

**MINUTES OF THE 49<sup>th</sup> EAC (THERMAL & COAL MINING PROJECTS) MEETING  
HELD ON 7-8 January, 2016**

The 49<sup>th</sup> EAC (Thermal & Coal mining projects) meeting was held on 7- 8 January, 2016 in New Delhi to consider the proposals in coal mining sector. The list of participants of EAC and the proponents are at Annexure-1 & 2 respectively.

**B. Confirmation of Minutes:**

The Committee confirmed the minutes of the 47<sup>th</sup> EAC meeting held on **30<sup>th</sup> November- 1<sup>st</sup> December, 2015**.

**C. The following proposals were considered.**

**Agenda 49.1**

**Baroud Washery of 10.00 MTPA capacity in an area of 46.296 ha of M/s South Eastern Coalfield Limited in District Raigarh (Chhattisgarh) - For ToR**

**49.1.1** The proposal is for TOR for Baroud Washery of 10.00 MTPA capacity in an area of 46.296 ha of M/s South Eastern Coalfield Limited in District Raigarh (Chhattisgarh).

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

- i. The proposal is a fresh request for grant of TOR.
- ii. It is a two product washery producing washed coal and rejects.
- iii. The latitude and longitude of the project boundary are *22<sup>0</sup> 13' 49" to 22<sup>0</sup> 14' 27" North* and *83<sup>0</sup> 18' 38" to 83<sup>0</sup> 18' 57" East* respectively.
- iv. Joint Venture: No Joint Venture
- v. Coal Linkage : Various thermal power plants
- vi. Employment generated / to be generated: 186 persons.
- vii. Benefits of the project: Revenue contribution to government/local bodies and local area development activities.
- viii. The land usage of the project will be as follows:

**Pre-Mining:**

SI No.	Activity	Land (in Ha)
1	Washery construction and allied activities	15.00
2	Reject storage	25.00
3	Proposed road	6.296
	<b>Total</b>	<b>46.296</b>

**Breakup of land**

SI No.	Type of land	Area (in Ha)
1	Agriculture land	36.05
2	Govt land	10.246
3	Forest land	00
	<b>Total</b>	<b>46.296</b>

- ix. The total estimated water requirement is 2724 KL/day. The source of water envisaged for the proposed washery is Kurket river flowing adjacent to the washery site. SECL has proposed a check dam for storage of water for supplying to the proposed washery. In case adequate water is not available from check dam, provision of tube well has been envisaged for meeting the balance water requirement. Total water requirement will be met by providing 300mm dia CI pipeline to the length of about 1km.
- x. The life of washery is 18 years.
- xi. Transportation: Siding to Consumer: Rail. Raw Coal: From Mine CHP to Washery: By Belt Conveyor. Washed Coal: From Washery to Railway siding: By Belt Conveyor.
- xii. There is no R & R involved.
- xiii. Cost: Total capital cost of the project is Rs. 355.88 Crores. CSR Cost According to New CSR policy, the fund for the CSR should be allocated based on 2% of the average net profit of the Company for the three immediate preceding financial years or Rs. 2.00 per tonne of coal production of previous year whichever is higher. R&R Cost Nil. Environmental Management Cost Rs. 1272.98 Lakhs.
- xiv. Water body: Kurket river flowing from North to South on the western part of the site.
- xv. Approvals: Application for ground water clearance shall be made on receipt of EC. Board's approval for washery/ washery closure plan is awaited.
- xvi. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- xvii. Forestry issues: There is no forest area involved in the washery project.
- xviii. Total afforestation plan shall be implemented covering an area of 10 ha around washery & infrastructure.
- xix. There are no court cases/violation pending with the project proponent.
- xx. Raw coal: The raw coal requirement for 10.0 MTPA washery is proposed to be met from Baroud OCP, Baroud OC Expansion, Jampali OCP and Bijari OCP, 3.0 MTPA from Baroud OCP, 3.0 to 15.0 MTPA from Baroud OC Expansion, 2.0 Mty from Jampali OCP and 1.5 Mty from Bijari OCP.
- xxi. Washed Coal: Washed coal will be reclaimed from covered washed coal storage (16000 tonne) and conveyed by 2000 tph conveyor to Silo (4000 tonne) at proposed Karichhapar siding about 2 kms. From where it will be loaded into Railway wagons through Rapid Loading System @5500 tph and dispatched to different consumers by SECL. The construction of washed coal conveyor (about 2 kms.), Silo and Rapid Loading System is under the scope of BOMO and cost of the same has been included in the scope of BOM operator. Construction of Railway siding is under the scope of SECL and is under progress.
- xxii. Rejects: Rejects will be reclaimed from rejects storage site and conveyed by 2000 tph conveyor to Silo (4000 tonne) at proposed Karichhapar siding about 2 kms. from where it will be loaded into Railway wagons through Rapid Loading System @5500 tph and dispatched to different consumers by SECL

**49.1.3** During the presentation, the Committee noted the following:-

- (i) The details of the site selected for setting up the washery of 10 MTPA in an area of 46.296 ha at Saraipali for washing the coal from cluster of mines in its vicinity. The PP neither presented the alternate sites nor was the site proposed at pithead.

(ii) The PP informed that the source of water is from Kurket river after construction of a check dam at the downstream (as indicated in the application) although sufficient mine water is available from nearby mines, whereas the site selected was almost abutting the Kurket river. The committee therefore felt that PP should choose potential alternative sites for the location of washery as the site selected is not an appropriate one environmentally.

(iii) The Committee also suggested that the PP should submit an original topo sheet showing all the sites evaluated and tabulate the same showing their merits and demerits.

(iv) A representation has been received from ERC, an NGO, expressing their apprehensions in respect of site selection, river Kurket, effluent discharge, rejects, impact on terrestrial and aquatic biota/ecosystem.

**49.1.4** *The EAC, after detailed deliberations, deferred the proposal for want of clarifications and inputs on the above lines.*

## **Agenda 49.2**

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

**49.2.1** The proposal is for Kusmunda Opencast Expansion Project (Normative 15 MTPA to 50MTPA & Peak 18.75 MTPA to 62.50 MTPA in an ML area 3510.348 ha (Latitude 22<sup>o</sup> 15' 18" to 22<sup>o</sup> 21' 30" North and Longitude 82<sup>o</sup> 38' 39" to 82<sup>o</sup> 42' 08" East) of M/s South Eastern Coalfields Ltd, located in District Korba (Chhattisgarh). The proposal was earlier considered in the 37<sup>th</sup> EAC meeting held on 11<sup>th</sup> -12<sup>th</sup> June, 2015, 39<sup>th</sup> EAC meeting held on 16<sup>th</sup> -17<sup>th</sup> July, 2015, 42<sup>nd</sup> EAC meeting held on 31<sup>st</sup> August- 1<sup>st</sup> September, 2015, 44<sup>th</sup> EAC meeting held on 8<sup>th</sup> – 9<sup>th</sup> October, 2015 and 47<sup>th</sup> EAC meeting held on 30<sup>th</sup> November- 1<sup>st</sup> December, 2015. During the last meeting, the Committee sought more clarity/inputs in respect following for further consideration of the project:-

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

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

- i. Cumulative Air Quality Impact Prediction study (AQIP) of Kusmunda , Dipka and Gevra opencast projects with capacity variants for kusmunda oc (26 mty, 44 mty & 50 mty) has also been carried out.

- ii. The modelling exercise was done earlier in line with the TOR issued on 01.12.2014, for Kusmunda OC expansion project (Normative 15 MTY to 50 MTY and Peak 18.75 MTY to 62.5 MTY). Now as directed in the 47<sup>th</sup> EAC meeting held on 01.12.2015, the modelling exercise has been done based on one year meteorological data except Monsoon season. The modelling has been done for 26 MTY and 50 MTY production capacity for PM10 component of ambient air quality and the predicted results are within the stipulated standards of i.e. 100 µg/m<sup>3</sup>. The detail modelling study report for 26 MTY and 50 MTY capacity productions has been provided. In the study, the impact of various control measures at source level has only been considered. The attenuation of PM-10 concentration due to proposed 90 m thick green belt around the Kusmunda mine has not been taken into account. The green belt will further reduce the concentration of dust (PM-10 & PM-2.5) in ambient air due to interception and filtration. The mitigating measures to minimize the emission resulting in reduction in pollution load with time frame has been provided along with the quantification of reduction in dust load (PM10).
- iii. It is mentioned in the minutes of last EAC meeting that with the proposed expansion to the production capacity of 62.5 MTY, ambient air quality shows values on higher side at few of the locations and consequently, the committee advised to work out the impact prediction for lower capacity. Hence, the impact prediction has been worked out for 26 MTPA and 50 MTPA based on one year meteorological data (except monsoon) and the predicted ambient air quality values for PM10 are within the stipulated standard i.e. 100 µg/m<sup>3</sup>. The measures has also been adopted to mitigate the air pollution load with different time frames and quantification of dust control for PM10 component.
- iv. The quantification has been exercised for PM10 using emission factors. The phasing of equipments have been provided as per approved PR of Kusmunda OC 50 MTY. The control measures adopted in Kusmunda OC have been planned in phased manner. The year-wise reduction in dust through different measures adopted by Kusmunda at different production capacity i.e. (2015-16 for 26 MTPA ; 2016-17 for 26 MTPA; 2017-18 for 30 MTPA; 2018-19 for 37 MTPA; 2019-20 for 44 MTPA; 2020-21 for 50 MTPA) have been submitted .

**49.2.3** The Committee noted that the original proposal of the PP had been to increase the production capacity from the existing 18.75 MTPA to 62.5 MTPA. The request had been considered in the earlier EAC meetings. In view of the ecologically sensitive nature of the area involved in the proposal, the EAC had advised the PP to conduct various studies particularly with respect to air quality at different levels of production. In the present meeting, the PP presented the result of the study. The PP submitted that now they themselves wanted to reduce the proposed expansion capacity from 62.5 to 50 MTPA as the results of the study did not support expansion beyond 50 MTPA.

**49.2.4** However, from the study findings, the EAC observed that:-

(i) The data on air quality provided by the PP for the period October, 2010 to September, 2015 indicate that at Vikas Nagar one value of PM 10 out of 2 has exceeded in month of March. In other locations though they are within the limits but close to standard of 100 ug/Nm<sup>3</sup> (95 ug/Nm<sup>3</sup> at village Bhilai Bazar in Jhabhar and 98 ug/Nm<sup>3</sup> Ratija. The predicted data is now provided for three seasons excluding rainy season. Some incremental values are marginally low at few locations with respect to production level corresponding to 26 MTPA in all locations well within the permissible standards of 100 ug/m<sup>3</sup>. But the value at Vikas Nagar still on higher side i.e. 95 ug/Nm<sup>3</sup> which calls for mitigating measures. The predicted value for uncontrolled and controlled conditions at many places indicate no change in different seasons except in few

places where predicted value for control measures are less than those without control measures.

(ii) As far as the predicted value corresponding to 50 MTPA indicated to be in the range of 0-22.4, 0-16.7 & 0-2.4 ug/Nm<sup>3</sup> during summer, post monsoon and winter seasons under uncontrolled conditions along with corresponding values of 0-11.2, 0-8.3 & 0-1.5 ug/Nm<sup>3</sup> under controlled conditions. The interpretation in terms of mitigating measures year wise which will be taken during coming four(s) years is still not available.

(iii) The PP informed that the present dispatch capacity is 26 MT, (18 MT by rail, 7 MT by belt conveyor and 1 MT by Road) to various consumers.

**49.2.5** *In the light of the above, particularly the results regarding air quality, the EAC was of the view that at this stage, EC can be recommended only for a production level of 26 MTPA. This would however be subject to the following specific conditions :-*

- *Adoption of additional control measures beyond those already committed to by the PP for a production level of 26 MTPA **and also as provided in the previous ECs** so as to reduce the existing high levels of pollution load as shown in their study.*
- *Immediate steps to provide an adequate and effective green belt around the villages affected by the higher values PM 10.*
- *After a period of six months from the date of issue of the EC for 26 MTPA, PP shall report to the Ministry the data on air quality at the afore mentioned villages, the **implementation status of the control measures and the implementation status of the EC PROVISIONS.***
- *It was made clear to the PP that any further expansion beyond 26 MTPA would be dependent upon the effectiveness of the various control measures adopted by PP to control the pollution load.*

### **Agenda 49.3**

**Pundi OCP of 2.50 MTPA (normative)/3 MTPA (peak) in an ML area of 851.38 ha and Pit-head Coal Washery of 3 MTPA capacity of M/s Central Coalfields Ltd, located in District Ramgarh, (Jharkhand) – For EC**

**49.3.1** The proposal is for grant of EC Pundi OCP of 2.50 MTPA (normative)/3 MTPA (peak) in ML area of 851.38 ha and Pit-head Coal Washery of 3 MTPA capacity of **M/s Central Coalfields Ltd**, located in District Ramgarh (Jharkhand).

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

- The project was accorded TOR vide letter No. **J-11015/95/2012-IA.II(M)** dated 16.12.2013
- The latitude and longitude of the project boundary are 23°45'52"N to 23°52'58"N and 85°30'E to 85°32'37" E respectively.
- Joint Venture: Not Applicable
- Coal Linkage : Steel, power and other miscellaneous consumers.
- Employment generated / to be generated: Direct employment proposed to be given to land losers is 76 ; Indirect employment is 200 to 300.
- Benefits of the project: Improvements in Physical Infrastructure, Social Infrastructure;

Increase in Employment Potential; Contribution to the Exchequer; improvement in performance of power plant,; Reduction in particulate emission; Reduction in load on Railway Network; Reduction in handling and transportation cost of coal and solid waste  
vii. The land usage of the project will be as follows:

Pre-Mining: Particulars	Area (Ha)
GMK Land	51.67
Tenancy Land	151.21
Forest land	648.50
Total	851.38

Post- Mining:

Particulars	Area (Ha)
GMK Land	51.67
Tenancy Land	151.21
Forest land	648.50
Total	851.38

Core area:

Particulars	Area (Ha)
GMK Land	51.67
Tenancy Land	151.21
Forest land	648.50
Total	851.38

- viii. The total geological reserve is **138.94 MT**. The mineable reserve **Quarry1 = 55.32 MT** , **Quarry 2 = 21.43 MT Total = 76.75 MT+9.89 MT (earlier production up to 2009-10)= 86.64 MT**, extractable reserve is **76.75 MT**. The per cent of extraction would be **62.36 %**.
- ix. The coal grade is W-IV, The stripping ratio is 3.36 (Cum/Tonne) for Quarry 1 & 3.59(Cum/Tonne) for Quarry 2. The average Gradient is **3-8 deg**. There will be **8**. seams with thickness ranging

Name of seam	Thickness Range (m)
VIII	2.50-5.00
VII	2.20-8.20
VI	0.40-2.26
V	6.90-16.60
IV	1.20-9.20
III	0.80-3.60
II	0.55-5.64
I	1.50-7.10

- x. The total estimated water requirement is 3891 m<sup>3</sup>/day. The level of ground water ranges from 1.742 m to 8.88 m.
- xi. The Method of mining would be Opencast with shovel-dumper combination & integrated coking coal washery and railway loading system.
- xii. There is one external OB dump with Quantity of 29.42 Mbcm in an area of 58.55 ha with height of 60 meter above the surface level and two internal dump with Quantity of 233.42 Mbcm in an area of 394.22 ha.
- xiii. The final mine void would be in 87.57 Ha with depth 30 m. and the Total quarry area is 481.79 Ha. Backfilled quarry area of 394.22 Ha shall be reclaimed with plantation. A void of 87.57 ha with depth 30m 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 40 Years.
- xvi. Transportation: Coal transportation in pit by through Dumpers from in pit to pit head coal handling plant, Surface to Siding by trucks to Pre-weigh Bin and loading at siding by Pundi Railway Siding, Chainpur at 300 m from Project.
- xvii. There is no R & R involved. There are 150 PAFs.
- xviii. Cost: Total capital cost of the project is Rs. 631.53 Crores. CSR Cost Rs 2 per tonne of coal produced or as per company's Act 2013. R&R Cost Rs 4.5 crore. Environmental Management Cost Rs 19.11 Crore.
- xix. Water body : River: The project area lies within the catchment area of Chowthanadi existing in the south and Bokaro river in the north and east, both flowing towards south-east of the project. Chowthanadi joins the master drainage Bokaro river in the south-east of the project at a distance of 2.5 km.
- xx. Approvals: Ground water clearance Applied. Board's approval obtained on 24.01.2012 Mining plan has been approved on 24.01.2012. Mine closure plan is an integral part of mining plan.
- xxi. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- xxii. Forestry issues: total forest area 648.50 Ha., Stage-II FC for 52.97 Ha vide letter number F.No.8-46/2004-FC dt. 06.08.2008; An application for 595.53 Ha of forest land made online on 27/07/2015.
- xxiii. Total afforestation plan shall be implemented covering an area of 763.81 ha at the end of mining. Green Belt over an area of 239.86 ha. Density of tree plantation 2500 trees/ha of plants.
- xxiv. There are no court cases/violation pending with the project proponent.
- xxv. Public Hearing was held on 07.09.2015 at Sudarshan Central School, Post Pundi, District Ramgarh. The issues raised during the PH includes; schools facility; Education, Water facility, supply of Electricity, improvement of road quality; Employment to the local people ;Plantation around the mine; transportation facility for local people etc.
- xxvi. Pundi Opencast is an existing mine of CCL.
- xxvii. Expansion of Pundi OCP is proposed from 0.55 MTPA to 2.50 MTPA (peak 3.00 MTPA).

xxviii. The total project area will increase from 140.00 Ha to 851.38 Ha (increment of 711.38

- Ha).
- xxix. Pit top three product Pundi Coking Coal Washery of 3 MTPA has also been planned & included in Project Report.
  - xxx. Washed coal is proposed to be despatched through dedicated Pundi Railway Siding.
  - xxxi. The area for external dumping has been planned beyond the incrop of bottommost seam over non-coal bearing area.
  - xxxii. Provision of garland drain to prevent run off from reaching adjoining Bokaro River .
  - xxxiii. Top soil will be preserved properly and used for biological reclamation of the OB dump and other degenerated land for vegetation within the mining area

**49.3.3** The Committee noted that the Pundi OCP has been in operation since 1982-83 i.e. prior to the enactment of the Environment (Protection) Act, 1986. Further, since the EIA Notification, 1994 issued under the EP Act provides for prior EC to the projects/activities listed in the Schedule I of the Notification, which may not be applicable to the said project.

However, the EAC observed that the OCP was granted Consent to Operate by the State Pollution Control Board in the year 2009 with its validity of one year. It was informed that the project proponent has been requesting the SPCB for the renewal of Consent to Operate, but the same is yet to be obtained. More observations of the Committee were as under:-

- (i) The OCP is reported to be of 0.55 MTPA capacity in an area 140 ha (includes 52.97 ha of forest land). The proposed expansion shall involve a total area of 648.50 ha, with 595.53 ha of forest land.
- (ii) Stage II Forest Clearance has already been obtained for diversion of 52.97 ha of forest land. Whereas, for diversion of additional forest land required, request for stage I FC has already been made by the PP.
- (iii) The project was granted TOR vide letter dated 16<sup>th</sup> December, 2013 for its expansion from 0.55 MTPA to 2.50 MTPA (normative) / 3.00 MTPA (peak). However, as there is no prior EC for the present capacity of 0.55 MTPA, there is a need for its regularization so that the present proposal of going beyond 0.55 MTPA can be considered as a proposal for expansion.
- (iv) Form-I submitted by the project proponent is incomplete, and needs to be revised and resubmitted.
- (v) The proposal for Mine Plan (for expansion) has the approval of CCL Board, but there is no approval for Mine Closure Plan.
- (vi) The status in respect of Consent to Operate from SPCB needs a comprehensive look **including mine capacity and a copy of the same be submitted** .

**49.3.4** *In view of the above observations, the Committee deferred consideration of the proposal till receipt of clarification/inputs from the project proponent and the State agencies.*



#### **Agenda 49.4**

##### **Expansion of Coal Washery from 1.5 MTPA to 4.0 MTPA of M/s Bhatia International Ltd at Village yehsamba (Gondegaon), Tehsil Parseoni, District Nagpur (Maharashtra) – TOR**

49.4.1 Since the project proponent did not attend the meeting, the project could not be considered, and thus deferred.

#### **Agenda 49.5**

##### **Proposed 4.0 MTPA Coal Washery of M/s Bhatia International Ltd. at Sastri (Pandarpauni), Tehsil – Rajura, District Chandrapur (Maharashtra) – TOR**

49.5.1 Since the project proponent did not attend the meeting, the project could not be considered, and thus deferred.

#### **Agenda 49.6**

##### **Proposed 2.5 MTPA Coal Washery in an area of 10.02 ha of M/s Phil Coal Beneficiation Pvt. Limited at Village Ghutku Tehsil Takhatpur, District Bilaspur (Chhattisgarh) - (TOR)**

49.6.1 The proposal is for TOR for proposed 2.5 MTPA Copal Washery **10.02 ha** of M/s Phil Coal Beneficiation Pvt. Limited at Village Ghutku Tehsil Takhatpur, District Bilaspur (Chhattisgarh)

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

- i. New project for TOR.
- ii. The latitude and longitude of the outer most co-ordinates of the project boundary are:

<b>Point No.</b>	<b>Latitude</b>	<b>Longitude</b>
1.	22° 9'04.75"N	82° 5'35.11"E
2.	22° 9'18.21"N	82° 5'37.14"E
3.	22° 9'28.74"N	82° 5'25.18"E
4.	22° 9'15.92"N	82° 5'28.19"E

- iii. Joint Venture: Not applicable
- iv. Coal Linkage: Coal will be sourced from SECL from Dipka, Gevra, Kusmunda and other mines of South Eastern Coalfield Limited (SECL).
- v. Employment generated / to be generated: Direct employment - 35 nos; Indirect employment - 150 nos.
- vi. Benefits of the project: Generation of Employment and supply of washed coal to consumers.
- vii. The land usage of the project will be as follows:

Pre-Mining: **Pre-project**: Agricultural land (Single crop)

Post- Mining: **During washery Operation**

Item	Area (in Acres)
Plant area	4.00
Internal roads	0.50
Storage yard (Coal & Rejects)	6.00
Greenbelt	8.25
Railway siding	6.03
<b>Total</b>	<b>24.78</b>

Core area : Agricultural land (Single crop)

- iv. Transportation: Raw Coal will be sourced from SECL from Dipka, Gevra, Kusmunda and other mines of South Eastern Coalfield Limited (SECL), located in Korba/Raigarh area and will be transported by Rail and by road in covered trucks upto the site. Washed coal from the site will be sent to customer by Rail / Road depending on the MoU between customer and SECL. Washed Coal and rejects will be supplied to Power plants, Cement plants.
- v. There is no R & R involved. There are no PAFs.
- vi. Cost: Total capital cost of the project is Rs. 25.00 Crores. CSR Cost Capital Cost Rs. 40 Lakh; Annual Recurring Cost Rs. 15 lakhs. R&R Cost Nil. Environmental Management Cost Capital Cost Rs. 50 Lakhs; Annual Recurring cost Rs. 15 lakhs.
- vii. Water body: Arpa river (2.0 Kms.), Ghongha Nadi (7.5 Kms.) & Kurung Right Bank Canal (0.6 Kms) are flowing within 10 Km. radius of the Project site.
- viii. Water requirement: Water required for the proposed Coal Washery will be 955 cum/day.
- ix. Approvals: Water drawl permission from Central Ground Water Board will be obtained.
- x. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- xi. Forestry issues: No forest area involved.
- xii. Total afforestation plan shall be implemented covering an area of 8.25 Acres at the end of mining. Green Belt over an area of 8.25 Acres.
- xiii. There are no court cases/violation pending with the project proponent.
- xiv. The proposed project area does not fall under the critically polluted areas, which are listed in MoEF office memorandum dated 13th January 2010 and its subsequent amendments. (Nearest Critically Polluted area is Korba at distance 60 Kms. from the proposed site.
- xv. Railway siding is envisaged for the proposed project, to be served from Ghutku Railway Station at a distance of 1.0 km.

**49.6.3** *The Committee, after detailed deliberations deferred the project for want of clarification from Railway Board regarding keeping of a minimum distance of 500 m between the proposed railway track/corridor and a project boundary.*

## Agenda 49.7

### **Basundhara Coal Washery of 10 MTPA (peak) in an area of 27.66 ha of M/s Mahanadi Coalfields Ltd, located in Dist. Sundergarh (Odisha) – Modification in TOR**

**49.7.1** The proposal is for modification in TOR of proposed Basundhara Coal Washery of 10 MTPA in an area of 27.66 ha in Dist. Sundergarh, (Odisha) of M/s Mahanadi Coalfields Ltd.

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

- i. Whereas while making the detailed Layout of 10 MTY Washery Complex, it has been revealed that to accommodate all infrastructures of the washery, the actual land requirement will be 19.32 ha. for washery than 13 ha as mentioned in earlier Form-I..
- ii. The land required for Clean Coal Conveyor Corridor has also increased from 5.93 ha. to 21.02 ha. due to change in Railway Bulb by the Railway considering the upcoming two new proposed washeries namely Siyarmal Washery(40 MTY) and Garjanbahal Washery(10 MTY), road along the conveyor line and power transmission line.
- iii. In earlier Land requirement, land required for Reject Conveying Corridor was not considered. In revised land requirement provision of 0.85 ha. land for the same has been kept.
- iv. For temporary reject storage site, earlier there was provision for 8.73 ha. which has been reduced to 2.70 ha., considering the regular disposal of reject to the consumers and keeping minimum storage of reject at a time at temporary reject storage site.
- v. In earlier Form-I, it was mentioned that 21.73 ha. forest land has already been diverted for infrastructure of Kulda OCP but from verification of records now it is revealed that only 8.52 ha. forest land is diverted for Kulda OCP infrastructure which is further required to be re-diverted for the said washery. Thus the total requirement of forest land for washery and associated activities is 29.41 ha. The online application has already been submitted for diversion of above 29.41 ha. forest land whose State Serial No. is FP/OR/IND/16495/2015 dtd. 17.11.2015.
- vi. The details of land requirement mentioned in earlier Form-I and the details of revised land requirement is given as under:

Land requirement	Forest Land (Ha.)	Govt. Non-forest Land (Ha.)	Tenancy Land (Ha.)	Total Land (Ha.)	Reason
In Earlier Form-I	22.93	0.40	4.33	27.66	
Revised	29.41	4.33	10.16	43.90	1. Due to change in alignment of Railway Bulb by

					<p>S.E. Railway..</p> <p>2. Provisioning for Power transmission line, reject conveying corridor, road along clean coal conveyor corridor etc. considering the upcoming of new washery of Siyarmal &amp; Garjanbahal</p>
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**49.7.3** *The committee examined the request of the project proponent for increase in area from 27.66 ha to 43.90 ha, which would involve increase in forest land from 22.93 ha to 29.41 ha, and recommended for amendment in ToR accordingly.*

### **Agenda 49.8**

**Bithnok Lignite Mine Project 2.25 MTPA in an ML area of 2150 ha of M/s Neyveli Lignite Corporation Ltd. at Bithnok, District Bikaner (Rajasthan).- Competent Authority approved the project subject to FC. FC received after 18 month. (EC)**

**49.8.1** The proposal is for grant of EC on submission of Stage –I FC for Bithnok Lignite Mine Project 2.25 MTPA in an ML area of 2150 ha of M/s Neyveli Lignite Corporation Ltd. at Bithnok, District Bikaner (Rajasthan)

**49.8.2** The deliberations during the meeting were:-

(a) Committee was informed about this Ministry's OM dated 9<sup>th</sup> September, 2011 regarding grant of environmental clearance to the projects involving forest land. Para 3 (ii) & (iii) of the same quotes:-

Para 3 (ii) In the cases, where the Competent Authority has approved the grant of environmental clearance, the proponent will be informed of the same and a time limit of 12 months, which may be extended in exceptional circumstances to 18 months, a decision on which will be taken by the Competent Authority, will be given to the proponent to submit the requisite stage-I forestry clearance. The formal environmental clearance will be issued only after the stage-I forestry clearance has been submitted by the proponent.

Para 3 (iii) In the eventuality that the stage-I forestry clearance is not submitted by the proponent within the prescribed time limit mentioned at para (ii) above, the proposal for environmental clearance will stand rejected and the entire process of obtaining environmental clearance will have to be initiated de-novo as per the procedure prescribed under the EIA Notification, 2006.frame

(b) In the instant case, the approval dated 21<sup>st</sup> January, 2014 to grant EC to the project by the competent authority was conveyed to the project proponent vide letter dated 7<sup>th</sup> February, 2014, stipulating inter-alia the following:-

‘this is to inform that the Competent Authority has approved the project. However, the formal environmental clearance will be issued only after the stage-I forestry clearance for the forest land involved in the project has been obtained and submitted. For the purpose, a maximum time limit of one year will be provided to the proponent during which the project will be kept in abeyance. In case, the formal forestry clearance is not submitted within this time frame, the proposal will stand rejected and the process for obtaining environmental clearance will have to be initiated, de novo, as per the procedure under EIA Notification, 2006’.

(c) It was informed that the revised proposal for the diversion of 52.245 ha of forest land was submitted by the project proponent to the State Government of Rajasthan, vide letter dated 5<sup>th</sup> March, 2014. The proposal was forwarded by the State Government of Rajasthan on 2<sup>nd</sup> January, 2015 to this Ministry, which was considered by the FAC in its meeting held on 3<sup>rd</sup> June, 2015, and was recommended subject to submission of certain details from the State Government. On receipt of the same, the project has been accorded ‘in-principle’ approval (Stage-I FC) for diversion of the said forest land vide letter dated 2<sup>nd</sup> December, 2015.

**49.8.3** *Given the differing provisions regarding the time limit as mentioned in the above said OM, and as mentioned in the communication sent to the project proponent in February 2014, the EAC felt that the Ministry may like to take a view in the matter.*

#### **Agenda 49.9**

**Dulanga Opencast Coal Mining Project of 7 MTPA in an area of 803.71 ha which includes 567.19 ha of ML and 236.52 ha outside the ML) of M/s National Thermal Power Corporation Ltd (NTPC), Ib valley coalfields, Dist. Sundergarh, Orissa - Correction in EC.**

**49.9.1** The Dulanga Opencast Coal Mining Project of capacity 7 MTPA in an area of 785.37 ha located in Ib Valley Coalfields, Distt. Sundergarh, Odisha was granted environmental clearance vide this Ministry’s letter dated 3<sup>rd</sup> March, 2014 in favour of M/s NTPC Ltd. As per Ministry of Coal allotment Order No. **103/32/2015/NA dated 8<sup>th</sup> September, 2015**, this Ministry revalidated EC on 28<sup>th</sup> October, 2015. The project has also been accorded stage-I forest clearance for diversion of 304.75 ha of forest land (273.68 ha within the Dulanga coal block and 31.07 ha outside the block) on 10<sup>th</sup> January, 2014.

**49.9.2** Now the project proponent has requested for correction/amendment in the said EC in respect of the following:-

- Para No.3 does not pertain to Dulanga Opencast Coal Mining Project.
- The area within the Dulanga coal block for which stage-I has been granted to be read as 274.68 ha instead 273.68 ha.

**49.9.3** *The EAC, on perusal of the matter, observed that the corrections sought by the project proponent in the EC are of administrative nature, and would not require recommendations of the committee; the matter was accordingly left to the Ministry.*

## Agenda 49.10

### **Expansion of Cluster No. 2 group of mixed mines from 0.45 MTPA to 1.1 MTPA (peak) in ML area of 1018 ha located at District Burdwan (West Bengal) of M/s Eastern Coalfields Limited - for further consideration of EC**

**49.10.1** The proposal is for expansion of Cluster No. 2 group of mixed mines (Kumardhubi UG, Barmuri OC and Rajpura OC) from 0.45 MTPA to 1.10 MTPA (peak) in ML area of 1018 ha of M/s Eastern Coalfields Limited, located in District Burdwan (West Bengal).

The details of the mine are as follows :

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

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

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

Sl. No.	Name of the mine	Targeted Consumer
1	Kumardhubi UG	<ul style="list-style-type: none"><li>The West Bengal Power Development Corporation Limited (WBPCDCL).</li><li>Mejia Thermal Power Station-Bankura,West Bengal.</li><li>Sipat Super Thermal Power Station or Rajiv Gandhi Super Thermal Power Station at Sipat Bilaspur district Chhattisgarh.</li><li>GMR Energy Limited Kamalanga thermal power plant ,Odisha.</li><li>Aravali Power Company Private Limited,Haryana.</li><li>Kahalgaon Super Thermal Power Station (KhSTPP) ,Kahalgaon ,Bhagalpur ,Bihar.</li></ul>
2	Barmuri OC	
3	Rajpura OC	

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

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

- x. Water body: On the south side of NH2 there is a seasonal stream named Barmuri Jore which flows from north to south and merges into Barakar River. Barakar River and Barmuri Jore along with its tributaries control the main drainage of the mine.
- xi. Approvals: Mining plan has been approved on 27.11.2015 (for expansion to production capacity of 1.10 MTPA). Mine closure plan is an integral part of mining plan. Mine Closure plans of all three mines have been approved in September, 2013.
- xii. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- xiii. Forestry issues: There is no forest land within the cluster boundary.
- xiv. Total afforestation plan shall be implemented covering an area of 401.4 Ha (out of which 189.9 Ha is already reclaimed and planted by ECL) at the end of mining. Green Belt over an area of **393.50** ha. Density of tree plantation 1600 saplings/ha of plants.
- xv. There are no court cases/violation pending with the project proponent.
- xvi. Public Hearing was held on 09.09.2013 in Officers Club, Mugma Area, Dhanbad, Jharkhand. The issues raised in the PH includes water supply; Coal transportation; arrangements for repair and upkeep of this road; development of the local population; poor voltage and overhead lines; dust pollution etc.

**49.10.3** The proposal was considered in 39<sup>th</sup> EAC meeting held on 16<sup>th</sup> -17<sup>th</sup> July, 2015 and then in 47<sup>th</sup> EAC meeting held on 30<sup>th</sup> November- 1<sup>st</sup> December, 2015. During the last meeting, the observations of the Committee were as under:-

'The Committee during the presentation noted that many of the specific conditions of the EC granted earlier had not been complied with as per the report of the Regional Office. Since

compliance of EC conditions is a pre-requisite for consideration of such cases, the case was deferred till the certified copy is received from the Regional Office. The PP, however, with reference to compliance to EC conditions also mentioned that some of the EC conditions were not feasible for the PP to implement. Accordingly, the PP stated that they would re-consider the matter and first apply for modification of the existing EC conditions. In view of above, the proposal was deferred'

**49.10.4** *The EAC, after deliberations, was not convinced with the presentation and the documentation provided by the project proponent. The Committee insisted for methodological approach in presenting the case, and thus deferred the proposal.*

### **Agenda 49.11**

**Cluster 12 comprising of 19 mixed mines with combined production capacity of 27.16 MTPA (Normative) and 31.83 MTPA (Peak) in ML area of 13759.55 ha located in Raniganj Coalfields, Tehsil Haripur Block, District Burdwan (West Bengal) of M/s Eastern Coalfields Limited - For amendment in Environmental Clearance**

**49.11.1** The proposal is for amendment in EC granted on 9<sup>th</sup> February, 2015 to Cluster 12 comprising of 19 mixed mines of combined production capacity of 27.16 MTPA (Normative) and 31.83 MTPA (Peak) in ML area of 13759.55 ha (14047 ha – 287.45 ha = 13759.55 ha) of M/s Eastern Coalfields Limited, located in Raniganj Coalfields, in Tehsil Haripur Block, District Burdwan (West Bengal).

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

- I. EC was granted to the project vide letter No.J-11015 /76/ 2011-IA.II (M) on 9<sup>th</sup> February, 2015.
- II. Cluster No. 12 consists of 19 mines with the total capacity of 31.83 MTPA.
- III. The amendment is proposed due to restructuring of coal mines as a result of amalgamation of mines, capacity reduction/addition, dropping the proposal or other reasons), and thus reducing the total number of mines in the cluster from 19 to 15, with the combined production capacity remaining the same. A comparative picture is detailed as under:-

S. No.	Mine	Lease Area (ha)	EC Capacity (MTY)		S. No.	Proposed changes	Lease Area (Ha)	Final Capacity (MTY)	Change in Capacity (MTY)	
1	Pandaveswar UG	483	0.18	2.01	1	Amalgamation into Pandaveswar-Dalurband UG & OC	1385	UG : 1.47	2.45*	+ 0.44
2	Pandaveswar OC Mine		1.50							
	Dalurband OC & UG	902	0.33							
3	Manderboni UG	467	0.17		2	No change	467	0.17	-	
4	Madhaipur UG	622	0.21		3	-do-	622	0.21	-	
	Madhaipur OC Patch		0.80			Capacity reduced due to coal loss in barrier		0.57	- 0.23	
5	Nutandanga UG	543	0.12		4	No change	543	0.12	-	
6	Kendra UG	459	0.10		5	-do-	459	0.10	-	
7	Samla UG	676	0.12		6	-do-	676	0.12	-	



	Samla OC Mine		0.80			Proposal dropped due to land acquisition issues		Nil	- 0.80	
8	Sonepur Bazari OC	2405	8.00		7	Expansion by outsourcing	2405	12.00	+ 4.00	
9	South Samla UG	558	0.11		8	No change	558	0.11	-	
	Purushottampur OC Patch		1.30	Amalgamated with SI no. 9		-		- 1.30		
10	Kumardihi B UG	355	0.42	3.80	9	Amalgamation into Nakrakonda – Kumardih B UG & OC	642	UG : 1.12	4.12	+ 0.32
	Nakrakonda B OC		1.50					OC: 3.00		
	Nakrakonda B OC (Extension)		0.54							
	Kumardihi B OC Patch		0.14							
11	Nakrakonda UG	287	1.20							
12	Kumardihi A UG	457	1.20		10	Capacity reduced due to non – implementation of PSLW	457	0.20	- 1.00	
	Kumardihi A OC Patch		0.26	Exhausted & being backfilled		Nil		- 0.26		
13	Jhanjra UG	1520	3.50		11	Capacity increased. PR for lower seams being prepared	1520	5.00	+ 1.50	
14	Tilaboni UG	869	2.14		12	No change	869	2.14	-	
15	Shyamsundarpur UG	533	0.90		13	1 additional CM to be introduced. PR under preparation	533	1.12	+ 0.22	
16	Bankola UG	830	0.57		14	Shaft deepening could not be done	830	0.30	-0.27	
	Bankola OC Patch		0.26	Exhausted & being backfilled		Nil		-0.26		
17	Kottadih UG & OC	770	UG : 1.0	4.00	15	Capacity reduced due to reduction in mining area	770	UG : 0.90	3.10	-0.90
			OC : 3.0					OC : 2.20		
18	Manderboni Extension/ Rangamati A UGP	817	0.983			Proposal dropped as the projects are not viable in the present time.	-	-	-0.983	
19	Madhaipur Extension / Rangamati B UGP	494	0.48				-	-	-0.48	
	Total	14047	31.83			Total	12736	31.83	0.0	

**49.11.3** The proposal was last considered in 47<sup>th</sup> EAC meeting held on 30 November- 1 December, 2015, wherein the Committee noted the following:-

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

Bazari open cast mine, and railway siding at Jhanjra underground coalmine'

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

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

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

- i. The provision of Silo Loading facility at proposed Jhanjra UGP railway siding was examined and it has been decided to provide silo loading arrangement. Silo Loading at the Jhanjra Railway Siding will be incorporated in the PR for Jhanjra UGP (5.0 MTY). It will take 5 years for the completion of Silo. In the meantime, permission may be granted to enhance the production to the level of 5.0 MTY with the new Railway Siding.
- ii. Fugitive Dust Model (FDM) was used for predicting the probable concentrations at 11 nos. of Routine Ambient Air Quality Monitoring Stations as receptors where air quality is being monitored fortnightly. The predicted concentrations were found below specified limits.

**49.11.5** *The EAC, after deliberations on the proposal especially in respect of expansion of Sonapur Bazari OCP and Jhanjra UG and the coal dispatch arrangements from these mines, decided for restructuring of coal mines and recommended for amendment in the EC as proposed by the project proponent, subject to the following specific conditions :-*

*(i) the silo loading facilities at Jhanjra should be completed within three years, and the production from Jhanjra should be enhanced to 5 MTPA only after the commissioning both of the new railway siding, and the silo loading facilities;*

*(ii) in view of the high levels of PM 10 around Basabdaga and some other villages, immediate steps should be taken to make water sprinkling arrangements, and to provide an adequate and effective green belt around these villages, so that the PM 10 levels are reduced; and*

*(ii) after a period of six months from the date of issue of the amended EC, the PP shall report to the Ministry the implementation status of the control measures mentioned at (ii) above, and the data on air quality as a result of the control measures taken till that time.*

## **Agenda 49.12**

**Expansion of Cluster-IV (5 mixed mines) Coal Mining Project from 3.706 MTPA (Peak) to 7.34 MTPA (Normative)/9.55 MTPA (Peak) in ML area of 1123.79 ha of M/s Bharat Coking Coal Ltd, District Dhanbad (Jharkhand)- EC based on TOR granted dated 10.02.2014 - (further Consideration)**

**49.12.1** The proposal is for environmental clearance for expansion of Cluster-IV (5 mixed mines) Coal Mining Project from 3.706 MTPA (Peak) to 7.34 MTPA (Normative)/9.55 MTPA (Peak) in ML area of 1123.79 ha (Latitude 23° 46'26" to 23° 48'45" North and Longitude 86°

17'30" to 86° 19'44" East) of M/s Bharat Coking Coal Ltd. The proposal seeks capacity enhancement of Cluster-IV to deal with fire and subsidence under Jharia Master Plan.

**49.12.2** The proposal was earlier considered in the 29<sup>th</sup> EAC meeting held on 15<sup>th</sup> -16<sup>th</sup> January, 2015. During the meeting, the committee sought following information for further consideration:

- i. Certified Compliance Report from the RO, MOEFCC.
- ii. Approved Mine Plan to be submitted.
- iii. Fire area to railway siding green belt should be developed all along the road.
- iv. All efforts shall be made to comply with the Jharia Action Plan requirements.

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

- i. Certified Compliance Report from the RO, MOEFCC: Regional, Office of MOEFCC, Ranchi has inspected the cluster on 21.08.2015 and submitted the report vide letter No 103-398/ROR-2015/189 dated 19.11.2015 to Director, monitoring Cell, MOEFCC, New Delhi.
- ii. Approved Mine Plan : The Mine Plan for the Cluster-IV has been approved on 21<sup>st</sup> July, 2015
- iii. Fire area to railway siding green belt should be developed all along the road : Action has been initiated for development of green belt through DFO, Dhanbad from Fire area to railway siding. The estimation in consultation with DFO, Dhanbad is made for number of plantation along transport road and approval is obtained for award of work. The plantation work by DFO, Dhanbad will start before monsoon.
- iv. All efforts shall be made to comply with the Jharia Action Plan requirements: BCCL is making all efforts to comply with the Jharia Action Plan requirement and the enhancement application is made accordingly. In the Master Plan, 41 mines are identified as fire affected and 595 sites as subsidence affected from where rehabilitation of houses is to be done. Master Plan also provision for identification of new fires and dealing thereof. In Cluster-IV, 51 subsidence affected areas and 03 fire projects are identified. 7014 houses of 51 sites are to be rehabilitated, out of which 2144(1271 in phase-I from 2011-'16, 873 houses in phase-II from 2017-'21 ) BCCL families are responsibility of BCCL whereas 4868(2587 in phase-I and 1581 in phase-II) non-BCCL families are responsibility of JRDA. The requirement of BCCL houses has reduced by approx.40% due to superannuation (approx.1287 from earlier estimate of 2144). Till date BCCL has constructed 648 Houses in Katras Area & shifted 600 families and further 984 houses are under construction, whereas JRDA has constructed a total of 3072 houses & shifted 1335 families which includes 112 families from Cluster-IV and taken action for construction of further 15280 houses. To stop further propagation of fire and liquidate the fire, fiery coal is being excavated out by excavation method which after washing is being utilized in steel plants .Hence to expedite fire dealing, enhancement of EC has been sought.

**49.12.4** The Committee examined the proposal vis-a-vis its earlier observations during the 29<sup>th</sup> EAC meeting held on 15-16 January, 2015, and made the following observations:-

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

status of compliance of the conditions and proposed action plan, if any, in respect of the conditions not yet complied with.

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

**49.12.5** *In view of the above, the Committee decided for deferring the proposal.*

### **Agenda 49.13**

#### **Expansion of Coal Washery from 1 MTPA to 5 MTPA in ML area 16.12 ha of M/s Mahavir Beneficiation Private Ltd, in District Anuppur (Madhya Pradesh) - For further consideration of EC**

**49.13.1** Coal Washery (expansion from 1 MTPA to 5 MTPA in an ML area 16.12 ha) of M/s Mahavir Beneficiation Private Ltd., District Anuppur (Madhya Pradesh). The proposal was considered in 47<sup>th</sup> EAC meeting held on 30<sup>th</sup> November- 1<sup>st</sup> December, 2015.

**49.13.2** The PP vide letter no. MBPL/DEL/NAV/15-16/17 dated 04.01.2016 informed for deferment of the presentation as they require more time for specific monitoring.

*Hence, the project was deferred.*

### **Agenda 49.14**

#### **Jawahar Khani - 5 opencast coal mine expansion project (Expansion from 2.0 MTPA to 2.50 MTPA in ML area of 514.95 Ha) of M/s The Singareni Collieries Company Limited, (Telangana).-EC**

**49.14.1** The proposal is for EC for Jawahar Khani - 5 opencast coal mine expansion project (Expansion from 2.0 MTPA to 2.50 MTPA in ML area of 514.95 Ha) of M/s The Singareni Collieries Company Limited (Telangana). The proposal was considered in the 5<sup>th</sup> EAC meeting held on 25<sup>th</sup> -26<sup>th</sup> November, 2013 and Committee recommended the project subject to submission of Mine Plan.

**49.14.2** The details of the Mine Plan submitted by the project proponent, and also as informed during the above said EAC meeting are reported to be as under:

Approved Mine plan from Ministry of Coal obtained vide letter No.13016/20/2015-CA-II dated 15<sup>th</sup> /19<sup>th</sup> September, 2015.

**49.14.3** *The Committee on receipt of Mine Plan, recommended the project for granting EC.*

### **Agenda 49.15**

#### **Coal Washery of 4.0 MTPA in ML area 13.706 ha of M/s Vedanta Washery and Logistic Solutions Pvt. Ltd., District Raigarh (Chhattisgarh) - (TOR)**

**49.15.1** The proposal is regarding TOR for Coal Washery (4.0 MTPA in an ML area 13.706 ha) of M/s Vedanta Washery and Logistic Solutions Pvt. Ltd., District Raigarh (Chhattisgarh). The proposal was last considered in the 19<sup>th</sup> EAC meeting held on 13<sup>th</sup> -14<sup>th</sup> August, 2014.

**49.15.2** Since the project proponent did not attend the meeting, the project could not be considered, and thus deferred.

**Agenda 49.16**

**Change in technology from 2.4 MTPA Dry type coal washery to 2.4 MTPA Wet type with a 8combined capacity of 3.6 MTPA (wet type) of coal washery in a total area of 11.09 Ha (27.42 acre) of M/s Hind Energy and Coal Beneficiation (India) Ltd. at Hindadih Village, Masturi Tehsil, District Bilaspur (Chhattisgarh) – TOR**

**49.16.1** The proposal is for TOR for Change in technology from 2.4 MTPA dry type coal washery to 2.4 MTPA wet type with a total combined capacity of 3.6 MTPA (wet type) of coal washery in a total area of 11.09 Ha (27.42 acre) of M/s Hind Energy and Coal Beneficiation (India) Ltd. at Hindadih Village, Masturi Tehsil, District Bilaspur (Chhattisgarh).

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

- i. EC for 2.4 MTPA (dry type) obtained vide letter No. J-11015/190/2007-IA-II(M) on dated 24.06.2008. EC for 1.2 MTPA (wet type ) obtained vide letter No. J-11015/364/2009-IA-II(M) dated 21.05.2014. So at present the total operational capacity is 3.6 MTPA
- ii. Now, the proposal is for change of technology from 2.4 MTPA Dry type to 2.4 MTPA Wet Type with total operational capacity of 3.6 MTPA (wet type).
- iii. The latitude and longitude of the outer most co-ordinates of the project boundary are:

Point No.	Latitude	Longitude
1.	22° 9'25.82"N	82°20'29.95"E
2.	22° 9'27.69"N	82°20'31.42"E
3.	22° 9'40.37"N	82°20'26.67"E
4.	22° 9'48.71"N	82°20'27.09"E
5.	22° 9'49.30"N	82°20'20.52"E
6.	22° 9'38.69"N	82°20'17.45"E
7.	22° 9'34.74"N	82°20'26.67"E

- iv. Joint Venture: no Joint Venture
- v. Coal Linkage : Coal will be sourced from SECL from Deepka, Gevra, Kusmunda and other mines of South Eastern Coalfield Limited (SECL), located in Korba/Raigarh area
- vi. Employment generated / to be generated: Already 100 no. of man power are employed & with change of technology more employment will be generated.
- vii. Benefits of the project: Existing plant is already carrying out CSR activities and same will be continued in consultation with Panchayats of local villages
- viii. The land usage of the project will be as follows:

Pre-Mining: **Pre-project:** Industrial land

Post- Mining: **During washery Operation**

Item	Area (in Acres)
Plant area	10.97
Parking & Roads	2.18

Raw coal storage area	1.50
Washed Coal Storage	2.50
Storage area for rejects	1.10
Greenbelt	9.17
<b>Total</b>	<b>27.42</b>

Core area : Industrial area

- ix. 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. Washed coal from the site will be sent to customer by Rail / Road depending on the MoU between customer and SECL. Washed Coal and rejects will be supplied to Power plants, Cement plants.
- x. There is no R & R involved. There are no PAFs.
- xi. Cost: Total capital cost of the project is Rs. 12.00 Crores (for change in technology). CSR Cost Rs. Capital Cost Rs. 45 Lakh and Annual Recurring: Rs. 5 lakh. R&R Cost Nil. Environmental Management Cost (capital cost Rs. 0.50 Crores. annual recurring cost Rs. 0.10 Crores.
- xii. Water body : Lilagarh River (3.3 Kms.), Kurug left bank canal (5.0 Kms.) are flowing within 10 Kms. radius of the Project site.
- xiii. Approvals: Ground water clearance application has already been submitted to Water Resources Department, Govt. of Chhattisgarh for additional allocation of water.
- xiv. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- xv. Forestry issues: Not Applicable.
- xvi. Total afforestation : 9.17 Acres (Greenbelt already existing).
- xvii. There are no court cases/violation pending with the project proponent.
- xviii. Justification of Change in Technology from Dry type to Wet type: The existing dry process has limited scope for ash reduction. In many instances, good quality coal lumps escape fracture /size reduction in the crusher. Thus, high quality coal lumps are discarded as waste and removed from the washery process resulting in loss of yield. On the contrary, smaller pieces of stones/ shales are crushed /sized and fed to the washery circuit thereby leading to higher ash content and inconsistent quality in beneficiated coal. The above problems may be overcome by using wet process. Hence, it is proposed to change the beneficiation process from the existing dry circuit (2.4 MTPA) to wet process (2.4 MTPA) using Heavy Media/Cyclone technology which is ideally suited to treat high ash coal with Near Gravity Material.
- xix. Public Hearing was held for the project on 14-12-2007 (1.2 to 2.4 MTPA) & 28-02-2012 (from 2.4 to 3.6 MTPA). Hence, request has been made for exemption from Public Hearing.

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

- *Detailed study on the impact of ground water withdrawal on ground water due to washery use.*

- Detailed ground water availability study.
- Coal transport by closed/covered belt conveyors to and from the new railway siding as per previous EC.
- Zero water discharge from washery.
- MOU with TPP for use of washery rejects.
- Reasons for changing the washery technology from dry to wet process.
- Certified copy of compliance report to the earlier EC conditions from MOEFCC, Regional Office, Nagpur,

### **Agenda 49.17**

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

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

**49.17.2** The proposal was last considered in the 47<sup>th</sup> EAC meeting held on 30<sup>th</sup> November- 1<sup>st</sup> December, 2015. During the last meeting, the Committee noted the following:-

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

The Member Secretary, EAC informed that the case was processed in the Ministry, and it was decided that *“The application for TOR for Marki Mangli-II OCP be considered by the EAC.”* The PP accordingly explained the case in the present EAC meeting. It was noted that the PP had also made a request to the EAC that the requirement for public hearing may be waived. However, since this a case for fresh ToRs, the EAC was of the view that public hearing should not be waived. It is therefore recommended by the EAC that the standard TORs may be stipulated in this case.

**49.17.3** *The EAC, after detailed deliberation recommended the project for grant of standard TORs for preparation of EIA/EMP along with Public Hearing.*

#### **49.18 Discussion on any other matters with the permission of the Chair.**

The EAC noticed that the report of the RO, MOEFCC in respect of some of the cases was not adequate regarding compliance of the EC conditions. For example, in case of non compliance of a condition, the wording used by the RO was to the effect that *“It has been informed by the PP that the work will be completed by March 2016”*. Such a remark by the RO, MOEFCC does not however enable any authority to arrive at a reasonable conclusion that compliance will actually be achieved in the required manner. To remove such ambiguities, the EAC felt that the ROs should be asked to examine whether or not the action plan submitted by the PP is a credible action plan from the point of view of the plan’s ability to achieve the desired objective. The EAC requested that the Ministry may kindly examine issuing of instructions to the ROs on this aspect at an early date.

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**PARTICIPANTS IN 49<sup>th</sup> EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 7th – 8th January 2016 ON COAL SECTOR PROJECTS.**

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



**PARTICIPANTS IN 49<sup>th</sup> EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING)  
MEETING HELD ON 7<sup>th</sup> – 8<sup>th</sup> January 2016 ON COAL SECTOR PROJECTS.**

49.1 Baroud Washery of M/s South Eastern Coalfield Limited.

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

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

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

49.3 Pundi OCP and pit-head Coal Washery of M/s Central Coalfields Ltd.

1. Shri S. Chandra
2. Shri Alok Kumar
3. Ms. Sangeeta
4. Dr. Manoj Kumar
5. Shri Prabhu Prasad
6. Shri Vikas Kumar Singh
7. Shri. J. Chakravarty
8. Shri Manoj Sharma

49.4 1.5 MTPA to 4.0 MTPA coal washery of M/s Bhatia International Ltd.

Absent.

49.5 4.0 MTPA to 4.0 MTPA coal washery of M/s Bhatia International Ltd.

Absent.

49.6 2.5 MTPA Copal Washery of M/s Phil Coal Beneficiation Pvt. Ltd.

1. Shri Pradip Jha
2. Shri Suresh Kedia
3. Shri Sudhir Kumar
4. Shri Nagarjuna

49.7 Basundhara Coal Washery of M/s Mahanadi Coalfields Ltd.

1. Shri Raji Joshi
2. Shri Neeraj Kalla
3. Shri R.K. Srivastava
4. Shri J. P Singh
5. Shri V. K. Pandey
6. Shri P. K. Mishra

49.8 Bithnok Lignite Mine Project of M/s Neyveli Lignite Corporation Ltd.

1. Shri Abhay Bhagat
2. Shri Shakil Ahmad
3. Shri Ambaram Enakhiya
4. Shri C. Nuthustruy

49.9 Dulanga Opencast of M/s National Thermal Power Corporation Ltd.

Absent

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

1. Shri B. R. Reddy
2. Shri J. N. Biswal
3. Shri G. Prasad
4. Shri S. K. Sinha
5. Shri P . Banerjee

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

1. Shri B. R. Reddy
2. Shri J. N. Biswal
3. Shri G. Prasad
4. Shri S. K. Sinha
5. Shri P . Banerjee

49.12 Cluster IV of M/s Bharat Coking Coal Ltd.

1. Shri Amit Roy
2. Shri Kumar Rajeev
3. Shri A. Sarhe
4. Shri V. K. Singh
5. Shri E V R Raju
6. Shri A N Dutta
7. Shri Pawan Kumar

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

Absent

49.14 Jawahar Khani - 5 opencast of M/s The Singareni Collieries Company Limited

1. Shri A Manohar Rao
2. Shri M. Vasanth Kumar
3. Shri N. Bhaskar

49.15 Coal Washery of M/s Vedanta Washery and Logistic Solutions Pvt. Ltd.

Absent

49.16 2.4 MTPA WET of M/s Hind Energy and Coal Beneficiation (India) Ltd.

1. Shri Rajeev Agarwal
2. Shri Pawan Agarwal
3. Shri Abhisek
4. Shri Y. Maheshwar Reddy
5. Shri Sudhir Singh
6. Shri Nagarjuna

49.17 Marki Mangli - III Opencast of M/s B. S. ISPAT LIMITED.

1. Shri I J Talwar
2. Shri Rajesh Shrivastava

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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 Government.
- 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-IIOI3/25/2014-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:**

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

- (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.

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

- (xxxiv) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxxv) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.
- (xxxvi) CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be given.
- (xxxvii) Corporate Environment Responsibility:
  - a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
  - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
  - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
  - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- (xxxviii) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.
- (xxxix) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xl) Status of any litigations/ court cases filed/pending on the project should be provided.
- (xli) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.
- (xlii) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

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

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

**GENERIC TORs FOR AN UNDERGROUND COALMINE PROJECT**

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

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

## Area under Surface Rights

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

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

**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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49<sup>th</sup> EAC (THERMAL & COAL MINING PROJECTS) MEETING  
SCHEDULED FOR 7<sup>th</sup> – 8<sup>th</sup> January 2016

AGENDA

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

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

Important Note:

- i. Please send the information as per Annexure 1 by E-mail in word format and also a signed & scanned copy, to the Member-Secretary at [sk.smree66@nic.in](mailto:sk.smree66@nic.in) at least one week prior to the EAC meeting.
- ii. Please indicate the agenda number on the document submitted as well as in the e-mail while forwarding the relevant information.
- iii. Without this information, EAC has discretion to invite the proponent for the meeting.
- iv. Please also provide a copy to the EAC Members during the meeting.
- v. No consultant is permitted into the meeting who has no accreditation with uality 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

**Thursday, 7<sup>th</sup> January, 2016**

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

- 49.1.1 Baroud Washery of 10.00 MTPA Capacity in an area of 40 Ha of **M/s South Eastern Coalfield Limited** in District Raigarh Chhattisgarh –(TOR)
- 49.2** Kusmunda Opencast Expansion Project (Normative 15 MTPA to 50MTPA & Peak 18.75 MTPA to 62.50 MTPA in an ML area 3510.348 Ha) East of **M/s South Eastern Coalfields Ltd.**, located at dist. Korba, Chhattisgarh - (EC based on TOR granted on 01.12.2014) (**Further Consideration**)
- 49.3** Pundi OCP (2.50 MTPA normative and 3 MTPA peak in an ML area of 851.38 ha) and pit-head Coal Washery of 3 MTPA capacity of **M/s Central Coalfields Ltd.**, located in District . Bokaro, Jharkhand - **EC based on TOR granted dated 16.12.2013.**
- 49.4** Expansion of 1.5 MTPA Coal Washery to 4.0 MTPA coal washery of **M/s Bhatia International Ltd.** at Village yehsamba (**Gondegaon**), Tehsil – Parseoni, District – Nagpur (Maharashtra) – **TOR**
- 49.5** Proposed 4.0 MTPA Coal Washery to 4.0 MTPA coal washery of **M/s Bhatia International Ltd.** at Sastri (**Pandarpauni**), Tehsil – Rajura, District – Chandrapur (Maharashtra) – **TOR**

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- 49.6** Proposed 2.5 MTPA Copal Washery of **M/s Phil Coal Beneficiation Pvt. Ltd** at Village Ghutku Tehsil Takhatpur, District Bilasspur (Chhattisgarh)- (TOR)

- 49.7 Proposed Basundhara Coal Washery (10 MTPA peak in an area of 27.66 ha) of **M/s Mahanadi Coalfields Ltd.**, located in Dist. Sundergarh, (Orissa) – **(Modification in TOR)**.
- 49.8 Bithnok Lignite Mine Project 2.25 MTPA in an ML area of 2150 ha of **M/s Neyveli Lignite Corporation Ltd.** at Bithnok, District Bikaner, Rajasthan.- Competent Authority approved the project subject to FC. FC received after 18 month. (EC)
- 49.9 Dulanga Opencast Coal Mining Project (7 MTPA in an area of 803.71ha which includes 567. 19 ha of ML and 236.52 ha outside the ML) of M/s National Thermal Power Corporation Ltd (NTPC), Ib valley coalfields, Dist. Sundergarh, Orissa - **Correction in EC**.
- 49.10 Cluster no. 2 group of Mixed mines project (0.36 MTPA with a peak prod. of 0.45 MTPA in a combined ML area of 1018 ha) of **M/s Eastern Coalfield Limited**, located at dist. Burdwan, West Bengal. - for Consideration of EC under 7(ii) of Notification, 2006. ( **Further Consideration**.)
- 49.11 Cluster 12 comprising of 19 mixed mines of a combined production capacity of 27.16 MTPA (Normative) with a (Peak) production of 31.83 MTPA in a combined ML area of 13759.55 Ha (14047 Ha – 287.45 Ha = 13759.55 Ha); of **M/s Eastern Coalfields Limited**, located in Raniganj Coalfields, in Tehsil Haripur Block, dist. Burdwan, West Bengal – Environmental Clearance **(EC granted on 09.02.2015 requested for – EC modification.**

**Friday 8<sup>th</sup> January, 2016**

- 49.12 Cluster IV (5 Mixed Mines) Coal Mining Project (7.34 MTPA normative and 9.55 MTPA peak in an ML area of 1123.79 ha; Latitude 23o 46'26" to 23o 48'45" North and Longitude 86o 17'30" to 86o 19'44" East) of **M/s Bharat Coking Coal Ltd.**, District. Dhanbad (Jharkhand)- **EC based on TOR granted dated 10.02.2014 -(further Consideration)**
- 49.13 Coal Washery (expansion from 1 MTPA to 5 MTPA in an ML area 16.12 ha) of **M/s Mahavir Beneficiation Private Ltd.**, District Anuppur, Madhya Pradesh -EC based on TOR granted dated 21.05.2014. **(Further Consideration)**.
- 49.14 Jawahar Khani - 5 opencast coal mine expansion project (Expansion from 2.0 MTPA to 2.50 MTPA in ML area of 514.95 Ha) of **M/s The Singareni Collieries Company Limited**, Telangana.

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- 49.15 Coal Washery (4.0 MTPA in an ML area 13.706 ha) of **M/s Vedanta Washery and Logistic Solutions Pvt. Ltd.**, District Raigarh (Chhattisgarh)-(TOR)
- 49.16 Change in technology from 2.4 MTPA DRY type coal washery to 2.4 MTPA WET type of coal washery of **M/s Hind Energy and Coal Beneficiation (India) Ltd.** at Hindadih Village, Masturi Tehsil, District Bilaspur (Chhattisgarh) – **TOR**
- 49.17 Marki Mangli - III Opencast Coal Mining Project in Production Capacity 0.21 MTPA in an ML area of 275 ha of **M/s B. S. ISPAT LIMITED** in village(s) Ardhwan, Bhendala, Ruikot, Mukutban, District Yavatmal Maharashtra **(TOR)**
- 49.18 Discussion on any other matters with the permission of the Chair.

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