10</sub> 83 -139 ug/m<sup>3</sup> during April, 2017, and thus exceeding prescribed National Ambient Air Quality standards.

*“The Committee noted that the existing EC for Kaniha OCP is for the production capacity of 10 MTPA. Regarding expansion of the project by enhancing capacity to 14 MTPA, the EAC, suggested the project proponent to submit the time bound Action Plan on the observations of the Regional Office during site visit, certification of the District Collector regarding R&R, and thus to ensure the desired corrective actions. The proposal was, therefore, deferred”*

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

(i) The Time-bound Action Plan for compliance of the Observations of Regional Office, MoEF&CC, Bhubaneswar is given below:-

<b>EC - Specific Condition</b>	<b>Observations of Regional Office</b>	<b>Present status and Action plan for compliance</b>	<b>Time by which it will be complied</b>
(ii)	“The top soil should be used for reclamation and development of green belt only and should be stacked with proper slope at earmarked site(s) only.”	To protect the 6 Lakh cum. top soil dump, the temporary work shed which was present on the top of top soil dump has been removed. To conserve the nutrients and moisture, 50 kilograms of Dhaincha seed will be broadcasted over the topsoil dump before onset of monsoon. The top soil shall be used for reclamation and development of green belt only in near future.	June 2017

(iii)	“Backfilling is yet to be started in the above mentioned de-coaled areas. PAs should simultaneously backfill the OB in the de-coaled area. It requires immediate action.”	As per mining plan, initially OB was to be dumped at Patharmunda site, but due to non-availability of re-settlement site, this site is to be used for resettlement of village Jarada. Hence, there was slight change in OB dump scheduling and now the backfilling has been started from May 2017 in 100mX100m patch of the de-coaled area.	May 2017
(iv)	“Implementation of Disaster management plan in progress. Detailed report on the implementation of Disaster management plan should be submitted to Regional Office on time to time basis.”	Detailed report on the implementation of Disaster management plan has been submitted and in future it shall be submitted on regular basis with 6 Monthly Report being submitted to MoEF, RO.	Every 6 month
(v)	“As stated above, there are two active external OB dumps existing in the mines lease area. The OB dumps have not yet been reclaimed and dumping is still continuing and no plantation afresh is proposed now. Leguminous plants planted in Top Soil Dump and found that the plants were dead. “	As these external dumps are going to be re-handled in near future regular plantation has not been taken up, however to conserve the nutrients and moisture, 50 kilograms of Dhiancha seed will be broadcasted over the topsoil dump before onset of monsoon. Further, leguminous plants like Tur, Chickpeas etc., will also be planted on the dumps to arrest soil erosion and make it green.	June 2017
(vii)	“The retaining wall at the toe of the all the dumps and OB benches were not yet constructed properly.”	Action has already been initiated for repairing the existing retaining wall at the toe of all the dumps.	June 2017
(viii)	“However, during monitoring it has been observed that the crushing of the coal by surface miner requires adequate and high efficient measures for dust	Surface miners are in itself Eco-friendly mining machine as it totally eliminates drilling, blasting & CHP operations. The cutting drum and picks mounted on it are located below the body of the machine and rubber flaps are provided so that cutting of coal takes place in almost enclosed environment. Further, water sprinkling	May 2017

	suppression.”	nozzles have been provided to suppress the dust generated during cutting operations which are interlocked with the movement of the drum. Thus, the system is full proof, robust & efficient and it will be further ensured that water tanks provided on the surface miner are filled up regularly and there is no cutting operation without simultaneous sprinkling of water through the nozzles mounted near the cutting drum.	
(ix)	“Water spraying is being done in regular basis by mobile tanker to suppress dust in haul road. However, during monitoring it has been observed that frequent clearing of dust precipitated on the sides of the road and drainage line should be carried out. Fixed and mist type of water sprinkling system should be installed on main and haul roads. Frequency of water sprinkling by mobile water tank should be increased for suppression of dust at haul roads. All approach roads (existing and proposed) should be metal topped.”	12 no. of water tankers have been deployed for dust suppression. Clearing of road side dust is taken up on regular basis. However, frequency of cleaning will be increased further to keep the dust level within the permissible limit. Concreting has been done on all permanent approach and transportation roads, however all permanent roads (proposed) which are not yet metal topped shall be taken for metal topping after monsoon.	September 2017
(xix)	“However, during the monitoring it has been observed that the raw influent generated from railway siding and transportation road is being stored in the sedimentation pond and the overflow from the pond being channelized to the	CMPDI, Bhubaneswar will study the ETP and will make the required changes to ensure proper treatment of the wastewater.	July 2017

	ETP. The channels are also not properly concreted to avoid soil contamination. It is required to redesign the ETP by an expert for appropriate treatment of leachate coming from the railway siding and other sources of wastewater.”		
(xxi)	“It has been observed that the vegetation cover and plantation land were decreased from 102.38 ha to 50.20 ha and 10.88 ha to 10.53 ha respectively.”	The reduction in vegetation cover is due to clearing of shrubs for mining & infrastructure. However, we are taking up plantation and leguminous plants will be planted on OB dump to arrest the negative growth and to increase the green cover.	July 2017
(xxiii)	“The prepared report on the R&R activities for the 8 villages and their implementation should be submitted to the Regional Office on time to time basis”.	Present Status Report on the R&R activities was explained to the RO and further updated status report shall be submitted with every 6 Monthly Report.	Every 6 Month

### General Conditions.

EC- General Condition	Observations of the Regional Office	Present status and Action plan for compliance	Time by which it will be complied
(iii), iv), v)	“The SPM and PM <sub>2.5</sub> were exceeding the limits and the necessary action should be taken to bring the concentration within the limits”. “PAs should take adequate measures to control the fugitive dust emissions at all these points”.	Following <b>additional steps</b> have been taken: <ul style="list-style-type: none"> <li>• 4 nos. of additional water tankers have been deployed for effective dust suppression</li> <li>• 6 nos. of additional fixed sprinklers have been installed at railway siding.</li> <li>• Strict supervision to ensure effective dust suppression</li> </ul> <p><i>After taking these additional measures the SPM, PM<sub>10</sub> &amp; PM<sub>2.5</sub> has recorded a decreasing trend &amp; values of April 2017 are within the prescribed standards. Air quality</i></p>	Fog canon/Auto-omizer - Nov 2017  Silo – October 2019

		<p>data for April 2017 is given in Table-1</p> <p>The AAQ monitoring in both Core and Buffer zone was conducted by Regional office of State Pollution Control Board, Angul, Odisha on dtd. 03.05.2017 as per the advice of EAC committee in the 9<sup>th</sup> EAC meeting held on dtd.27.04.2017. The AAQ data is presented in Table-2.</p> <p>Further Additional measures proposed</p> <p>Truck mounted mist blower cum road fogger will be deployed for effectively controlling the airborne dust (Rs. 66 lakhs, with CMC for additional 5 years –Tender has been concluded, L1 Bidder identified, techno-commercial offer accepted and has been placed before MCL, Board for approval. SILO has proposed to be constructed by Oct 2019.</p> <p>These steps shall significantly reduce the dust concentration.</p>	
(vi)	<p>“During the monitoring, it has been observed that the workers were not wearing any ear plug/muff which operating when operating HEMM. All the workers engaged in noisy atmosphere like blasting, drilling and HEMM operations should be provided with earmuffs”.</p>	<p>All the workers engaged in noisy atmosphere like blasting, drilling and HEMM operations has already been provided with earmuffs. Training programme is being organized to sensitize the work force for using personal protective equipments.</p>	May 2017
(vii)	<p>“Oil and grease trap was not installed for discharge of workshop effluents where the workshop activities were taken up at the top of the top soil dump”.</p>	<p>The unauthorized temporary shed for maintenance of the private tippers has already been removed from the top soil dump, hence presently no such measure is required.</p>	May 2017
(x)	<p>“However, during monitoring, it has been observed that</p>	<p>All the workers engaged in dusty areas have already been provided with dust mask. Training programme is being organized to</p>	May 2017

	many of the workers working in the core zone area were not wearing any dust mask”.	sensitize the work force for using personal protective equipments.	
(xii)	“However, it is required to submit the item wise break-up for the expenditure incurred for implementation of environmental safeguard”.	Complied & item wise break-up submitted to RO, MoEF&CC.	May 2017

**Table 1: Air quality data for April 2017 by CMPDIL, Bhubaneswar**

Parameter	Zone/location	Range of values in $\mu\text{g}/\text{m}^3$	Permissible limit
PM10	Buffer zone	83 to 93	NAAQ Standards $100 \mu\text{g}/\text{m}^3$
	Core zone	116 to 139	MoEF Standards for coal mines- $300 \mu\text{g}/\text{m}^3$
PM2.5	Buffer zone	36 to 57	NAAQ Standards $60 \mu\text{g}/\text{m}^3$
	Core zone	---	---
SPM	Buffer zone	---	---
	Core zone	226 to 350	MoEF Standards for coal mines- $600 \mu\text{g}/\text{m}^3$

**Table 2: AAQ monitoring data by SPCB, Angul (Odisha) dated 3<sup>rd</sup> May, 2017**

Parameter	Zone/location	Range of values in $\mu\text{g}/\text{m}^3$	Permissible limit
PM10	Buffer zone	69	NAAQ Standards $100 \mu\text{g}/\text{m}^3$
	Core zone	84 to 134	MoEF Standards for coal mines- $300 \mu\text{g}/\text{m}^3$
PM2.5	Buffer zone	27	NAAQ Standards $60 \mu\text{g}/\text{m}^3$
	Core zone	45 to 58	---
SPM	Buffer zone	---	---
	Core zone	263 to 302	MoEF Standards for coal mines- $600 \mu\text{g}/\text{m}^3$

(ii) We have prepared and submitted the Progress Report on R&R Status to District Collector for certification. The certified R&R Report will be produced during the EAC meeting.

**Progress Report on R&R Status** is submitted below:-

#### **Background:**

R&R consists of three activities, (i) providing **compensation** for land and structures, (ii) providing **employment** and (iii) providing **re-settlement** site for shifting of the villages. As far as compensation and employment are concerned, MCL has provided both to all the eligible PAPs as

per the R&R policy of Odisha, for the lands which are required to be used within 5 to 6 years span. However, **resettlement site** is a crippling issue at Kaniha because the land provided at Takua village by the District Administration for resettlement was not allowed by the villagers of Takua, inspite of the direction of Hon'ble High court of Odisha. This was a law and order issue for last 4-5 years and to resolve this issue, MCL has gone out of the way by offering coal bearing area at Patharmunda as resettlement site for shifting of the villagers which are very near to the mining operations. And for this we have taken special permission from Govt. of India because as per CBA it is not permissible. As the R&R is termed as "complete" and villagers handover their land only after all the three stages are complete i.e compensation, employment and providing resettlement site and third activity being not in the hands of MCL, we are lagging behind in R&R.

There are 8 villages which are covered under R&R. R&R progresses in phased manner as per the advancement of the mine. Status of compensation, employment and re-settlement are given in Table no. 3, 4 and 5.

**Table 3: Status of Compensation for Land & Structures**

Name of the Project	Name of the village	Tenancy land acquired (Ac)	Amount Sanction (in Rs.)	Amount paid	Deposited in Tribunal	Amount Balance
Kaniha OCP (Phase I)	Jamania	13.14	7981342.46	7938937.04	40542.82	1862.60
	Adaitaprasad	55.82	17586388.03	16706400.23	805425.40	74562.40
	Jarada	463.15	264424327.46	262769562.38		1654765.08
	Kansamunda	129.56	106683612.90	602125.39	99824881.43	6256606.12
	Jaipur	9.33	5840711.52	282789.09	4506608.45	1051313.98
	Telisingha	282.92	224638682.65	214914230.17	262899.79	9461552.69
	Kaniha	13.21	7687532.00	6883324.99	801639.93	2567.08
	Patharmunda	94.93	111472982.72	100669005.40		10803977.32
	<b>Total</b>	<b>1062.06</b>	<b>746315579.74</b>	<b>610766374.7</b>	<b>106241997.8</b>	<b>29307207.27</b>
Kaniha OCP (Phase II)	Jamania	66.45	91549093.00	Approved from MoC on 09.03.2017		91549093.00
	Chhelia	252.52	Award yet to be passed			
	Jarada	125.89	Award yet to be passed			
	Kansamunda	56.67	161752355.00	89631726.92		72120628.08
	Gundurinali	17.91	Award yet to be passed			
	Telisingha	104.07	Award yet to be passed			
	Kaniha	51.54	Award yet to be passed			
	Patharmunda	189.03	643704217.00	158603823.8		485100393.2
	<b>Total</b>	<b>864.08</b>	<b>897005665.00</b>	<b>248235550.76</b>		<b>648770114.24</b>



**Table 4: Status of Employment**

Sl. no	Name of the village	No. of Claimants for Employment/CC/Annuity	No. of Employment/CC/Annuity Provided	No. of cases not eligible	Balance
1	Jarada	520	481	5	34
2	Jamania	140	138	0	2
3	Adaitaprasad				
4	Gundurinali	12	6	0	6
5	Kansamunda	412	235	0	177
6	Telisingha	390	347	0	43
7	Kaniha	26	0	0	26
8	Patharmunda	1	0	0	1
	<b>Total</b>	<b>1501</b>	<b>1207</b>	<b>5</b>	<b>289</b>

**Table 5: Status of Resettlement**

Village required to be resettled / relocated	Nos. of PAFs required to be resettled	Name of Resettlement Site	Area of Resettlement Site (in Acres)	Nos. of Plot available	Nos. of PAFs provided Resettlement plot	Nos. of PAFs availed cash grant in lieu of Plot.	Balance Nos. of PAFs required to be resettled
Jamania & Aditprasad	128	Patharmunda	0	0	0	105	23
Jarada	684		200	1000	0	0	684
Telisingha	526		0	0	0	441	85
Patharmunda	10		0	0	0	0	10
Kaniha	10		0	0	0	0	10
<b>Total</b>	<b>1358</b>			<b>200</b>		<b>0</b>	<b>546</b>

Note: Earlier Govt. of Odisha allotted Govt. land near Takua village for developing it as a re-settlement site. However, MCL started construction of boundary wall and other activities for development of this site, the villagers of Takua vehemently opposed the same although the land belongs to Govt. and not to the villagers. They also filed a case in the Hon'ble High court of odisha. Hon'ble court passed an order to dispose the matter by collector Angul. Collector Angul justified the earlier allotment of Govt. land at Takua for development of re-settlement site by MCL. But, the villagers didn't allow MCL to develop this as a re-settlement site even in Police protection. And this law and order situation continued for last 5 to 6 years. The matter was discussed in various high level meetings and finally to resolve the issue it was decided to approach Ministry of Coal for giving permission to develop a 200 Acres site at Patharmunda which has been acquired under CBA Act, to serve as a resettlement site for the villagers acquired by MCL for mining operation in Kaniha OCP. Recently, permission has been granted by MoC to develop this site as re-settlement site. In view of the above, the process of re-settlement got delayed.

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

(i) The proposal was earlier considered by the EAC in its meetings held in held on 5<sup>th</sup> February, 2016 and then on 27-28 April, 2017. In the meeting held in February, 2016, the Committee, after detailed deliberations had recommended the project for grant of EC subject to Stage-I FC being obtained, along with certain conditions.

(ii) However, due to delay in stage-I forest clearance and pressing coal demand for Kaniha Super TPP, the project proponent preferred to revise the Mining Plan involving no forest land or the land for approach to such areas.

(iii) Meanwhile, Regional Office at Bhubaneswar inspected the site in April, 2017 for consideration of the expansion proposal by the EAC. The Committee in its meeting held in April, 2017, after deliberations on the compliance status report and other issues, the project proponent was asked to submit the time bound Action Plan on the observations of the Regional Office during site visit, certification of the District Collector regarding R&R, and thus to ensure the desired corrective actions.

(iv) In response to the observations of the RO of the Ministry at Bhubaneswar on compliance of EC conditions, the project proponent has submitted the present status, action plan for compliance and the time limit for each of the observations, as reflected in para 11.7.5 above. The Committee desired that the proposed time bound action plan to be implemented in letter and spirit, and reported to the RO by September, 2017.

(v) Air quality data in respect of PM<sub>10</sub> & PM<sub>2.5</sub> at the monitoring station in buffer zone shows a decreasing trend (March-May, 2017) due to steps taken for dust suppression.

(vi) The progress in respect of R&R is reported to be as under:-

- As a compensation for land and structures for the total tenancy land of 1062.06 ha to be acquired in phase-I in 8 villages, total amount sanctioned is Rs.74.32 crore. Against that, an amount of Rs.61.08 crore has already been paid, whereas, Rs.10.624 crore has been deposited in the Tribunal.
- Out of total 1501 claimants for employment, 1207 individuals have been benefitted so far.
- Resettlement - Against the 1358 project affected families, 546 PAFs have availed cash grant in lieu of plots. Due to protests by the villagers in acquiring the earlier identified site for resettlement at Takua and not materialized for 5-6 years, Ministry of Coal has recently given the permission to develop the new site at Patharmunda (200 acres) for resettlement.

It was informed that the above status has been duly certified by the concerned District Collector, as desired by the EAC.

**11.7.7** *The EAC, after having taken note of its earlier deliberations and the time bound action plan for corrective actions against each of the observations of the Regional Office, recommended the proposal for grant of Environmental clearance to the expansion of Kaniha OCP from 10 MTPA to 14 MTPA of M/s Mahanadi Coalfields Ltd in mine lease area of 718 ha 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 Bhubaneswar by **September, 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 incremental capacity expansion of 4 MTPA.*
- *Transportation of coal from face to Coal Handling Plant and silos shall be carried out through conveyor belts, and then to the 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. One of such key locations at Patharmunda, shall be provided with continuous air quality monitoring station.*
- *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).*

### **Agenda 11.8**

**Jayant Open Cast Expansion project from 15.5 MTPA to 25 MTPA in an area of 3177 ha of M/s Northern Coalfields Limited located in District Singrauli (Madhya Pradesh) – For further consideration of TOR**

**11.8.1** The proposal is for grant of terms of reference (ToR) to the expansion project of Jayant Opencast Coal mine project from 15.5 MTPA to 25 MTPA in a total area of 3177 ha of M/s Northern Coalfields Limited located in District Singrauli (Madhya Pradesh).

**11.8.2** The proposal was last considered in the 6<sup>th</sup> EAC meeting held on 27-28 Feb, 2017, During the meeting, the observations of the Committee were as under:-

(i) The proposal is for consideration of ToR for the expansion project of Jayant Opencast Coal Mine from 15.5 MTPA to 25 MTPA in a total area of 3177 ha which includes 1180 ha of forest area.

(ii) The project with its capacity of 15.5 MTPA in the mine lease area of 2704 ha was earlier granted EC vide letter dated 10<sup>th</sup> December, 2008. Compliance status of EC conditions has been forwarded by the RO at Bhopal vide their letter dated 25<sup>th</sup> November, 2016.

(iii) Out of the forest land of 1180 ha, Stage-I forest clearance is available for an area of 219.71 ha obtained during the period 1992-2000. The remaining forest land of 960.829 ha was reported to be acquired under the Coal Bearing Area Act, 1957, before the enactment of the Forest (Conservation) Act in October, 1980. However, no documentary evidence was provided effecting regularization of the said forest land and to ensure that the Stage-I FC is not required for the same.

(iv) The proposal for expansion was approved by the NCL Board on 1<sup>st</sup> March, 2016. Whereas, the Mine Closure Plan was approved on 26<sup>th</sup> March, 2016

(v) The base line air quality values at some of the identified locations are already exceeding the prescribed standards in terms of PM<sub>10</sub> which might not allow any more industrial activities in that area.

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

(i) The details of forest land of 1180 ha along with the status of their clearance is as follows:

Sl No.	Land description	Area	Remarks
1	Forest land area diverted before enactment of FC act 1980	943.0 ha	<p>The forest land area was notified under CBA 1957 as per following details:            SO no 5136 dtd 15.11.1975 : 445 Ha            SO no 4413 dtd 04.11.1976: 339 Ha            SO no 3456 dtd 15.11.1978: 143 Ha            Forest area acquired through transfer:            For magazine , in the year 1975, vide letter no DM/40961 dtd 31.12.75 : <b>16 Ha</b></p> <p>Copy of above referred notification is enclosed for kind perusal. Since the land area was broken before 1980, regularization of the land under FC under FC act 1980 has not been done. It may also please be noted that no such documentary evidence is found in the available records that indicate the transfer or handing over of forest lands to the company. However, payment details against the diverted land, under different notifications are enclosed.</p>
2	Forest land area diverted after enactment of FC act 1980	219.171 ha	<p>Permission for 219 ha land has been acquired in three phases as per following details:</p> <p><b><u>100 ha</u></b></p> <p>Stage –I FC issued vide letter no.8-158/90- FC dtd 20.03.1992 &amp; T/624/2893/2002/10-3dtd25.11.2003. Further its renewal is agreed in principal during FAC meeting held on 28.11.2014 subject to submission of some documents.            All such documents have been submitted vide letter no. Jnt/GM/renewal/-100 Ha/F-26/68 dtd 20.05.2016</p> <p><b><u>68.29 ha</u></b></p> <p>Stage-I FC issued vide letter no.8-158/90-FC dated</p>

			16.01.1997. The lease period is valid for 30 Years.  <b><u>50.881 ha</u></b>  Stage –I FC issued vide letter no. 8-93/99-FC dated 25.01.2000. The lease period is valid for 30 years.
3	Diversion of forest land area as per FC act 1980	18.0 ha	In accordance with the provisions of FC act 1980, the referred 18 Ha of forest land has been included in the application of diversion of forest land submitted by Nigahi project of M/s NCL, Singraulivide no FP/MP/MIN/6177/2014 .
	Total forest land	1180.171 ha	

(ii) The proposal for Jayant Expansion OCP for 25 MTPA has been approved by NCL Board on 1<sup>st</sup> March, 2016 and Mine Closure Plan (incorporated in the EPR itself) also has been approved on the same date.

(iii) As per GSR 742 E, its standards for coal mines are applicable to coalfields. As per the standards, the permissible limits for the respirable particulate matter (less than 10 µm), 24 hourly concentration shall not exceed 300 µg/m<sup>3</sup> and annual average shall not exceeds 215 µg/m<sup>3</sup>. As such the air quality values at some of the identified locations, as observed by the committee, are not exceeding the prescribed standards in terms of PM<sub>10</sub>.

**11.8.4** The EAC, while appraisal of the proposal vis-à-vis its earlier observations, noted the following:-

(i) Out of the total 1180.171 ha of forest land, 943 ha was notified in phases under the Coal Bearing Area Act, 1957 prior to the enactment of the Forest (Conservation) Act, 1980. Such a forest land already used/broken before the year 1980, would not attract the provisions of the Forest (Conservation) Act, 1980 and thus not requiring any clearance for its diversion for non-forestry purposes.

(ii) Stage-I forest clearance for 219.171 ha of forest land has been obtained in phases during the period 1992-2000 (100 ha in 1992, 68.29 ha in 1997 and 50.881 in the year 2000). For the remaining forest land of 18 ha, request has been made for stage-FC.

(iii) Baseline air quality values in terms of relevant parameters at the identified locations, both in the buffer zone and the core zone, are within the prescribed standards. In fact, the earlier observations of the EAC in this regard [para 11.8.2 (v) above] was due to no proper feedback by the project proponent and no clarity in respect of the buffer and core zone stations.

**11.8.5** *The EAC, after detailed deliberations, recommended the proposal for grant of ToR to the expansion project of Jayant Opencast Coal Mine from 15.5 MTPA to 25 MTPA in the mine lease area of 3177 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 baseline air quality assessment, additional 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.*

## **Agenda 11.9**

### **Expansion of Haldibari UG coal mining project from 0.42 MTPA to 0.66 MTPA of M/s South Eastern Coalfields Limited in an area of 390 ha in District Koreya, (Chhattisgarh) - For further consideration for EC**

**11.9.1** The proposal is for grant of environmental clearance to the Haldibari UG Expansion project from 0.42 MTPA to 0.66 MTPA of M/s South Eastern Coalfields Limited in an area of 390 ha in District Anuppur (MP) and District Koriya (Chhattisgarh).

**11.9.2** The proposal was earlier considered by the EAC in its meeting held in July, 2016. The Committee noted salient features of the project, environmental concerns and the environmental safeguards to be ensured through implementation of the EMP proposed by the project proponent, as under:-

- The project was earlier accorded EC vide letter No.J-11015/243/2006-IA.II (M) dated 21<sup>st</sup> March, 2006 with the capacity as 0.42 MTPA.
- The instant proposal is for capacity expansion from 0.42 MTPA to 0.66 MTPA under 7 (ii) of the EIA Notification, 2006.
- Latitude and longitude of the project are 230 12' 47" to 230 14' 00" N and 820 08' 09" to 820 09' 52" E respectively.
- The land usage of the project will be as follows:

#### Pre-Mining:

S. No.	Land use	Within ML area(ha)	Outside ML Area(ha)	Total (Ha)
1	Agriculture land	54.00	----	54.00
2	Forest land	321.00	0	321.00
3	Waste land	0	0	0
4	Grazing land	0	0	0
5	Surface water bodies	0	0	0
6	Settlements	0	0	0
7	Others(Govt.+Rly)	(12.50+2.50)=15	0	(12.50+2.50)=15
	Total	390.00	0	390.00

#### Post- Mining:

S. No.	Pattern of utilization	Area (ha)
1.	Reclaimed External and Internal dumps	NA

2.	Green belt	1.00*
3.	Final void /Water body	NA
4.	Built up area (Infrastructure, colony, roads, R & R site)	*Infrastructure-3.00 Ha *Approach Road-1.60 Ha
5.	Safety zone: Undisturbed area	385.40
	Total	390.00

\*Included in Infrastructure Area.

- (v) Total estimated water requirement is 558 cum/day. The level of ground water ranges from 0.60 m to 8.60 m.
- (vi) The method of mining would be Development- Bord & Pillar, Depillaring- Caving.
- (vii) Coal transportation in pit by through belt conveyor from in pit to pit head coal handling plant, surface to siding by tippers to Pre-weigh Bin and loading at siding by Rail.
- (viii) There is no R & R involved. There is no PAF.
- (ix) Total capital cost of the project is Rs. 47.59 Crores. CSR Cost Rs. 2.00 per tonne of coal production of previous year whichever is higher. Environmental Management Cost Rs 104.14 Lakhs.
- (x) Seasonal Turranullah flows South to North and Bisal Bora.
- (xi) Ground water clearance applied on 08.01.2007. Mining plan has been approved on 27.02.2016. Mine closure plan is an integral part of mining plan.
- (xii) There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- (xiii) Forestry issues: In CG- 201.00 Ha + In MP-120.00 Ha = 321.00 Ha; Stage II/Final approval of 201.00 Ha (including 4.60 Ha of Surface Right) of Forest; Land in CG obtained vide letter no. F.No.8-63/2006-FC dated 02.05.2008 and Stage II/Final approval of 120.00 Ha of Forest Land in MP obtained vide letter No.F.No.8- 64/2006-FC dated 31.03.2016.
- (xiv) There are no court cases/violation pending with the project proponent.
- (xv) Public Hearing was held on 31<sup>st</sup> August, 2005. The issues raised in the PH includes development of the area, Employment to the local people; Medical facility ; Drinking water facility; Technical training to be given to unemployed youth who are technically qualified; forest and cultivated land; Dam to be constructed for mine discharge; Electricity to be provided Chanwaridand village and Higher secondary school to be opened etc.
- (xvi) Based on the inspection carried out on 7<sup>th</sup> September, 2015, the Regional Office, MoEFCC at Nagpur has submitted the EC compliance report vide letter No.3-18/2014(Env)/1175 dated 5<sup>th</sup> October, 2015.

**11.9.3** The proposal was last considered in the 6<sup>th</sup> EAC meeting held on 27-28 February, 2017, During the meeting, the observations of the Committee were as under:-

- (a) The proposal is for grant of environmental clearance to the expansion project of Haldibari underground coal mine from 0.42 MTPA to 0.66 MTPA in a total area of 390 ha in the Districts of Anuppur and Koriya in the States of Madhya Pradesh and Chhattisgarh respectively.
- (b) The project was earlier accorded environmental clearance on 21<sup>st</sup> March, 2006 with its capacity as 0.42 MTPA based on the public hearing conducted on 5<sup>th</sup> May, 2005 in District Anuppur and on 31<sup>st</sup> August, 2005 in Tehsil Manendragarh, District Koriya (Chhattisgarh).
- (c) Mining Plan of Haldibari UG Mine for its capacity at 0.66 MTPA was approved by the SECL Board on 27<sup>th</sup> February, 2016. Whereas, the Mine Closure Plan was earlier approved on 18<sup>th</sup> May,

2013.

(d) Out of the total project area of 390 ha, forest land involved is 321 ha, comprising 201 ha in the State of Chhattisgarh and 120 ha in Madhya Pradesh. Stage-II forest clearance has been obtained for the complete forest area of 321 ha.

(e) Subsequent to the environmental clearance of production capacity of 0.42 MTPA, Consent to Establish/Operate was obtained only from the concerned regulatory authority in the State of Chhattisgarh. The said statutory requirement is yet to be fulfilled for the State of Madhya Pradesh.

(f) As desired by the EAC in its earlier meeting held in July, 2016, fresh compliance report on the status of EC conditions has been submitted in January, 2017. Also, public notices were issued in the leading local newspapers on 14<sup>th</sup> November, 2016 and on the SECL website, for inviting comments on the proposed expansion of the UG coal mining project.

*“The Committee, after deliberations, observed that the Consent to Establish/Operate under the Air Act, 1981 and the Water Act, 1974 remains the statutory requirement after obtaining environmental clearance for the project, and has to be fulfilled in totality for project implementation. In the instant case, even if the mining operations are not extended to the areas falling in the State of Madhya Pradesh, the Consent to Establish/Operate is essentially required from the concerned regulatory authority in view of common EIA/EMP report submitted for the project and the EC granted accordingly”.*

**11.9.4** In response to the above observations of EAC, the project proponent informed during the meeting that Consent to Establish for the project has been issued by Madhya Pradesh Pollution Control Board on 6<sup>th</sup> May, 2017 which is valid up to 31<sup>st</sup> March, 2018.

It was also informed that the request to CGWA has been made on 12<sup>th</sup> November, 2016 for the enhanced capacity of 0.66 MTPA.

**11.9.5** *The EAC observed that the above proposal for grant of EC to the expansion project of Haldibari UG Coal Mine from 0.42 MTPA to 0.66 MTPA was already appraised on merits in its earlier meetings, and the same is reflected in the minutes reproduced in the preceding paras.*

*The Committee further noted that neither any ToR was granted for the expansion project, nor any fresh public hearing was conducted. The same has been allowed by the EAC in its diligence and also taking cognizance of this Ministry’s OM dated 7<sup>th</sup> January, 2014 in this regard. The Committee also expressed its satisfaction on the EC compliance status report forwarded by the Regional Office Nagpur in January, 2017.*

*The Committee, after detailed deliberations, recommended the proposal for grant of EC to the expansion of Haldibari Underground Coal Mining Project from 0.42 MTPA to 0.66 MTPA, subject to specific and general conditions as applicable, and the additional conditions as under:*

- *The project proponent shall obtain Consent to Establish from the State Pollution Control Boards of Madhya Pradesh and Chhattisgarh for the proposed capacity of 0.66 MTPA prior to commencement of the increased production.*
- *Transportation of coal from face to Coal Handling Plant and silos shall be carried out through conveyor belts, and then to the TPP by rail.*



- Sufficient coal pillars shall be left un- extracted around the air shaft (within the subsidence influence area) to protect from any damage from subsidence, if any.
- Solid barrier shall be left below the roads falling within the block to avoid any damage to the roads and no depillaring operation shall be carried out below the township/colony.
- Depression due to subsidence resulting in water accumulating within the low lying areas shall be filled up or drained out by cutting drains.
- Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings should be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures should be taken to avoid loss of life and materials. Cracks should be effectively plugged with ballast and clay soil/suitable materials.
- Garland Surface drains (Size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rain fall and maximum discharge in the area adjoining the mine sites. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rain fall.
- The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 0.66 MTPA.
- 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.

### **Agenda 11.10**

#### **Batura OCP of 2.00 MTPA (Normative)/3.00 MTPA (Peak) in Mine Lease area of 967.473 ha of M/s South Eastern Coalfields Limited in Districts Anuppur and Shahdol (Madhya Pradesh) - Amendment in TOR**

**11.10.1** The proposal of Batura Opencast Coal mine 2.00 MTPA (Normative)/3.00 MTPA (Peak) was considered by the 6<sup>th</sup> EAC meeting held on 28<sup>th</sup> February, 2017 and Terms of Reference (TOR) was granted vide letter no J-11015/65/2017.IA.II (M) dated 21<sup>st</sup> March, 2017.

**11.10.2** During the meeting, the project proponent requested for amendment/correction in certain conditions stipulated in the TOR dated 21<sup>st</sup> March, 2017 as per the following details:-

<b>S. No.</b>	<b>Point No.</b>	<b>Point as written in ToR</b>	<b>Amendment requested in the ToR</b>
1.	Point no. (xvi) of ToR	<i>“Transportation: <b>Coal transportation in pit by belt conveyor from in pit to pit head coal handling plant</b>, Surface to Siding by belt conveyor to Pre-weigh Bin and loading at siding by Rail.”</i>	Details of transportation of coal: <ul style="list-style-type: none"> <li>• <b>In Pit- From face to CHP on surface:</b> by Trucks/ Tippers.</li> <li>• <b>Surface to siding:</b> By tarpaulin covered trucks for the initial 5 years/ till construction of Pit-head siding,</li> <li>• <b>Siding to consumer:</b> By rail.</li> </ul>

2	Point No 3(ii)	The latitude and longitude of the project site are 23° 12' 40" to 23° 14' 10" N and 81° 40'20" to 81° 43' 20" E respectively	Latitude 23°12'10" to 23°14'10" North Longitude 81°41'28" to 81°43' 20" East

**11.10.3** The EAC, after deliberations, recommended for amendment in the TOR as requested by the project proponent in respect of S. No.2 above. For the entry at S. No.1, it was desired not to allow the coal transportation by road (trucks/tippers), and thus there may be no change in the earlier recommendations in this regard. All other terms and conditions stipulated therein remaining unchanged.

### **Agenda 11.11**

#### **Expansion of Dipka Opencast Coal Mine from 31 MTPA to 35 MTPA in an ML area 1999.293 ha of M/s South Eastern Coalfields Limited in District Korba (Chhattisgarh) – Amendment in ToR**

**11.11.1** Ministry granted TOR to the above proposal on 28<sup>th</sup> February, 2017. Project proponent vide letter no.SECL/BSP/ENVT/Dipka OC/17/6611 dated 8<sup>th</sup> March, 2017 requested for correction/amendment in the TOR.

**11.11.2** During the meeting, the project proponent requested for amendment/correction in certain conditions stipulated in the TOR dated 8<sup>th</sup> March, 2017 as per the following details:-

<b>S. No.</b>	<b>Para No.</b>	<b>As per ToR</b>	<b>Request for Amendment in the ToR</b>
1.	Subject	Expansion of Dipka Opencast Coal Mine from 31 MTPA to 35 MTPA in an ML area <b>1999.293</b> ha of M/s South Eastern Coalfields Limited in District Korba (Chhattisgarh) – TOR reg.	Expansion of Dipka Opencast Coal Mine from 31 MTPA to 35 MTPA in an ML area <b>1999.417</b> ha of M/s South Eastern Coalfields Limited in District Korba (Chhattisgarh) - ToR reg.  <b>Justification:</b> After submission of Form-1 the total land area has under gone a slight change and has been modified as 1999.417 Ha. This fact has been brought out in the Basic Information/ Check list and Presentation made by SECL during EAC meeting on 31.01.2017.
2.	2	The Ministry of Environment, Forest and Climate Change has considered the application. It is noted that the proposal is for grant of Terms of	The Ministry of Environment, Forest and Climate Change has considered the application. It is noted that the proposal is for grant of Terms of Reference to the project for expansion of Dipka Opencast Coal Mine from 31 MTPA to 35 MTPA of MIs South Eastern Coalfields Limited in ML

		Reference to the project for expansion of Dipka Opencast Coal Mine from 31 MTPA to 35 MTPA of MIs South Eastern Coalfields Limited in ML area of <b>1999.293</b> ha in District Korba (Chhattisgarh)	area of <b>1999.417</b> ha in District Korba (Chhattisgarh)  <b>Justification:</b> After submission of Form-1 the total land area has under gone a slight change and has been modified as 1999.417 Ha. This fact has been brought out in the Basic Information/ Check list and Presentation made by SECL during EAC meeting on 31.01.2017.
3.	3(i)	The proposal is for grant of terms of reference to the expansion of Dipka Opencast Coal Mine from 31 MTPA to 35 MTPA in mine lease area of <b>1999.293</b> ha	The proposal is for grant of terms of reference to the expansion of Dipka Opencast Coal Mine from 31 MTPA to 35 MTPA in mine lease area of <b>1999.417</b> ha  <b>Justification:</b> After submission of Form-1 the total land area has under gone a slight change and has been modified as 1999.417 Ha. This fact has been brought out in the Basic Information/ Check list and Presentation made by SECL during EAC meeting on 31.01.2017.
4.	3(xi)	The coal gade is <b>E / G10</b> . The stripping ratio is <b>1:20 Cum/tonne</b> . The average Gradient is 3.37-6.34 degree. There will be 03 seams with thickness ranging (E&F Seam- 12.70- 19.05 m; Upper Kusmubda- 24.69- 35.82 m; Lower Kusmunda (Top Split) - 34.70-44.85 m; Lower Kusmunda (Bottorn Split) - 2.19-24.50 m)	The coal gade is <b>G-10/11</b> . The stripping ratio is <b>1.20Cum/tonne</b> . The average Gradient is 3.37-6.34 degree. There will be 03 seams with thickness ranging (E&F Seam- 12.70- 19.05 m; Upper Kusmubda- 24.69- 35.82 m; Lower Kusmunda (Top Split) - 34.70-44.85 m; Lower Kusmunda (Bottorn Split) - 2.19-24.50 m)  <b>Justification:</b> Typographical mistake.
5.	3(xiii)	The Method of-mining would be Open cast mining. There is 03 external OB dump with Quantity of 81.00 Mcum in an area of 206.00 ha with height of 50 meters above the surface level and 03 internal dump with Quantity of 534.00 Mcum in an area of 780.00 ha	The Method of-mining would be Open cast mining. There are 03 external OB dumps with Quantity of 81.00 Mcum. in an area of 206.00 ha with height of <b>90 meters</b> above the surface level and 03 internal dumps with Quantity of 534.00 Mcum in an area of 780.00 ha  <b>Justification:</b> This fact has been brought out in the Basic Information/ Check list and Presentation made by SECL during EAC meeting on 31.01.2017.

6.	3(xiv)	The final mine void would be in 222.053 Ha with depth 80m and the total quarry area is 1001.929. Back filled quarry area of 187.00 Ha shall be reclaimed with plantation. A void of 222.053 ha with depth up to 80 m which is proposed to be converted into a water body	The final mine void would be in 222.053 Ha with depth 80m and the total quarry area is <b>1002.053</b> . Back filled quarry area of <b>780.00</b> Ha shall be reclaimed with plantation. A void of 222.053 ha with depth up to 80 m which is proposed to be converted into a water body.  <b>Justification:</b> This fact has been brought out in the Basic Information/ Check list and Presentation made by SECL during EAC meeting on 31.01.2017.
7.	3(xxii)	Total forest land <b>409.056</b> ha, Status of Forest clearance: In process. Stage-I FC available for 409.056 ha of forest land	Total forest land <b>409.149</b> ha, Status of Forest clearance: Stage-I FC available for 409.056 ha of forest land. <b>For 0.093 ha of forest land registration has been done for Stage-I FC vide FC Registration No. 2013/028, dated-04.04.2013.</b>  <b>Justification:</b> After submission of Form-1 the total land area has under gone a slight change and has been modified as 1999.417 Ha. This fact has been brought out in the Basic Information/ Check list and Presentation made by SECL during EAC meeting on 31.01.2017.
8.	4	The Expert Appraisal Committee in its meeting held on 30-31 January, 2017, has recommended the proposal for grant of Terms of References. Based on the recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Terms of References to the project for expansion of Dipka Opencast Coal Mine from 31 MTPA to 35 MTPA of MIs South Eastern Coalfields Limited in mine lease area of <b>1999.293</b> ha in District Korba (Chhattisgarh) for preparation of EIA/EMP	The Expert Appraisal Committee in its meeting held on 30-31 January, 2017, has recommended the proposal for grant of Terms of References. Based on the recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Terms of References to the project for expansion of Dipka Opencast Coal Mine from 31 MTPA to 35 MTPA of MIs South Eastern Coalfields Limited in mine lease area of <b>1999.417</b> ha in District Korba (Chhattisgarh) for preparation of EIA/EMP reports with public consultations, under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto, subject to the compliance of the following terms and conditions and environmental safeguards mentioned below:  <b>Justification:</b> After submission of Form-1 the total land area has under gone a slight change and has been modified as 1999.417 Ha. This fact has been

		reports with public consultations, under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/ circulars thereto, subject to the compliance of the following terms and conditions and environmental safeguards mentioned below:	brought out in the Basic Information/ Check list and Presentation made by SECL during EAC meeting on 31.01.2017.
9.	3(ix)	The land usage of the project will be as follows:**	The land usage of the project will be as follows:***  <b>Justification:</b> After submission of Form-1 the total land area has under gone a slight change and has been modified as 1999.417 Ha. This fact has been brought out in the Basic Information/ Check list and Presentation made by SECL during EAC meeting on 31.01.2017.

**\*\* Point as written in ToR**

<b>The land usage of the project will be as follows:</b>					
<b>i. Pre-mining :</b>					
Activity	Types of land are (Ha)			Total land (Ha)	
	Forest	Tenancy/ Agricultural	Govt.		
Nil	409.056	1409.244	181.993	1999.293	
<b>ii. Post Mining:</b>					
S.No	Pattern of utilization			Area (ha)	
1.	Reclaimed External and Internal dumps			986.00	
2.	Green belt			23.000	
3.	Final void /Water body			222.053	
4.	Built up area (Infrastructure, colony, roads, R&R site)			633.874	
5.	Safety zone: Undisturbed area			130.366	
6.	Roads			4.00	
	<b>Total</b>			<b>1999.293</b>	
<b>iii. Core area:</b>					
S. No.	Activity	Forest Land	Tenancy Land	Govt Land/ Others	Grand Total
1.	*Quarry Area	52.889	858.314	90.850	1002.053

2.	External OB Dump	54.718	125.212	26.070	206.00
3.	Infrastructure etc.	279.242	313.518	41.114	633.874
4.	Safety Zone	22.207	85.200	22.959	130.366
5.	Green belt	0.000	23.000	0.000	23.000
6.	Roads	0.000	4.000	0.000	4.000
<b>Total land already Acquired</b>		<b>409.056</b>	<b>1409.244</b>	<b>180.993</b>	<b>1999.293</b>

Amendment requested in the ToR \*\*\*

<b>The land usage of the project will be as follows:</b>					
<b>i. Pre-mining:</b>					
Activity	Types of land are (Ha)			Total land (Ha)	
	Forest	Tenancy/ Agricultural	Govt.		
Nil	409.149	1409.244	181.024	1999.417	
<b>ii. Post Mining:</b>					
S.No	Pattern of utilization			Area (ha)	
1.	Reclaimed External and Internal dumps			986.124	
2.	Green belt			23.000	
3.	Final void /Water body			222.053	
4.	Built up area (Infrastructure, colony, roads, R&R site)			633.874	
5.	Safety zone: Undisturbed area			130.366	
6.	Roads			4.00	
<b>Total</b>				<b>1999.417</b>	
<b>iii. Core area:</b>					
S.No	Activity	Forest Land	Tenancy Land	Govt Land/ Others	Grand Total
1.	*Quarry Area	52.858	858.314	90.881	1002.053
2.	External OB Dump	54.718	125.212	26.070	206.00
3.	Infrastructure etc.	279.242	313.518	41.114	633.874
4.	Safety Zone	22.331	85.200	22.959	130.490
5.	Green belt	0.000	23.000	0.000	23.000

6.	Roads	0.000	4.000	0.000	4.000
<b>Total land</b>		<b>409.149</b>	<b>1409.244</b>	<b>181.024</b>	<b>1999.417</b>

**11.11.3** The EAC, after deliberations, recommended for amendment in the TOR as requested by the project proponent on the above lines, with all other terms and conditions stipulated therein remaining unchanged.

### **Agenda 11.12**

**Expansion of Gevra Opencast Coal mine from 41.00 MTPA to 45.00 MTPA in ML area of 4184.486 ha in ML area of 4781.788 ha of M/s South Eastern Coalfields Limited at district Korba (Chhattisgarh) - Amendment in TOR**

**11.12.1** Ministry granted TOR to the above proposal on 28<sup>th</sup> February, 2017. Project proponent vide letter no. SECL/BSP/ENVT/Gevra OC\_70/17/6610 dated 8<sup>th</sup> March, 2017 requested for correction/amendment in the TOR.

**11.12.2** During the meeting, the project proponent requested for amendment/correction in certain conditions stipulated in the TOR dated 28<sup>th</sup> February, 2017 as per the following details:-

<b>S. No</b>	<b>Page/ Para</b>	<b>As per ToR</b>	<b>Request for Amendment in the ToR</b>
1.	Subject	Expansion of Gevra Opencast Coal mine from 41 MTPA to 45 MTPA in ML area of 4184.486 ha of M/s South Eastern Coalfields Limited at district Korba (Chhattisgarh) - TOR reg.	<b>Gevra OC Expansion project from 41.00 MTPA to 45.00 MTPA (Phase-1) in ML area of 4184.486 Ha and 70.00 MTPA (Phase-2) in ML area of 4781.788 Ha of M/s South Eastern Coalfields Limited, dist. Korba (Chhattisgarh).</b>  <b>Justification:</b> As per agenda item no. 4.6 of 4th EAC meeting dated 30/31.01.2017, our covering letter & uploaded Form-1.
2.	Page-1; Para-1	This has reference to your letter no. SECL/BSP/ENVTIDIPKA OC/16IEIA-EMP /6521 dated 08.11.2016 along with online proposal No. IA/CG/CMIN /60267/2016 dated 21.11.2016	This has reference to your letter no. <b>SECL/BSP/ENVT/Gevra OC_70/16/ 6541 dated 28.11.2016 Online Proposal no. IA/CG/CMIN /60655/2016 dated 28.11.2016.</b>  <b>Justification:</b> <ul style="list-style-type: none"> <li>• Our letter No. SECL/BSP/ ENVT /Gevra OC_70 /16 /6541 dated 28.11.2016</li> <li>• Online Proposal no. IA/CG/ CMIN /60655/2016 dated 28.11.2016</li> </ul>
3.	Page-1; Point no.- 2.	The Ministry of Environment, Forest and Climate Change has considered the application. It is noted that the proposal is for grant of Terms of Reference to the project for expansion of Gevra	The Ministry of Environment, Forest and Climate Change has considered the application. It is noted that the proposal is for grant of Terms of Reference to the project for expansion of <b>Gevra Opencast Coal mine from 41 MTPA to 45 MTPA (Phase-1) in ML area of 4184.486 ha and 70.00 MTPA (Phase-2) in ML of 4781.788 ha of M/s South Eastern Coalfields Limited located in District Korba (Chhattisgarh).</b>

		Opencast Coal mine from 41 MTPA to 45 MTPA of Mls South Eastern Coalfields Limited in ML area of 4184.486 ha located in District Korba (Chhatishgarh).	<b>Justification:</b> As per agenda item no. 4.6 of 4th EAC meeting dated 30/31.01.2017, our covering letter & uploaded Form-1.
4.	Page-1; Point no. 3(i)	The proposal is for grant of terms of reference to the expansion of <b>Dipka Opencast Coal Mine</b> from 41 MTPA to 45 MTPA in mine lease area of 4184.486 ha	The proposal is for grant of terms of reference to the expansion of <b>Gevra Opencast Coal mine from 41 MTPA to 45 MTPA (Phase-1) in ML area of 4184.486 ha and 70.00 MTPA (Phase-2) in ML of 4781.788 ha.</b>  <b>Justification:</b> As per agenda item no. 4.6 of 4th EAC meeting dated 30/31.01.2017, our covering letter & uploaded Form-1.
5.	Page-1; point no. 3(ii)	Earlier, the expansion project of Ghevra open cast from 35 MTPA to 40 MTPA was accorded EC vide letter no. J-1 1015/85/201 0-IA.11 (M) dated 31.01.2014 for the expansion from 35 MTPA to 40 MTPA in terms of para 7(ii) of EIA Notification, 2006 and subsequent OM issued to facilitate one time capacity expansion without public hearing	Earlier, the expansion project of <b>Gevra open cast</b> from 35 MTPA to 40 MTPA was accorded EC vide letter no. J-1 1015/85/201 0-IA.11 (M) dated 31.01.2014 for the expansion from 35 MTPA to 40 MTPA in terms of para 7(ii) of EIA Notification, 2006 and subsequent OM issued to facilitate one time capacity expansion without public hearing.  <b>Justification:</b> Proposal is for <b>Gevra Opencast Coal mine.</b>
6.	Page-3; point no. 3(xvii)	Transportation of coal: From face to In pit crusher by trucks. In pit belt conveyor is under construction & will be completed within Dec.'2016; Surface to siding: By Conveyor System through Silo; siding at loading by Rail & MGR	Transportation of coal: From face to In pit crusher by trucks. In pit belt conveyor is under construction & will be completed <b>by October17</b> ; Surface to siding: By Conveyor System through Silo; siding at loading by Rail & MGR  <b>Justification:</b> As per Basic information/Check list submitted to MoEF&CC point no. 36.
7.	Page-3 point no. 3(xviii)	There is R & R involved. There are 2420 PAFs	There is R & R involved. There are <b>3428</b> PAFs  <b>Justification:</b> As per Basic information/Check list submitted to MoEF&CC point no. 35(vi)



8.	Page-4; Point no. 4	The Expert Appraisal Committee in its meeting held on 30-31 January, 2017, has recommended the proposal for grant of Terms of References. Based on the recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Terms of References to the project for expansion of Gevra Opencast Coal mine from 41 MTPA to 45 MTPA of Mls South Eastern Coalfields Limited in ML area of 4184.486 ha located in District Korba (Chhatisgarh) for preparation of EIAIEMP reports with public consultations, under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto, subject to the compliance of the following terms and conditions and environmental, safeguards mentioned below:	The Expert Appraisal Committee in its meeting held on 30-31 January, 2017, has recommended the proposal for grant of Terms of References. Based on the recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Terms of References to the project for expansion of Gevra Opencast Coal mine from 41 MTPA to 45 MTPA (Phase-1) in ML area of 4184.486 ha and 70.00 MTPA (Phase-2) in ML of 4781.788 ha located in District Korba (Chhatisgarh) for preparation of EIAIEMP reports with public consultations, under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto, subject to the compliance of the following terms and conditions and environmental, safeguards mentioned below:  <b>Justification:</b> As per agenda item no. 4.6 of 4th EAC meeting dated 30/31.01.2017, our covering letter & uploaded Form-1.
9.	Page-3(ix); Table for Core area land use	Table as shown in the ToR is given below **	Amendment requested in the ToR is given below ***  <b>Justification:</b> As per Basic information/Check list submitted to MoEF&CC point no. 34(iii)

**\*\* Table as given in ToR letter: Core area:**

S N.	Particulars	Tenancy land (Ha.)	Forest land (Ha.)	Government Land (Ha.)					Grand Total (Ha.)
				Grazing land	Waste land	Water body	Others	Total	
1	Quarry area	1285.888	441.410	0.000	0.000	7.000	297.952	304.952	2032.250
2	Area for Top Soil in quarry	0.000	0.000	0.000	0.000	0.000	5.000	5.000	5.000
3	External dump	291.310	0.000	0.000	0.000	0.000	188.690	188.690	480.000
4	Infrastructure, etc	504.509	509.434	0.000	0.000	0.000	88.839	88.839	1102.782

5	Roads	6.000	0.000	0.000	0.000	0.000	0.000	0.000	6.000
6	Residential Colony	65.000	0.000	0.000	0.000	0.000	0.000	0.000	65.000
7	R & R site	69.280	0.000	0.000	0.000	0.000	0.000	0.000	69.280
8	Explosive magazine	0.000	6.000	0.000	0.000	0.000	0.000	0.000	6.000
9	Nala Diversion, if any	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	Safety Zone	311.046	59.568	0.000	0.000	0.000	47.560	47.560	418.174
<b>Total Land (in Ha)</b>		<b>2533.033</b>	<b>1016.412</b>	<b>0.000</b>	<b>0.000</b>	<b>7.000</b>	<b>628.041</b>	<b>635.041</b>	<b>4184.486</b>

**\*\*\*Amendment requested in the ToR ; Core area:**

S N.	Particulars	Tenancy land (Ha.)	Forest land (Ha.)	Government Land (Ha.)					Grand Total (Ha.)
				Grazing land	Waste land	Water body	Others	Total	
1	Quarry area	1285.888	441.410	0.000	0.000	7.000	297.952	304.952	2032.250
2	Area for Top Soil in quarry	0.000	0.000	0.000	0.000	0.000	5.000	5.000	5.000
3	External dump	291.310	0.000	0.000	0.000	0.000	188.690	188.690	480.000
4	Infrastructure, etc	504.509	509.434	0.000	0.000	0.000	88.839	88.839	1102.782
5	Roads	6.000	0.000	0.000	0.000	0.000	0.000	0.000	6.000
6	Residential Colony	65.000	0.000	0.000	0.000	0.000	0.000	0.000	65.000
7	R & R site	69.280	0.000	0.000	0.000	0.000	0.000	0.000	69.280
8	Explosive magazine	0.000	6.000	0.000	0.000	0.000	0.000	0.000	6.000
9	Nala Diversion, if any	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	Safety Zone	298.564	59.568	0.000	0.000	0.000	60.022	60.022	418.174
<b>Total Land (in Ha)</b>		<b>2520.571</b>	<b>1016.412</b>	<b>0.000</b>	<b>0.000</b>	<b>7.000</b>	<b>640.503</b>	<b>647.503</b>	<b>4184.486</b>

**11.12.3** The EAC, after deliberations, opined that the ToR was issued for the expansion project of Gevra OCP only from 41 to 45 MTPA, and as such amending the ToR for the proposed expansion in phase-I & II would not be logical and justified. The Committee recommended for amendment in the ToR in respect of S.No.2, 5, 6, 7 &9 of the table at para 11.12.2 above, with all other terms and conditions stipulated therein remaining unchanged.

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**PARTICIPANTS IN 11<sup>th</sup> EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 30<sup>th</sup>-31<sup>st</sup> MAY, 2017 ON COAL SECTOR PROJECTS.**

Sl. No.	List Of Participants Expert Appraisal Committee (Coal Mining)	
1.	Dr. Navin Chandra	Chairman
2.	Dr. Narmada Prasad Shukla	Member
3.	Dr. S.K.Paliwal	Member CPCB
4.	Shri N Mohan Karnat	Member
5.	Dr. Sharachchandra Lele	Member
6.	Shri R K Giri	Representative (Indian Meteorological Department)
7.	Prof. S K Sinha	Representative (ISM, Dhanbad)
8.	Shri S. K. Shrivastva	Member Secretary

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**PARTICIPANTS IN 11<sup>th</sup> EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 30<sup>th</sup>-31<sup>st</sup> MAY, 2017 ON COAL SECTOR PROJECTS.**

**11.1 Coal Washery of M/s Hind Energy**

1. Shri Pawan Agrawal
2. Shri Y.M Reddy

**11.2 Rajbir E & D Coal OCP of M/S Tenughat Vidyut Nigam Ltd**

Project Was Differed

**11.3 Coal Washery of OCP of M/s Phil Coal Beneficiation Pvt. Ltd**

1. Shri Sunil
2. Shri Praveen Jha
3. Shri Pradeep Jha
4. Shri Y M Reddy
5. Shri Sudhir Singh

**11.4 Parsa East & Kanta Basan OCP of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd**

1. Shri Prakash Israni
2. Shri Hem Raj
3. Shri Uma Shanker
4. Shri K R Singh
5. Shri N.K.Prasad
6. Shri Pramod Kumar
7. Shri Ashish Kumar
8. Shri Manmeet Singh
9. Shri Brijesh K Singh

**11.5 Kalyani Khani-6 of M/s SCCL**

1. Shri B.Bhaskar Rao
2. Shri M.Vdsanja Kuamr
3. Shri K.Raghu Kumar
4. Shri Ravi Kiran
5. Shri Bhaskar
6. Shri N.Srivastava

**11.6 Basundhara OCP of M/s Mahanadi Coalfield Limited**

**11.7 Kaniha OCP of M/s Mahanadi Coalfield Limited**

1. Shri R.K.Das
2. Shri G.Srinivas

3. Shri G.R.P Reddy
4. Shri R.C.Sahoo
5. Shri N.K.Singh
6. Shri O.P.Singh
7. Shri A.K.Samant
8. Shri N.Kalla
9. Shri M.L.Prajapat
10. Shri C.Jayadev
11. Shri N.Piraiyamatham
12. Shri Biswajit Das

11.8 Jayant OCP of **M/s Northern Coalfield Limited**

1. Shri J.L.Singh
2. Shri A.Singh
3. Shri P.C.Jha
4. Shri V.N.Dupattawala
5. Dr. Yogendra Mishra
6. Shri Prem Prakash Kumar

11.9 Haldibari UG coal mining project of **M/s South Eastern Coalfields Limited.**

11.10 Batura OCP of **M/s South Eastern Coalfields Limited.**

11.11 Dipka OCP of **M/s South Eastern Coalfields Limited.**

11.12 Gevra OCP of **M/s South Eastern Coalfields Limited.**

1. Shri Praveen
2. Shri G.K Gour
3. Shri S.Srivastava
4. Shri A S Bapat
5. Miss Charu Sharma
6. Shri A.K.Gupta

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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 Report should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
- vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Govt.
- viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub> and NO<sub>x</sub>, noise, water (surface and groundwater), soil be submitted.
- ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
- x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
- xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in EIA/EMP report.
- xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.
- xiii. Impacts of CHP, if any, on air and water quality should also be spelt out alongwith Action Plan.
- xiv. O.M. no. J-II013/25/2014-IA.I dated 11<sup>th</sup> August, 2014 to be followed with regard to CSR activities.
- xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status

- of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.
- xvi. Analysis of samples indicating the following be submitted:
    - Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc).
    - Characteristics and quantum of coal after washing.
    - Characteristics and quantum of coal rejects.
  - xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.
  - xviii. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.
  - xix. Corporate Environment Responsibility:
    - a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
    - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
    - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
    - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
  - xx. A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.
  - xxi. Permission of drawl of water shall be pre-requisite for consideration of EC.
  - xxii. Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986
  - xxiii. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

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**GENERIC TOR FOR AN OPENCAST COALMINE PROJECT for EC**

- (i) An EIA-EMP Report shall be prepared for..... MTPA rated capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
- (ii) An EIA-EMP Report would be prepared for..... MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for..... MTPA of coal production based on approved project/Mining Plan for.....MTPA. Baseline data collection can be for any season (three months) except monsoon.
- (iii) A toposheet specifying locations of the State, District and Project site should be provided.
- (iv) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.
- (v) Land use map (1: 50,000 scale) based on a recent satellite imagery of the study area may also be provided with explanatory note on the land use.
- (vi) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.
- (vii) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.
- (viii) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.
- (ix) In case of any proposed diversion of nallah/canal/river, the proposed route of diversion /modification of drainage and their realignment, construction of embankment etc. should also be shown on the map as per the approval of Irrigation and flood control Department of the concerned state.
- (x) Similarly if the project involves diversion of any road/railway line passing through the ML/project area, the proposed route of diversion and its realignment should be shown in the map along with the status of the approval of the competent authority.
- (xi) Break up of lease/project area as per different land uses and their stage of acquisition should be provided.

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

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



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

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

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

- (xxii) Impact of blasting, noise and vibrations should be given.
- (xxiii) Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.
- (xxiv) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xxiv) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xxv) Details of waste OB and topsoil generated as per the approved calendar programme, and their management shown in figures as well explanatory notes tables giving progressive development and mine closure plan, green belt development, backfilling programme and conceptual post mining land use should be given. OB dump heights and terracing based on slope stability studies with a max of 28° angle as the ultimate slope should be given. Sections of final dumps (both longitudinal and cross section) with relation to the adjacent area should be shown.
- (xxvi) Efforts be made for maximising progressive internal dumping of O.B., sequential mining , external dump on coal bearing area and later rehandling into the mine void.--to reduce land degradation.
- (xxvii) Impact of change in land use due to mining operations and plan for restoration of the mined area to its original land use should be provided.
- (xxviii) Progressive Green belt and ecological restoration /afforestation plan (both in text, figures and in the tabular form as per the format of MOEFCC given below) and selection of species (native) based on original survey/land-use should be given.

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

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

\* As a representative example

Table 2 : Stage Wise Cumulative Plantation

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

\* As a representative example

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

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

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

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

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

- (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 through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub> and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xiii) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.
- (xiv) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xv) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.
- (xvi) Detailed water balance should be provided. The break up of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.
- (xvii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.

- (xviii) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xix) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xx) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.
- (xxi) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.
- (xxii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.
- (xxiii) Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the pre- mining status should be provided. A Plan for the ecological restoration of the mined out area and post mining land use should be prepared with detailed cost provisions. Impact and management of wastes and issues of re-handling (wherever applicable) and backfilling and progressive mine closure and reclamation should be furnished.
- (xxiv) Greenbelt development should be undertaken particularly around the transport route and CHP. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be submitted.
- (xxv) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxvi) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.
- (xxvii) CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be given.
- (xxviii) Corporate Environment Responsibility:
  - a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
  - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
  - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
  - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- (xxix) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.

- (xxx) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xxxi) Status of any litigations/ court cases filed/pending on the project should be provided.
- (xxxii) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.
- (xxxiii) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

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

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

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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 MOM incorporating suggestions of Prof. S K Sinha and Lele** Date: 06/08/17 10:44 PM  
To: Purushottam ramdas Sakhare <sakhare.pr@nic.in>, From: navin chandra <navinchandrarrl@yahoo.com>  
"S.K Srivastava" <sk.smree66@gov.in>,  
Srivastava Additional Director <sk.smrec66@nic.in>

08/06/2017

Dear Dr. Srivastava Ji,

I have gone through the attached Minutes document. It is OK. You may upload it now after approval from competent authority.

Regards,  
yours sincerely,

(NAVIN CHANDRA)

-----  
Dr. Navin Chandra,  
Director General  
M P Council of Science and Technology (MPCST), Vigyan Bhawan, Nehru Nagar, Bhopal -  
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**11<sup>th</sup> EAC (THERMAL & COAL MINING PROJECTS) MEETING  
SCHEDULED FOR 30<sup>th</sup>-31<sup>st</sup> May, 2017.**

**AGENDA**

**Venue: Indus, 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](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](mailto: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. Without this information, EAC has discretion to invite the proponent for the meeting.**
- v. Please also provide a hard copy of presentation to the EAC Members during the meeting.**
- vi. 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.**

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**COAL MINING PROJECTS**

**Time: 10.00 AM: Tuesday: 30<sup>th</sup> May, 2017**

- 11.1 Coal Washery of 2.5 MTPA in an area of 6.50 ha by M/s Hind Energy and Coal Beneficiation (India) Limited at Kirarama village Lakhanpur Tehsil, Jharsuguda District (Odisha) –**TOR** J-11015/45/2017-IA-II(M)
- 11.2 Rajbir E & D Coal Opencast Coal mines of 10 MTPA in an area of 2860 ha by M/s Tenughat Vidyut Nigam Limited located in Auranga Coal Field, District Latehar Jharkhand - **TOR** J-11015/44/2017-IA-II(M)
- 11.3 Coal Washery of 2.5 MTPA in an area of 10.02 ha of M/s Phil Coal Beneficiation Pvt. Limited at Village Ghutku Tehsil Takhatpur, District Bilaspur (Chhattisgarh)-(EC based on TOR granted on 29.02.2016). J-11015/418/2015-IA-II(M)
- 11.4 Expansion of of 'Parsa East and Kanta Basan' Opencast Coal Mine (from 10 MTPA to 15 MTPA) and Expansion of Pit Head Coal Washery (from 10 MTPA to 15 MTPA) in total project area is 2711.034 ha of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd, located in Hasdeo-Arand Coalfields in District Sarguja (Chhattisgarh) – (for further Consideration of **EC**) J-11015/03/2008-IA-II(M)

11.5 Kalyani Khani -6 incline underground Coal Mine Project of 0.80 MTPA Normative and 1.2303 MTPA Peak in an area of 421.61 ha by M/s SCCL located near villages Sankrapalli and Sandrapalli, Mandamarri Mandal in District Mancherial (Telangana)-**TOR** J-11015/47/2017-IA.II(M)

**Time: 10.00 AM : Wednesday: 31<sup>st</sup> May, 2017**

11.6 Basundhara (West) Extension OCP 8.75 MTPA in an area of 323.92 ha by M/s Mahanadi Coalfields Limited located in Ib valley coal field, District Sundargarh Odisha – **TOR** J-11015/26/2017-IA-II(M)

11.7 Kaniha Opencast Coal Mine Expansion Project (from 10 MTPA to 14 MTPA in an ML area of 718 ha; of M/s Mahanadi Coalfields Limited, located in District Angul (Odisha) - For further consideration of **EC** J-11015/134/2007-IA-II(M) pt

11.8 Jayant Open Cast Expansion project from 15.5 MTPA to 25 MTPA in an area of 3177 ha of M/s Northern Coalfields Limited located in District Singrauli (Madhya Pradesh)- (further consideration for **TOR**) J-11015/12/2017-IA-II(M)

11.9 Expansion of Haldibari UG coal mining project from 0.42 MTPA to 0.66 MTPA of M/s South Eastern Coalfields Limited in an area of 390 ha in District Koreya, (Chhattisgarh)-(Further consideration for **EC**) J-11015/243/2006-IA-II(M)(part)

11.10 Batura OCP of 2.00 MTPA (Normative)/3.00 MTPA (Peak) in Mine Lease area of 967.473 ha of M/s South Eastern Coalfields Limited in Districts Anuppur and Shahdol (Madhya Pradesh) – **TOR amendment** J-11015/65/2017-IA.II (M)

11.11 Expansion of Dipka Opencast Coal Mine from 31 MTPA to 35 MTPA in an ML area 1999.293 ha of M/s South Eastern Coalfields Limited in District Korba (Chhattisgarh) – **TOR amendment** J-11015/487/2007-IA.II (M)

11.12 Expansion of Gevra Opencast Coal mine from 41 MTPA to 45 MTPA in ML area of 4184.486 ha of M/s South Eastern Coalfields Limited at district Korba (Chhattisgarh) – **TOR amendment** J-11015/85/2010-IA.II (M)

11.13 Discussion on any other item.

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