

**GOVERNMENT OF INDIA**  
**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE**  
**(IMPACT ASSESSMENT DIVISION)**  
**(COAL MINING SECTOR)**

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**SUMMARY RECORD OF 50<sup>th</sup> MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006, HELD ON NOVEMBER 15, 2019.**

The 50<sup>th</sup> meeting of the Expert Appraisal Committee (EAC) for Coal mining projects was held on 15<sup>th</sup> November, 2019 in the Ministry of Environment, Forest and Climate Change at Teesta Meeting Hall, Vayu Wing, First Floor, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi to consider the proposals relating to coal mining sector. The following members were present:

1.	Dr. Navin Chandra	-	Chairman
2.	Dr. N. P. Shukla	-	Member
3.	Shri G.P. Kundargi	-	Member
4.	Shri N. S. Mondal	-	Member
5.	Dr. R.B. Lal, Scientist 'E', MoEFCC	-	Member Secretary
MoEF&CC			
6.	Shri Munna Kumar Shah, Scientist 'D'	-	MoEFCC

**Confirmation of minutes**

There being no comments from any of the members of the Committee, minutes of the 49<sup>th</sup> meeting of the EAC held during 22<sup>nd</sup> October 2019 were confirmed in the presence of the members who had been present in the 50<sup>th</sup> meeting.

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

After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

**Agenda No. 50.1**

**Modernization cum Expansion of existing 1.25 MTPA Fluidise Bed Classifier type Coal Washery to 2.0 MTPA Heavy Media Cyclone type Coal Washery of M/s Chhattisgarh Power & Coal Beneficiation Limited, in the existing plant premises at Plot No. 60 A & 60 B, Sirgitti Industrial Growth Centre, Bilaspur Tehsil & District, Chhattisgarh – Consideration of Environmental clearance**

**[Proposal No. IA/CG/CMIN/101487/2004; F.No. J-11015/68/2017-IA.II(M)]**

**50.1.1:** The proposal of M/s Chhattisgarh Power & Coal Beneficiation Limited is for environmental clearance for Modernization cum Expansion of existing 1.25 MTPA Fluidise Bed Classifier type Coal Washery to 2.0 MTPA Heavy Media Cyclone type Coal

Washery in the existing plant premises at Plot No. 60 A & 60 B, Sirgitti Industrial Growth Centre, Bilaspur Tehsil & District, Chhattisgarh.

**50.1.2:** Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:-

- (i) The project was accorded TOR vide letter no. J-11015/68/2017-IA-II (M) dated 6<sup>th</sup> November 2017.
- (ii) The project are is covered under Survey of India Topo Sheet No. 64 J/4 and is bounded between latitudes(s) 22°2'48.75" to 22°2'59.14" North and longitude(s) 82°7'49.13" to 82° 7'58.88" East respectively.
- (iii) Joint Venture: There is no joint venture
- (iv) Coal Linkage: Coal will be sourced from SECL from Deepka, Gevra, Kusmunda and other mines of South Eastern Coalfield Limited (SECL). MoU has been signed with M/s. Ultratech Cement Limited & M/s. Ambuja Cement Limited
- (v) Employment generated / to be generated: Direct employment - 100 nos. Indirect employment- 150 nos.
- (vi) Benefits of the project: The management is committed to uplift the standards of living of the villagers by providing employment to local people & taking up CER activities in consultation with local gram panchayat based on need based assessment to be carried out with village panchayat.
- (vii) The land usage of the project will be as follows: This is a coal washery. The following is the breakup of land usage of 11.11 acres (4.49 Ha.) of total land earmarked for the project.

S. No.	Description	Area (in Acres)
1.	Plant Area	2.00
2.	Raw Coal Storage Yard	1.80
3.	Washed Coal Storage Yard	1.30
4.	Rejects storage	0.45
5.	Green belt area	3.70
6.	Internal Road	0.80
7.	Parking	0.60
8.	Water reservoir & RWH	0.46
	<b>TOTAL</b>	<b>11.11</b>

- (viii) Water requirement after the proposed modernisation cum expansion for the entire plant will be 380 cum/day. This includes process water for Coal washery and for domestic purpose. The water requirement for the entire project will be supplied by Chhattisgarh State Industrial Development Corporation Ltd. (CSIDC Ltd.). Letter has been issued by CSIDC for supply of water vide no. CSIDC/Section-1/2019-20/1385 Raipur dated 15<sup>th</sup> May 2019
- (ix) Technology: Modernization cum Expansion of existing 1.25 MTPA Fluidise Bed Classifier type Coal Washery to 2.0 MTPA Heavy Media Cyclone type Coal Washery
- (x) The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.
- (xi) Transportation: Raw Coal will be sourced from SECL from Deepka, Gevra, Kusmunda and other mines of South Eastern Coalfield Limited (SECL), located in Korba/Raigarh area and will be transported by Rail and by road in covered trucks upto the site.

- (xii) Washed coal from the site will be sent to customer by Rail / Road depending on the MoU between Customer and SECL.
- (xiii) There is no R & R involved.
- (xiv) Cost: Total capital cost of the project is Rs. 18.0 Crores. CER Cost (Capital Cost Rs. 30.0 Lakhs Annual Recurring: Rs. 10.0 Lakhs). R&R Cost: Nil. Environmental Management Cost (Capital cost Rs.100.0 Lakhs (Direct) and Recurring cost Rs. 12 lakhs).
- (xv) Water body : No river / nallah flows adjacent to the project site. However, Arpa River (5.0 Kms.) & Gokena nallah (0.5 Kms.) are flowing within 10 Kms. radius of the Project site.
- (xvi) Approvals: The water requirement for the entire project will be supplied by Chhattisgarh State Industrial Development Corporation Ltd. (CSIDC Ltd.). Letter has been issued by CSIDC for supply of water vide no. CSIDC/Section-1/2019-20/1385 Raipur dated 15<sup>th</sup> May 2019
- (xvii) Wildlife issues: There are no Reserve Forest, National Parks, Wildlife sanctuary, Biosphere reserves found in the 10 km buffer zone.
- (xviii) Forestry issues: There is no forest area involved in the Plant area & within 10 Km. radius of the plant site.
- (xix) Green Belt is already developed in an area of 1.5 ha.
- (xx) There are no court cases/violation pending with the project proponent.
- (xxi) Public Hearing was held on 22<sup>nd</sup> January 2019 at open place Behind Sirgitti Police Station, Sirgitti Village, Bilaspur Tehsil & District, Chhattisgarh.
- (xxii) The issues raised in the PH includes Employment to the local villagers, Pollution, Greenbelt development and other CSR activities etc.

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

The proposal is for grant of environmental clearance for Modernization cum Expansion of existing 1.25 MTPA Fluidise Bed Classifier type Coal Washery to 2.0 MTPA Heavy Media Cyclone type Coal Washery of M/s Chhattisgarh Power & Coal Beneficiation Limited in the existing plant premises at Plot No. 60 A & 60 B, Sirgitti Industrial Growth Centre, Bilaspur Tehsil & District, Chhattisgarh.

The project was accorded TOR vide letter no. J-11015/68/2017-IA-II (M) dated 6<sup>th</sup> November 2017. Public Hearing was held on 22<sup>nd</sup> January 2019 at open place Behind Sirgitti Police Station, Sirgitti Village, Bilaspur Tehsil & District, Chhattisgarh by Additional Collector, Bilaspur District.

Renewal of Consent of the Board (Chhattisgarh Environment Conservation Board) under Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974 has been accorded on 4<sup>th</sup> October, 2019 for one year i.e. validity upto 30<sup>th</sup> September, 2020. Chhattisgarh State Industrial Development Corporation Limited vide letter dated 15<sup>th</sup> May, 2019 accorded water requirement of 380 KLD to the project proponent. PP has proposed to use treated water from ETP for washery plant after completion of ETP construction.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his

knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**50.1.4** *The Committee deliberated the proposal and noted that at present it seems that there was no space in the site as per KML File, for expansion of the project and all the space is occupied by coal dump etc., therefore the Committee is of the view that at present the proposal may be considered only for grant of environment clearance to Modernization of existing 1.25 MTPA Fluidise Bed Classifier type Coal Washery to 1.25 MTPA Heavy Media Cyclone type Coal Washery. Also, EAC desired that PP must reduce the coal storage area and quantity (as per requirement of coal washery).*

*The Committee, after deliberations, **recommended** grant of environment clearance to Modernization of existing 1.25 MTPA Fluidise Bed Classifier type Coal Washery to 1.25 MTPA Heavy Media Cyclone type Coal Washery of M/s Chhattisgarh Power & Coal Beneficiation Limited in the existing plant premises at Plot No. 60 A & 60 B, Sirgitti Industrial Growth Centre, Bilaspur Tehsil & District, (Chhattisgarh), under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions in addition to the standard environmental conditions notified by the ministry mentioned below:*

- (i) The maximum production from the coal washery at any given time shall not exceed the limit as prescribed in the EC.*
- (ii) The washing technology so chosen for the washery should conform to 'Zero Liquid Discharge' and there should be no discharge to Gokenah Nalla situated at a distance of 500 mts.*
- (iii) Total water requirement after proposed change in technology should not exceed 380 cum/day.*
- (iv) Treated water from ETP as proposed by Project proponent shall be used.*
- (v) Maximum transportation of raw coal, clean coal, middling and rejects shall be through rail.*
- (vi) Disposal of washery rejects shall be in accordance with the extant policy and guidelines, and environment friendly and to power plants as proposed during EAC meeting.*
- (vii) Thick green belt (native trees with broad leaves only) of 30-45 m width to be provided around the periphery of washery to mitigate/check the dust pollution. A 3-tier avenue plantation should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads.*
- (viii) Ash content below 34% should be maintained in washed coal to be transported beyond 500 km for use in thermal power plants.*
- (ix) The State Pollution Control Board, while considering consent to operate for the project, may stipulate stringent conditions to ensure that with the proposed transportation of washery rejects by road, air quality would remain within the national ambient air quality standards.*
- (x) The washery shall be as per project report submitted and presented to EAC.*

- (xi) *Mitigating measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.*
- (xii) *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured*
- (xiii) *The project proponent shall take up the rejuvenation / deepening of village ponds as a compensatory to the groundwater extraction as a part of CER.*
- (xiv) *The project proponent shall conduct periodical training for the truck drivers for imparting safety training. The safety audit shall be conducted through a third party once in every two years.*
- (xv) *No ground water shall be used for the project*

### **Agenda No.50.2**

**Bhatadi OC Expansion project from 0.975 MTPA to 1.465 MTPA (Peak) in ML area of 847.37 ha of M/s Western Coalfields Limited, located in Village Bhatadi, District Chandrapur (Maharashtra) - Consideration of Environmental Clearance**

**[Proposal No. IA/MH/CMIN/72758/2018; J-11015/151/2014-IA-II(M)]**

**50.2.1:** The proposal of M/s Western Coalfields Limited is for grant of environmental clearance for expansion of Bhatadi Opencast expansion or increase in production capacity from 0.975 MTPA to 1.465 MTPA within ML area of 847.37 ha, located at District Chandrapur (Maharashtra)

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

- (i) Expansion of Bhatadi opencast expansion coal mining project is located in Chandrapur district of Maharashtra. Mine was opened in Bhatadi block of Wardha Valley Coalfields in Chandrapur district. The mine can be approached by all-weather road from Nagpur-Chandrapur road upto Tirwanja village. The nearest rail head is Tadali which is about 8 to 9 km away from the mine and Chandrapur Station about 15 km away from the mine. Both the stations are on the main line of Central Railway.
- (ii) The project lies between latitudes 20° 02' 27" - 20° 04' 25" and longitudes 79° 15' 18" - 79° 17' 35". This area is covered by Survey of India Topo Sheet No.55 P/08.
- (iii) This project will bridge the gap (to the extent of the peak production capacity of the project) between demand & supply of non – coking coal for power houses & other bulk consumers of Northern as well as Southern part of the country.
- (iv) Direct employment to about 474 personnel, it will provide further employments to land losers. Administrative approval for 409 nos of employment in WCL has been accorded and out of 409, 339 nos. has already been provided employment.
- (v) The last EC for Bhatadi OC coal mine from 0.65 to 0.975 MTPA in a total lease area of 847.37 ha with no forest land, was accorded vide letter dated 19<sup>th</sup> March, 2015.
- (vi) Mining Plan including the Mine Closure Plan for further expansion of the mine for increasing the production capacity from 0.975 MTPA to 1.465 MTPA within the existing land area and without any capital investment has been approved by the WCL Board in its 293<sup>rd</sup> meeting held on 31/10/2017 vide WCL/BD/SECTT/BM-293/2017/936 dated 10/11/2017.

- (vii) Erai River flow in the area of Bhatadi OC Expansion. The proposal for Erai river diversion has been submitted to CDO, Nasik and further action will be taken as per the design of CDO, Nashik & subsequent approval of the State Irrigation Department.
- (viii) The geo-mining parameters of the project are as under:-

The existing Bhatadi Expansion OC mine has been divided into two quarries namely, quarry-I and quarry-II. Presently quarry-I is being worked whereas area of quarry-II is virgin.

S.N	Particulars	Quarry-I	Quarry-II	Total
1	Area of the Quarry			
a)	On floor (ha)	50.870	33.875	84.745
b)	On surface (ha)	88.92	72.60	161.52
2	Depth (m)			
a)	Initial	33	53	
b)	Final	150	150	-
3	Average gradient of Seam	1 in 6	1 in 6	
4	Average thickness of seam (m)	17	17	
5	Average strike length (m)	800	700	
6	Width on surface (m) (Dip Rise)	700	850	
7	Width on floor (m) (Dip Rise)	500	600	-
8	GCV (k Cal/ kg) (Overall)	4504 (G-10)		
9	Balance Mineable reserves (Mt) as on 1/4/2017	3.54	9.27	12.81
10	Total OB including Access Trench (Mm <sup>3</sup> ) as on 1/ 4/2017	19.78	51.07	70.85
11	Average Stripping ratio in m <sup>3</sup> /t. as on 1/ 4/2017	5.59	5.51	5.53

- (ix) The calendar programme of excavation and OB dumping planned for balance years is as follows:

Sl. No.	Year	Coal Production (Mt)	OB Dumping (Mm <sup>3</sup> )			SR
			Internal	External	Total	
1	2019-20	1.4625				5.53
2	2020-21	1.4625	6.72	1.367	8.087	5.53
3	2021-22	1.4625	6.72	1.367	8.087	5.53
4	2022-23	1.4625	6.72	1.367	8.087	5.53
5	2023-24	1.4625	6.72	1.367	8.087	5.53
6	2024-25	1.4625	6.72	1.367	8.087	5.53
7	2025-26	1.4625	6.72	1.367	8.087	5.53
8	2026-27	0.153	0.79	0.000	0.790	5.16
Total		10.3905	47.83	9.569	57.399	5.53

Last 5 years production is as given below (*All figures in Million Tonnes per Annum*)

Year	Coal Production	EC capacity
2019-20 (Upto 31.10.2019)	0.970	0.975
2018-19	0.975	0.975
2017-18	0.639	0.975

2016-17	0.875	0.975
2015-16	0.71	0.975
2014-15	0.71	0.975

(x) The land usage pattern of the project is as follows:

#### Pre-mining land use details

Sl. No.	Particulars	Tenancy Land	Govt. Land	Forest Land	Total
1	Land Already acquired by existing Bhatadi Expansion OC Mine (ha)	785.69	52.25	0.00	837.94
	Land for Bhatadi Village Rehabilitation to be Acquired (ha)	9.43	0.0	0.0	9.43
	<b>Total</b>	<b>795.12</b>	<b>52.25</b>	<b>0.0</b>	<b>847.37</b>

#### Post Mining land use details

S.N.	Land use during mining	Land use (ha)				Total
		Plantation	Water Body	Public use	Undisturbed	
1	Backfilled Area	50.00	38.92	0.00	0.00	88.92
2	Excavated Area	0.00	72.4	0.00	0.00	72.40
3	Embankment Area	13.00	0.00	0.00	0.00	13.00
4	External OB dump	142.10	0.00	0.00	0.00	142.10
5	Colony, Infrastructure etc.	6.00	0.00	21.60	0.00	27.60
6	Miscellaneous (Blasting zone, river diversion, power line diversion & rationalization)	50.00	0.00	0.00	435.47	485.47
7	Road	3.00	0.00	5.45	0.00	8.45
	<b>Total (A)</b>	<b>264.10</b>	<b>111.32</b>	<b>27.05</b>	<b>435.47</b>	<b>837.94</b>
	Land for Bhatadi Village Rehabilitation to be Acquired (B)	0.0	0.0	9.43	0.0	9.43
	<b>Grand total (A + B)</b>	<b>264.10</b>	<b>111.32</b>	<b>36.48</b>	<b>435.47</b>	<b>847.37</b>

(xi) The existing mine working including the proposed expansion will be limited within 847.37 ha (ML area is 837.94 ha + 9.43 ha for resettlement of Bhatadi village).

- Mineable Coal Reserves in Million Tonnes as per R.P.R: 11.196 MT (as on 1/4/2019)
- Stripping Ratio : 5.53 m<sup>3</sup> / tonne (Avg)
- Over burden : 70.85 Mm<sup>3</sup>
- Coal grade is G-10 and average gross calorific value is 4504 kCal/kg

- (xii) Total estimated water requirement is 222 m<sup>3</sup>/day. The level of ground water ranges is

Pre monsoon period	Core Zone	3.30 m to 09.65 m
	Buffer zone	3.35 m to 13.28 m
Post monsoon	Core Zone	2.15 m to 06.32m
	Buffer zone	0.10 to 13.15 m

- (xiii) The method of mining would continue to be opencast with Shovel-Dumper combination
- (xiv) There is two external OB dump with Quantity of 69.708 Mm<sup>3</sup> in an area of 142.10 ha with height of 60 m and 1 internal dump with Quantity of 53.75 Mm<sup>3</sup> in an area of 88.92 ha. Out of this 88.92 ha, 50 ha would be biologically reclaimed and 38.92 ha would be partially backfilled and converted into water body.
- (xv) The final mine void would be in 111.32 ha with depth of 150 m.
- (xvi) Total quarry area is 161.32ha. Out of total quarry area of 161.32ha, 88.92 ha would be backfilled and reclaimed. Out of which 50 ha area shall be reclaimed with plantation. A void of 111.32 ha with depth 150 m which is proposed to be converted into a water body.
- (xvii) The balance life of mine is 8 Years as on 01.04.2019
- (xviii) Transportation: Coal transportation in pit by dumpers, surface to siding by dumpers and loading at siding by pay loaders. Pipe conveyor system for coal transportation is in advance stage of commissioning.
- (xix) The details of R&R activities, carried out for the existing project is as follows: -
- Land acquired under CBA Act, 1957 in the year 1990 is 287.57 ha which includes 278.96 ha tenancy land and 8.61 ha Govt land. Employment provided against this land is 113 no. as per norm.
  - Land acquired under LA act 1897 in the year 2007 is 82.15 ha which includes 78.49 ha Tenancy land and 3.66 ha Govt. land. Employment provided against this land till date is 30 nos.
  - Land acquired under section 9(1) CBA Act, 1957 at 13.9.2011 is 467.21 ha which included 0.30 ha diverted plot area, 426.73 ha. Tenancy land 39.98 ha, Govt. land and 0.20 ha forest land. Administrative approval to 409 cases employment/monetary compensation has been approved by competent authority. Till date 284 cases of employment and 07 No. cases of M.C. is given and remaining cases of initiated employment/Monetary compensation is in process.
- (xx) Total capital cost of the project is Rs.304.5162 Crores as per PR and no additional capital is required for the present proposal. Cost of Production is Rs.1300.98 per tonne, CSR cost will be Rs. 2 per tonne, R&R Cost will be Rs.79.79 Crore and the capital Environmental Management cost will be Rs. 0.9709 crores.
- (xxi) NOC for withdrawal of groundwater from CGWA has been applied vide letter No. WCL/ENV/HQ/20-J & 17-U/263 dated 13.06.2016 .NOC for abstraction of ground water for Bhatadi OC have been recommended by CGWB on 11.10.2019. Formal issuance of NOC letter awaited.
- (xxii) There is no forest land involved in the project.



- (xxiii) Public Hearing conducted on 13.09.2019 at WCL Durgapur Auditorium, Durgapur, Ta. Dist. Chandrapur, Maharashtra State.
- (xxiv) Following issues has been raised during the Public Hearing held for Bhatadi OC Expansion Project for increase in Coal production capacity from 0.975 MTPA to 1.465 MTPA within existing EC area of 847.37 Ha. Detailed pointwise compliance report has been submitted to MPCB
  - Rehabilitation of Bhatadi and Payali Village.
  - Balance land acquisition
  - Coal Quality
  - Land Compensation
  - Provision of Employment in lieu of Land acquisition.
  - Pollution Control Measures to be adopted.
  - Plantation
  - CSR works
  - Installation of RO Plant for Drinking Water
- (xxv) Total afforestation plan shall be implemented covering an area of 255.64 ha at the post-mining. Density of tree plantation is 2500 trees/ ha of plants.
- (xxvi) There is no court cases/violation pending with the project proponent
- (xxvii) The existing Bhatadi OC has opened Escrow Account against the existing provisions and till 2018-19, Rs.33.2519 Crores have been deposited in the said Escrow Account.
- (xxviii) In compliance of the OM dated 30/5/2012 certificate of compliance against the existing EC (0.975 MTPA- March 2015) has been obtained from Regional Office, MoEF&CC Nagpur vide its No.3-16/2015 dated 5/2/2018.

**50.2.3** During deliberations, the Committee noted the following:-

- The proposal is for expansion of Bhatadi OC from 0.975 MTPA to 1.465 MTPA in mine lease area of 847.367 ha of M/s Western Coalfields Limited, located in Village Bhatadi, District Chandrapur (Maharashtra)
- The proposal was earlier considered by the EAC in its meeting held on 17-18 April, 2018, 31<sup>st</sup> August, 2018 and 24<sup>th</sup> January, 2019. During the meeting, the Committee noted that the last public hearing for the project was conducted by the State Pollution Control Board on 20<sup>th</sup> July, 2004 i.e. much before the inception of the EIA Notification, 2006 presently in force. The Committee desired for compliance of the present provisions of the said Notification, and insisted for fresh public hearing for the proposed expansion from 0.975 MTPA to 1.465 MTPA, even if the project area remains same and the same was reiterated in other EAC meetings also.
- In line with observation of EAC, Project proponent has conducted Public Hearing on 13th September, 2019 at WCL Durgapur Auditorium, Tehsil Durgapur, District. Chandrapur, Maharashtra under the chairmanship of District Magistrate, Chandrapur.
- Following issues has been raised during the Public Hearing held for Bhatadi OC Expansion Project for increase in Coal production capacity from 0.975 MTPA to 1.465 MTPA within existing EC area of 847.37 Ha. Detailed pointwise compliance report has been submitted to MPCB.
  - Rehabilitation of Bhatadi and Payali Village.
  - Balance land acquisition
  - Coal Quality

- Land Compensation
  - Provision of Employment in lieu of Land acquisition.
  - Pollution Control Measures to be adopted.
  - Plantation
  - CSR works
  - Installation of RO Plant for Drinking Water
- Mining Plan was approved by WCL Board vide letter No. WCL/BD/Sectt/BM-293/2017/936 dated 10<sup>th</sup> November, 2017. Mine closure plan is an integral part of the Mining Plan.
  - Earlier, the project for capacity of 0.975 MTPA in an area of 847.57 ha was granted environmental clearance by the Ministry vide letter dated 19<sup>th</sup> March, 2015, based on public hearing conducted by SPCB on 20<sup>th</sup> July, 2004.
  - The project does not involve any forest land.
  - Certificate of compliance against the existing EC of 0.975 MTPA capacity has been obtained from MoEF&CC, Regional Office located at Nagpur vide letter No.3-16/2015 dated 5<sup>th</sup> February, 2018.
  - The 10 km buffer zone of the project area falls under buffer zone of Tadoba Andhari Tiger Reserve and there are schedule 1 species present in buffer zone.
  - Erai River flow in the area of Bhatadi Mine and there is proposal for Erai river diversion been submitted to CDO, Nasik and further action will be taken as per the design of CDO, Nashik & subsequent approval of the State Irrigation Department.
  - Further proposed river diversion involved in the project shall be studied in details and permission from all relevant stakeholder should be taken by project proponent

**50.2.4** *The EAC, after deliberations observed that although earlier observation of EAC was complied by Project proponent for conducting public hearing. However, presence of schedule 1 species requires conservation plan duly approved by concerned statutory authority as the buffer zone area falls under buffer zone of Tadoba Andhari Tiger Reserve. "The proposal was **deferred** for want of submission of wild life conservation plan, duly approved by concerned statutory authority and details of pollution mitigation measures for villages(if any) to be affected by mining operations." Further, EAC desired that no OB dump or mining activity shall be dumped/carried out in and around 150 m of distance from bank of river.*

### **Agenda No.50.3**

**Kakatiya Khani Opencast-III (KTK OC-111) coal mining project of capacity 3.75 MTPA (Peak) by Opencast & 0.48 MTPA Underground in mine lease area of 1336.64 ha of M/s The Singareni Collieries Company Limited located in village Basawarajupalli, Tehsil Ghapur, District Jayashankar Bhupalpalli (Telangana) – Consideration of Environmental Clearance**

**[Proposal No. IA/TG/CMIN/113818/2018, J-11015/464/2012-IA-II(M)]**

**50.3.1:** The proposal is for environmental clearance for the proposed Kakatiya Khani OC-III Project of 3.0 MTPA (Peak 3.75 MTPA) by OC and 0.48 MTPA by UG in mine lease area of 1336.64 ha located near Village Basawarajupalli, Mandal Ghanpur, District Jayashanker Bhupalpalli, Telangana.

**50.3.2:** Earlier the proposal was considered in EAC meeting held on 3-4 October, 2019 and asked for further clarification for the following:-

- Permission of diversion of gundla vagu nallah in mine lease area from authorised statutory body.
- Permission of DGMS for blasting as the distance of habitation along the quarry boundary is only 160 mtrs. Clarify how many villages/houses/population is present from mine boundary and propose environment mitigation measures
- Traffic Impact Assessment and mitigation measure for transportation of coal from mine to thermal power plant is 90 km and needs to be proposed. No of villages in 100 m and 500 m from the end of road getting affected and necessary mitigation measure for the same.
- Explore the possibility and provide certain commitment for developing railway siding in next 5 years to stop coal transportation by road (90 km).
- Road connecting parsumarmpalli and peddapur villages across the project is proposed to be diverted. Permission of road diversion from statutory body, its distance from the mine and effect on public during mining operations
- Permission of diversion of 33 KV Transmission lines leading to KLP has to be done and dismantling of older transmission lines is pending
- Water balance diagram including Quantity of generation of sewage treatment plant and effluent treatment plan and further recycling/reuse quantity.
- Action plan for reducing the impact on quality of ground water parameters such as TDS, Calcium, Chlorides, Fluoride, Iron etc.
- Status of action taken on non-compliance observed by Regional Office, Chennai for the project of EC dated 11<sup>th</sup> May, 2015.

**50.3.3** In response to the above observations of EAC, para-wise replies submitted by the project proponent are as under:-

<b>S. No.</b>	<b>Observations</b>	<b>Comments/Compliance</b>
1	Permission of diversion of gundla vagu nallah in mine lease area from authorized statutory body	<ul style="list-style-type: none"> <li>• Diversion of Gundla vagu is required after 5<sup>th</sup> year of commissioning of the mine.</li> <li>• A letter received from Executive Engineer, I&amp;CAD is furnished.</li> <li>• Administrative approval was accorded and accordingly I&amp;CAD is carrying out necessary survey and investigations for the proposed nallah diversion for KTK OC-III project.</li> <li>• NOC was accorded by I&amp;CAD, Government of Telangana for diversion of Gundla vagu, vide GORT No.1345 Dt.14.12.12 for Kakatiya Longwall project.</li> </ul>
2	Permission of DGMS for blasting as the distance of habitation along the quarry boundary is only 160 mtrs. Clarify how many villages/houses/population is present from mine boundary and propose environment mitigation	<ul style="list-style-type: none"> <li>• Up to 4<sup>th</sup> year of the operations no village/habitation is falling with in 500m from the quarry.</li> <li>• DGMS accords permission for controlled blasting with in 500m of habitation based on the site specific field/scientific studies in the project. These permissions are</li> </ul>

	measures	<p>given only after starting of the project based on the studies at the project.</p> <ul style="list-style-type: none"> <li>Such permissions were obtained from DGMS for other operating opencast mines. Some of the mines of SCCL which were given blasting permissions with distances from the village are furnished hereunder.</li> </ul>
3	Traffic Impact Assessment and mitigation measure for transportation of coal from mine to thermal power plant is 90 km and needs to be proposed. No of villages in 100 m and 500 m from the end of road getting affected and necessary mitigation measure for the same.	<ul style="list-style-type: none"> <li>Despatch of coal is proposed by road to the nearest railway siding i.e. Uppal, which is at a distance of 56 km from the proposed project.</li> <li>Traffic Impact Assessment Study has been carried out through EPTRI. The report on impact of coal transport on the villages located along the road and proposed pollution mitigation measures is furnished</li> </ul>
4	Explore the possibility and provide certain commitment for developing railway siding in next 5 years to stop coal transportation by road (90 km).	<ul style="list-style-type: none"> <li>Establishing a new railway line from Manuguru to Ramagundam (200 km) via Bhupalpally is in the planning stage at the railways.</li> <li>However, SCCL will follow up with the railways for speeding up of the new railway line construction.</li> <li>SCCL will strictly adhere to transport coal in covered trucks only till a railway line is laid</li> </ul>
5	Road connecting parsumarpalli and peddapur villages across the project is proposed to be diverted. Permission of road diversion from statutory body, its distance from the mine and effect on public during mining operations	<ul style="list-style-type: none"> <li>NOC for road diversion was obtained from District R&amp;B and Panchayathraj authorities vide Letter No. DB/D1/EE/R&amp;B/MLG/2019-20/876, Dated 30.10.2019 and T1/SCCL/B'Pally/2019-20, Date 30.10.2019.</li> <li>The existing road is a kucha road falling in the quarry area which will be diverted after 10<sup>th</sup> year of operations.</li> </ul>
6	Permission of diversion of 33 KV Transmission lines leading to KLP has to be done and dismantling of older transmission lines is pending	<ul style="list-style-type: none"> <li>The existing 33 kV transmission line belonging to SCCL which is being used for KLP will be extended for the proposed KTK OCP also and hence no further permission is required.</li> <li>SCCL Obtained NOC for removal of power lines in falling within the proposed project area, vide Lr no. SE/OP/JS-BHPL/ADE(C)/AE(C)/F.No./D.No.750/19, dated: 31.10.2019 from Northern Power Distribution Company Of Telangana Limited( NPDCL).</li> </ul>
7	Water balance diagram including Quantity of generation of sewage treatment plant and effluent treatment plan and further recycling/reuse quantity.	<ul style="list-style-type: none"> <li>The employees of the proposed project are accommodated in the existing colonies in Bhupalpalli Area.</li> <li>Presently, two STPs of 3 MLD capacity each are operating for Krishna Colony and Subash colony. One more STP of 2</li> </ul>

		<p>MLD capacity is being constructed for the 8-Incline Colony.</p> <ul style="list-style-type: none"> <li>The treated sewage water is being let out in to nearby tanks, which is being used for gardening.</li> <li>ETP will be constructed in the project for removal of silt and oil &amp; grease from vehicle wash effluents</li> </ul>
8	Action plan for reducing the impact on quality of ground water parameters such as TDS, Calcium, Chlorides, Fluoride, Iron etc.	<ul style="list-style-type: none"> <li>The ground water quality indicates that Fluoride, TDS, Calcium, Chlorides concentration are within the permissible limit except for Iron whose values are above the permissible limit in four samples, which may be due to underground strata conditions.</li> <li>Presently, SCCL is supplying drinking water to an extent of 1871 KLD to nearby villages for meeting their requirement.</li> <li>SCCL will continue to supply drinking water to the villages where the ground water quality is not meeting drinking water standards due to excess fluoride and hardness. Further, SCCL has provided 2 Nos. of RO Plants in the nearby villages, as per requirement, under CSR for supplying safe drinking water and provide safe drinking water for the surrounding villages as per the requirement</li> </ul>
9	Status of action taken on non-compliance observed by Regional Office, Chennai for the project of EC dated 11 <sup>th</sup> May, 2015.	Submitted

Comprehensive wildlife conservation plan and Financial Projects during the plan period (3 years) in the buffer area of the proposed KTK OC – III Project has been approved by District Forest Officer and Forest Divisional Officer dated 7<sup>th</sup> September, 2019.

There are six villages located within 500 mt zone of the proposed mine. Keeping in view of the habitation, various mitigation measures have been proposed for prevention and control of pollution.

Letter of Intent from The Special Chief Secretary to Government, Energy Department, Telangana Secretariat, Hyderabad dated 17<sup>th</sup> September, 2019 for non-coal bearing area of 422.69 ha for KTK OC III Project of the Singareni Collieries Company Limited in Dharmaraopet & Kondapur villages of Ghanpur Mandal, Jayashankar Bhupalpalli District, Telangana.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**50.3.4** *The Committee, after deliberations, **recommended** grant of environment clearance to Kakatiya Khani Opencast-III (KTK OC-111) coal mining project of capacity 3.75 MTPA (Peak) by Opencast & 0.48 MTPA Underground in mine lease area of 1336.64 ha of M/s The Singareni Collieries Company Limited located in village Basawarajupalli, Tehsil Ghapur, District Jayashankar Bhupalpalli (Telangana), under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions in addition to the standard environmental conditions notified by the Ministry mentioned below:-*

- (i). The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 4.375 MTPA prior to commencement of the increased production.*
- (ii). Transportation of coal from Coal Handling Plant shall be through covered trucks.*
- (iii). To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.*
- (iv). Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.*
- (v). The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 3.75 MTPA (OC) and 0.48 MTPA (Underground).*
- (vi). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (vii). Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
- (viii). To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.*
- (ix). Permission for diversion of road and power line from authorised statutory body*
- (x). Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution. No shrubs/bushes shall be planted and only trees of native species shall be planted*
- (xi). Efforts shall be made for utilizing alternate sources of surface water,*

*abandoned mines or else whatsoever and thus minimizing the dependability on a single source.*

- (xii). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1<sup>st</sup> May, 2018.*
- (xiii). No transportation of coal by road after establishment of railway line from Manuguru to Ramagundam.*
- (xiv). Compliance of conditions of Roads and Building Department, Government of Telangana for diversion of road of Parasurampalli and Peddapur villages.*
- (xv). Compliance of all the non-compliances and partially complied conditions by Regional Office, Chennai for the project of EC dated 11th May, 2015.*
- (xvi). Permission for diversion of Gundla Vagu Nallah i.e. surplus course of Yellareddy peta tank to Dharamraopet tank i.e 7.80 Km (proposed after 5 th year of commissioning of the mine) shall be taken from concerned Regulatory body.*
- (xvii). Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.*
- (xviii). Road from Mine to Mahadevpur – Parkal road (5.2 km), Mahadevpur – Parkal road (25.9km) and Parkal – Uppal road (25.3 km) shall be planted 3-tier plantation with native species of trees having broad leaves.*
- (xix). Mitigation measures proposed for villages in 500 mts shall be strictly complied for prevention and control of pollution.*

#### **Agenda No.50.4**

**Expansion of Nigahi Opencast Coal mine from 18.75 to 21 MTPA of M/s Northern Coalfields Limited in mine lease area of 3018.40 ha located in Village Nigahi, Tehsil & District Singrauli (MP) - Environmental clearance under the provision of clause 7(ii) of EIA Notification, 2006**

**[Proposal No. IA/MP/CMIN/109926/2019; F. No.J-11015/79/2013-IA.II(M)]**

**50.4.1:** The proposal is for Expansion of Nigahi Opencast Coal mine Project from 18.75 MTPA to 21 MTPA of M/s Northern Coalfields Limited located in the ML area of 3018.40 ha at Village Nigahi, Tehsil & District Singrauli, Madhya Pradesh under the provision of Clause 7 (ii) of EIA Notification, 2006

**50.4.2:** The proposal was earlier considered by the sectoral EAC in its meeting held on 3-4 October, 2019, wherein the Committee desired for information in respect of the following:-

- An addendum EIA for the additional production proposed i.e. from 18.75 MTPA to 21.00 MTPA inter alia including adequate additional measures.
- Fulfillment of requirements as mentioned in Ministry's OM dated 15<sup>th</sup> September, 2017
- Action Taken Report on partial compliances of EC conditions reported by the Ministry's Regional Office.
- CER shall be proposed as per the guidelines given dated 1<sup>st</sup> May, 2018 for an additional capital investment on the instant proposal.

**50.4.3:** In response to the above observations of EAC, para-wise replies submitted by the project proponent are as under:-

<b>S. No.</b>	<b>Observations</b>	<b>Comments/Compliance</b>
1	An addendum EIA for the additional production proposed i.e. from 18.75 MTPA to 21.00 MTPA inter alia including adequate additional measures.	Addendum EIA for the additional production proposed, i.e., from 18.75 MTPA to 21.00 MTPA, has already been submitted with form-1, wherein, additional measures to be taken have been proposed
2	Fulfillment of requirements as mentioned in Ministry's OM dated 15 <sup>th</sup> September, 2017	Point wise compliance status on the fulfillment of requirements, as mentioned in Ministry's OM dated 15th September, 2017 has been submitted
3	Action Taken Report on partial compliances of EC conditions reported by the Ministry's Regional Office.	Required Action Taken Report, on partial compliances of EC conditions reported by the Ministry's Regional Office has been submitted
4	CER shall be proposed as per the guidelines given dated 1 <sup>st</sup> May, 2018 for an additional capital investment on the instant proposal	Additional capital investment required for compliance of conditions of OM F.No. J-11015/224/2015-IA.II dated 15th September, 2017, for proposed EC enhancement, comes to about Rs. 6 Crore, i.e. against procurement of Surface Miner, Road Sweeping Machine and Mist Gun. Accordingly, as per the guidelines given in OM F.No.22-65/2017-IA.III dated 01.05.2018, cost of CER is calculated as Rs. 6.00 Lakhs. Proposal has been initiated for distinct sanction of above cost of CER.

**50.4.4** During deliberations on the proposal, the EAC took note as below:

<b>S No.</b>	<b>Requirements as per the OM</b>	<b>Fulfillment by the project</b>
1	Predicted air quality parameters are within the prescribed norms.	Predicted air quality parameters are mostly found within the prescribed norms.
2	Coal transportation is through conveyor system up to the silo and then loading to railway wagons, involving no transportation through road	Coal from CHP receiving pits is transported through Covered Belt Conveyor to SILO and then loaded to MGR wagons for transportation to the NTPC Vindhyanagar. Coal on e-auction basis has been transported, as a basket link, occasionally depending on the demand – supply scenario of NCL. However, arrangements have been made for transportation of additional quantity of coal, proposed to be produced from Surface Miner, through railway wagons. A scheme for enhancing the CHP (Coal Handling Plant) capacity is also in process, in order to further strengthen the coal transportation through railway wagon.



3	Coal mining is done through deployment of surface miners, replacing three dust generating operations of the conventional mining system namely drilling, blasting and crushing in one go.	Additional coal mining will be done by deployment of Surface Miner (3800-4000mm), thereby, replacing the three dust generating operations of the conventional mining system, namely drilling, blasting & crushing in one go.
4	Public hearing already conducted for the total mine lease area involved and no more area is required for the proposed expansion	Public hearing has already been conducted for the total mine lease area involved and no more area is required for the proposed expansion. Above Public hearing was conducted by Madhya Pradesh Pollution Control Board on 18.12.2005 at Community Hall, Waidhan.
5	Compliance status of EC conditions monitored by the concerned Regional Office of this Ministry is found to be satisfactory	Compliance status of EC conditions of 18.75 MTPA was issued by RO, MoEF&CC vide letter no. 3-17/ 2015/(ENV)/681 dated 18.06.2019, on the basis of site visit conducted on 14.05.2019.
6	Other statutory requirements like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan and Mine Closure Plan, Mine Closure Status Report as applicable, Forest Clearance, etc are satisfactorily fulfilled.	<ul style="list-style-type: none"> <li>• Consent to Establish has been obtained vide no. CTE-44808 dated 22.10.2015, which is valid up to 15.10.2020</li> <li>• Consent to Operate (Air and Water) has been obtained vide no. AW-46103 dated 28.09.2016, which is valid up to 31.01.2020. Hazardous Waste Authorisation has been obtained vide no. H-49744 dated 30.03.2019, which is valid up to 07.11.2023.</li> <li>• Application was submitted for obtaining ground water clearance, but clearance was not granted on account of falling of Waidhan block (where Nigahi OCP is located) in "safe" category. Application is again re-submitted on 26.09.2019, vide application number 21-4/878/MP/MIN/2019.</li> <li>• Mining Plan incorporating Mine Closure Plan for Nigahi OCP, has been prepared for coal production of 21.00 MTPA and approved by NCL Board on 23.04.2019. Quarterly and annual mine closure status reports are being regularly submitted to the Coal Controller.</li> <li>• The Project has stage-1 forest clearance for all the forest land involved, i.e., 1280.517 Ha. Details of the FC is as given below: <ul style="list-style-type: none"> <li>(i) 874 Ha : Original FC was obtained on 18.06.1987 vide File No. 8-62/86-FC. Stage-I FC for renewal has been obtained on 12.12.2018, vide F. No. 8-62/1986-FC(Pt.).</li> <li>(ii) 406.517 Ha: Stage-I FC has been obtained on 12.04.2018, vide F. No8-26/2015-FC.</li> </ul> </li> </ul>

Earlier EC was granted for a capacity of 15 MTPA of coal production with public hearing under section 12 of the EIA notification, 2006 and subsequent amendments thereto and under para 2.1.1 of MOEF circular dated 13.10.2006 vide letter No. J-11015/235/2006-IA. II (M) dated 08.05.2007.

Subsequently, Environmental clearance was obtained vide MoEF&CC's letter No.J-11015/79/2013-IA.II(M) dated 19.03.2015 and subsequent amendment dated 12.10.2018 for the coal production capacity of 18.75 MTPA in a total lease area of 3018.40 Ha.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**50.4.5:** *The EAC, therefore, after deliberations **recommended** for grant of environmental clearance for Expansion of Nigahi Opencast Coal mine from 18.75 to 21 MTPA of M/s Northern Coalfields Limited in mine lease area of 3018.40 ha located in Village Nigahi, Tehsil & District Singrauli (MP) under the provision of clause 7(ii) of EIA Notification, 2006 and under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions and Ministry's OM dated 31<sup>st</sup> October, 2019 (as project falls under Severely Polluted Areas) in addition to the standard environmental conditions notified by the ministry and mentioned below:*

- (i). The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 21 MTPA prior to commencement of the increased production.*
- (ii). Transportation of coal from Coal Handling Plant shall be through covered trucks.*
- (iii). To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.*
- (iv). Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.*
- (v). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (vi). Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
- (vii). Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.*

- (viii). *Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.*
- (ix). *The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 21 MTPA.*
- (x). *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (xi). *A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.*
- (xii). *Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles*
- (xiii). *CTE/CTO for the project shall be obtained from the SPCB as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, and the SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24<sup>th</sup> October, 2019 while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.*
- (xiv). *The green belt of at least 5-10 m width shall be developed in more than 40% of the total project area, mainly along the periphery of mine boundary, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- (xv). *In addition, the project proponent shall develop greenbelt outside the plant premises such as avenue plantation, plantation in vacant areas, social forestry etc.*
- (xvi). *Monitoring of compliance of EC conditions may be submitted with third party audit every year.*
- (xvii). *The percentage the CER may be atleast 1.5 times the amount given in the OM dated 1<sup>st</sup> May, 2018 recommended by the EAC and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office*

### **Agenda No.50.5**

**North Urimari Opencast Coal Mine Project of (4.2 MTPA) in an area of 523.06 ha of M/s Central Coalfields Limited ocated in District Hazaribagh (Jharkhand) - For EC under the provision of clause 7(ii) of EIA Notification, 2006**

**[Proposal No. IA/JH/CMIN/112416/2018, F No.J-11015/307/2005-IA-II(M)]**

**50.5.1** The proposal is for expansion under cl-7ii for North Urimari OCP from 3.00 MTPA to 4.2 MTPA with mine lease area of 523.06 Ha of M/s Central Coalfields Limited located in District Hazaribagh (Jharkhand).

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

- (i) The project North Urimari OCP with capacity 3.0 MTPA was given EC vide J-11015/307/2005-IA.II(M) dt: 08.02.2006 as per EIA Notification 1994.

- (ii) Regularized EC as per EIA Notification, 2006 was obtained on 07.11.2019.
- (iii) Public hearing was held on 08.10.2004.
- (iv) Mining Plan of North Urimari OCP (4.2 MTPA and 523.06 Ha Project area) approved by CCL Board on 19.12.2018.
- (v) Latitude and longitude of the project site are 23°41' 04"N to 23°42'52"N and 85°16'06"E to 85°19'36"E.
- (vi) Joint Venture: No Joint Venture
- (vii) Coal Linkage: At present, the coal from this project is being transported to Saunda B railway siding which is at a distance of 8 kms from the mine by tipping trucks. Also, a proposal for construction of 'North Urimari Railway siding is under process.
- (viii) Benefits of the project: Improvements in Physical Infrastructure; Improvements in Social Infrastructure; Increase in Employment Potential; Contribution to the Exchequer; Meet energy requirement; Productive utilization of existing manpower of project
- (ix) Land Use of Project: The updated land usage of the project will be as follows:

Description	Forest (Ha)	GMK JJ (Ha)	Non Forest (Tenancy+ GMK) Ha	Total Area in Ha.
Quarry	43.95	75.34	135.11	254.4
External OB dump	12.47	72.56	83.91	168.95
Safety Zone	0.95	13.60	29.74	44.28
Haul road		2.8	1.70	4.5
Nalla diversion and garland drain	0.31		10.28	10.59
Space for industrial construction		4.53	16.89	21.42
Total leasehold boundary area				504.14
* Colony area			18.92	18.92
Total Land	57.68	168.83	296.55	523.06

- (x) Mineable reserve is 80.81 MT. Extractable reserve is 80.81 MT. The percent of extraction would be 100 %.
- (xi) The coal grade is G-8. The stripping ratio is 1.69 Cum/tonne. The average Gradient is 8-35 Deg. There will be 15 seams with details as given below.

Sl.	Particulars	Unit	West Quarry	East Quarry
A	Seam Thickness			
1	Argada 'B'	M	-	6.1-8.6
2	Argada A+B	M	9.0-19.1	13.4-22.6
3	Argada 'A'	M	-	5.7-13.2
4	Argada Bottom Lower Split	M	0.5-1.3	-

5	Argada Bottom Combined	M	3.5-6.5	4.3-6.6
6	Argada Bottom Upper split	M	0.7-3.2	-
7	Argada Middle + Bottom	M	10.0-18.4	12.7-21.1
8	Argada Middle	M	6.5-11.9	9.8-15.9
9	Argada Top Lower Split	M	0.9-2.3	1.0-2.6
10	Argada Top, Combined	M	1.2-5.6	2.0-4.3
11	Argada Top, Upper Split	M	0.9-3.7	0.6-2.9
12	Upper sirka ( Bottom)	M	0.44-1.61	0.44-1.15
13	Bansgarha (C+D)	M	0.27-1.51	
14	Bansgarha	M	2.26-3.45	
15	Hathidhari	M	2.50-4.11	

- (xii) Water Requirement: Total estimated water requirement is 0.249 MGD. The level of ground water ranges Pre Monsoon: 5.3-9.6 mtrs; Post Monsoon: 2.18-7.44 mts.
- (xiii) Method of Mining: The Method of mining would be opencast method of mining with shovel-dumper combination.
- (xiv) Quarry Area: The total Quarry area is 254.4 Ha. The final mine void would be in 72 Ha with depth an average up to 150 m below GL. Backfilled quarry area of 182.40 Ha shall be reclaimed with plantation.
- (xv) Management of Overburden:

i.	External OB dumps	1 external dump
ii.	No of OB dumps	1
iii	Area	168.95 Ha
iv	Height	60 m above ground level
v	Quantity	59.60 M.m3 OB in the external dump

i.	Number of internal dumps	01
ii.	Area	182.40 Ha
iii.	Height	RL: +410 m
iv.	Quantity.	77.00 M.m3 OB will be backfilled in the mine void

- (xvi) Baseline Data: The seasonal data for ambient air quality has been documented for the Pre Monsoon -2006, and all results at all stations are within prescribed limits.
- (xvii) The life of mine is 22 years.
- (xviii) Transportation:

i.	In pit	Rear dumpers
ii	Surface to siding	By Tipping Trucks
ii	Siding to loading	By pay loader

- (xix) R & R: Out of 545 PAFs, 63 families have already been rehabilitated. Employment to 252 PAPs has been given. Further employment for 30 PAPs is under process.
- (xx) Capital Cost: Total capital cost of the project is Rs. 179.87 Crores.
- (xxi) Water body: Damodar river constitutes the main drainage channel of the area and forms part of the southern boundary of the block. The two main nalas are

Potanga in the center of the block and Tilaiya Nala forming the western boundary of the block. These nalas have a general N-S trend flowing towards south and discharging their contents in Damodar river.

- (xxii) Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- (xxiii) Forestry issues: Total Forest land involved in project area, 226.51 Ha. has been acquired (Stage II) vide letter no: F. No. 8-54/2008-FC Dt. 03.08.2011.
- (xxiv) Court Case Pending: There are no court cases/violation pending with the project proponent.

**50.5.3** The EAC during deliberation noted the following:-

- The proposal is for expansion of North Urimari OCP from 3.00 MTPA to 4.2 MTPA with mine lease area of 523.06 Ha of M/s Central Coalfields Limited located in District Hazaribagh (Jharkhand) under 7(ii) of EIA Notification 20016 i.e. under Ministry's OM dated 15<sup>th</sup> September, 2017.
- The project was granted Environmental Clearance dated 8<sup>th</sup> February, 2006 to North Urimari OCP with capacity 3.0 MTPA as per EIA Notification 1994.
- Based on Ministry's OM dated 6<sup>th</sup> April, 2018, EC was revalidation and Ministry issued the latter on 7<sup>th</sup> November, 2019 as per EIA Notification, 2006.
- Public hearing for the project was held on 8<sup>th</sup> October, 2004.
- Mining Plan of North Urimari OCP (4.2 MTPA and 523.06 Ha Project area) approved by CCL Board on 19.12.2018.

Ministry's OM dated 24<sup>th</sup> August, 2009 regarding consideration of projects under clause 7(ii) of the EIA Notification, 2006 for exemption of public hearing.

It states that "The developmental projects which have been accorded environmental clearance, prior to the EIA Notification, 2006, coming into force, if received for seeking environmental clearance for its expansion of activities, the public consultation for all such expansion projects shall be carried out, irrespective of the size / magnitude of expansion, as per the procedure prescribed under the EIA Notification, 2006. No exemption from public hearing shall be given in any such project by invoking clause 7(ii) of the EIA Notification, 2006"

**50.5.4** *The EAC, after deliberations and citing Ministry's OM dated 24<sup>th</sup> August, 2009 observed that as the Environmental Clearance for the said project was under the EIA Notification, 1994 and considering the proposal of expansion may not be according to said OM. Also, the compliance of previous EC conditions are not complied as per Certified Compliance Report from Regional Office. EAC desired, that **PP shall apply fresh proposal for expansion under EIA Notification, 2006 and meanwhile PP shall comply all the EC conditions.***

*Therefore, the proposal was not taken forward and sent as it is.*

## **Agenda No.50.6**

### **Hingula Washery of 10 MTPA in an area of 27.65 ha of M/s Mahanadi Coalfields Limited located in District Angul (Odisha) - Amendment in Environment Clearance.**

**[IA/OR/CMIN/18276/2013; F.No. J-11015/67/2013-IA. II(M)]**

**50.6.1** The proposal is for amendment in environmental clearance dated 28<sup>th</sup> October, 2015 granted by the Ministry in favour of M/s Mahanadi Coalfields Limited to the Coal Washery of 10 MTPA in an area of 27 ha in District Angul (Odisha).

Details of Amendment Sought are as under :

<b>S. No</b>	<b>Point No. of EC granted</b>	<b>Existing Point</b>	<b>Modification proposed</b>
1.	Pt. No. 3(ii)	Equipment will be imported from South Africa.	No overseas equipment to be imported as per present offer of the L-1 Bidder.
2.	Pt. No. 3(iii)	"Hingula Washery has been proposed to be set up on BOM basis for beneficiation of raw coal (non-coking coal of grade-G-11 & Ash content ranging between (34.5 – 42.5 %)) of Hingula – II Expansion OCP (Phase-III).	Hingula Washery has been proposed to be set up on BOM basis for beneficiation of raw coal (non-coking coal of grade-G-13 & Ash content ranging between (38.3 – 46.3 %)) of Hingula – II Expansion OCP (Phase-III) (15 MTPA).
3.	Pt. No. 3 (viii) – Employment Generated / to be generated	Washery will be constructed on BOM concept; hence employment will be generated by BOM Operator. Around 173 (for operation of washery).	Washery will be constructed on BOM concept; hence employment will be generated by BOM Operator. Around 254 (for operation of washery).
4.	Pt. No. 3 (x) Land usage of the project	17 Ha land is required for proposed Hingula Washery. 10 Ha land is required for temporary storage for rejects. 17 + 10 = 27 Ha land required for washery & rejects storage has already been acquired and is in possession of MCL. All the 27 Ha land is non coal bearing.	17.65 Ha land is required for proposed Hingula Washery site. 10 Ha land is required for temporary storage for rejects. 17.65 + 10 = 27.65 Ha of land required for washery construction & rejects storage has already been acquired and is in possession of MCL. All the 27.65 Ha land is non-forest, non-agricultural, undeveloped and non-coal bearing. Variation in land area (0.65 Ha) is due to error in measurement done earlier. After fresh measurement and calculation of land area 17.65 Ha is for washery site.
5.	Pt. No. 3(xi)	The coal grade is G-11	The coal grade is G-13.

6.	Pt. No. 3 (xii)	The total estimated water requirement is 1273 m <sup>3</sup> /hr. at 0.09 m <sup>3</sup> /tonne of raw Coal.	The total estimated water requirement is 0.12 m <sup>3</sup> /tonne of raw Coal (on dry basis) as per the LoI issued to L-I bidder.
7.	Pt. No. 3 (xviii) – Cost	Total capital cost of the project is 321.96 Crores.	Total capital cost of the project is Rs. 424.42 Crores as per the LoI issued to L-I bidder.
8.	Pt. No. 3 (A) (iii)	Detailed note to be provided on utilization of rejects if it is more than 80 % ash content.	The ash content in reject shall be 75.2% on air dried basis with monthly average ash % of 42.3% of raw coal on ADB. Policy for Disposal and Utilization of Rejects produced from CIL Washeries (Existing & Future) communicated by CIL vide CIL letter no. CIL/PMD/Ws/41/350 dated 24.07.2018.

**50.6.2** The Proposal was again considered in the 45<sup>th</sup> EAC on 27.05.2019. The project proponent has submitted the point-wise reply to the EAC observations made in the 45<sup>th</sup> EAC meeting dated 27.05.2019 and considered in the 48<sup>th</sup> EAC meeting dated 03.10.2019 which are reported to be as follows: -

S. No	Observation of EAC	Status of Compliance
1.	Whether the proposed washery covering an area of 17.65 ha and temporary storage site for rejects (10 ha) in mine lease hold of Balram OCP is in conformity with its approved Mining Plan. Also, the proposal, if any, for amendment in the environment clearance for Balram OCP.	<ul style="list-style-type: none"> <li>The EIA-EMP of Hingulawashery was prepared on the basis of the conceptual report approved by MCL Board in its 126<sup>th</sup> meeting held on 13.01.2011.</li> <li>As per the conceptual report, the proposed washery shall be situated in the leasehold area of Balram OC Project (8 MTY).</li> <li>The Environmental clearance (EC) to HingulaWashery was granted vide letter no. J-11015/67/2013-IA-II(M) dt: 28-10-2015.</li> <li>It is to be further noted that Balram OCP is an old mine started in 1991-92. Mining plan for expansion of Balram OCP (8.0-15.0 MTY) with additional area is in advance stage of preparation. EC of Balram OCP will be amended accordingly.</li> <li>In view of the above it is requested not to link the amendment in EC of HingulaWashery with the approval of mining plan &amp; amendment in EC of Balram OCP.</li> </ul>
2	Justification for change in raw coal specifications (G11 to G13, ash content from 34.5- 42.4% to 38.3-46.3%) from the same coal linkage i.e. Hingula-II Expansion	<ul style="list-style-type: none"> <li>As mentioned in EC for Hingula-II expansion OCP (Phase-III) of capacity 15 MTPA grade of coal ranges from 'D' to 'G' (in UHV) which corresponds to G-7 to G-14 (in GCV) respectively.</li> </ul>



	OCP (Phase-III) of capacity 15 MTPA. Whether the same is in line with environmental clearance issued for the project. What about operational status of the project?	<ul style="list-style-type: none"> <li>Coal grade as "G-13" in the amendment for EC for Hingula washery is in line with the EC for Hingula –II expansion OCP (Phase-III) of capacity 15 MTPA.</li> <li>Hingula–II expansion OCP (Phase-III) is a working mine. The grade of the coal is declared yearly for mines based on the working seams and declared coal grade is G-13 for the last 3 years</li> </ul>
3	In view of the project within the mine lease hold of Balram OCP, compliance status of the conditions stipulated in its environmental clearance is essentially required.	<ul style="list-style-type: none"> <li>Certified Compliance Report dated 28.08.2019 in respect 'Kalinga Opencast Project (8 MTY) (Balram OCP) has been received from Eastern Regional Office of MoEF&amp;CC, Bhubaneswar.</li> <li>It has been stated that the Project Authorities have complied or are in process of complying with the conditions stipulated by the Ministry. Their recommendation:</li> <li>Minor non-compliances detected (not of immediate danger to health &amp; safety of the people). Letter issued to project authorities for taking corrective measures.</li> <li>Reply to the observations of Eastern Regional Office of MoEF&amp;CC, Bhubaneswar was submitted by the Project Officer vide letter dt:16-09-2019.</li> </ul>
4	Status of pipe conveyor (3.76 km) for raw coal transportation to washery and preparedness of washed/clean coal transportation by rail with loading arrangement through silo.	<p>The status of Pipe Conveyor &amp; Silo is given below:</p> <ul style="list-style-type: none"> <li>Tender floated on dtd. 15.12.2015</li> <li>Letter of acceptance received from MEL RVM Projects Joint Venture on 11-08-2016.</li> <li>Site was partly (Non forest) handed over to party on 05-11-2016 and project was scheduled to be completed by 14-05-2018 (1.5 years).</li> <li>But Due to delay in receipt of stage II forest clearance and frequent obstruction by local villagers the work of pipe conveyor and SILO has been delayed.</li> <li>Forest clearance obtained vide letter Dtd. 19-01-2018.</li> <li>The progress of work of construction of Pipe conveyor and SILO is 32%.</li> <li>The execution of the above work was suspended on Dt.21.06.2019 till the final verdict of Hon'ble Court of Orissa against the W.P(C) no.18912 of 2018 filed by the contractor, M/s MEL RVM Project JV as the case involves the issue of SILO work experience of the contractor.</li> <li>Construction of the plant is expected to be completed by Oct'2021 considering the final verdict of Hon'ble High Court Orissa by</li> </ul>

		Sept'2019.
5	In view of major deviations from the earlier scope of work, fresh assessment of environment impacts and the EMP proposed accordingly.	<ul style="list-style-type: none"> <li>Amendment in EC has been sought for Hingula Washery, 10 MTY MCL on account of finalization of the fresh L-1 bidder. <i>Following modifications/deviations, from the EC conditions, requires fresh impact assessment.</i></li> <li>Fresh impact assessment due to change in water demand and reject quantity has been carried out. The revised water demand is well within the limits of 1.5 m<sup>3</sup>/tonne as prescribed in the code of practice for coal washery in the Environment (Protection) rules, 1986 and the source of water is the mine sump. Mitigation measures have been provided.</li> <li>For the increased quantity of rejects, the 10 Ha area of temporary reject storage site is sufficient enough for storage of rejects for more than 03 months. Rejects shall be disposed of e-auction of MOU route as per CIL policy.</li> <li>The environmental impact assessment and its management plan/ mitigation measures due to the above have been prepared &amp; submitted.</li> </ul>

**50.6.3** The proposal was further considered by the EAC in its 48<sup>th</sup> meeting held on 3<sup>rd</sup>-4<sup>th</sup> Oct , 2019. During the meeting, the Committee further desired for additional information in respect of the following:-

- Plan for rejects management inter alia including dumping plan, utilization of the rejects beyond the quantity of 3 months, transportation, etc.
- Submission of revised mining plan of Balram OCP and further amendment in EC of the Balram OCP for change of the name of Balaram OCP as Kalinga OCP shall be submitted.
- CER shall be proposed as per the guidelines given dated 1st May, 2018 for an additional capital investment on the instant proposal.

**50.6.4** The project proponent has submitted the point-wise reply to the observations made above, which are reported to be as follows:-

Sl. No.	Observations of EAC	Status of Compliance
1.	Plan for rejects management inter alia including dumping plan, utilization of the rejects beyond the quantity of 3 months, transportation, etc.	<p>1. A copy of plan for rejects management inter alia dumping plan has been prepared &amp; Submitted.</p> <p>2. The rejects shall not be kept more than 03 months at the disposal site. 10 Ha area of temporary reject storage site is sufficient enough for storage of rejects for more than 03 months. Further, beyond the quantity of 3 months, MCL will dispose/utilize the washery rejects as per CIL Reject policy in an</p>

		<p>environment friendly manner with the following options.</p> <p>(i).Selling as the First Option</p> <p>(ii).Utilization in FBC based Power plants as the second option.</p> <p>(iii).If either of the two options are not feasible or partially feasible due to techno-economic reasons, the rejects/balance rejects may be stored/disposed of through environmentally friendly methods with proper and prior study of implications involved and with proper engineering solutions', if required.</p> <p>MCL would also like to state that a Request for Expression of Interest (REoI) was invited in January, 2014 by MCL to know the interest of the prospective consumers who have their own plants or likely to set-up the same to purchase the rejects from the proposed four washeries of MCL for their captive use. Against this REoI, a demand of 27.1 MT per annum was received from prospective consumers. The list of consumers who expressed their willingness to purchase the washery rejects for different TPPs/FBC power plants has been enlisted. Further, a fresh Request for Expression of Interest (REoI) has been floated on 17.10.2019 by MCL to know the interest of the prospective consumers who have their own plants or likely to set-up the same to purchase the rejects from the proposed four washeries of MCL for their captive use. Copy of REoI Notice dtd. 17.10.2019.</p> <p>3. The reject generated in the coal washery will be transported by number of belt conveyors installed in series up to the designated site (10 Ha) outside the washery complex for storage of the same. Rejects from the temporary storage site shall be disposed of to the prospective buyers by MCL. Transportation of rejects by the buyers shall be preferably by Rail</p>
2	Submission of revised mining plan of Balram OCP and further amendment in EC of the Balram OCP for change of the name of Balaram OCP as Kalinga OCP shall be submitted	<p>Revised Mining plan:</p> <ul style="list-style-type: none"> <li>• Revised Mining plan for Balaram OCP Expansion 8 to 15 MTY including the area proposed for Hingula Washery and reject storage site (27.65 Ha) is in advance stage of preparation by CMPDIL. Copy of the annual work programme of CMPDIL approved by the Director (T/P&amp;P) was submitted.</li> </ul>

		<p>Change of Name:</p> <ol style="list-style-type: none"> <li>1. MCL vide letter no. MCL/SBP/GM (Env)/F-47/2015/1682 dated 04.09.2015, requested MoEF&amp;CC for change of name of Kalinga OCP to Balaram OCP in the EC letter J-11015/4/87-IA dated 24.10.1990.</li> <li>2. The proposal was considered in the 47th EAC meeting held on 30.11.15 and 01.12.2015.</li> <li>3. MoEF vide letter no. J-11015/09/2013-IA-II (M) dated 01.02.16 recommended for a change of name of Kalinga OCP to Balaram OCP.</li> <li>4. MCL vide letter no. MCL/SBP/GM (Envt)/2019-20/894 dated. 19.10.2019 has requested MoEF&amp;CC to change the name of Kalinga OCP to Balaram OCP in the EC letter J-11015/4/87-IA dated 24.10.1990 based on recommendation of EAC.</li> </ol>															
3.	CER shall be proposed as per the guidelines given dated 1st May, 2018 for an additional capital investment on the instant proposal.	<p>Total cost of the project was 321.96 Crores. The current cost of the project Rs. 424.42 Crore. Therefore, the additional cost of the project is Rs 102.46 Crores. As per the guideline, the fund allocation for the CER is being calculated at 1.5 % of the additional project cost (as per the CER OM F. No. 22-65/2017-IA.III dated 1<sup>st</sup> May, 2018 of MoEF &amp;CC) of Hingula Washery. Total fund for the CER will thus be 1.5369 Crores.</p> <p>Activities proposed under CER</p> <table border="1"> <tr> <td>1.</td> <td>Rain water harvesting</td> <td>33.69 lakhs</td> </tr> <tr> <td>2.</td> <td>Sanitation work</td> <td>10 lakhs</td> </tr> <tr> <td>3.</td> <td>Health camps &amp; awareness</td> <td>10 lakhs</td> </tr> <tr> <td>4.</td> <td>Water &amp; wastewater management</td> <td>75 lakhs</td> </tr> <tr> <td>5.</td> <td>Plantation in community areas</td> <td>25 lakhs</td> </tr> </table>	1.	Rain water harvesting	33.69 lakhs	2.	Sanitation work	10 lakhs	3.	Health camps & awareness	10 lakhs	4.	Water & wastewater management	75 lakhs	5.	Plantation in community areas	25 lakhs
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5.	Plantation in community areas	25 lakhs															

**50.6.5** *The EAC, therefore, after deliberations observed the compliance of earlier observations are not satisfactory with regard to utilisation of washery rejects and also the revision of the mine plan of Balram OCP is still not submitted and thus, desired that PP must comply all the observation before coming to EAC. EAC also insisted that PP may co-ordinate with Ministry of Coal for earlier finalization of policy of utilisation of Washery rejects*

*The proposal was **deferred** on the above lines.*

## **Agenda No.50.7**

**Hingula-II Opencast Expansion Project 15 MTPA in ML area 1741.95 ha M/s Mahanadi Coalfield Limited, located in Village Gopalprasad, Tehsil Talcher, District Angul (Odisha) – Amendment in Environmental Clearance.**

**[IA/OR/CMIN/100723/2015; F. No J-11015/240/2008-IA. II(M)]**

**50.7.1** The EAC after deliberations noted the following:

The proposal is for amendment in environment clearance dated 28<sup>th</sup> October, 2015 granted by the Ministry in favour of M/s Mahanadi Coalfields Ltd to Hingula-II Opencast Expansion Project (Phase-III) of capacity 15 MTPA located in an area of 1741.95 ha in Tehsil Talcher, District Angul (Odisha).

Amendment in environmental clearance was sought in the 45<sup>th</sup> EAC dated 27.05.2019 in respect of two of the specific conditions stipulated therein as under: -

### Specific Condition No.(vii)

*'Coal transportation to consumers be made by rail mode so as to reduce the dust pollution. Coal transport from mine to washery and siding will be done by pipe conveyor and wagon loading through SILO as proposed by project proponent. This arrangement will be ready within 3 (three years) and no road transport of coal after this period.'*

To be amended as:

*" Coal transportation to consumers be made by rail mode so as to reduce the dust pollution. Coal transport from mine to washery and siding will be done by pipe conveyor and conveyor and wagon loading through SILO as proposed by PP. This arrangement will be ready within 3 (three) years i.e October 2021"*

### Specific Condition No.(xix)

*'CSR cost should be Rs.5 per tonne of coal produced which should be adjusted as per the annual inflation.'*

To be amended as:

*"The CSR fund 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".*

**50.7.3** EAC in its meeting held on 27<sup>th</sup> May, 2019 desired for additional information in respect of the following:-

- Given the time limit of 3 years for coal transportation through pipe conveyor and wagon loading through SILO, the proposal should have been submitted precisely within that period only. In view of prevailing circumstances, the Committee insisted for compliance status of the conditions stipulated in the environmental clearance dated 28<sup>th</sup> October, 2015 through the Ministry's Regional Office.

**50.7.4** In line with the observation of EAC, the Project Proponent has submitted the compliance status of the conditions stipulated in the environmental clearance dated

28<sup>th</sup> October, 2015 through the Ministry's Regional Office in Bhubaneswar vide their vide letter no.101-603-EPE dated 13.08.2019.

With regard to amendment sought for road transportation, RO Bhubaneswar has noted the following:

It has been informed that the coal transportation to consumers is being made by rail mode as per availability of rail. It has observed that the Hingula Washery has not established yet. It has been informed that, due to delay in receipt of Stage – II forest clearance and frequent obstruction by local villagers the work of pipe conveyor and silo could not be completed on schedule time. The Stage-II Forest clearance for diversion of 440.53 ha including 3.80 ha in safety zone has been obtained vide letter no 8-69/2014-FC dated 19<sup>th</sup> January, 2018. The work of construction of Pipe conveyor and silo is under progress and 32% of work has been completed as on 31<sup>st</sup> March, 2019. Coal is being transported by road through rucks and timppers. It has been informed that proposed arrangement of coal transport from mine to washery and siding will be done by pipe conveyor and conveyor and wagonloading through silo as mentioned in EC will take another three more years to commission and for the same amendment in EC has been applied.

**50.7.5** *The EAC, after deliberations, observed that the condition stipulated in the EC dated 28<sup>th</sup> October, 2015 prohibiting coal transportation by road, still stands in view of no approval for amendment in the said EC by the competent authority. Project proponent was supposed to seek amendment in EC for further extension of 3 years, is not within the timeline prescribed in EC conditions. RO, Bhubneshwar has observed various non-compliance such as PP did not obtain clearance from the standing committee of the National Board for Wildlife, PM10 and PM2.5 has been exceeded beyond prescribed limits etc. **Therefore, Committee observed that same are serious non-compliances of the EC conditions.***

*In view of the above, the proposal was not taken forward and the EAC desired that the **Ministry may take appropriate action for the said non-compliance as per the extant norms/guidelines.***

#### **Agenda No.50.8**

#### **Dulanga Opencast Coal Mining Project of 7 MTPA in an area of 785.37 ha of M/s NTPC Limited located in Ib Valley Coalfields, District Sundergarh (Odisha) - Amendment in Environmental Clearance**

**50.8.1** During deliberations, the Committee noted the following:-

The proposal is for amendment in Environment Clearance (EC) for Dulanga Coal Mining Project of M/s NTPC Limited (Peak Capacity 7MTPA; Current Capacity: 2.5 MTPA) in mine lease area of 785.37 ha located in villages Dulanga, Majhapara, Beldihi, Kathpali, Khuntirjharia, Khaprikachchar, Tehsil Hemgir, District Sundergarh (Odisha) in IB Valley Coalfields. Dulanga Coal Mining Project is a captive mine of NTPC Limited linked to Darlipali STPP, Stage-I (2x800 MW) of NTPC Limited located at about 10 km. from the mine. EC to the project was accorded by MoEF&CC under EIA Notification, 2006 vide Ministry's letter No J/11015/1140/2007-IA.II(M) dated 03.03.2014 for 7 MTPA. The EC was revalidated/ amended by Ministry on request of NTPC as follows:

Subsequent to deallocation of Dulanga Coal Mine by Hon'ble Supreme Court of India judgment dated 24.08.2014 read with order dated 24.09.2014 and reallocation by Ministry of Coal vide MOC Allotment Order No. 103/32/2015/NA dated 08.09.2015, the

EC was revalidated vide Ministry's letter No J/11015/1140/2007-IA.II(M) dated 28.10.2015.

Correction in EC for Dulanga Opencast Coal Mining Project of 7 MTPA in an area of 803.71 ha (includes 567.19 ha of ML and 236.52 ha outside the ML) of M/s National Thermal Power Corporation Ltd (NTPC), was granted on the 9<sup>th</sup> February, 2016

The said EC dated 3<sup>rd</sup> March, 2014 included the specific conditions as below:-

Para 4A(ix) - *'Transport of coal to Darlipali TPS located at a distance of about 10 km shall be by MGR.'*

Para 4A(xviii) - *'The entire transportation of 21210 TPD of coal from the mine to the linked Darlipali Super Thermal Power Plant shall be by MGR only with wagon loading by silo. Transportation of coal by road is not permitted.'*

Ministry vide letter dated 8<sup>th</sup> August, 2018 amended the conditions 4A(ix) and 4A(xviii) of EC regarding coal linkage to Darlipali STPP and coal transportation by MGR only respectively and permitted the coal transportation of 2000 Tonnes per day from Dulanga Coal Mine to Lara STPP of NTPC by road as an interim arrangement only till up to September, 2019 or commissioning of Darlipali STPP, whichever is earlier as under:-

*'Coal transportation of 2000 tonnes per day (200 trucks to & fro) from the mine to Lara STPP shall be carried out through Route-3 (117.86 km) up to September, 2019 as an interim arrangement only or till commissioning of Darlipali TPP, whichever is earlier. Meanwhile, all efforts shall be made to start production of coal from its linked Talaipalli coal mine and complete the associated MGR system by March, 2020.'*

Ministry vide letter dated 4<sup>th</sup> July, 2019 amended the conditions 4A(ix) and 4A(xviii) of EC and permitted the coal transportation of 6000 Tonnes per day from Dulanga Coal Mine to Darlipali STPP of NTPC by road for a period of 25 months i.e. from October, 2018 to October, 2020 as an interim arrangement only as under:-

*'Coal transportation of 6000 tonnes per day (200 trucks to & fro) from the Dulanga coal mine to Darlipali STPP shall be carried out by road (35.77 km) for a period of 25 months i.e. from October, 2018 to October, 2020, as an interim arrangement only. Meanwhile, all efforts shall be made to start production of coal from its linked Talaipalli coal mine and complete the associated MGR system by March, 2020.'*

The proposal for extension in amendment of EC conditions 4A(ix) and 4A(xviii) accorded vide letter dated 8<sup>th</sup> August, 2018 for temporary supply of coal from mine to Lara STPP of NTPC by Road with an enhanced capacity of 4,000 TPD over a period of one year, i.e. up to October, 2020. It was considered by EAC in its meeting held on 3-4 October, 2019 for amendment in environmental clearance and recommended for temporary supply of coal (3,000 TPD) to Lara STPP of NTPC by Road for a further period of six months, i.e. up to March, 2020 and while taking necessary mitigation and safety measures for habitation along the proposed route. Necessary approval for the road shall be obtained from the concerned regulatory authority before transportation of coal through the changed route.

**50.8.2** However project proponent has now committed to withdraw the proposal as recommended in EAC meeting on 3-4 October, 2019.

Also, the schedule of commissioning of Darlipalli STPP (Unit- I & II) are as follows:  
Unit - I : December, 2019, Unit - II : September, 2019 and Lead Line of MGR (Dulanga CMP to Darlipalli STPP) : December, 2019.

It has been submitted that the Dulanga coal mine started production since March, 2018. The daily production has now reached to 13,000 Tonnes Per Day (TPD) of coal as per the calendar plan, which is likely to increase to 18,000 TPD since January, 2020. Considering the anticipated coal production of 18,000 TPD from Dulanga CMP from January 2020 onward, NTPC proposes to evacuate and supply coal to its units as follows:

	Scenario-I (Up to Dec., 2019)	Scenario-II (Jan., 2020 Onwards)
	<b>Coal production 13000 TPD</b>	<b>Coal production 18000 TPD</b>
Dulanga-Darlipali	6000 TPD by Road as permitted vide letter dated 04.07.2019	6000 TPD by road as permitted vide MoEF&CC letter dated 04.07.2019
Dulanga-Lara	3000 TPD of coal to Lara STPP by road as recommended by EAC vide MOM of 48 <sup>th</sup> EAC meeting	Transportation of 12000 TPD of coal to ACB railway siding and from there to Lara STPP and any other Projects of NTPC Ltd. as per their requirement
Dulanga-Other NTPC Projects through Railway Siding	4000 TPD of coal to ACB railway siding and from there to any other Projects of NTPC Ltd.	

Accordingly, the current proposal has been submitted for permission for transportation of coal by road from Dulanga CMP to ACB Railway Siding (over a distance of 29.2 km.), as above. NTPC has already undertaken a study on traffic, carrying capacity and assessment of impacts due to transportation of coal through road routes (envisaged from Dulanga CMP to ACB Railway Siding via Durubaga, Hemgir and Kanika villages (i.e. 29.2 km) through M/s MinMec Consultancy Pvt. Ltd., New Delhi.

- The study was conducted covering the following:
  - Traffic and road surveys for assessment of carrying capacity on route,
  - Monitoring of air quality and noise levels along the route,
  - Air quality modelling for impact assessment of incremental ground level concentration of air pollutants,
  - Data collection regarding flora along the road,
  - Identification of villages, forests within 100 m along the route
- The studies have been carried out in line with the Standards available from Indian Road Congress (IRC), Ministry of Environment, Forest and Climate Change (MoEF&CC), United States Environment Protection Agency (US EPA).

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at



the risk and cost of the project proponent. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**50.8.3** *The EAC, therefore, after deliberations considering the reduction of distance of road transportation from its earlier recommendation on 3-4 October, 2019, recommended the current proposal for amendment in Environmental clearance for transportation of coal by road from Dulanga CMP to ACB Railway siding (Over a distance of 29.2 km) for 12000 TPD for a period of one year i.e. upto October, 2020. However, citing the quantity of transportation and increase in number of trips of trucks (of 30 Tonne dumpers), EAC desired that Project proponent must plant one lakh trees along Dulanga to Hemgir route/on the periphery of villages along the Dulanga Hemgir route.*

### **Agenda No.50.9**

**Expansion of Penganga Opencast Coal Mining Project for increase in production capacity from 4.5 MTPA to 6.3 MTPA in an area of 763.06 ha by M/s Western Coalfields Limited in Village Wirur, Tehsil Korpana, District Chandrapur (Maharashtra).– Extension of Environmental Clearance validity**

**[IA/MH/CMIN/116815/2019, J-11015/46/2009-IA.II(M)]**

**50.9.1** The proposal is of extension of Environmental Clearance validity to the Expansion of Penganga Opencast Coal Mining Project for increase in production capacity from 4.5 MTPA to 6.3 MTPA capacity in mine lease area of 763.06 ha of M/s Western Coalfields Limited located in village Wirur, Tehsil Korpana, District Chandrapur (Maharashtra).

EC for the Expansion of Penganga Opencast Coal Mining Project for increase in production capacity from 4.50 to 6.30 MTPA in mine lease area of 763.06 ha of M/s Western Coalfields Limited located at village Wirur, Tehsil Korpana, District Chandrapur (Maharashtra) for a period of one year subject to compliance of terms and conditions as applicable, and the additional conditions as under:-:-

- (i) The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.,
- (ii) The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 6.30 MTPA prior to commencement of the increased production
- (iii) Transportation of coal from face to Coal heap shall be carried out by truck. Further, the coal transportation from Coal heap to Coal Handling Plant shall be carried out through covered trucks.
- (iv) To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers
- (v) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and

- vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.
- (vi) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 6.30 MTPA.
  - (vii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
  - (viii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable
  - (ix) To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.
  - (x) Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.
  - (xi) Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.
  - (xii) A thirdparty assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

**50.9.2** During deliberations, the EAC noted the following:

The proposal is for extension of validity of environmental clearance dated 11<sup>th</sup> January, 2019 to the expansion of Penganga Opencast coal mining project from 4.5 to 6.30 MTPA capacity in an area of 763.06 ha of M/s Western Coalfields Limited located in village Wirur, Tehsil Korpana, District Chandrapur (Maharashtra).

Para wise compliance of the earlier observations are reported to be as follows:-

S. No.	Observations	Compliance status
1	The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.,	The one season data for environmental parameters / one season baseline data has been collected during Pre-Monsoon Season i.e. March 2019 to June 2019 by external agency in accordance with the Guidelines issued by the MoEF& CC, New Delhi.
2	The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 6.30 MTPA prior to commencement of the increased production	The consent to establish & operate has been obtained from the Maharashtra Pollution Control Board vide letter No. Red/LSI Consent no: Format 1.0/BO/CAC-cell/CAC-UAN No 63699 and 63749/ CAC-1902001161 Date 25.02.2019.
3	Transportation of coal from face to Coal heap shall be carried out by truck. Further, the coal transportation from Coal heap to Coal Handling Plant shall be carried out through covered trucks.	The coal transportation from coal face to coal stockyard is carried out by truck. Coal handling plant is not established in mine as coal is extracted through surface miner which provides coal of -100mm size.
4	To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers	As coal extraction is being done by surface miner in this mine, the size of coal is very small after extraction and further crushing is not required, hence there is no coal

S. No.	Observations	Compliance status																				
		<p>crusher. Hence mist sprinklers are not required.</p> <p>However, fixed sprinklers have been provided at coal handling area.</p>																				
5	<p>Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.</p>	<p>Along coal transportation road and at coal stock yard a total 30 nos fixed sprinklers are being provided and operated.</p> <p>2 Nos departmental water tankers of capacity 28KL are being engaged for dust suppression in haul roads and coal transportation roads.</p> <p>3 Nos water tankers of 16 KL capacity each is being used by HOE contractor for suppression of dust.</p> <p>Additionally, 2 contractual water tankers of capacity 12 KL is being deployed for dust suppression on coal transportation road.</p>																				
6	<p>The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 4.90 MTPA.</p>	<p>Approval for Groundwater from CGWA is being obtained vide letter no. CGWA/ NOC/ MIN/ ORIG/ 2019/5530 valid from 10/06/2019 to 09/06/2021.</p>																				
7	<p>Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.</p>	<p>Initial medical examination (IME) is done for the workers. Moreover regular health checkups through periodical medical examination (PME) of all the workmen once in 5 years as per the statue and workers above 55 years of age once in a year is conducted. All the works are being carried out with all the safety measures and awareness is being created among employees for safety and to avoid any accidents.</p> <p>Details of IME/ PME done in last 3 years are given below:</p> <table border="1" data-bbox="808 1549 1406 2001"> <thead> <tr> <th data-bbox="808 1549 1109 1619" rowspan="2">Year</th> <th colspan="2" data-bbox="1109 1549 1406 1619">No. of workers (Dept. &amp; Cont.)</th> </tr> <tr> <th data-bbox="1109 1619 1252 1675">IME</th> <th data-bbox="1252 1619 1406 1675">PME</th> </tr> </thead> <tbody> <tr> <td data-bbox="808 1675 1109 1738">2015-16</td> <td data-bbox="1109 1675 1252 1738">157</td> <td data-bbox="1252 1675 1406 1738">220</td> </tr> <tr> <td data-bbox="808 1738 1109 1801">2016-17</td> <td data-bbox="1109 1738 1252 1801">347</td> <td data-bbox="1252 1738 1406 1801">85</td> </tr> <tr> <td data-bbox="808 1801 1109 1864">2017-18</td> <td data-bbox="1109 1801 1252 1864">312</td> <td data-bbox="1252 1801 1406 1864">113</td> </tr> <tr> <td data-bbox="808 1864 1109 1927">2018-19</td> <td data-bbox="1109 1864 1252 1927">385</td> <td data-bbox="1252 1864 1406 1927">150</td> </tr> <tr> <td data-bbox="808 1927 1109 2001">2019-20 (upto Jun'19)</td> <td data-bbox="1109 1927 1252 2001">93</td> <td data-bbox="1252 1927 1406 2001">43</td> </tr> </tbody> </table>	Year	No. of workers (Dept. & Cont.)		IME	PME	2015-16	157	220	2016-17	347	85	2017-18	312	113	2018-19	385	150	2019-20 (upto Jun'19)	93	43
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S. No.	Observations	Compliance status
8	Persons of nearby villages shall be given training on livelihood and skill development to make them employable	Skill development programs are being done along with CSR activities in nearby villages for improving skills and for enhanced employment opportunities. Nearby villagers are being given preference for employment in contractual means.  People employed as contractual worker residing nearby mines are – Civil work -- 35 Nos, Mining activities -319 Nos.
9	To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.	Health camps are being conducted in nearby villages with our company doctors and staff for improving awareness and health consciousness among people.
10	Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.	Till date, 40,000 nos of saplings have been planted of which 25000 nos has been planted along embankment, slopes of embankment and along banks of river in 10 Ha of land in the year 2018. The plantation work of 15000 nos along embankment to make a thick barrier between working of mines and village to reduce dust pollution has been done in 2019.
11	Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.	The mine water/seepage water is being collected in mines in the sump, initially it is being sedimented to free from any particles. The same water is being used for firefighting and dust suppression in mines. Surface water is being used for only drinking purposes.
12	A thirdparty assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.	The third part assessment of EC compliance has been undertaken through CSIR-NEERI (Expert Agency identified by Ministry). The inspection has been carried out by CSIR-NEERI for assessment of EC compliance in respect of Penganga Opencast on 16.08.2019. The third party assessment of EC compliance report has been secured from CSIR-NEERI vide its letter dated 28.08.2019.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**50.9.3** *The EAC, after detailed deliberations and duly considering compliance of EC dated 11-01-2019, and also those of the third Party assessment of EC conditions by CSIR-NEERI vide their letter dated 28<sup>th</sup> August, 2019, **recommended** for continuance of the project and validity of environmental clearance dated 11<sup>th</sup> January, 2019 for a period of 30 years or life of the mine, whichever is earlier, subject to the terms and conditions stipulated therein remaining the same.*

### **Agenda No.50.10**

**Coal Washery of 2.5 MTPA in an area of 9.85 ha of M/s Paras Power & Coal Beneficiation Limited located Village Ghutku, Tehsil Takhatpur, District Bilaspur (Chhattisgarh) - For EC Amendment**

**[IA/CG/CMIN/122124/2019; F.No.J-11015/70/2016-IA.II(M)]**

**50.10.1** The EAC during deliberations noted the following:-

The proposal is for amendment in environmental Clearance dated 22<sup>nd</sup> November, 2018 granted by the Ministry in favour of M/s Paras Power & Coal Beneficiation Limited (PPCBL) to their project for setting up coal washery of 2.5 MTPA in an area of 9.85 ha located in village Ghutku, Tehsil Takhatpur, District Bilaspur (Chhattisgarh).

**50.10.2** The said EC stipulates one of the specific conditions regarding coal transportation, as '*4(iii) Transportation of coal from mine to the washery shall be carried out through conveyor belts, and then to the prospective consumers/TPP by rail through silo.*

*4.1(c)(i) Transportation of coal by road shall be carried out by covered trucks/conveyors. The transportation of clean coal and rejects shall be by rail with wagon loading through silo. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulates such as roads, belt conveyors, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled at source. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.'*

Based on recommendations of the EAC, the EC was amended vide letter dated 11<sup>th</sup> October, 2019 to revise the above condition as '*Transport of raw coal, washed coal and the rejects shall be through road/rail (60% by rail and 40% by road) with the exemption from wagon loading through silo, for a period of one year.'*

**50.10.3.** The project proponent has now requested for waiver off the condition in view of coal transportation not possible by rail due to non availability of sufficient

number of rakes. Also, in pursuance of 3<sup>rd</sup> January, 2019 order of NGT regarding unregulated withdrawal of ground water from over-exploited, critical and semi-critical areas in the country, no NOCs for fresh ground water withdrawal is being granted to industries, infrastructure units and mining projects located in such areas, except for drinking, domestic uses and for green belts till further orders. Earlier, CGWA granted NOC for 800 m<sup>3</sup>/day ground water withdrawal for the project for a period of two year vide letter no. CGWA/NOC/IND/ORIG/2016/2343 dated 18<sup>th</sup> November, 2016. CGWA has now renewed NOC vide letter no. 21-4(336)/CT/IND/2016-804 dated 18.10.2019 restricting ground water withdrawal to 368 m<sup>3</sup>/day for drinking, domestic use & plantation as against initial permission for 800 m<sup>3</sup>/day for the entire project activities.

Accordingly, amendment has been sought to permit coal transportation by road only till the rakes are made available by the railway authorities and to meet the shortfall of 462 m<sup>3</sup>/day from ground water to rain water pond. Use of rainwater from the pond for coal washing and ground water for domestic, drinking and greenbelt development till CGWA restores use of ground water in the process

Project proponent submitted that as per SECL Annual Reports 2017-18 and 2018-19, coal dispatch by road, rail and other modes (MGR & Consumer's Own Wagons) was

Year/Modes of Dispatch	Road (%)	Rail (%)	Other (%)
2017-18	44	34	22
2018-19	45	31	24

Maximum coal transportation is by road. Coal dispatch by rail will improve in the Korba region on completion of the East-West rail corridor and feeder lines and also availability of adequate number of racks.

To meet shortfall of 462 m<sup>3</sup>/day from rain water pond, a detailed study has been carried out by M/s Minjal, a NABET accredited Hydrological Consultant. Report has been submitted to the State Water Resource Department for its permission.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**50.10.4.** *The EAC, after deliberation considering the limitation of availability of rakes for coal transportation **recommended** the amendment in environmental clearance dated 22<sup>nd</sup> November, 2018 for Coal Washery of 2.5 MTPA in an area of 9.85 ha of M/s Paras Power & Coal Beneficiation Limited located Village Ghutku, Tehsil*

*Takhatpur, District Bilaspur, Chhattisgarh to transport coal from mines to washery and usage of rain water collected in pond in plant premises, for a period of one year subject to following conditions as below:-*

- (i) Permission from State Water Resource Department for using pond water/surface water for coal washing.*
- (ii) The State Pollution Control Board, while considering consent to operate for the project, shall ensure that with the proposed coal transportation by road, air quality would remain within the national ambient air quality standards*
- (iii) The project proponent shall ensure compliance of this Ministry's notification dated 2<sup>nd</sup> January, 2014 for supply of washed coal to thermal power plants.*

### **Agenda No 50.11**

**Chasnalla Colliery including Washery of 1.2 MTPA normative/1.5 MTPA peak along with expansion of coal washery to 4.0 MTPA capacity in mine lease area of 230.88 ha against total original 348.18 ha of M/s Steel Authority of India Ltd located in village Chasnalla & Het Kandra, Tehsil Jharia - cum - Jorapokhar - cum - Sindri, District Dhanbad (Jharkhand) - For Terms of Reference**

**[IA/JH/CMIN/93963/2019; F.No. J-11015/26/2019-IA.II(M)]**

**50.11.1** The proposal is for ToR for Chasnalla Colliery including Washery of 1.2 MTPA normative/1.5 MTPA peak alongwith expansion of coal washery to 4.0 MTPA capacity in mine lease area of 230.88 ha against total original 348.18 ha of M/s Steel Authority of India Ltd located in village Chasnalla & Het Kandra, Tehsil Jharia - cum - Jorapokhar - cum - Sindri, District Dhanbad (Jharkhand).

50.11.2 Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions are given as under:

- (i) The project area is covered under Survey of India Topo Sheet No 73 I/6 and is bounded by the geographical coordinates ranging from Latitudes 23°40'03" to 23°38'33" N and longitudes 86°26'52" to 86°27'57" E.
- (ii) Coal linkage of the project is proposed for captive use for various SAIL steel plants
- (iii) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13<sup>th</sup> January, 2010 has imposed moratorium on grant of environment clearance.
- (iv) Employment generation, as it is an operational mine, a total 741 (as on 01.11.2019) is directly employed and more than that is indirectly employed. Further, for upgraded washery, additional 135 direct employment will be done based on equipment and facilities proposed from the project.
- (v) The project is reported to be beneficial in terms of socio-economics.
  - a. The Project will improve the living conditions of the people. The project will generate direct as well as indirect employment. The income thus generated will improve the beneficiaries living conditions. The following changes in socio-economic status are expected to take place with this project.
  - b. The project is having a strong positive employment and income effect, both direct as well as indirect.
  - c. The project is going to have positive impact on consumption behaviour by way of raising average consumption and income through multiplier effect.
  - d. People perceive that the coal mining project will help in the development of social infrastructures etc.

- (vi) Earlier, the TOR to the project was granted vide MoEF & CC letter No. J-11015/67/2015-IA-II(M) dated 29.05.2015 for normative 1.2 MTPA/1.5 MTPA Peak capacity including expansion of washery to 4.0 MTPA in proposed 230.88 ha lease area of original mine lease area (348.18 ha).
- (vii) Total mining lease area for Chasnalla coal mine is 348.18 ha. Mining Plan (Including Progressive Mine Closure Plan) is under preparation by M/s Mecon Limited.
- (viii) The mine is already operational and all the facilities have already developed for its operation, as the mine is very old and has been in operation prior to nationalisation. The land usage pattern of the project is as follows:

### **PRE-MINING LAND USE AND OCCUPANCY**

Out of the total mining lease area (348.18 ha) of Chasnalla, 117.30 Ha was transferred to Tasra Project area, incorporated in the "Mining Plan and Mine Closure Plan" approved by MOC vide letter no.13016/19/96-CA-I, dt 24-06-2009.

Therefore, the "Mining Plan and Mine Closure Plan" for Chasnalla Colliery Project is being prepared for the balance area of 230.88 ha, which comprises 58.13 ha area under HFL of Damodar river and the actual balance area out of which the coal will be extracted becomes 172.75 ha.

### **Pre-mining land use details**

<b>(Area in Ha)</b>				
<b>S. No.</b>	<b>Land Use</b>	<b>Within ML Area</b>	<b>Outside ML Area</b>	<b>Total</b>
1	Agricultural Land	Nil	Nil	Nil
2	Forest Land	Nil	Nil	Nil
3	Wasteland	51.93	Nil	51.93
4	Grazing Land	Nil	Nil	Nil
5	Surface Water Bodies	75.85	Nil	75.85
6	Settlements	97.17	Nil	97.17
7	Others (Specify)		Nil	
	Mining Area	66.08		66.08
	OB Dumps	31.0		31.0
	Existing Washery	12.5		12.5
	Other Infrastructure	12.17		12.17
	Green Belt	1.3		1.3
	Burning Ghat	0.2		0.2
	Total Project Area =	348.18		348.18*

Original lease area of mine was 348.18 ha of which 230.88 ha is the ML area for this project. The remaining area has become

### **Post Mining PROPOSED LAND USE**

As this project is mainly an underground project hence virtually no land degradation will take place (excluding meagre degradation which may take place due to West Quarry). Though future degradation by open cast (OC) excavation may be meagre but rehandling of surface dumps and backfilling of the excavated area (West Quarry) in the past will have to be done and area reclaimed. The existing underground mine & existing washery require no change in the land use/land cover in the lease area. Minor change due to a small opencast is there which is under reclamation by backfilling with overburden. Construction of new modular washery (1.2 MTPA) is the only appreciable change in land use/land cover. Present land use in the core zone and buffer zone



includes the un-irrigated cultivable water bodies and waste land. Details of land use are as given below:-

<b>Sl. No.</b>	<b>Shafts, Inclines and facilities</b>	<b>Area in Ha</b>
1.	Green belt	1.3
2.	Essential Quarters	25.59
3.	CHP	
4.	Ground bunker for coal	
5.	Settling pond at surface for mine water	3.0
6.	Shafts and Inclines	3.2
7.	Roads	5.47
8.	Waste dump of West Quarry and East Quarry	12.07
9.	Treatment plant for workshop and colony	1.23
10.	Workshops for OC and UG equipment	0.93
11.	Store	0.56
12.	Lawn area	0.33
13.	Administrative office/Account Office	0.43
14.	Main office	0.68
15.	Canteen	0.1
16.	VTC	0.16
17.	Dispensary & rest room	0.33
18.	Driver rest room	0.03
19.	Vehicles parking	0.13
20.	Diesel filling station	0.08
21.	Sub-station	0.24
22.	DG set	0.03
23.	Pit office	0.27
24.	Attendance room	0.15
25.	Lamp room	0.06
26.	Check Post	
27.	Weigh bridge	0.16
28.	Existing washery (pre 31-04-2014)	
29.	New Washery of 1.2 MT (post 31-04-2014)	12.5
30.	Excavated areas by West Quarry	40
31.	Miscellaneous	121.85
	Chasnalla East Quarry Area considered under Tasra Colliery	117.3
	<b>Total Chasnalla area</b>	<b>348.18</b>

- (ix) Total geological reserve estimated in the mine lease area is 56.432 MT and mineable and extractable reserve will be ascertained during preparation of mining plan. The % of extraction would be 45-50% (In the present Jankowice Longwall method of Mining with Hydraulic stowing).
- (x) 15 coal seams with thickness ranging from 1.2 m to 26.0 m are workable. Grade of coal is W-IV, stripping ratio 1:5, while gradient is 38 to 55 degree.
- (xi) Method of mining operations would be mainly underground by Jankowice Longwall method of Mining with Hydraulic stowing.
- (xii) Life of mine is proposed to be 20 years @Nominal 1.2MTPA/Peak 1.5 MTPA (May be modified as per Mining plan which is under preparation).

- (xiii) The project has 4 external OB dumps in an area of 31.0 ha with 20-30 m height and 81.0 Lac m<sup>3</sup> of OB. There are no internal dumps. Presently backfilling of opencast (West Quarry) is under progress through re-handling OB from dumps.
- (xiv) Transportation of blasted coal in underground done through tubs, chimney, mine car (operated through battery locomotives) and finally transported to surface through skips and at surface through conveyors transported to washery. The washed coal is transported to Railway siding by dumpers and finally to SAIL steel plants from railway sidings by Rail wagons.
- (xv) Reclamation Plan will be ascertained after preparation Mine Closure Plan.
- (xvi) There is no forest area involved in the Mine Lease area.
- (xvii) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km radius of the project.
- (xviii) The ground water level has been reported to be varying between 5 m to 10 m. Total water requirement for the project is 8300 KLD( washery 6400KLD, Domestic 1660KLD, Mining 300KLD). Water sources for Domestic is Damodar River and for Industrial purpose requirement fulfilled through Mines pit (underground water).
- (xix) Ground water clearance is to be obtained, Boards's approval will be taken during preparation of Mining Plan, which is under progress. Mine Closure Plan is also under preparation with Mining Plan.
- (xx) Public hearing for the project will be conducted during EIA/EMP preparation, which is under preparation.
- (xxi) Latest Consent to Operate (CTO) for the existing capacity was issued by JSPCB vide JSPCB/HO/RNC/CTO-1039297/2017/297 dated 28.03.2017. Application for extension of CTO was submitted on 07.12.2017 and it is pending with JSPCB for want of Environment Clearance.
- (xxii) Damodar river, which flows along the southern boundary of ML, forms the major drainage channel in this region. Drainage of the area is controlled by two jores draining in Damodar river viz. Domohani jore and Cilatu (also called Chaitu jore). The course of the Domahani nallah meanders along north boundary of the colliery and joins with Chetu Jore flowing along eastern boundary of the area which finally drains into Damodar River.
- (xxiii) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to JSPCB.
- (xxiv) No court cases, violation cases are pending against the project of the PP.
- (xxv) Chasnalla coal mine is very old and operative prior to nationalization; mining lease was granted in year 1938 for 750 years. The source wise production realized from the project, from 1993-94 onwards, is as under:

FY	Production (Fig. In T)	FY	Production (Fig. In T)
1993-94	318800	2006-07	289988
1994-95	382362	2007-08	664817
1995-96	430360	2008-09	630962
1996-97	383220	2009-10	822402
1997-98	364948	2010-11	770941
1998-99	384962	2011-12	383338
1999-00	360536	2012-13	527487
2000-01	324738	2013-14	484568

2001-02	412945	2014-15	331443
2002-03	411279	2015-16	497432
2003-04	318646	2016-17	455295
2004-05	359705	2017-18	322415
2005-06	325432	2018-19	351104
		TOTAL	12329651

(xxvi) There are no project affected people, there are no R&R involved with this project  
 (xxvii) Total capital cost of the project is Rs. 45000 lakhs., CSR cost to be incurred as per the guidelines of the Department of Public Enterprises, Govt. of India. **R&R cost.** As it is an existing mine, most of the area under reference is developed with surface constraints of colliery complex and no R&R is involved. The land required for the location of new washery plant and development of related infrastructure is almost owned by the proponent and a small part only needs to be acquired from local families. **Environment Management Cost:** Capital provisions for environmental control measures, which includes pollution control arrangement, technical and biological reclamation etc for the project will be finalized during the preparation of EIA-EMP report.

**50.11.3** During deliberation EAC noted the following:-

The proposal is for ToR for Chasnalla Colliery including Washery of 1.2 MTPA normative/1.5 MTPA peak alongwith expansion of coal washery to 4.0 MTPA capacity in mine lease area of 230.88 ha against total original 348.18 ha of M/s Steel Authority of India Ltd located in village Chasnalla & Het Kandra, Tehsil Jharia - cum - Jorapokhar - cum - Sindri, District-Dhanbad, Jharkhand.

Earlier, the TOR to the project was granted vide MoEF&CC letter No. J-11015/67/2015-IA-II(M) dated 29.05.2015 for normative 1.2 MTPA/1.5 MTPA Peak capacity including expansion of washery to 4.0 MTPA in proposed 230.88 ha lease area of original mine lease area (348.18 ha). However, the validity of ToR has expired.

Project does not have Environmental clearance for coal mine and washery under Ministry's 1994 and 2006 notification.

**50.11.4** *The Committee also noted that TOR to the project was granted on 29.05.2015, however, the validity of ToR has expired. The EAC, after deliberations observed that project involved **violation** of EIA Notification, 2006 of the Ministry.*

*The Committee also noted that since PP has earlier applied in the Ministry and the proposal may be forwarded to the Violation Sector for appraisal under the provisions of the Violation Notification dated 14.03.2017 and was desired that Ministry may take appropriate action due to violation involved and further.*

*The project was not taken forward and sent as it is.*

**The meeting ended with thanks to the Chair.**

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**Generic ToR for coal washery**

- i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washery preferably through closed conveyer belt to avoid air pollution.
- ii. The washery shall not be located in eco-sensitive zones areas.
- iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
- iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
- v. A brief description of the plant alongwith a layout, the specific technology used and the source of coal should be provided.
- vi. The EIA-EMP Repot should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
- vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Govt.
- viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM<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-II0I3/25/2014-IA.I dated 11<sup>th</sup> August, 2014 to be followed with regard to CSR activities.
  - xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.
  - xvi. Analysis of samples indicating the following be submitted:
    - Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc).
    - Characteristics and quantum of coal after washing.
    - Characteristics and quantum of coal rejects.
  - xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.
  - xviii. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.
  - xix. Corporate Environment Responsibility:
    - a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
    - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
    - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
    - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
  - xx. A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.
  - xxi. Permission of drawl of water shall be pre-requisite for consideration of EC.
  - xxii. Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986
  - xxiii. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

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

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

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

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

- (xii) Break-up of lease/project area as per mining plan should be provided.
- (xiii) Impact of changes in the land use due to the project if the land is predominantly agricultural land/forestland/grazing land, should be provided.
- (xiv) 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.
- (xv) 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.
- (xvi) 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.
- (xvii) 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.
- (xviii) 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.
- (xix) 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.
  - (xx) Detailed water balance should be provided. The break-up of water requirement for the various mine operations should be given separately.
  - (xxi) 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.
  - (xxii) 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.
  - (xxiii) Impact of blasting, noise and vibrations should be given.
  - (xxiv) Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.
  - (xxv) 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.
  - (xxvi) 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.
  - (xxvii) 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.
  - (xxviii) 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.
  - (xxix) 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.
  - (xxx) 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 with Reclaimed (plantation)						
4.	Reclaimed Top soil dump						
5.	Green Built Area						
6.	Undisturbed area under (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. No.	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

(xxxi) 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					

- (xxxii) 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.
- (xxxiii) 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.
- (xxxiv) Risk Assessment and Disaster Preparedness and Management Plan should be provided.
- (xxxv) Integration of the Env. Management Plan with measures for minimizing use of natural resources - water, land, energy, etc. should be carried out.
- (xxxvi) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxxvii) 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.
- (xxxviii) 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.
- (xxxix) 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.
- (xl) 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.
- (xli) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xlii) Status of any litigations/ court cases filed/pending on the project should be

provided.

- (xliv) 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.
- (xlv) 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 use	Land	Area under Surface Rights(ha)	Area Under Mining Rights (ha)	Area under Both (ha)
1.	Agricultural land				
2.	Forest Land				

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

#### Area under Surface Rights

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

- (viii) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.
- (ix) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.
- (x) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xi) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xii) One-season (other than monsoon) primary baseline data on environmental quality - air ( $PM_{10}$ ,  $PM_{2.5}$ ,  $SO_x$ ,  $NO_x$  and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xiii) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and

parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.

- (xiv) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xv) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.
- (xvi) Detailed water balance should be provided. The break up of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.
- (xvii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.
- (xviii) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xix) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xx) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.
- (xxi) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.
- (xxii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.
- (xxiii) Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the pre- mining status should be provided. A Plan for the ecological restoration of the mined out area and post mining land use should be prepared with detailed cost provisions. Impact and management of wastes and issues of re-handling (wherever applicable) and backfilling and progressive mine closure and reclamation should be furnished.
- (xxiv) Greenbelt development should be undertaken particularly around the transport route and CHP. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be submitted.

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

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

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

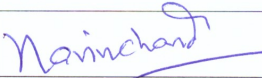
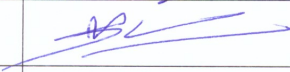
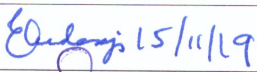


**GENERIC TORs FOR AN OPENCAST-CUM-UNDERGROUND COALMINE PROJECT**

- (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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**ANNEXURE-5****PARTICIPANTS IN 50<sup>th</sup> EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 15<sup>th</sup> November, 2019. ON COAL SECTOR PROJECTS.**

Sl. No.	List of Participants Expert Appraisal Committee (Coal Mining)		Signature
1.	Dr. Navin Chandra	Chairman	
2.	Dr. N. P. Shukla	Member	
3.	Dr. Jai Krishna Pandey	Member	
4.	Dr. Sharachchandra Lele	Member	
5.	Dr. G.P.Kundargi	Member	
6.	Sh. N.S. Mondal	Member	
7.	Dr. R.K.Giri	Member	
8.	Dr. Manjari Srivastava	Member	
9.	Dr S.K.Paliwal	Member	
10.	Dr. S.K.Gupta	Member	
11.	Shri N. Mohan Karnat	Member	
12.	Sh. S.D.Vora	Member	
13.	Dr. R.B. Lal	Member Secretary	

12/3/2019

[https://mail.gov.in/iwc\\_static/layout/shell.html?lang=en&3.0.1.2.0\\_15121607](https://mail.gov.in/iwc_static/layout/shell.html?lang=en&3.0.1.2.0_15121607)

Subject: Re: Revised Draft Minutes of 50 EAC (Coal) held on 15.11.2019  
To: "G.P. Kundargi" <gpkundargi@gmail.com>, Munna Kumar Shah <munna.shah@gov.in>  
Cc: Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>, "sd\_vora@yahoo.com" <sd\_vora@yahoo.com>, JK PANDEY <jkpandey@cimfr.nic.in>, N S Mondal <nsmondalcea@yahoo.com>, "shuklanp55@gmail.com" <shuklanp55@gmail.com>, "mohankarnat4@gmail.com" <mohankarnat4@gmail.com>  
Date: 12/03/19 02:30 PM  
From: navin chandra <navinchandrarrl@yahoo.com>  
Reply-To: navin chandra <navinchandrarrl@yahoo.com>

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03/12/2019

Dear Dr. Lal/Dr. Shah,

I have gone through the Revised MoM of 50th Meeting sent by you. Revised comments on 50.1 are OK. With regard to item 50.2, the recommendation for deferment can be more specific -  
*"The proposal was **deferred** for want of submission of wild life conservation plan, duly approved by concerned statutory authority and details of pollution mitigation measures for villages(if any) to be affected by mining operations."*

*With this incorporation, the Minutes are Final and ready for uploading at the website of the MoEF&CC.*

*Regards,  
Sincerely,*

*(NAVIN CHANDRA)*

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Dr. Navin Chandra,  
Vice Chancellor, IES University, Bhopal  
Chairman, Coal Mining & Thermal Power,  
MoEF&CC, GOI, New Delhi.  
Ex-Director General MPCST, Bhopal,  
(Retd.) Director (Actg.), CSIR-AMPRI, Bhopal  
Member, RC, CSIR-AMPRI, Bhopal.  
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